



Sent via email to joseph.jones@dec.ny.gov

December 16, 2024
IMPL0115.6

Mr. Joseph Jones
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7015

Re: Off-site Interim Remedial Measure
Construction Completion Report
Former Imperial Cleaners Site (BCP #C130225)

Dear Mr. Jones:

Walden Environmental Engineering, PLLC (Walden) is submitting the *Off-site Interim Remedial Measure Construction Completion Report* (attached) summarizing the construction, startup and monitoring activities completed for the off-site vapor intrusion mitigation systems in the properties located at 2 University Place and 6 University Place. This document has been revised in accordance with the Departments' comment letter dated November 22, 2024

Please call me if you have any questions.

Very truly yours,
Walden Environmental Engineering, PLLC

Nora M. Brew, P.E.
VP/Senior Project Manager

cc: R. Corcoran, NYSDEC
A. Tamuno, Esq., NYSDEC
A. Martin, NYSDOH
S. Selmer, NYSDOH
K. Mintzer, Esq.
N. Weisfeld, 218 Lakeville Aquisition LLC

OFF-SITE INTERIM REMEDIAL MEASURE CONSTRUCTION COMPLETION REPORT

**FORMER IMPERIAL CLEANERS SITE
218 LAKEVILLE ROAD
LAKE SUCCESS, NEW YORK 11020
NYSDEC BCP SITE #C130225**

DECEMBER 2024

PREPARED FOR:

**MR. JOSEPH JONES
PROJECT MANAGER
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
REMEDIAL BUREAU A, 11TH FLOOR
625 BROADWAY
ALBANY, NEW YORK 12233**

WALDEN ENVIRONMENTAL ENGINEERING, PLLC

Industry Leader in Environmental Engineering Consulting

———— PROACTIVE SOLUTIONS SINCE 1995 ————

Professional Engineer Certification

I, Nora M. Brew, certify that I am currently a professional engineer licensed to practice in New York State in accordance with New York State Education Law, Article 145, Section 7200 et seq. I have completed accredited university courses and degrees in engineering and have sufficient training and experience in remediation, groundwater hydrology, and related fields that enable me to make sound professional judgments with regards to engineering design.

I further certify that this submittal, *Construction Completion Report*, dated December 16, 2024, was prepared under my direction. I had primary direct responsibility for the implementation of the subject construction program, and I certify that the *Generic Interim Remedial Measure Work Plan*, dated March 4, 2022 was implemented and that all construction activities were completed in substantial conformance with the DER-approved *Generic Interim Remedial Measure Work Plan*.


Nora M. Brew, P.E.
Walden Environmental Engineering, PLLC



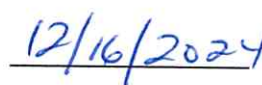

Date

TABLE OF CONTENTS

PROFESSIONAL ENGINEER CERTIFICATION

1	Introduction	1
1.1	Site Ownership and Brownfield Cleanup Program Status	2
1.2	Report Organization	2
2	SSD System Specifications and Installation	3
2.1	2 University Place	4
2.2	6 University Place	5
3	SSD System Start Up and Testing.....	6
3.1	2 University Place	6
3.2	6 University Place	7
4	Indoor Air Sampling	9
4.1	2 University Place	10
4.2	6 University Place	10
5	SSD System Inspections	12

FIGURES

- 1 Site Location Map

ATTACHMENTS

ATTACHMENT A	2 University Place SSD System As-built Drawings
ATTACHMENT B	2 University Place SSD System Photographs
ATTACHMENT C	6 University Place SSD System As-built Drawings
ATTACHMENT D	6 University Place SSD System Photographs
ATTACHMENT E	2 University Place Indoor Air Sampling Documentation
ATTACHMENT F	6 University Place Indoor Air Sampling Documentation

1 INTRODUCTION

Walden Environmental Engineering, PLLC (“Walden”) has prepared this *Construction Completion Report* (“CCR”) on behalf of 218 Lakeville Acquisition LLC, the Owner of the Former Imperial Cleaners Site located at 218 Lakeville Road, Lake Success, New York (the “Site” or “Subject Property”). The CCR summarizes the construction, startup and monitoring activities completed for the off-site vapor intrusion mitigation systems in the properties located adjacent to the Subject Property at 2 University Place and 6 University Place. These systems were installed as an Interim Remedial Measure (IRM) in accordance with the *Generic Interim Remedial Measure Work Plan* (“IRM Work Plan,” Walden, March 4, 2022) approved on March 11, 2022 by the New York State Department of Environmental Conservation (“NYSDEC”) and the New York State Department of Health (“NYSDOH”), collectively referred to as “the Departments”.

The objective of the IRM is to address off-site residual VOC contamination identified during soil vapor intrusion (“SVI”) investigations performed at the adjacent sites. The VOC contamination as well as the Site history and investigation details are as summarized in the *Soil Vapor Intrusion Investigation Summary Report* (Walden, May 4, 2017), *Soil Vapor Intrusion Investigation Summary Report (revised)* (Walden, September 2021), and *Supplemental Off-site Soil Vapor Intrusion Sampling Summary Report* (Walden, July 18, 2022).

The owners of 2 University Place and 6 University Place granted permission for sub-slab depressurization (SSD) systems to be installed and operated as described herein to achieve the following off-site IRM objectives:

- mitigate SVI impacts;
- prevent VOC vapor migration into the buildings; and
- ensure acceptable indoor air quality.

The off-site IRM systems were designed, installed and tested in accordance with the guidelines set forth in NYSDEC *DER-13: Strategy for Evaluating Soil Vapor Intrusion at Remedial Sites in New York* (dated October 18, 2006), *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (dated October 2006, with updates, referred to herein as “SVI Guidance”), and NYSDEC *DER-10: Technical Guidance for Site Investigation and Remediation*. SSD system operation, maintenance, and monitoring, and termination of mitigation system operations will conform with the SVI Guidance, as amended.

1.1 Site Ownership and Brownfield Cleanup Program Status

The Subject Property's previous owner, 218 Lakeville Associates L.P., entered into Voluntary Cleanup Agreement ("VCA") #D1-30001-01-03 with the NYSDEC, effective April 18, 2001, to address VOC contamination associated with the Former Imperial Cleaners Site. At that time, the Subject Property was assigned Voluntary Cleanup Program ("VCP") Site No. V-00244-1.

When 218 Lakeville Aquisition LLC purchased the Site on July 28, 2015, the VCA was amended to reflect the change in property ownership. In April 2017, the NYSDEC notified 218 Lakeville Aquisition LLC that the VCP was being terminated as of March 31, 2018. Therefore, the Owner submitted a Brownfield Cleanup Program ("BCP") application and supporting documentation to NYSDEC in order to complete the required remediation, site closure and post-closure management as a Volunteer participant in the BCP. NYSDEC approved the BCP application and the Former Imperial Cleaners Site was accepted into the Brownfield program and assigned Site #C130225. The Brownfield Cleanup Agreement ("BCA", Index No. C130225-01-18) was fully executed by 218 Lakeville Aquisition LLC (hereinafter "Volunteer") and the NYSDEC on February 12, 2018.

1.2 Report Organization

The off-site SSD system specifications and installation activities are presented in Section 2. Section 3 describes the SSD system startup and testing. Section 4 summarizes the results of the indoor air sampling performed to verify acceptable indoor air quality under normal SSD system operating conditions. Section 5 details the SSD system operation and monitoring procedures.

2 SSD SYSTEM SPECIFICATIONS AND INSTALLATION

The 2 University Place and 6 University Place properties are located adjacent to the Subject Property as shown on **Figure 1**. Both properties are two-story residential buildings with finished basements. Sub-slab vapor, indoor air, and outdoor air sampling was performed at both properties during the February 2016 SVI investigation (see May 2017 *Soil Vapor Intrusion Investigation Summary Report*). Based on a comparison of the target compound concentrations reported for the sub-slab and indoor air samples to the concentration ranges compared in the NYSDOH SVI Guidance decision matrices, mitigation was recommended for 2 University Place and 4 University Place (now known as 6 University Place) to address potential soil vapor intrusion impacts and prevent exposure to VOCs in indoor air. SVI sampling performed in 2 University Place in February 2022 as requested by the homeowner yielded the same recommendation for mitigation (July 2022 *Supplemental Off-site Soil Vapor Intrusion Sampling Summary Report*).

The owners of 2 University Place and 6 University Place granted permission for access to install SVI mitigation systems in accordance with the off-site IRM. SSD systems are engineering controls which utilize fans and piping to draw vapors from beneath basement slabs to create adequate vacuum to prevent sub-slab vapors from entering buildings and to avoid indoor air quality impacts. Walden inspected both homes and met with the property owners to evaluate appropriate layouts for the SSD mitigation system equipment and develop site-specific layouts for each system. The SSD systems were designed and installed to minimize construction and operating impacts to the extent possible, taking into account preferences voiced by the property owners.

The SSD system construction details (i.e., location of vacuum extraction point and pressure monitoring points, screen zone depths and vacuum flow rates) were established based on an evaluation of vacuum extraction well performance observed during pilot testing to support the final design specifications. Piezometers were installed at appropriate locations in the building slab to monitor subsurface pressures and confirm effective depressurization of the slab during SSD system operation.

Details on the SSD systems installed in 2 University Place and 6 University Place are presented below. The vacuum extraction wells, piezometers, piping, radon fans, pressure gauges, and alarms were installed by Lakewood Environmental Services. Walden provided field oversight of the SSD system installations, directed pilot testing and performed startup testing to optimize system performance. The startup testing results are presented in Section 3.

2.1 2 University Place

The SSD system for 2 University Place was installed on March 28 – 29, 2023. The as-built engineering design drawings for this mitigation system, stamped by a New York State licensed Professional Engineer, are presented in **Attachment A**. Photographs of the SSD system installation and testing are provided in **Attachment B**.

The basement level of the home includes an attached garage and finished space. One (1) vapor extraction well point (SSD-1) was installed in the garage in the central southern portion of the building along the interior wall separating it from the finished basement space. The extraction point was installed by coring through the garage floor slab (approximately one inch thick) and removing subsurface material to create a suction pit. SSD-1 consists of a four (4) inch diameter slotted PVC pipe that extends approximately twenty-eight (28) inches below the bottom of the existing concrete slab. SSD-1 was backfilled with coarse No. 2 sand and sealed at the surface with bentonite and cement. The bottom of the 26-inch screened interval was capped with a solid PVC J-plug. The top of the sub-slab slotted interval was connected to a solid 4-inch PVC riser. The PVC riser is connected to aboveground 4-inch PVC pipe that runs along the interior wall about two feet above the floor and then penetrates through the eastern exterior wall of the house. The pipe was mounted onto the side of the house, run up to the in-line SSD system fan (Radon Away model GP501c), and then vented above the roofline.

Based on discussions with the property owner and contractor during system installation, the SSD fan was plugged into an outdoor GFCI electrical outlet. The fan draws vapors from beneath the building and exhausts them through a vent pipe that terminates approximately three (3) feet above the roof. A differential pressure gauge (Dwyer Magnehelic) and a radon monitoring system low-pressure alarm (Home Aire Checkpoint IIa) were installed on the leg of the PVC pipe inside the garage to monitor system operations.

Two (2) permanent vapor pin monitoring points were installed to monitor sub-slab pressures to confirm that the building slab is depressurized. MP-01 was installed inside the garage and MP-02 was installed in the boiler room. Each monitoring point consists of a stainless-steel pin recessed into the concrete slab and a silicon sleeve that seals the penetration as the pin is inserted. Each point is covered with a stainless-steel screw on cap that sits flush with the floor.

The layouts of the vapor extraction well, monitoring points, and piping are presented in the as-built drawings in **Attachment A**. The as-built drawings also supply a schematic of the system components, construction details of the extraction well point and monitoring points, and the exterior piping and exhaust fan configuration.

2.2 6 University Place

The SSD system for 6 University Place was installed on July 27 – 28, 2023. The as-built engineering design drawings for this mitigation system, stamped by a New York State licensed Professional Engineer, are presented in **Attachment C**. Photographs of the SSD system installation and testing are provided in **Attachment D**.

The basement level of the home includes finished and unfinished space. One (1) vapor extraction well point (SSD-1) was installed in the unfinished laundry room in the southeast portion of the building. The extraction point was installed by coring through the concrete floor slab (approximately six inches thick) and removing subsurface material to create a suction pit. SSD-1 consists of a four (4) inch diameter slotted PVC pipe that extends approximately twenty-four (24) inches below the bottom of the existing concrete slab. SSD-1 was backfilled with coarse No. 2 sand and sealed at the surface with bentonite and cement. The bottom of the 24-inch screened interval was capped with a solid PVC J-plug. The top of the sub-slab slotted interval was connected to a solid 4-inch PVC riser. The PVC riser is connected to aboveground 4-inch PVC pipe that runs up towards the ceiling and then turns to penetrate through the eastern exterior wall of the house into the basement window well that sits below the rear patio and contains plumbing and mechanical components. From the window well, the PVC piping was run along the ground and then mounted onto the side of the house, then up to the in-line SSD system fan (Radon Away model GP501c). The system vents above the roofline.

Based on discussions with the property owner and contractor during system installation, the SSD fan was plugged into an outdoor GFCI electrical outlet. The fan draws vapors from beneath the building and exhausts them through a vent pipe that terminates approximately three (3) feet above the roof. A differential pressure gauge (Dwyer Magnehelic) and a radon monitoring system low-pressure alarm (Home Aire Checkpoint IIa) were installed on the leg of the PVC pipe inside the laundry room to monitor system operations.

Four (4) permanent vapor pin monitoring points were installed to monitor sub-slab pressures to confirm that the building slab is depressurized. MP-01, MP-03, and MP-04 were installed within the laundry room. MP-02 was installed in the closet next to the stairs at the northeast corner of the house. Each monitoring point consists of a stainless-steel pin recessed into the floor concrete slab and a silicon sleeve that seals the penetration as the pin is inserted. Each point is covered with a stainless-steel screw on cap that sits flush with the floor.

The layouts of the vapor extraction well, monitoring points, and piping are presented in the as-built drawings in **Attachment C**. The as-built drawings also supply a schematic of the system components, construction details of the extraction well point and monitoring points, and the exterior piping and exhaust fan configuration.

3 SSD SYSTEM START UP AND TESTING

After the SSD system equipment was installed, the SSD fan in each off-site property was tested at different applied pressure settings and the corresponding vacuum measurements were recorded at the monitoring points using an Infiltec DM1 Micro-Manometer. The results were evaluated to determine the optimal fan operating setting to achieve effective depressurization of the respective building slabs. Based on industry standards, achieving a pressure differential of at least -0.004 inches of water column (WC) across a slab is considered sufficient to prevent soil vapor intrusion.

3.1 2 University Place

The SSD system installed at 2 University Place was tested on March 29, 2023 to determine the final system operating settings for this engineering control. The SSD fan was run at applied pressures ranging from zero to 3.6 inches of water column. The vacuum measurements recorded at the monitoring points during the system start-up testing are presented below.

Table 1: 2 University Place SSD System Start Up Test

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)	
	MP-01	MP-02
0.0" WC	0.004" WC	0" WC
0.5" WC	-0.031" WC	0" WC
0.8" WC	-0.091" WC	-0.009" WC
3.0" WC	-0.153" WC	-0.010" WC
3.6" WC	-0.250" WC	-0.015" WC

Note that the pressure applied by the fan was adjusted to evaluate the subsurface pressure response in order to optimize the final system settings. Based on the start-up testing, the SSD fan was set to operate at an applied pressure of 2.0 inches of water column, which maintained differential pressures well above the targeted -0.004 inches of WC at the monitoring points, effectively depressurizing the slab and achieving the off-site IRM objectives of mitigating SVI impacts and preventing VOC vapor migration into this building.

Table 2: 2 University Place Final SSD System Operating Settings – March 29, 2023

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)	
	MP-01	MP-02
2.0" WC	-0.092" WC	-0.007" WC

The SSD system alarm and pressure gauge were also tested during startup to confirm that these components were functioning properly.

Walden performed an annual inspection of the SSD system at 2 University Place on March 21, 2024. During this inspection, Walden confirmed that the system was running, and that the system pressure gauge and alarm continued to function properly. The readings summarized below were recorded during the March 21, 2024 inspection. Note that the as-built plans included in **Attachment A** for the 2 University Place SSD system present the vacuum pressures recorded at the vapor monitoring points for reference.

Table 3: 2 University Place SSD System Inspection Results – March 21, 2024

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)	
	MP-01	MP-02
1.3" WC	-0.085" WC	-0.005" WC

This data confirms that the 2 University Place SSD system continues to effectively depressurize the slab. During annual inspections, the pressure field beneath the slab will be confirmed if needed or requested.

3.2 6 University Place

The SSD system installed at 6 University Place was tested on July 28, 2023 to determine the final system operating settings for this engineering control. The SSD fan was run at applied pressures ranging from zero to 4.2 inches of water column. The vacuum measurements recorded at the monitoring points during the system start-up testing are presented below.

Table 4: 6 University Place SSD System Start Up Test

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)			
	MP-01	MP-02	MP-03	MP-04
0.0" WC	-0.005" WC	-0.001" WC	-	-
1.0" WC	-0.008" WC	0.0	-	-
1.4" WC	-0.011" WC	0.0" WC	-	-
1.6" WC	-	-	-	-0.016" WC
2.75" WC	-0.026" WC	-0.002" WC	-0.079" WC	-0.008" WC
4.2" WC	-0.036" WC	-0.001" WC	-0.256" WC	-0.030" WC

Note that the pressure applied by the fan was adjusted to evaluate the subsurface pressure response in order to optimize the final system settings. Based on the start-up testing, the SSD fan was set to operate at an applied pressure of 2.0 inches of water column, which maintained differential pressures well above the targeted -0.004 inches of WC at three (3) of the four (4) monitoring points. Although the pressure recorded at MP-02 was below the -0.004" WC target, negative pressure was also achieved at this location. These results indicate that the SSD system was effectively depressurizing the slab and achieving the off-site IRM objectives of mitigating SVI impacts and preventing VOC vapor migration into this building.

Table 5: 6 University Place Final SSD System Operating Settings – July 28, 2023

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)			
	MP-01	MP-02	MP-03	MP-04
2.0" WC	-0.080" WC	-0.001" WC	-0.193" WC	-0.020" WC

The SSD system alarm and pressure gauge were also tested to confirm that these components were functioning properly.

Walden performed an annual inspection of the SSD system at 6 University Place on March 20, 2024. During this inspection, Walden confirmed that the system was running, and that the system pressure gauge and alarm continued to function properly. The readings summarized below were recorded during the March 20, 2024 inspection. Note that the as-built plans included in **Attachment C** for the 6 University Place SSD system present the vacuum pressures recorded at the vapor monitoring points for reference.

Table 6: 6 University Place SSD System Inspection Results – March 20, 2024

SSD Fan Applied Pressure (inches water column)	Vacuum Measurement (inches water column)			
	MP-01	MP-02	MP-03	MP-04
2.3" WC	-0.134" WC	-0.002" WC	-0.012" WC	-0.023" WC

This data confirms that the 6 University Place SSD system continues to effectively depressurize the slab. During annual inspections, the pressure field beneath the slab will be confirmed if needed or requested.

4 INDOOR AIR SAMPLING

Indoor air sampling was conducted at 2 University Place and 6 University Place in March 2024, during the first heating season following startup of the off-site SSD systems. Sampling was conducted in accordance with the procedures outlined in the IRM Work Plan. Pre-sampling interior inspections were performed to identify conditions or materials stored and/or used that may affect or interfere with the sampling or interpretation of the indoor air sampling results. The indoor air quality questionnaire and building inventory sheet provided in the NYSDOH SVI Guidance were completed prior to sampling at each property.

One (1) indoor air sample was collected in each basement at a height of approximately four to five (4-5) feet above the floor to represent typical breathing zones. The indoor air samples were collected over a 24-hour period in laboratory-provided and individually certified clean 6-liter Summa[®] canisters with regulators. Flow rates below 0.2 liters per minute were maintained during the 24-hour sampling period as specified by the SVI Guidance.

The Summa[®] canisters were submitted to a York Laboratories, a NYSDOH ELAP certified laboratory, for analysis of VOCs in accordance with U.S. Environmental Protection Agency (EPA) Method TO-15 with the analytical detection limits set forth in the SVI Guidance. The laboratory analytical data were evaluated in accordance with NYSDEC DER-10 Data Usability Summary Report (DUSR) guidance. The DUSRs prepared for 2 University Place and 6 University Place based on the laboratory analytical reports are presented in **Attachments E and F**, respectively, along with the other documentation specific to each property.

The indoor air sample results were reviewed in accordance with the SVI Guidance. This guidance document lists the air guideline values (AGVs) that NYSDOH has established for methylene chloride, trichloroethylene (TCE), and tetrachloroethylene (PCE). The SVI Guidance soil vapor/indoor air decision matrix tables recommend actions intended to address soil vapor intrusion exposures based on the relationship between the soil vapor and corresponding indoor air concentrations at a given sampling location. The March 2024 indoor air results for the off-site properties have been conservatively evaluated based on the decision matrix indoor air threshold concentrations where mitigation is recommended to address potential SVI risks.

For analytes that do not have AGVs and are not considered in the SVI Guidance decision matrices, the SVI Guidance Appendix C (*Volatile Organic Chemicals in Air – Summary of Background Databases*) was referenced for typical background indoor air concentrations of these compounds published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database.

Additional discussion of the indoor air sampling completed as part of the off-site IRM is presented in the following sections.

4.1 2 University Place

An indoor air sample was collected in the basement boiler room on March 21-22, 2024. The SSD system was operating normally during the sampling. Chemicals including cleaning products, paints, and weed killer were noted in the basement during the building inventory. The indoor air sampling data summary table, indoor air quality questionnaire and building inventory, laboratory analytical report and DUSR for 2 University Place are presented in **Attachment E**.

None of the primary constituents of concern associated with the Former Imperial Cleaners Site (PCE and its degradation by-products TCE and cis-1,2-dichloroethylene) were detected in the indoor air sample collected at 2 University Place. None of the indoor air concentrations exceeded the respective Air Guideline Values (AGVs). Low concentrations of several VOCs were detected in the indoor air sample collected at 2 University Place. All reported indoor air concentrations were at the low end of the typical ranges of these compounds listed in the BASE database.

The laboratory analytical data confirms that indoor air quality is acceptable at 2 University Place.

The March 2024 indoor air sampling results and vacuum pressures recorded at the vapor monitoring points confirm that the on-site SSD system is effectively depressurizing the slab and preventing soil vapor intrusion at 2 University Place.

4.2 6 University Place

An indoor air sample was collected in the basement laundry room on March 20-21, 2024. The SSD system was operating normally during the sampling. Chemicals including cleaning products and air freshener were noted in the basement during the building inventory. The indoor air sampling data summary table, indoor air quality questionnaire and building inventory, laboratory analytical report and DUSR for 6 University Place are presented in **Attachment F**.

PCE is the only the primary constituent of concern associated with the Former Imperial Cleaners Site that was detected in the indoor air sample collected at 6 University Place; TCE and cis-1,2-dichloroethylene were not detected at concentrations above their respective laboratory method detection limits in this sample. The reported PCE concentration ($0.72 \mu\text{g}/\text{m}^3$) is well below both the $30 \mu\text{g}/\text{m}^3$ AGV for this compound and the $10 \mu\text{g}/\text{m}^3$ decision matrix B threshold recommending SVI mitigation. None of the other indoor air concentrations exceeded the respective AGVs. Low concentrations of several other VOCs that are listed in the SVI Guidance

decision matrices were detected in the indoor air sample collected at 6 University Place; all of the reported concentrations were below the respective decision matrix threshold concentration recommending SVI mitigation. All reported indoor air concentrations were at the low end of the typical ranges of these compounds listed in the BASE database.

The laboratory analytical data confirms that indoor air quality is acceptable at 6 University Place.

The March 2024 indoor air sampling results and vacuum pressures recorded at the vapor monitoring points confirm that the on-site SSD system is effectively depressurizing the slab and preventing soil vapor intrusion at 6 University Place.

5 SSD SYSTEM INSPECTIONS

The off-site SSD systems in 2 University Place and 6 University Place will be inspected annually to verify that the engineering controls at each property continue to function properly and effectively mitigate potential SVI impacts. Note that the on-site *Site Management Plan* (Walden, December 2024) for the Former Imperial Cleaners Site states that the off-site systems will be inspected annually in accordance with this CCR, subject to access permission from the respective property owners.

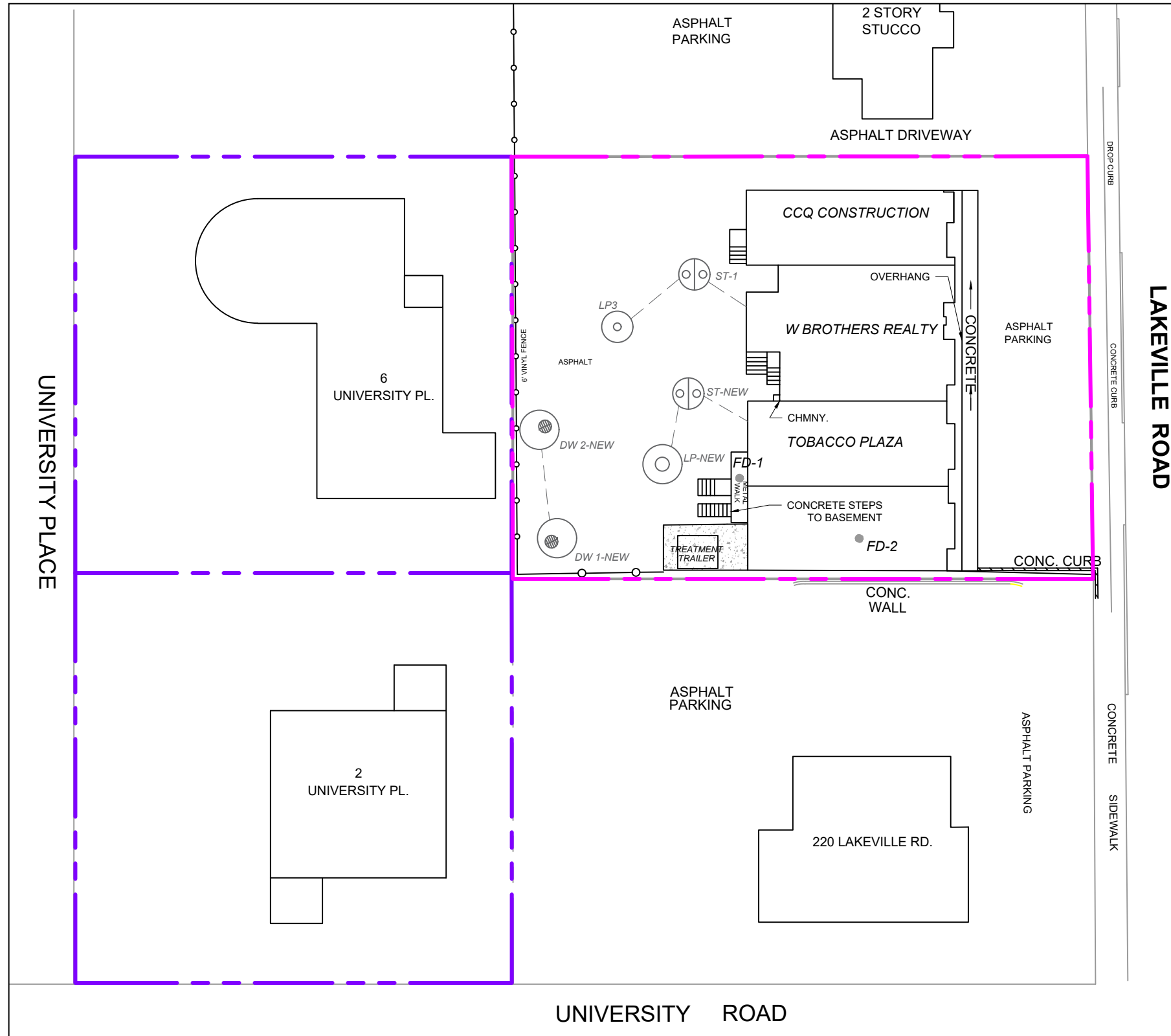
Vacuum measurements will be collected at the monitoring points using a digital micromanometer and recorded if needed to confirm negative pressure fields at each off-site property. If needed, the SSD fan applied pressure will be adjusted to ensure that negative pressure is maintained beneath the building slabs.

During the annual inspections, all SSD system equipment will be visually inspected to ensure that it is in proper working order. If any damage or defects are detected, the Departments will be notified and components will be repaired or replaced as appropriate.

FIGURE 1
Site Location Map



SITE LOCATION
N.T.S.



LEGEND

- SUBJECT PROPERTY LINE (218 LAKEVILLE ROAD)
- OFF-SITE IRM PROPERTY - SSD SYSTEM INSTALLED



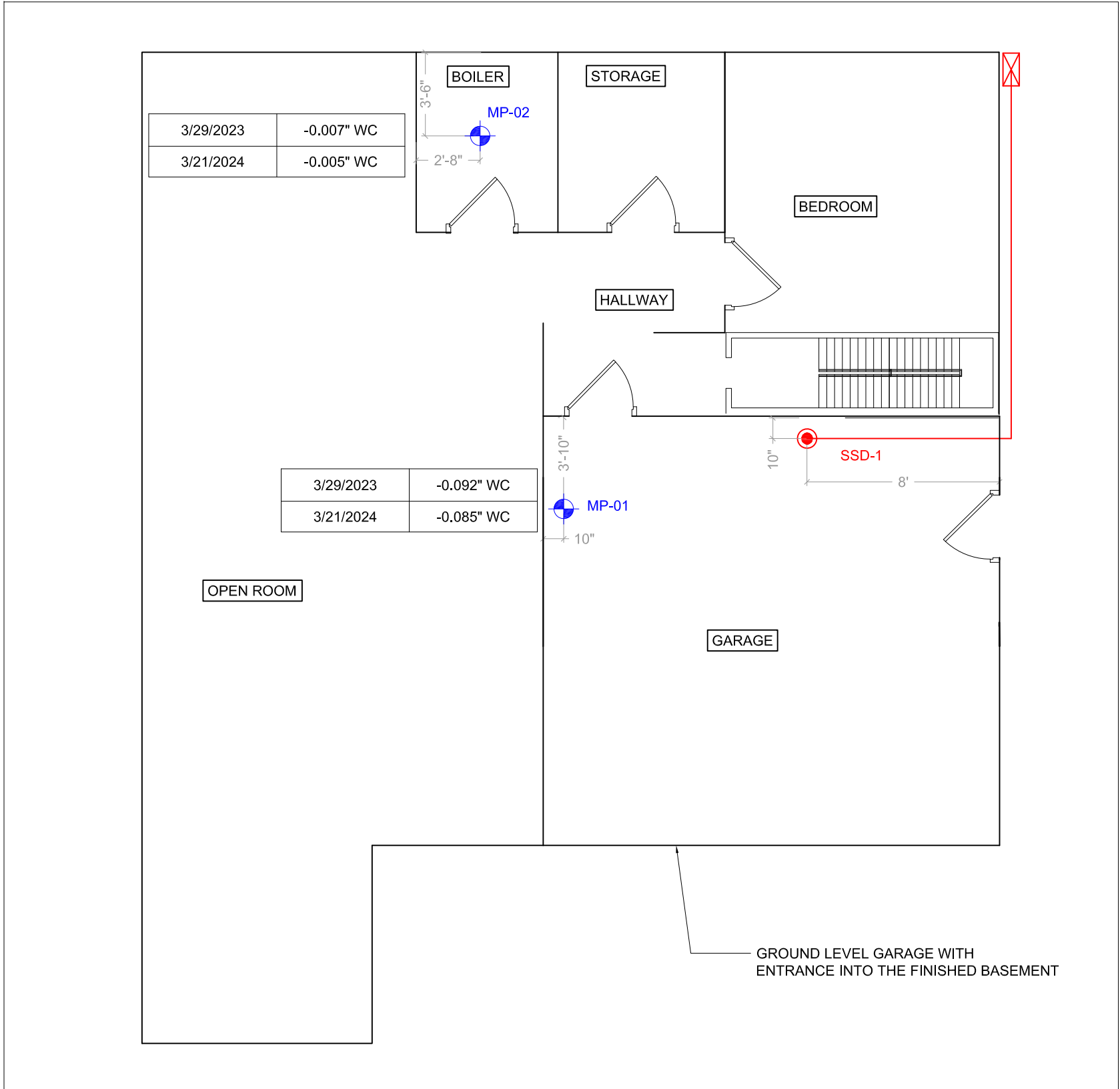
SITE LOCATION MAP
2 & 6 UNIVERSITY PLACE
SCALE: 1" = 30'-0"



FOR: FORMER IMPERIAL CLEANERS SITE BCP Site No. C130225 218 Lakeville Road Lake Success, New York 11020			DRAWING TITLE: <u>OFF-SITE IRM</u> <u>SITE LOCATION MAP</u>			DRAWING NO: 1	ISSUED 8/29/2024
DESIGNED BY: NB	DRAWN BY: LS	CHECKED BY: NB	JOB NO: IMPL0115.6	DATE: 8/30/24	11x17	SHEET NO: 1 of 1	
APPROVED BY: NB		SCALE: AS NOTED CAD FILE LOCATION: Z:\IMPL0115 (Imperial Cleaners)\IMPL0115.6 - 2019 Pre-Design Investigation\Figures For Decision Document\ACAD\IMPL0115.6_Adjacent Properties_Figure 1					

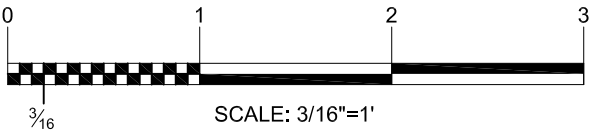
ATTACHMENT A

2 University Place SSD System As-built Drawings



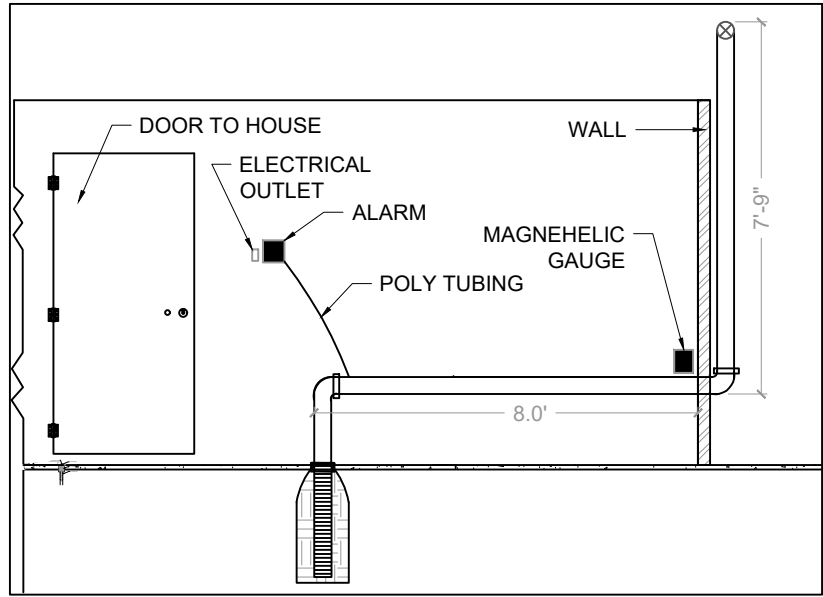
LEGEND

- BUILDING
- SSDS PIPING
- EXTRACTION POINT
- VAPOR PIN MONITORING POINT WITH SUB-SLAB VACUUM PRESSURE (INCHES WATER COLUMN) RECORDED ON MARCH 29, 2023 AND MARCH 21, 2024
- SSDS FAN



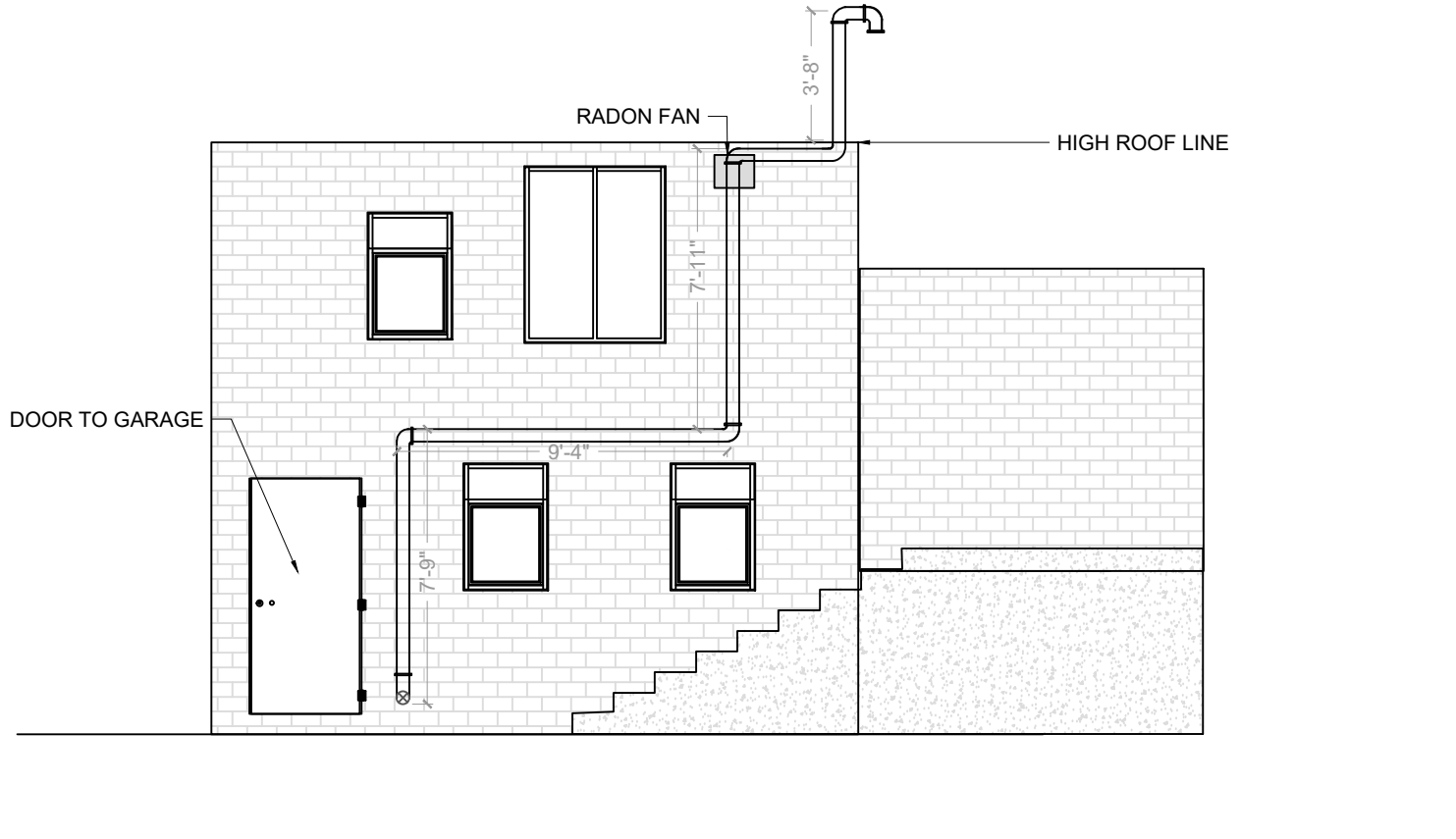
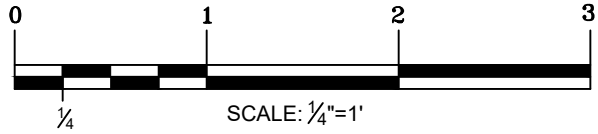
2 UNIVERSITY PLACE SSDS LAYOUT
SCALE: 3/16" = 1'-0"





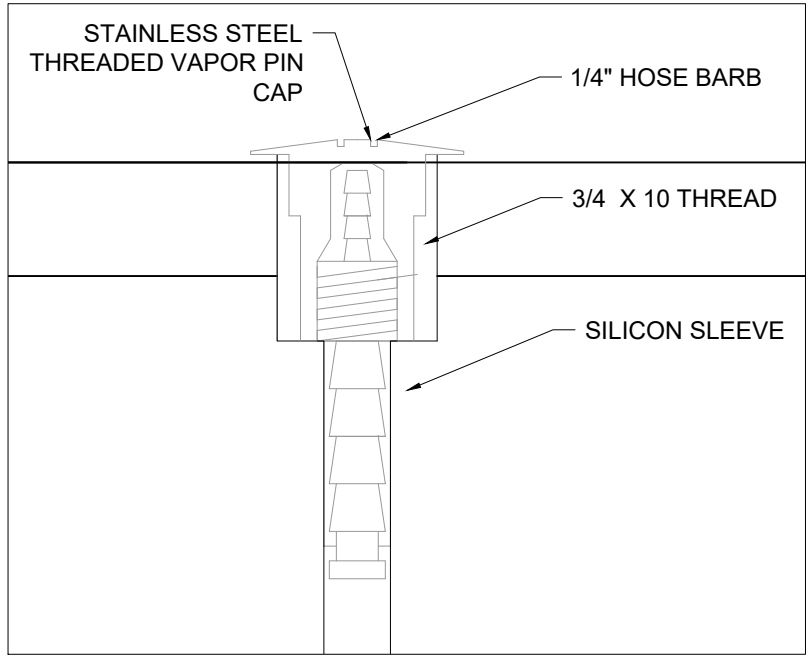
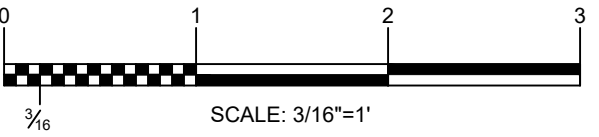
**SSD-1 CROSS SECTION
(INTERIOR GARAGE)**

SCALE: 1/4"=1'-0"



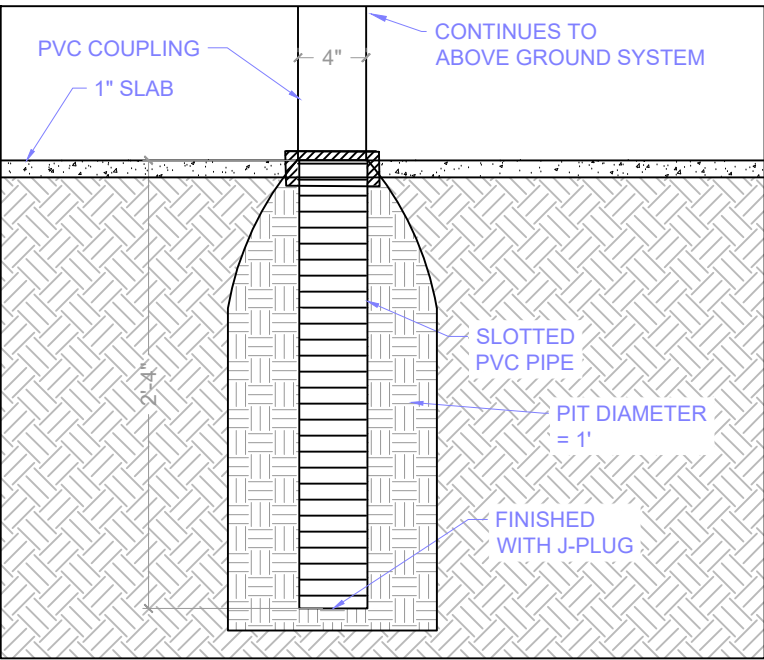
**SSD-1 CROSS SECTION
(EAST EXTERIOR WALL)**

SCALE: 3/16"=1'-0"



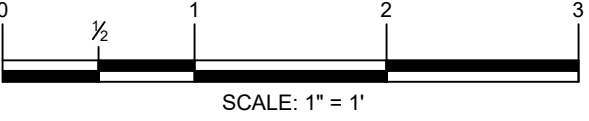
MONITORING POINT LAYOUT

SCALE: N.T.S.



EXTRACTION POINT LAYOUT

N.T.S.



HEADQUARTERS: 16 SPRING STREET OYSTER BAY, NY 11771
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ADDITIONAL OFFICES: HOPEWELL JUNCTION, NY;
HARTFORD, CT; LATHAM, NY; FORT WAYNE, IN
WWW.WALDENENVIRONMENTALENGINEERING.COM

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REVISIONS		
No.	DATE	COMMENTS

FOR: FORMER IMPERIAL CLEANERS SITE
Site No. C130225
218 Lakeville Road
Lake Success, New York 11020
DESIGNED BY: JMS/PC
APPROVED BY: NB

DRAWING TITLE:
**2 UNIVERSITY PLACE
SSD SYSTEM AS-BUILT**
JOB NO: IMPL0115.6
DATE: 8/30/24
11x17
SHEET NO: 2 of 2
CAD FILE NAME: Z:\IMPL0115 (Imperial Cleaners)\ACAD\IMPL0115_OFF-SITE_RESIDENTIAL_SSDS_2UNIVERSITYPLACE (8-29-24) BB.dwg

DRAWING NO:
2
ISSUED
8-29-2024
REVISION NO:
0

ATTACHMENT B

2 University Place SSD System Photographs

2 University Place Sub Slab Depressurization System Startup March 29, 2023

Photograph #1



Interior SSD-1 system configuration in garage.

Photograph #2



View of the PVC pipe penetration exiting the east wall of the house and the pressure gauge.

Photograph #3



SSD-1 Pressure gauge (Dwyer Magnehelic)

Photograph #4



Inside configuration of exhaust fan Radon Away model GP501c.

Photograph #5



System configuration along the exterior wall.

Photograph #6



View of SSD-1, exhaust fan, including vent pipe above the roof.

Photograph #7



System Radon Alarm

Photograph #8



MP-01 reading under final operating setting
(-0.092 in WC)

Photograph #9



MP-02 reading under final operating settings (-0.007 in WC)

2 University Place Sub Slab Depressurization System Inspection
March 21, 2024

Photograph #1



SSD-1 Pressure gauge (Dwyer Magnehelic)

Photograph #2



MP-01 reading under final operating settings
(-0.085 in WC)

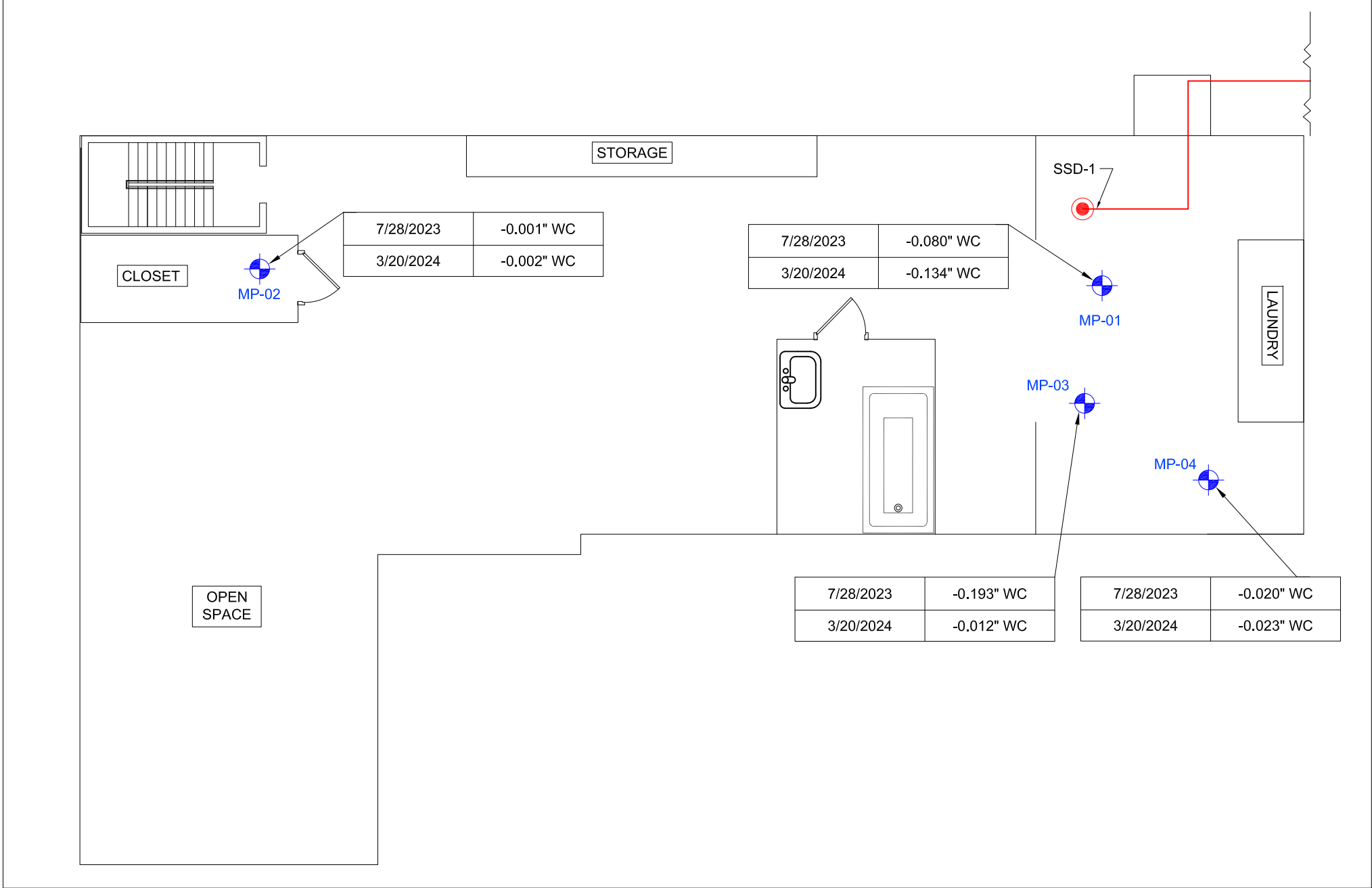
Photograph #3



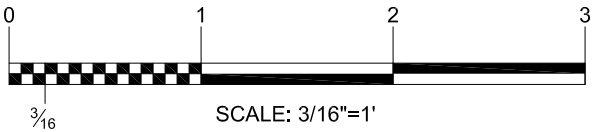
MP-02 reading under final operating settings
(-0.005 in WC)

ATTACHMENT C

6 University Place SSD System As-built Drawings

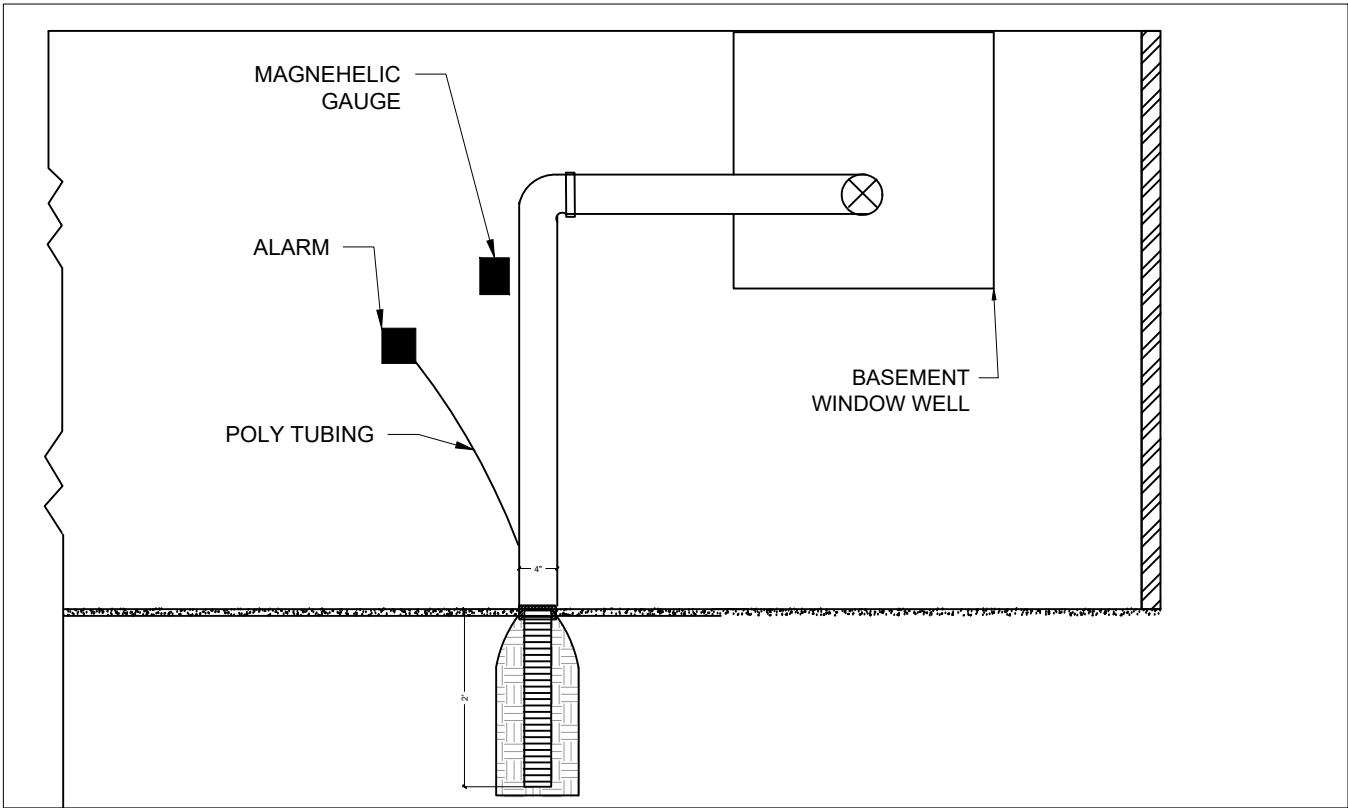


- LEGEND**
- BUILDING
 - SSDS PIPING
 - EXTRACTION POINT
 - VAPOR PIN MONITORING POINT WITH SUB-SLAB VACUUM PRESSURE (INCHES WATER COLUMN) RECORDED ON JULY 28, 2023 AND MARCH 20, 2024



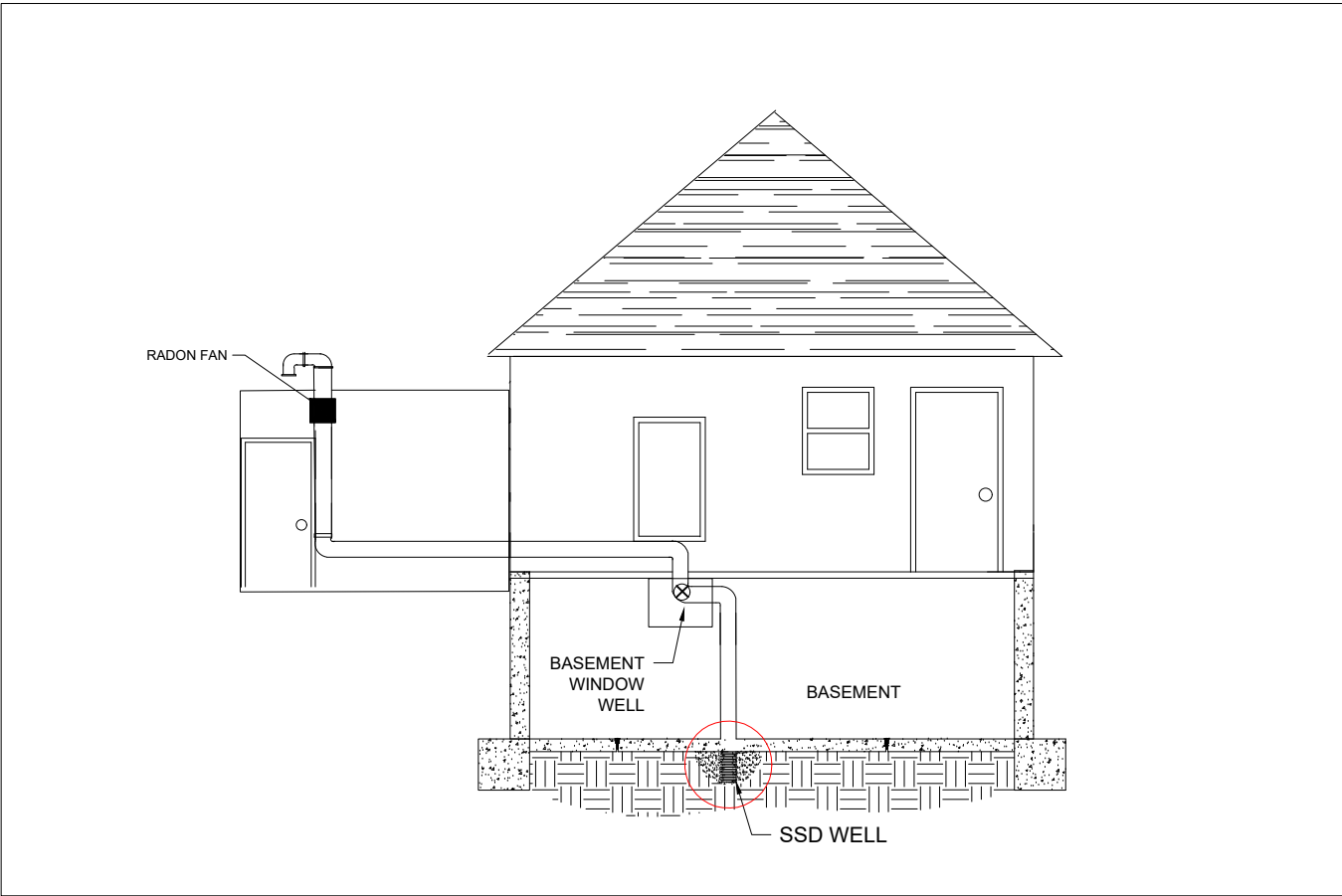
6 UNIVERSITY PLACE SSDS LAYOUT
SCALE: 3/16" = 1'-0"





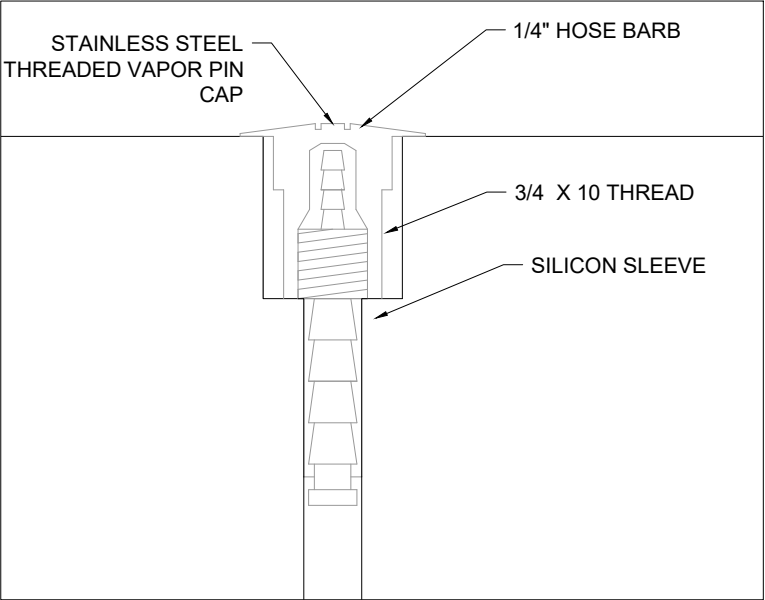
**SSD-1 CROSS SECTION
(BASEMENT)**

N.T.S.



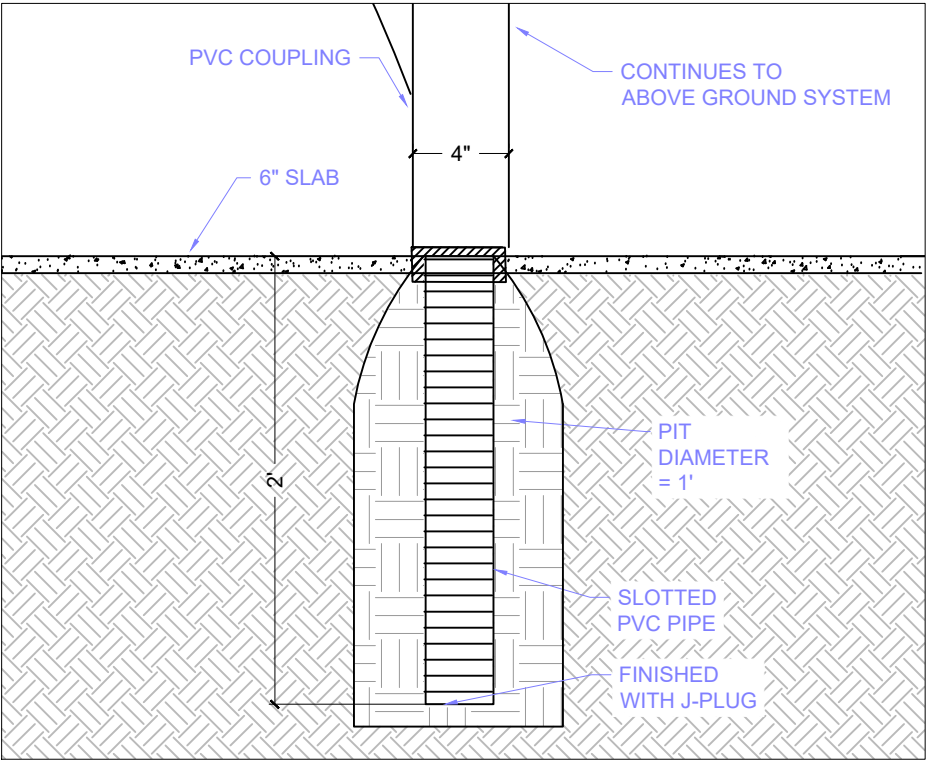
**SSD-1 CROSS SECTION
(EXTERIOR WALL)**

N.T.S.



**MONITORING POINT
LAYOUT**

N.T.S.



EXTRACTION POINT LAYOUT

N.T.S.



HEADQUARTERS: 16 SPRING STREET OYSTER BAY, NY 11771
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REVISIONS		
No.	DATE	COMMENTS

FOR: FORMER IMPERIAL CLEANERS SITE Site No. C130225 218 Lakeville Road Lake Success, New York 11020		DRAWING TITLE: 6 UNIVERSITY PLACE SSD SYSTEM AS-BUILT		DRAWING NO: 2		ISSUED 8-29-2024	
DESIGNED BY: JMS	DRAWN BY: JMS	CHECKED BY: NB	JOB NO: IMPL0115	DATE: 8/30/24	11x17	SHEET NO: 1 of 1	REVISION NO: 0
APPROVED BY: NB		SCALE: AS NOTED		CAD FILE NAME: Z:\IMPL0115 (Imperial Cleaners)\ACAD\IMPL0115_OFF-SITE_RESIDENTIAL_SSDS_6UNIVERSITYPLACE (8-27-24) BB.dwg			

ATTACHMENT D

6 University Place SSD System Photographs

**6 University Place Sub Slab Depressurization System Startup
March 29, 2023**

Photograph #1



Interior SSD system configuration and penetration through wall.

Photograph #2



MP-01 stainless-steel vapor pin.

Photograph #3



SSD-1 Pressure gauge

Photograph #4



Inside configuration of exhaust fan Radon Away model GP501c.

Photograph #5



System Radon Alarm

Photograph #6



System configuration from the basement window pit

Photograph #7



System configuration along the exterior wall.

Photograph #8



System configuration along the exterior wall.

Photograph #9



View of SSD-1 vent pipe above the roof

6 University Place Sub Slab Depressurization System Inspection March 21, 2024

Photograph #1



MP-01 reading under final operating settings
(-0.134 in WC)

Photograph #2



MP-03 reading under final operating settings
(-0.012 in WC)

Photograph #3



MP-04 reading under final operating settings
(-0.023 in WC)

ATTACHMENT E

2 University Place Indoor Air Sampling Documentation

Summary of Indoor Air Quality Sampling Results
March 21-22, 2024

Chemical Compound	CAS No.	NYSDOH Air Guideline Values (AGVs)	USEPA BASE Indoor Air 90th Percentile Conc (µg/m3)	2 University Place Indoor Air Concentration	
		µg/m3	µg/m3	µg/m3	Q
Isooctane	540-84-1	~	~	1.06	
1,1,1,2-Tetrachloroethane	630-20-6	~	~	< 0.58	
1,1,1-Trichloroethane	71-55-6	~	20.6	< 0.46	
1,1,2,2-Tetrachloroethane	79-34-5	~	~	< 0.58	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	~	3.5	< 0.65	
1,1,2-Trichloroethane	79-00-5	~	< 1.5	< 0.46	
1,1-Dichloroethane	75-34-3	~	< 0.7	< 0.34	
1,1-Dichloroethylene	75-35-4	~	< 1.4	< 0.083	
1,2,4-Trichlorobenzene	120-82-1	~	< 6.8	< 0.62	
1,2,4-Trimethylbenzene	95-63-6	~	9.5	< 0.41	
1,2-Dibromoethane	106-93-4	~	< 1.5	< 0.65	
1,2-Dichlorobenzene	95-50-1	~	< 1.2	< 0.51	
1,2-Dichloroethane	107-06-2	~	< 0.9	< 0.34	
1,2-Dichloropropane	78-87-5	~	< 1.6	< 0.39	
1,2-Dichlorotetrafluoroethane	76-14-2	~	< 6.8	< 0.59	
1,3,5-Trimethylbenzene	108-67-8	~	3.7	< 0.41	
1,3-Butadiene	106-99-0	~	< 3.0	< 0.56	
1,3-Dichlorobenzene	541-73-1	~	< 2.4	< 0.51	
1,3-Dichloropropane	142-28-9	~	~	< 0.39	
1,4-Dichlorobenzene	106-46-7	~	5.5	< 0.51	
1,4-Dioxane	123-91-1	~	~	< 0.61	
2-Butanone	78-93-3	~	12	0.87	
2-Hexanone	591-78-6	~	~	0.76	TO-CCV
3-Chloropropene	107-05-1	~	~	< 1.3	
4-Methyl-2-pentanone	108-10-1	~	6.0	< 0.34	TO-CCV
Acetone	67-64-1	~	98.9	4.8	
Acrylonitrile	107-13-1	~	~	3.3	
Benzene	71-43-2	~	9.4	0.81	
Benzyl chloride	100-44-7	~	< 6.8	< 0.44	
Bromodichloromethane	75-27-4	~	~	< 0.56	
Bromoform	75-25-2	~	~	< 0.87	
Bromomethane	74-83-9	~	< 1.7	< 0.33	
Carbon disulfide	75-15-0	~	4.2	< 0.26	
Carbon tetrachloride	56-23-5	~	< 1.3	0.48	TO-CCV
Chlorobenzene	108-90-7	~	< 0.9	< 0.39	
Chloroethane	75-00-3	~	< 1.1	< 0.22	
Chloroform	67-66-3	~	1.1	< 0.41	
Chloromethane	74-87-3	~	3.7	1.0	
cis-1,2-Dichloroethylene	156-59-2	~	< 1.9	< 0.083	
cis-1,3-Dichloropropylene	10061-01-5	~	< 2.3	< 0.38	
Cyclohexane	110-82-7	~	~	0.58	
Dibromochloromethane	124-48-1	~	~	< 0.72	
Dichlorodifluoromethane	75-71-8	~	16.5	2.4	
Ethyl acetate	141-78-6	~	5.4	< 0.61	
Ethyl Benzene	100-41-4	~	5.7	0.37	
Hexachlorobutadiene	87-68-3	~	< 6.8	< 0.90	
Isopropanol	67-63-0	~	250	0.83	
Methyl Methacrylate	80-62-6	~	~	< 0.34	
Methyl tert-butyl ether (MTBE)	1634-04-4	~	11.5	< 0.30	
Methylene chloride	75-09-2	60	10.0	< 0.58	
Naphthalene	91-20-3	~	~	< 0.88	
n-Heptane	142-82-5	~	~	0.79	
n-Hexane	110-54-3	~	10.2	1.8	
o-Xylene	95-47-6	~	7.9	0.44	
p- & m- Xylenes	179601-23-1	~	~	1.2	
p-Ethyltoluene	622-96-8	~	3.6	< 0.41	
Propylene	115-07-1	~	~	0.32	
Styrene	100-42-5	~	1.9	< 0.36	
Tetrachloroethylene	127-18-4	30	15.9	< 0.57	
Tetrahydrofuran	109-99-9	~	~	< 0.50	
Toluene	108-88-3	~	43	1.9	
trans-1,2-Dichloroethylene	156-60-5	~	~	< 0.33	
trans-1,3-Dichloropropylene	10061-02-6	~	< 1.3	< 0.38	
Trichloroethylene	79-01-6	2	4.2	< 0.11	
Trichlorofluoromethane (Freon 11)	75-69-4	~	~	1.2	
Vinyl acetate	108-05-4	~	~	< 0.30	
Vinyl bromide	593-60-2	~	~	< 0.37	
Vinyl Chloride	75-01-4	~	< 1.9	< 0.11	

NOTES:

Highlighted analytes are included in the NYSDOH Decision Matrices

CAS - Chemical Abstract Service

NYSDOH - New York State Department of Health

USEPA - U.S. Environemental Protection Agency

µg/m³ - micrograms per cubic meter

Bold = compound detected above laboratory limit of quantification

Q = Laboratory data qualifier

TO-CCV = Estimated value reported by the laboratory

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jacqueline Bell Date/Time Prepared 3/21/24
Preparer's Affiliation Walden Environmental Engineering Phone No. 516-624-7200

Purpose of Investigation _____

1. OCCUPANT:

Interviewed: Y ☒ N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ☒)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

☒ Residential
☐ Industrial

☐ School
☐ Church

☐ Commercial/Multi-use
Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
<u>Cape Cod</u>	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) N/A

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 2 + Basement Building age ~1929

Is the building insulated? Y / N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Doors / windows

Airflow near source

Garage door - slight draft

Outdoor air infiltration

from outside through garage door

Infiltration into air ducts

N/A

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with Vinyl
- e. Concrete floor: unsealed sealed sealed with epoxy
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with _____
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: 0 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

Garage sealed & not opened during sampling

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

Hot air circulation	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler
		Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y/N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied?	Full-time	Occasionally	Seldom	Almost Never

Level	General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)
1st	
2nd	
3rd	
4th	
5th	
6th	
7th	
8th	
9th	
10th	
11th	
12th	
13th	
14th	
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83rd	
84th	
85th	
86th	
87th	
88th	
89th	
90th	
91st	
92nd	
93rd	
94th	
95th	
96th	
97th	
98th	
99th	
100th	

Basement	finished basement / garage
1 st Floor	not inspected
2 nd Floor	not inspected
3 rd Floor	
4 th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

Y/N

b. Does the garage have a separate heating unit?

$$Y / \textcircled{N^3} NA$$

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)

Y/N/NA

Please specify generator & gas can

d. Has the building ever had a fire?

Y ☒ N When? _____

e. Is a kerosene or unvented gas space heater present?

Y N Where? _____

f. Is there a workshop or hobby/craft area?

Y N Where & Type?

g. Is there smoking in the building?

Y / N How frequently?

h. Have cleaning products been used recently?

Y ☒ N ☐ When & Type? _____

i. Have cosmetic products been used recently?

Y (N) When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / ☒ N Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / ☒ N Where & When? _____
- l. Have air fresheners been used recently? Y / ☒ N When & Type? _____
- m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____
- o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / ☒ N

If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / ☒ N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

No

Unknown

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____

Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water ☐ Drilled Well ☐ Driven Well ☐ Dug Well Other: _____

Sewage Disposal: ☐ Public Sewer ☐ Septic Tank ☐ Leach Field ☐ Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: N/A

b. Residents choose to: remain in home ☐ relocate to friends/family ☐ relocate to hotel/motel ☐

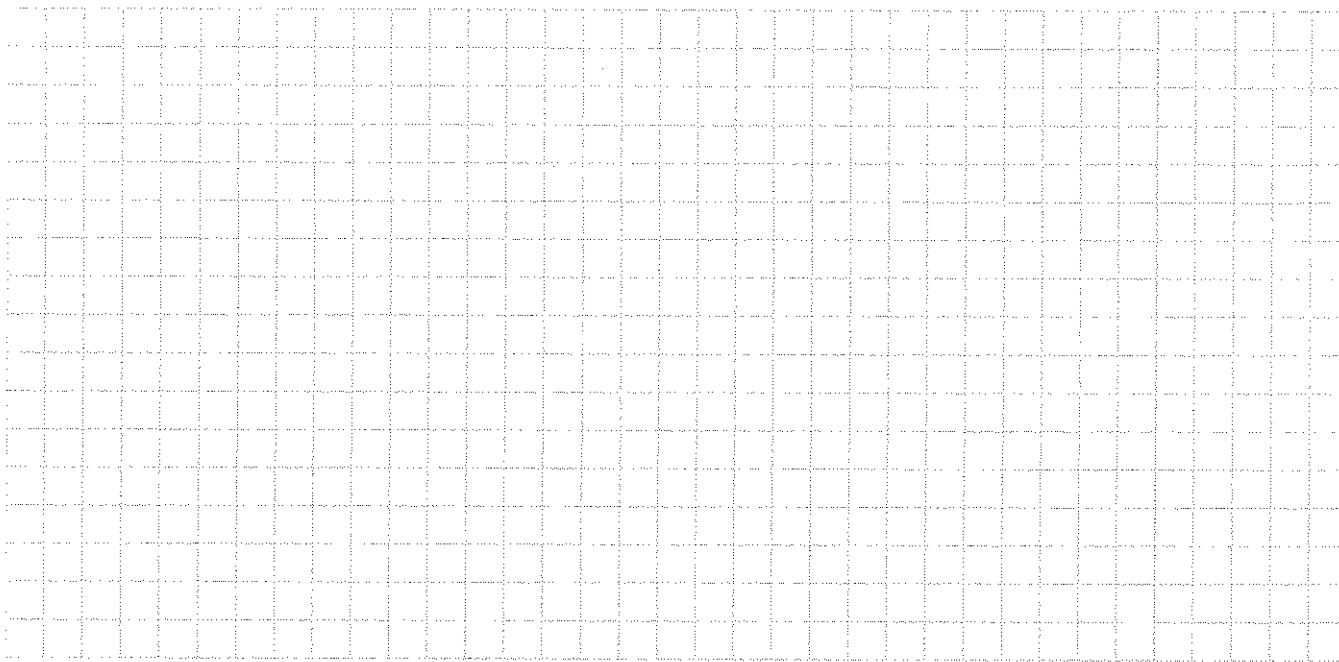
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

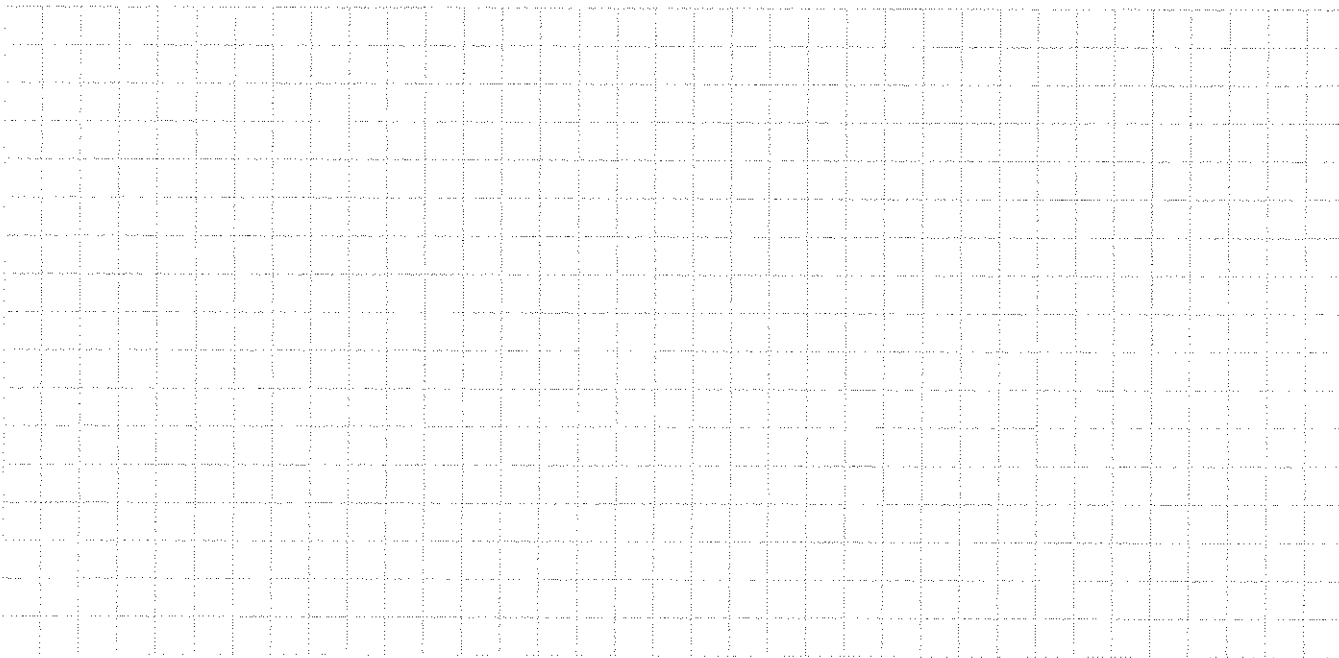
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



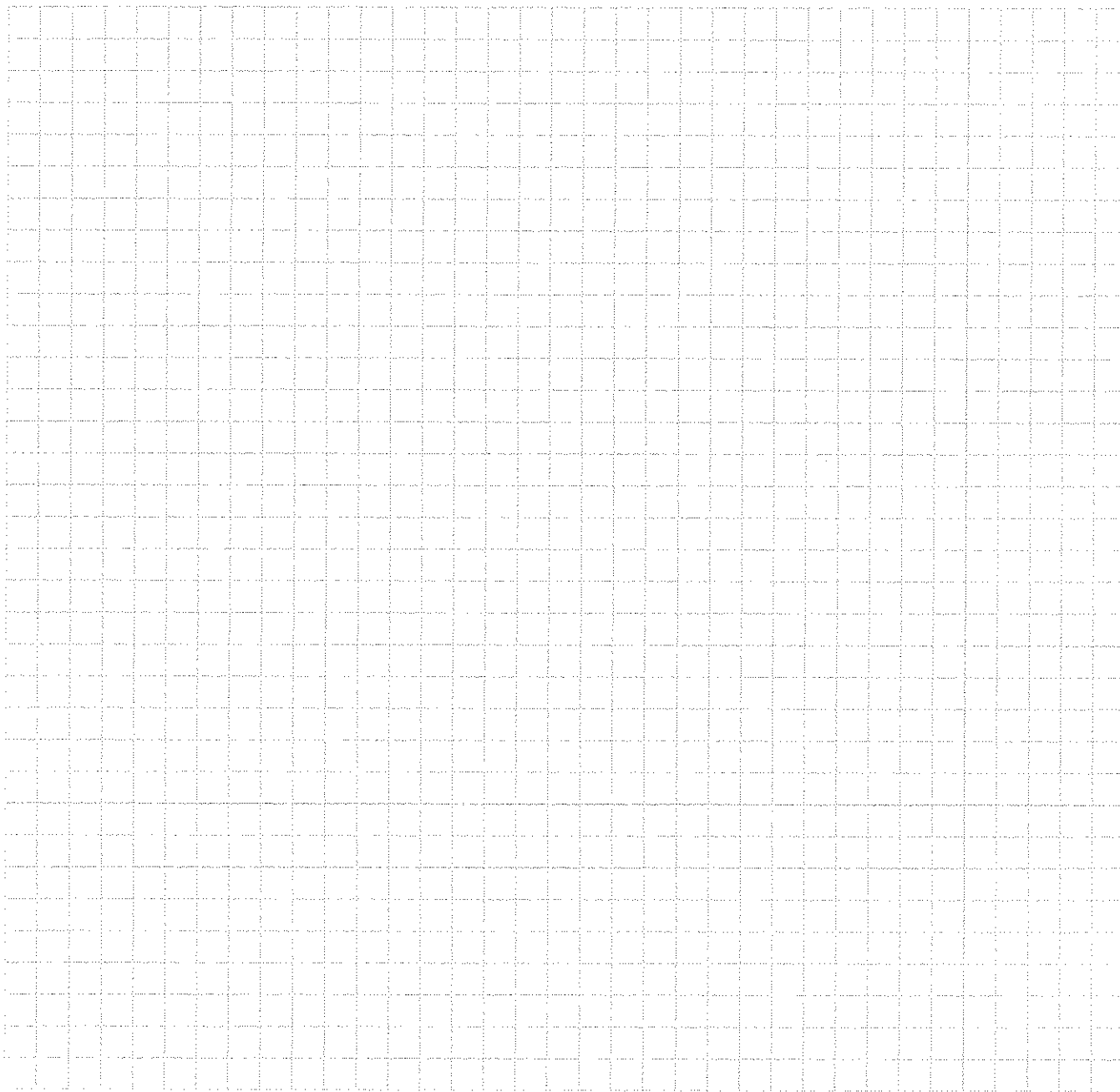
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

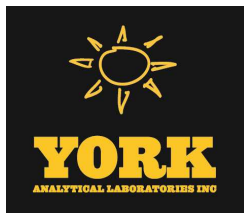
Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y/N</u>
	Do it Right door cleaner multi purpose kitchen & bath silicone	16a1				
	heavy duty cleaning wipes					
	Varathane wood stain	2.57L x2				
	BEHR Direct-to-metal	3.67L				
	Varathane polyurethane	3.78L				
	BEHR Putty Scuff Defender	887mL				
	Rustoleum Chalked	887mL				
	Benjamin Moore color samples	7.57oz x3				
	Rain-X All season	16a1				
	Preen Garden weed preventer	22 lbs				
	fertilizer	50 lb				
	gas canister					

* 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.



Technical Report

prepared for:

Walden Associates
16 Spring Street
Oyster Bay NY, 11771
Attention: Nora Brew

Report Date: 12/10/2024
Client Project ID: IMPL 0115.6 Imperial Cleaners
York Project (SDG) No.: 24C1627

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723



Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

Table of Contents for York SDG 24C1627

24C1627 York Summary Report.....	1
Introduction and Sample Cross Reference	2
General Notes Relating to this Report	2
Sample Results.....	3
2 University Place	3
Case Narrative	6
Quality Batch Summary.....	14
QA/QC Summary Data.....	15
Volatile Organic Compounds in Air by GC/MS EPA TO-15.....	15
Chains of Custody	20
24C1627 Data Package.....	22
24C1627 Air Data.....	22
AIR QC Summary	24
Blank Spike Results - Batch: BD40407	25
Blank Spike Results - Batch: BD40409	28
Batch Summary - Batch: BD40407	29
Batch Summary - Batch: BD40409	30
Blank Results - Batch: BD40407	31
Blank Results - Batch: BD40409	34
Mass Spec Tune - Seq: S4C0663.....	35
Mass Spec Tune - Seq: S4D0428.....	36
Mass Spec Tune - Seq: S4D0429.....	37
Mass Spec Tune - Seq: S4E0224.....	38
Sequence Summary - Seq: S4C0663.....	39
Sequence Summary - Seq: S4D0428.....	40
Sequence Summary - Seq: S4D0429.....	41
Sequence Summary - Seq: S4E0224.....	42
Internal Std. Summary Seq: S4C0663.....	43
Internal Std. Summary Seq: S4D0428.....	45
Internal Std. Summary Seq: S4D0429.....	46
Internal Std. Summary Seq: S4E0224.....	47
Hold Time Summary.....	48
Reporting Limits Summary.....	49
AIR Sample Data.....	51
Sample Results and Raw Data.....	52

2 University Place	52
AIR Standards Data	72
Initial Calibration - Cal: SC40018	73
Initial Calibration - Cal: SE40002	82
Initial Calibration Raw Data - Cal: SC40018	85
Initial Calibration Raw Data - Cal: SE40002	113
Initial Calibration Check - Cal: SC40018	133
Initial Calibration Check - Cal: SE40002	139
Continuing Calibration Check - Seq: S4D0428	142
Continuing Calibration Check - Seq: S4D0429	148
AIR Raw QC Data	151
Mass Spec Tune Raw Data - Seq: S4C0663	152
Mass Spec Tune Raw Data - Seq: S4D0428	153
Mass Spec Tune Raw Data - Seq: S4D0429	154
Mass Spec Tune Raw Data - Seq: S4E0224	155
Blank Raw Data - Batch: BD40407	156
Blank Raw Data - Batch: BD40409	168
Blank Spike Raw Data - Batch: BD40407	174
Blank Spike Raw Data - Batch: BD40409	178
Preparation Benchsheets - Batch: BD40407	181
Preparation Benchsheets - Batch: BD40409	183

Report Date: 12/10/2024
Client Project ID: IMPL 0115.6 Imperial Cleaners
York Project (SDG) No.: 24C1627

Walden Associates
16 Spring Street
Oyster Bay NY, 11771
Attention: Nora Brew

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 March 25, 2024 and listed below. The project was identified as your project: **IMPL 0115.6 Imperial Cleaners**.

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>
24C1627-01	2 University Place	Indoor Ambient Air	03/22/2024	03/25/2024

General Notes for York Project (SDG) No.: 24C1627

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, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

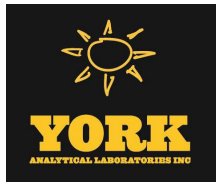
Approved By:



Cassie L. Mosher
Laboratory Manager

Date: 12/10/2024





Sample Information

Client Sample ID: 2 University Place

York Sample ID: 24C1627-01

York Project (SDG) No.

24C1627

Client Project ID

IMPL 0115.6 Imperial Cleaners

Matrix

Indoor Ambient Air

Collection Date/Time

March 22, 2024 10:01 am

Date Received

03/25/2024

VOA, TO15 Isooctane (2,2,4-TMP) Add On

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOO	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
540-84-1	* 2,2,4-Trimethylpentane	1.06		ug/m ³	0.197	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications:										

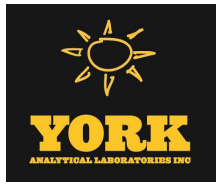
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOO	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.58	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications:										
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.46	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.58	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.65	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.46	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.34	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.083	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.62	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.41	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.65	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.51	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.34	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.39	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.59	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.41	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
106-99-0	1,3-Butadiene	ND		ug/m ³	0.56	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.51	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.39	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications:										
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.51	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
123-91-1	1,4-Dioxane	ND		ug/m ³	0.61	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
Certifications: NELAC-NY12058,NJDEP-NY037										



Sample Information

Client Sample ID: 2 University Place

York Sample ID: 24C1627-01

York Project (SDG) No.

24C1627

Client Project ID

IMPL 0115.6 Imperial Cleaners

Matrix

Indoor Ambient Air

Collection Date/Time

March 22, 2024 10:01 am

Date Received

03/25/2024

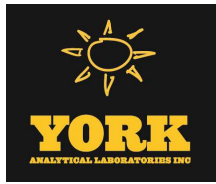
Volatile Organics, EPA TO15 Full List

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
78-93-3	2-Butanone	0.87		ug/m ³	0.25	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
591-78-6	* 2-Hexanone	0.76	TO-CC	ug/m ³	0.69	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
			V			Certifications:				
107-05-1	3-Chloropropene	ND		ug/m ³	1.3	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
108-10-1	4-Methyl-2-pentanone	ND	TO-CC	ug/m ³	0.34	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
			V			Certifications:	NELAC-NY12058,NJDEP-NY037			
67-64-1	Acetone	4.8		ug/m ³	0.40	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
107-13-1	Acrylonitrile	3.3		ug/m ³	0.18	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
71-43-2	Benzene	0.81		ug/m ³	0.27	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
100-44-7	Benzyl chloride	ND		ug/m ³	0.44	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-27-4	Bromodichloromethane	ND		ug/m ³	0.56	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-25-2	Bromoform	ND		ug/m ³	0.87	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
74-83-9	Bromomethane	ND		ug/m ³	0.33	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-15-0	Carbon disulfide	ND		ug/m ³	0.26	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
56-23-5	Carbon tetrachloride	0.48	TO-CC	ug/m ³	0.13	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
			V			Certifications:	NELAC-NY12058,NJDEP-NY037			
108-90-7	Chlorobenzene	ND		ug/m ³	0.39	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-00-3	Chloroethane	ND		ug/m ³	0.22	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
67-66-3	Chloroform	ND		ug/m ³	0.41	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
74-87-3	Chloromethane	1.0		ug/m ³	0.17	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.083	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.38	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
110-82-7	Cyclohexane	0.58		ug/m ³	0.29	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
124-48-1	Dibromochloromethane	ND		ug/m ³	0.72	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-71-8	Dichlorodifluoromethane	2.4		ug/m ³	0.42	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
141-78-6	* Ethyl acetate	ND		ug/m ³	0.61	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:				
100-41-4	Ethyl Benzene	0.37		ug/m ³	0.37	0.842	EPA TO-15	04/03/2024 12:00	04/04/2024 01:01	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			



Sample Information

Client Sample ID: 2 University Place

York Sample ID: 24C1627-01

York Project (SDG) No.

24C1627

Client Project ID

IMPL 0115.6 Imperial Cleaners

Matrix

Indoor Ambient Air

Collection Date/Time

March 22, 2024 10:01 am

Date Received

03/25/2024

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 ³	0.90	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
67-63-0	Isopropanol	0.83		ug/m ³	0.41	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.34	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.30	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
75-09-2	Methylene chloride	ND		ug/m ³	0.58	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
91-20-3	* Naphthalene	ND		ug/m ³	0.88	0.842	EPA TO-15 Certifications: NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
142-82-5	n-Heptane	0.79		ug/m ³	0.35	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
110-54-3	n-Hexane	1.8		ug/m ³	0.30	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
95-47-6	o-Xylene	0.44		ug/m ³	0.37	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
179601-23-1	p- & m- Xylenes	1.2		ug/m ³	0.73	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.41	0.842	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:01	YR
115-07-1	* Propylene	0.32		ug/m ³	0.14	0.842	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:01	YR
100-42-5	Styrene	ND		ug/m ³	0.36	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
127-18-4	Tetrachloroethylene	ND		ug/m ³	0.57	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.50	0.842	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:01	YR
108-88-3	Toluene	1.9		ug/m ³	0.32	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.33	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.38	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
79-01-6	Trichloroethylene	ND		ug/m ³	0.11	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.47	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.30	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.37	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.11	0.842	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:01	YR



York Narrative Contents Summary

This Work Order Narrative includes the following items for full review of any quality issues encountered with samples and their analyses for the parameters requested:

1. Sample Receipt Information, including a Sample Summary which cross references your sample ID with York Analytical sample ID, identifying the matrix and Date/Time collected and received at York.
2. Analysis Methodologies employed for the work order
3. Any Sample Issues encountered such as Holding time exceedances, improper containers/preservation, or any related issue with sample integrity
4. Specific Analysis Findings in order: Volatiles, Semi-Volatiles, Pesticides/PCBs, Herbicides, other GC parameters, Metals, Mercury, Wet Chemistry.
5. Analysis Findings Include:
 - Analyte qualifier summary
 - Samples and associated Calibration Curve(s)
 - Calibration Outliers Discussion/Tabular presentation and affected samples
 - Initial Calibration Verification (ICV) information
 - Batch QC Sample Performance (Blanks, Blank Spikes (BS), MS/MSD)
 - Internal Standard Performance
 - Surrogate Performance
 - Example Calculations

Work Order Narrative

York Analytical Work Order No.: 24C1627

Client : Walden Associates

Client Project ID : IMPL 0115.6 Imperial Cleaners

Prepared for : Nora Brew

1.0) Introduction

This work order Narrative applies to the following samples submitted to our laboratory on: 03/25/2024 12:22 PM

- 1 Air sample(s) were received intact unless otherwise noted.

Sample Summary

<u>SampleName</u>	<u>Lab Number</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
2 University Place	24C1627-01	Air	03/22/2024 10:01 AM	03/25/2024 12:22 PM

WorkOrder Comments

York Analytical Work Order Narrative

2.0 Methodology

<u>Analysis Class</u>	<u>Preparation Method</u>	<u>Analysis Methodology</u>
AIR	EPA TO15 PREP	EPA TO-15

3.0 Sample Issues

No issues were encountered with the samples submitted other than those detailed below.

Qualifier Summary Report:

<u>SampleID</u>	<u>Method</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Analyte</u>	<u>Qualifier</u>
2 University Place	EPA TO-15	24C1627-01	Air	2-Hexanone	TO-CCV
2 University Place	EPA TO-15	24C1627-01	Air	4-Methyl-2-pentanone	TO-CCV
2 University Place	EPA TO-15	24C1627-01	Air	Carbon tetrachloride	TO-CCV

Qualifier Definitions :

TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

York Analytical Work Order Narrative

4.0 Analysis Issues

EPA TO-15

Volatile Organics, EPA TO15 Full List

No problems were encountered with analysis of the samples, other than detailed below.

Initial Calibration : SC40018

Samples and QC analyzed using this calibration / sequence.

Calibration	Batch	Sequence	SampleName	LabNumber	Instrument	File ID
SC40018	S4C0663	S4C0663	Secondary Cal Check	S4C0663-SCV1	TO15_AIR3	TV023228.D
SC40018	S4D0428	S4D0428	Calibration Check	S4D0428-CCV1	TO15_AIR3	TV023795.D
SC40018	BD40407	S4D0428	LCS	BD40407-BS1	TO15_AIR3	TV023797.D
SC40018	BD40407	S4D0428	Blank	BD40407-BLK1	TO15_AIR3	TV023799.D
SC40018	BD40407	S4D0428	2 University Place	24C1627-01	TO15_AIR3	TV023812.D

Initial calibration for EPA TO-15 met method guidelines.

EPA TO-15

Initial Calibration Verification-

The initial calibration verification for analytical method EPA TO-15

All target analytes recovered within method limits

Continuing Calibration Verification-

Calibration	Sequence	LabNumber	File ID	Date / Time
SC40018	S4D0428	S4D0428-CCV1	TV023795.D	04/03/24 13:16

The continuing calibration verification exceeded method limits for the following analytes.

Calibration	LabNumber	Analyte	Units	Result	TrueVal	REC%	Limits	File ID
SC40018	S4D0428-CCV1	2-Hexanone	ppbv	6.14	10.0	61.4	70 130	TV023795.D
SC40018	S4D0428-CCV1	4-Methyl-2-pentanone	ppbv	6.37	10.0	63.7	70 130	TV023795.D
SC40018	S4D0428-CCV1	Carbon tetrachloride	ppbv	13.5	10.0	135	70 130	TV023795.D

The following QC and or client samples were affected:

Calibration	Sequence	LabNumber	SampleName	Source Sample	File ID
SC40018	S4D0428	BD40407-BS1	LCS		TV023797.D
SC40018	S4D0428	BD40407-BLK1	Blank		TV023799.D
SC40018	S4D0428	24C1627-01	2 University Place		TV023812.D

York Analytical Work Order Narrative

EPA TO-15

Batch QC

Method Blank- No reportable target compounds were detected in the method blank(s)

	Batch	Sequence	Instrument	Blank	FileID
AIR	BD40407	S4D0428	TO15_AIR3	BD40407-BLK1	TV023799.D

Laboratory Control Sample (LCS) or Standard Reference Material (SRM)-

Were run as batch QC for this project. Please refer to the Quality Control Data attached to this report for bias information.

Calibration	Sequence	LabNumber	SampleName	File ID
SC40018	4D0428	BD40407-BS1	LCS	TV023797.D

EPA TO-15

Dilutions: No sample dilutions were required.

EPA TO-15

Internal Standards / Surrogates

Internal Standards Issues: No issues were encountered.

York Analytical Work Order Narrative

4.0 Analysis Issues

EPA TO-15

VOA, TO15 Isooctane (2,2,4-TMP) Add On

No problems were encountered with analysis of the samples, other than detailed below.

Initial Calibration : SE40002

Samples and QC analyzed using this calibration / sequence.

Calibration	Batch	Sequence	SampleName	LabNumber	Instrument	File ID
SE40002	S4D0429	S4D0429	Calibration Check	S4D0429-CCV1	TO15_AIR3	TV023796.D
SE40002	BD40409	S4D0429	LCS	BD40409-BS1	TO15_AIR3	TV023798.D
SE40002	BD40409	S4D0429	Blank	BD40409-BLK1	TO15_AIR3	TV023800.D
SE40002	BD40409	S4D0429	2 University Place	24C1627-01	TO15_AIR3	TV023812A.D
SE40002	S4E0224	S4E0224	Secondary Cal Check	S4E0224-SCV1	TO15_AIR3	TV023727.D

Initial calibration for EPA TO-15 met method guidelines.

EPA TO-15

Initial Calibration Verification-

The initial calibration verification for analytical method EPA TO-15

All target analytes recovered within method limits

Continuing Calibration Verification-

Calibration	Sequence	LabNumber	File ID	Date / Time
SE40002	S4D0429	S4D0429-CCV1	TV023796.D	04/03/24 13:57

The continuing calibration verification recovered within method limits.

EPA TO-15

Batch QC

Method Blank- No reportable target compounds were detected in the method blank(s)

	Batch	Sequence	Instrument	Blank	FileID
AIR	BD40409	S4D0429	TO15_AIR3	BD40409-BLK1	TV023800.D

Laboratory Control Sample (LCS) or Standard Reference Material (SRM)-

Were run as batch QC for this project. Please refer to the Quality Control Data attached to this report for bias information.

Calibration	Sequence	LabNumber	SampleName	File ID
SE40002	4D0429	BD40409-BS1	LCS	TV023798.D

York Analytical Work Order Narrative

EPA TO-15

Dilutions: No sample dilutions were required.

EPA TO-15

Internal Standards / Surrogates

Internal Standards Issues: No issues were encountered.

York Analytical Work Order Narrative

York Analytical Laboratories, Inc. **Formulae Used for Sample Calculations**

1. Volatiles in Air-ppbv

Cx (ppbv) = Compound concentration, ppbv (parts per billion by volume)

$$C_x = \frac{(A_x)(C_{is})(DF)}{(A_{is})(RRF)}$$

2. Volatiles in Air-ug/m³

Cx (ug/m³) = Compound concentration in ug/m³

$$C_x (\text{ug/m}^3) = \frac{(\text{ppbv} \times \text{Molecular wt.})}{(24.040)}$$

3. Volatile Organics (water and soil), ug/L or ug/kg

Soils/Waters

Medium Level Soils

$$C_x = \frac{(A_x)(IS)(DF)}{(A_{is})(RRF)(V)(\% \text{ solids})}$$

$$C_x = \frac{(A_x)(IS)(VT)(1000)(DF)}{(A_{is})(RRF)(VA)(V)(\% \text{ solids})}$$

4. Semi-Volatiles (waters and soils)

$$C_x = \frac{(A_x)(IS)(VE)(DF)}{(A_{is})(RRF)(\text{Volume injected, uL})(V)(\% \text{ solids})}$$

5. Pesticides/PCB (waters and soils), DRO, CTETPH

$$C_x = \frac{(A_x)(VE)(DF)}{(CF)(\text{Volume injected, uL})(V)(\% \text{ solids})}$$

WHERE:

Cx = concentration of analyte as ug/L or ug/kg

Ax = Area of the characteristic ion for the compound to be measured, counts.

Ais = Area of the characteristic ion for the specific internal standard, counts.

IS = Concentration of the internal standard spiking mixture, ng

RRF = Mean relative response factor from the initial calibration.

DF = Dilution factor calculated as described in section 2. If no dilution is performed, DF= 1

V = Volume for liquids in mL, weight for soils/solids in grams.

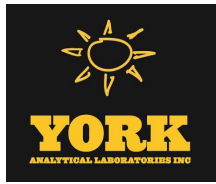
VA = volume of MeOH aliquot for medium level soils

VE = final volume of concentrated extract

VT = volume of MeOH for volatiles medium level soils

CF = calibration factor for external calibration used in GC pest/pcb

Cis = Concentration of the internal standard spiking mixture, ppbv



Analytical Batch Summary

Batch ID: BD40407 **Preparation Method:** EPA TO15 PREP **Prepared By:** YR

YORK Sample ID	Client Sample ID	Preparation Date
24C1627-01	2 University Place	04/03/24
BD40407-BLK1	Blank	04/03/24
BD40407-BS1	LCS	04/03/24

Batch ID: BD40409 **Preparation Method:** EPA TO15 PREP **Prepared By:** YR

YORK Sample ID	Client Sample ID	Preparation Date
24C1627-01	2 University Place	04/03/24
BD40409-BLK1	Blank	04/03/24
BD40409-BS1	LCS	04/03/24



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BD40407 - EPA TO15 PREP

Blank (BD40407-BLK1)

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.099	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.099	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
Naphthalene	ND	1.0	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Flag	RPD	RPD	
		Limit								Limit	Flag

Batch BD40407 - EPA TO15 PREP

Blank (BD40407-BLK1)

Prepared & Analyzed: 04/03/2024

n-Heptane	ND	0.41	ug/m ³
n-Hexane	ND	0.35	"
o-Xylene	ND	0.43	"
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.68	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.13	"

LCS (BD40407-BS1)

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	9.25		ppbv	10.0	92.5	70-130
1,1,1-Trichloroethane	10.6		"	10.0	106	70-130
1,1,2,2-Tetrachloroethane	8.97		"	10.0	89.7	70-130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.1		"	10.0	111	70-130
1,1,2-Trichloroethane	8.48		"	10.0	84.8	70-130
1,1-Dichloroethane	10.6		"	10.0	106	70-130
1,1-Dichloroethylene	10.4		"	10.0	104	70-130
1,2,4-Trichlorobenzene	11.2		"	10.0	112	70-130
1,2,4-Trimethylbenzene	9.45		"	10.0	94.5	70-130
1,2-Dibromoethane	8.97		"	10.0	89.7	70-130
1,2-Dichlorobenzene	10.1		"	10.0	101	70-130
1,2-Dichloroethane	10.2		"	10.0	102	70-130
1,2-Dichloropropane	7.90		"	10.0	79.0	70-130
1,2-Dichlorotetrafluoroethane	9.94		"	10.0	99.4	70-130
1,3,5-Trimethylbenzene	9.63		"	10.0	96.3	70-130
1,3-Butadiene	9.39		"	10.0	93.9	70-130
1,3-Dichlorobenzene	9.82		"	10.0	98.2	70-130
1,3-Dichloropropane	8.76		"	10.0	87.6	70-130
1,4-Dichlorobenzene	9.87		"	10.0	98.7	70-130
1,4-Dioxane	9.47		"	10.0	94.7	70-130
2-Butanone	8.20		"	10.0	82.0	70-130
2-Hexanone	7.10		"	10.0	71.0	70-130
3-Chloropropene	8.41		"	10.0	84.1	70-130
4-Methyl-2-pentanone	7.31		"	10.0	73.1	70-130
Acetone	8.69		"	10.0	86.9	70-130
Acrylonitrile	7.51		"	10.0	75.1	70-130
Benzene	10.1		"	10.0	101	70-130
Benzyl chloride	10.6		"	10.0	106	70-130
Bromodichloromethane	8.64		"	10.0	86.4	70-130
Bromoform	10.7		"	10.0	107	70-130
Bromomethane	10.8		"	10.0	108	70-130
Carbon disulfide	11.3		"	10.0	113	70-130



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Limits	Flag	RPD	
		Limit								RPD	Limit

Batch BD40407 - EPA TO15 PREP

LCS (BD40407-BS1)

Prepared & Analyzed: 04/03/2024

Carbon tetrachloride	11.4		ppbv	10.0		114	70-130				
Chlorobenzene	9.17		"	10.0		91.7	70-130				
Chloroethane	10.3		"	10.0		103	70-130				
Chloroform	10.7		"	10.0		107	70-130				
Chloromethane	8.41		"	10.0		84.1	70-130				
cis-1,2-Dichloroethylene	10.2		"	10.0		102	70-130				
cis-1,3-Dichloropropylene	8.50		"	10.0		85.0	70-130				
Cyclohexane	9.73		"	10.0		97.3	70-130				
Dibromochloromethane	9.65		"	10.0		96.5	70-130				
Dichlorodifluoromethane	11.0		"	10.0		110	70-130				
Ethyl acetate	8.75		"	10.0		87.5	70-130				
Ethyl Benzene	8.82		"	10.0		88.2	70-130				
Hexachlorobutadiene	10.2		"	10.0		102	70-130				
Isopropanol	9.71		"	10.0		97.1	70-130				
Methyl Methacrylate	8.48		"	10.0		84.8	70-130				
Methyl tert-butyl ether (MTBE)	10.6		"	10.0		106	70-130				
Methylene chloride	8.93		"	10.0		89.3	70-130				
Naphthalene	10.8		"	10.0		108	70-130				
n-Heptane	8.35		"	10.0		83.5	70-130				
n-Hexane	9.77		"	10.0		97.7	70-130				
o-Xylene	8.76		"	10.0		87.6	70-130				
p- & m- Xylenes	17.4		"	20.0		86.8	70-130				
p-Ethyltoluene	9.23		"	10.0		92.3	70-130				
Propylene	8.80		"	10.0		88.0	70-130				
Styrene	9.20		"	10.0		92.0	70-130				
Tetrachloroethylene	9.09		"	10.0		90.9	70-130				
Tetrahydrofuran	8.59		"	10.0		85.9	70-130				
Toluene	8.35		"	10.0		83.5	70-130				
trans-1,2-Dichloroethylene	10.2		"	10.0		102	70-130				
trans-1,3-Dichloropropylene	8.52		"	10.0		85.2	70-130				
Trichloroethylene	8.49		"	10.0		84.9	70-130				
Trichlorofluoromethane (Freon 11)	10.9		"	10.0		109	70-130				
Vinyl acetate	9.00		"	10.0		90.0	70-130				
Vinyl bromide	10.8		"	10.0		108	70-130				
Vinyl Chloride	9.47		"	10.0		94.7	70-130				



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BD40409 - EPA TO15 PREP

Blank (BD40409-BLK1)

Prepared & Analyzed: 04/03/2024

2,2,4-Trimethylpentane	ND	0.234	ug/m ³

LCS (BD40409-BS1)

Prepared & Analyzed: 04/03/2024

2,2,4-Trimethylpentane	9.32		ppbv	10.0		93.2	70-130



Sample and Data Qualifiers Relating to This Work Order

TO-CCV The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

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.



Laboratory Chain-of-Custody Record

York Project (SDG) No.: 24C1627

Samples Received: 03/25/2024 12:22 By: Lea M. Sherman Logged In: 03/26/2024 12:22 By: Lea M. Sherman

Sample Conditions:

☐ Custody Seals	☒ Chain of Custody Form Received
☒ Containers Intact	☒ Appropriate Sample Volumes Received
☒ COC/Labels Agree	☒ Appropriate Sample Containers Submitted
☐ Preservation Confirmed	☒ Samples Submitted within Holding Times
☒ Cooler Temperature Confirmed	☐ Corrective Action Form Required
☒ COC Complete	

Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
24C1627-01	EPA TO15 PREP	04/03/2024 12:00	04/03/2024 12:00	Yamilex Ramos
24C1627-01	EPA TO15 PREP	04/03/2024 12:00	04/03/2024 12:00	Yamilex Ramos

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
24C1627-01	VOA, TO15 Isooctane (2,2,4-TMP) A	04/03/2024 12:00	04/04/2024 1:01	Yamilex Ramos
24C1627-01	Volatile Organics, EPA TO15 Full List	04/03/2024 12:00	04/04/2024 1:01	Yamilex Ramos

Field Chain-of-Custody Record - AIR

YORK Project No.

This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

Page of

[illegible]

York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

CLASS: AIR

METHOD: EPA TO-15

DATA PACKAGE COVER PAGE

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Client Sample Id:

2 University Place

Lab Sample Id:

24C1627-01

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the project narrative. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the

Signature:



Name:

Cassie L. Mosher

Date:

12/9/2024

Title:

Laboratory Manager

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	9.25	92.5	70 - 130
1,1,1-Trichloroethane	10.0	10.6	106	70 - 130
1,1,2,2-Tetrachloroethane	10.0	8.97	89.7	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11.1	111	70 - 130
1,1,2-Trichloroethane	10.0	8.48	84.8	70 - 130
1,1-Dichloroethane	10.0	10.6	106	70 - 130
1,1-Dichloroethylene	10.0	10.4	104	70 - 130
1,2,4-Trichlorobenzene	10.0	11.2	112	70 - 130
1,2,4-Trimethylbenzene	10.0	9.45	94.5	70 - 130
1,2-Dibromoethane	10.0	8.97	89.7	70 - 130
1,2-Dichlorobenzene	10.0	10.1	101	70 - 130
1,2-Dichloroethane	10.0	10.2	102	70 - 130
1,2-Dichloropropane	10.0	7.90	79.0	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	9.94	99.4	70 - 130
1,3,5-Trimethylbenzene	10.0	9.63	96.3	70 - 130
1,3-Butadiene	10.0	9.39	93.9	70 - 130
1,3-Dichlorobenzene	10.0	9.82	98.2	70 - 130
1,3-Dichloropropane	10.0	8.76	87.6	70 - 130
1,4-Dichlorobenzene	10.0	9.87	98.7	70 - 130
1,4-Dioxane	10.0	9.47	94.7	70 - 130
2-Butanone	10.0	8.20	82.0	70 - 130
2-Hexanone	10.0	7.10	71.0	70 - 130
3-Chloropropene	10.0	8.41	84.1	70 - 130
4-Methyl-2-pentanone	10.0	7.31	73.1	70 - 130
Acetone	10.0	8.69	86.9	70 - 130
Acrylonitrile	10.0	7.51	75.1	70 - 130
Benzene	10.0	10.1	101	70 - 130
Benzyl chloride	10.0	10.6	106	70 - 130
Bromodichloromethane	10.0	8.64	86.4	70 - 130
Bromoform	10.0	10.7	107	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	10.8	108	70 - 130
Carbon disulfide	10.0	11.3	113	70 - 130
Carbon tetrachloride	10.0	11.4	114	70 - 130
Chlorobenzene	10.0	9.17	91.7	70 - 130
Chloroethane	10.0	10.3	103	70 - 130
Chloroform	10.0	10.7	107	70 - 130
Chloromethane	10.0	8.41	84.1	70 - 130
cis-1,2-Dichloroethylene	10.0	10.2	102	70 - 130
cis-1,3-Dichloropropylene	10.0	8.50	85.0	70 - 130
Cyclohexane	10.0	9.73	97.3	70 - 130
Dibromochloromethane	10.0	9.65	96.5	70 - 130
Dichlorodifluoromethane	10.0	11.0	110	70 - 130
Ethyl acetate	10.0	8.75	87.5	70 - 130
Ethyl Benzene	10.0	8.82	88.2	70 - 130
Hexachlorobutadiene	10.0	10.2	102	70 - 130
Isopropanol	10.0	9.71	97.1	70 - 130
Methyl Methacrylate	10.0	8.48	84.8	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	10.6	106	70 - 130
Methylene chloride	10.0	8.93	89.3	70 - 130
Naphthalene	10.0	10.8	108	70 - 130
n-Heptane	10.0	8.35	83.5	70 - 130
n-Hexane	10.0	9.77	97.7	70 - 130
o-Xylene	10.0	8.76	87.6	70 - 130
p- & m- Xylenes	20.0	17.4	86.8	70 - 130
p-Ethyltoluene	10.0	9.23	92.3	70 - 130
Propylene	10.0	8.80	88.0	70 - 130
Styrene	10.0	9.20	92.0	70 - 130
Tetrachloroethylene	10.0	9.09	90.9	70 - 130
Tetrahydrofuran	10.0	8.59	85.9	70 - 130
Toluene	10.0	8.35	83.5	70 - 130

FORM III**LCS / LCS DUPLICATE RECOVERY****EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,2-Dichloroethylene	10.0	10.2	102	70 - 130
trans-1,3-Dichloropropylene	10.0	8.52	85.2	70 - 130
Trichloroethylene	10.0	8.49	84.9	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	10.9	109	70 - 130
Vinyl acetate	10.0	9.00	90.0	70 - 130
Vinyl bromide	10.0	10.8	108	70 - 130
Vinyl Chloride	10.0	9.47	94.7	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Matrix: Air

Batch: BD40409

Laboratory ID: BD40409-BS1

Preparation: EPA TO15 PREP

Initial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
2,2,4-Trimethylpentane	10.0	9.32	93.2	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM IV

PREPARATION BATCH SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Batch: BD40407Batch Matrix: AirPreparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
2 University Place	24C1627-01	TV023812.D	04/03/24 12:00	
Blank	BD40407-BLK1	TV023799.D	04/03/24 12:00	
LCS	BD40407-BS1	TV023797.D	04/03/24 12:00	

FORM IV

PREPARATION BATCH SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Batch: BD40409Batch Matrix: AirPreparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
2 University Place	24C1627-01	TV023812A.D	04/03/24 12:00	From BD40407 by YR on 04/04/2024
Blank	BD40409-BLK1	TV023800.D	04/03/24 12:00	
LCS	BD40409-BS1	TV023798.D	04/03/24 12:00	

FORM I**METHOD BLANK DATA SHEET****EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1627
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15 AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.099	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1627
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.099	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
91-20-3	Naphthalene	1.0	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.68	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - StratfordSDG:24C1627

Client:Walden AssociatesProject:IMPL 0115.6 Imperial Cleaners

Matrix:AirLaboratory ID:BD40407-BLK1File ID:TV023799.D

Prepared:04/03/24 12:00Preparation:EPA TO15 PREPInitial/Final:400 mL / 400 mL

Analyzed:04/03/24 16:01Instrument:TO15_AIR3

Batch:BD40407Sequence:S4D0428Calibration:SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
156-60-5	trans-1,2-Dichloroethylene	0.40	U
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.13	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	307883	12.176	312285	12.179	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - Stratford

SDG:24C1627

Client:Walden Associates

Project:IMPL 0115.6 Imperial Cleaners

Matrix:Air

Laboratory ID:BD40409-BLK1

File ID:TV023800.D

Prepared:04/03/24 12:00

Preparation:EPA TO15 PREP

Initial/Final:400 mL / 400 mL

Analyzed:04/03/24 16:42

Instrument:TO15 AIR3

Batch:BD40409

Sequence:S4D0429

Calibration:SE40002

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
540-84-1	2,2,4-Trimethylpentane	0.234	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	289517	12.176	320251	12.176	

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1627

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023215.D

Injection Date:

02/20/24

Instrument ID:

TO15_AIR3

Injection Time:

18:46

Sequence:

S4C0663

Lab Sample ID:

S4C0663-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	15.1	PASS
75	30 - 66% of 95	41.9	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.59	PASS
173	Less than 2% of 174	0.444	PASS
174	50 - 120% of 95	77.2	PASS
175	4 - 9% of 174	6.82	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.62	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1627

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023794.D

Injection Date:

04/03/24

Instrument ID:

TO15_AIR3

Injection Time:

12:36

Sequence:

S4D0428

Lab Sample ID:

S4D0428-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13	PASS
75	30 - 66% of 95	42.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.59	PASS
173	Less than 2% of 174	0.516	PASS
174	50 - 120% of 95	79	PASS
175	4 - 9% of 174	6.92	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.37	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1627

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023794A.D

Injection Date:

04/03/24

Instrument ID:

TO15_AIR3

Injection Time:

12:36

Sequence:

S4D0429

Lab Sample ID:

S4D0429-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13	PASS
75	30 - 66% of 95	42.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.6	PASS
173	Less than 2% of 174	0.516	PASS
174	50 - 120% of 95	79	PASS
175	4 - 9% of 174	6.92	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.37	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1627

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023714.D

Injection Date:

03/29/24

Instrument ID:

TO15_AIR3

Injection Time:

20:48

Sequence:

S4E0224

Lab Sample ID:

S4E0224-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13.6	PASS
75	30 - 66% of 95	39.8	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.72	PASS
173	Less than 2% of 174	0.471	PASS
174	50 - 120% of 95	77.6	PASS
175	4 - 9% of 174	6.86	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.45	PASS

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY**
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4C0663Instrument: TO15 AIR3Calibration: SC40018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4C0663-TUN1	TV023215.D	02/20/24 18:46
Cal Standard	S4C0663-CAL1	TV023217.D	02/20/24 20:07
Cal Standard	S4C0663-CAL2	TV023218.D	02/20/24 20:48
Cal Standard	S4C0663-CAL3	TV023219.D	02/20/24 21:30
Cal Standard	S4C0663-CAL4	TV023220.D	02/20/24 22:11
Cal Standard	S4C0663-CAL5	TV023221.D	02/20/24 22:52
Cal Standard	S4C0663-CAL6	TV023222.D	02/20/24 23:33
Cal Standard	S4C0663-CAL7	TV023223.D	02/21/24 00:14
Cal Standard	S4C0663-CAL8	TV023224.D	02/21/24 00:55
Cal Standard	S4C0663-CAL9	TV023225.D	02/21/24 01:36
Cal Standard	S4C0663-CALA	TV023226.D	02/21/24 02:19
Secondary Cal Check	S4C0663-SCV1	TV023228.D	02/21/24 03:42

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sequence: S4D0428

Instrument: TO15 AIR3

Calibration: SC40018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4D0428-TUN1	TV023794.D	04/03/24 12:36
Calibration Check	S4D0428-CCV1	TV023795.D	04/03/24 13:16
LCS	BD40407-BS1	TV023797.D	04/03/24 14:38
Blank	BD40407-BLK1	TV023799.D	04/03/24 16:01
2 University Place	24C1627-01	TV023812.D	04/04/24 01:01

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sequence: S4D0429

Instrument: TO15 AIR3

Calibration: SE40002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4D0429-TUN1	TV023794A.D	04/03/24 12:36
Calibration Check	S4D0429-CCV1	TV023796.D	04/03/24 13:57
LCS	BD40409-BS1	TV023798.D	04/03/24 15:20
Blank	BD40409-BLK1	TV023800.D	04/03/24 16:42
2 University Place	24C1627-01	TV023812A.D	04/04/24 01:01

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4E0224Instrument: TO15 AIR3Calibration: SE40002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4E0224-TUN1	TV023714.D	03/29/24 20:48
Cal Standard	S4E0224-CAL1	TV023716.D	03/29/24 22:10
Cal Standard	S4E0224-CAL2	TV023717.D	03/29/24 22:52
Cal Standard	S4E0224-CAL3	TV023718.D	03/29/24 23:33
Cal Standard	S4E0224-CAL4	TV023719.D	03/30/24 00:14
Cal Standard	S4E0224-CAL5	TV023720.D	03/30/24 00:55
Cal Standard	S4E0224-CAL6	TV023721.D	03/30/24 01:36
Cal Standard	S4E0224-CAL7	TV023722.D	03/30/24 02:18
Cal Standard	S4E0224-CAL8	TV023723.D	03/30/24 02:59
Cal Standard	S4E0224-CAL9	TV023724.D	03/30/24 03:40
Cal Standard	S4E0224-CALA	TV023725.D	03/30/24 04:24
Secondary Cal Check	S4E0224-SCV1	TV023727.D	03/30/24 05:47

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4C0663Instrument: TO15 AIR3Calibration: SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4C0663-CAL1)		Lab File ID: TV023217.D			Analyzed: 02/20/24 20:07				
Bromochloromethane	461364	12.178	475710	12.182	97	60 - 140	-0.0040	+/-0.33	
ISTD: 1,4-Difluorobenzene	1496625	13.764	1550178	13.767	97	60 - 140	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1299804	19.049	1348469	19.052	96	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4C0663-CAL2)		Lab File ID: TV023218.D			Analyzed: 02/20/24 20:48				
Bromochloromethane	462739	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1495686	13.767	1550178	13.767	96	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1297065	19.052	1348469	19.052	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL3)		Lab File ID: TV023219.D			Analyzed: 02/20/24 21:30				
Bromochloromethane	463760	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1506317	13.767	1550178	13.767	97	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1310418	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL4)		Lab File ID: TV023220.D			Analyzed: 02/20/24 22:11				
Bromochloromethane	463700	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1500478	13.767	1550178	13.767	97	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1308782	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL5)		Lab File ID: TV023221.D			Analyzed: 02/20/24 22:52				
Bromochloromethane	465700	12.182	475710	12.182	98	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1508330	13.764	1550178	13.767	97	60 - 140	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1305948	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL6)		Lab File ID: TV023222.D			Analyzed: 02/20/24 23:33				
Bromochloromethane	471381	12.182	475710	12.182	99	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1517892	13.767	1550178	13.767	98	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1315531	19.052	1348469	19.052	98	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL7)		Lab File ID: TV023223.D			Analyzed: 02/21/24 00:14				
Bromochloromethane	475710	12.182	475710	12.182	100	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1550178	13.767	1550178	13.767	100	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1348469	19.052	1348469	19.052	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL8)		Lab File ID: TV023224.D			Analyzed: 02/21/24 00:55				
Bromochloromethane	488026	12.182	475710	12.182	103	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1610480	13.767	1550178	13.767	104	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1344917	19.056	1348469	19.052	100	60 - 140	0.0040	+/-0.33	
Cal Standard (S4C0663-CAL9)		Lab File ID: TV023225.D			Analyzed: 02/21/24 01:36				
Bromochloromethane	485089	12.185	475710	12.182	102	60 - 140	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1620917	13.767	1550178	13.767	105	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1302389	19.056	1348469	19.052	97	60 - 140	0.0040	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sequence: S4C0663

Instrument: TO15 AIR3

Calibration: SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4C0663-CALA)			Lab File ID: TV023226.D			Analyzed: 02/21/24 02:19			
Bromochloromethane	485646	12.185	475710	12.182	102	60 - 140	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1631804	13.77	1550178	13.767	105	60 - 140	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1148224	19.062	1348469	19.052	85	60 - 140	0.0100	+/-0.33	
Secondary Cal Check (S4C0663-SCV1)			Lab File ID: TV023228.D			Analyzed: 02/21/24 03:42			
Bromochloromethane	486880	12.182	475710	12.182	102	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1622626	13.767	1550178	13.767	105	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1402699	19.052	1348469	19.052	104	60 - 140	0.0000	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4D0428Instrument: TO15 AIR3Calibration: SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S4D0428-CCV1)			Lab File ID: TV023795.D			Analyzed: 04/03/24 13:16			
Bromochloromethane	312285	12.179				60 - 140		+/-0.33	
ISTD: 1,4-Difluorobenzene	1390664	13.765				60 - 140		+/-0.33	
ISTD: d5-Chlorobenzene	1113630	19.05				60 - 140		+/-0.33	
LCS (BD40407-BS1)			Lab File ID: TV023797.D			Analyzed: 04/03/24 14:38			
Bromochloromethane	327568	12.176	312285	12.179	105	60 - 140	-0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1322339	13.765	1390664	13.765	95	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1085556	19.05	1113630	19.05	97	60 - 140	0.0000	+/-0.33	
Blank (BD40407-BLK1)			Lab File ID: TV023799.D			Analyzed: 04/03/24 16:01			
Bromochloromethane	307883	12.176	312285	12.179	99	60 - 140	-0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	79	60 - 140	-0.0040	+/-0.33	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	79	60 - 140	0.0000	+/-0.33	
2 University Place (24C1627-01)			Lab File ID: TV023812.D			Analyzed: 04/04/24 01:01			
Bromochloromethane	317177	12.179	312285	12.179	102	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1216057	13.765	1390664	13.765	87	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1018226	19.047	1113630	19.05	91	60 - 140	-0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4D0429Instrument: TO15 AIR3Calibration: SE40002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S4D0429-CCV1)			Lab File ID: TV023796.D			Analyzed: 04/03/24 13:57			
Bromochloromethane	320251	12.176				60 - 140		+/-0.33	
LCS (BD40409-BS1)			Lab File ID: TV023798.D			Analyzed: 04/03/24 15:20			
Bromochloromethane	327367	12.176	320251	12.176	102	60 - 140	0.0000	+/-0.33	
Blank (BD40409-BLK1)			Lab File ID: TV023800.D			Analyzed: 04/03/24 16:42			
Bromochloromethane	289517	12.176	320251	12.176	90	60 - 140	0.0000	+/-0.33	
2 University Place (24C1627-01)			Lab File ID: TV023812A.D			Analyzed: 04/04/24 01:01			
Bromochloromethane	317183	12.179	320251	12.176	99	60 - 140	0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4E0224Instrument: TO15 AIR3Calibration: SE40002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4E0224-CAL1)			Lab File ID: TV023716.D			Analyzed: 03/29/24 22:10			
Bromochloromethane	285616	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL2)			Lab File ID: TV023717.D			Analyzed: 03/29/24 22:52			
Bromochloromethane	283172	12.179	294857	12.179	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL3)			Lab File ID: TV023718.D			Analyzed: 03/29/24 23:33			
Bromochloromethane	282087	12.179	294857	12.179	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL4)			Lab File ID: TV023719.D			Analyzed: 03/30/24 00:14			
Bromochloromethane	285396	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL5)			Lab File ID: TV023720.D			Analyzed: 03/30/24 00:55			
Bromochloromethane	286081	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL6)			Lab File ID: TV023721.D			Analyzed: 03/30/24 01:36			
Bromochloromethane	293952	12.179	294857	12.179	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL7)			Lab File ID: TV023722.D			Analyzed: 03/30/24 02:18			
Bromochloromethane	294857	12.179	294857	12.179	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL8)			Lab File ID: TV023723.D			Analyzed: 03/30/24 02:59			
Bromochloromethane	308350	12.179	294857	12.179	105	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL9)			Lab File ID: TV023724.D			Analyzed: 03/30/24 03:40			
Bromochloromethane	311846	12.179	294857	12.179	106	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CALA)			Lab File ID: TV023725.D			Analyzed: 03/30/24 04:24			
Bromochloromethane	326416	12.179	294857	12.179	111	60 - 140	0.0000	+/-0.33	
Secondary Cal Check (S4E0224-SCV1)			Lab File ID: TV023727.D			Analyzed: 03/30/24 05:47			
Bromochloromethane	318034	12.179	294857	12.179	108	60 - 140	0.0000	+/-0.33	

HOLDING TIME SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
2 University Place	03/22/24 10:01	03/25/24 12:22	04/03/24 12:00	12.08	30.00	04/04/24 01:01	12.63	30.00	
2 University Place	03/22/24 10:01	03/25/24 12:22	04/03/24 12:00	12.08	30.00	04/04/24 01:01	12.63	30.00	

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Matrix: Air

Instrument: TO15_AIR3

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.7	0.7	ug/m ³
1,1,1-Trichloroethane	0.55	0.55	ug/m ³
1,1,2,2-Tetrachloroethane	0.7	0.7	ug/m ³
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.78	0.78	ug/m ³
1,1,2-Trichloroethane	0.55	0.55	ug/m ³
1,1-Dichloroethane	0.41	0.41	ug/m ³
1,1-Dichloroethylene	0.1	0.1	ug/m ³
1,2,4-Trichlorobenzene	0.75	0.75	ug/m ³
1,2,4-Trimethylbenzene	0.5	0.5	ug/m ³
1,2-Dibromoethane	0.78	0.78	ug/m ³
1,2-Dichlorobenzene	0.61	0.61	ug/m ³
1,2-Dichloroethane	0.41	0.41	ug/m ³
1,2-Dichloropropane	0.47	0.47	ug/m ³
1,2-Dichlorotetrafluoroethane	0.71	0.71	ug/m ³
1,3,5-Trimethylbenzene	0.5	0.5	ug/m ³
1,3-Butadiene	0.68	0.68	ug/m ³
1,3-Dichlorobenzene	0.61	0.61	ug/m ³
1,3-Dichloropropane	0.47	0.47	ug/m ³
1,4-Dichlorobenzene	0.61	0.61	ug/m ³
1,4-Dioxane	0.73	0.73	ug/m ³
2,2,4-Trimethylpentane	0.12	0.24	ug/m ³
2-Butanone	0.3	0.3	ug/m ³
2-Hexanone	0.83	0.83	ug/m ³
3-Chloropropene	1.6	1.6	ug/m ³
4-Methyl-2-pentanone	0.42	0.42	ug/m ³
Acetone	0.48	1.9	ug/m ³
Acrylonitrile	0.22	2.9	ug/m ³
Benzene	0.32	0.32	ug/m ³
Benzyl chloride	0.53	0.53	ug/m ³
Bromodichloromethane	0.68	0.68	ug/m ³
Bromoform	1.1	1.1	ug/m ³
Bromomethane	0.39	0.39	ug/m ³
Carbon disulfide	0.32	0.32	ug/m ³
Carbon tetrachloride	0.16	0.16	ug/m ³
Chlorobenzene	0.47	0.47	ug/m ³
Chloroethane	0.27	0.27	ug/m ³

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Matrix: Air

Instrument: TO15 AIR3

Analyte	LOD	LOQ	Units
Chloroform	0.5	0.5	ug/m ³
Chloromethane	0.21	0.21	ug/m ³
cis-1,2-Dichloroethylene	0.1	0.1	ug/m ³
cis-1,3-Dichloropropylene	0.46	0.46	ug/m ³
Cyclohexane	0.35	0.35	ug/m ³
Dibromochloromethane	0.87	0.87	ug/m ³
Dichlorodifluoromethane	0.5	0.5	ug/m ³
Ethyl acetate	0.73	0.73	ug/m ³
Ethyl Benzene	0.44	0.44	ug/m ³
Hexachlorobutadiene	1.1	1.1	ug/m ³
Isopropanol	0.5	1.5	ug/m ³
Methyl Methacrylate	0.42	0.42	ug/m ³
Methyl tert-butyl ether (MTBE)	0.37	0.37	ug/m ³
Methylene chloride	0.71	2.1	ug/m ³
Naphthalene	1.1	1.1	ug/m ³
n-Heptane	0.42	0.42	ug/m ³
n-Hexane	0.36	0.36	ug/m ³
o-Xylene	0.44	0.44	ug/m ³
p- & m- Xylenes	0.88	0.88	ug/m ³
p-Ethyltoluene	0.5	0.5	ug/m ³
Propylene	0.18	0.18	ug/m ³
Styrene	0.43	0.43	ug/m ³
Tetrachloroethylene	0.69	0.69	ug/m ³
Tetrahydrofuran	0.6	0.6	ug/m ³
Toluene	0.38	0.38	ug/m ³
trans-1,2-Dichloroethylene	0.4	0.4	ug/m ³
trans-1,3-Dichloropropylene	0.46	0.46	ug/m ³
Trichloroethylene	0.14	0.14	ug/m ³
Trichlorofluoromethane (Freon 11)	0.57	0.57	ug/m ³
Vinyl acetate	0.36	0.36	ug/m ³
Vinyl bromide	0.44	0.44	ug/m ³
Vinyl Chloride	0.13	0.13	ug/m ³

AIR Sample Data

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: Indoor Ambient AirLaboratory ID: 24C1627-01File ID: TV023812.DSampled: 03/22/24 10:01Prepared: 04/03/24 12:00Analyzed: 04/04/24 01:01Solids: EPA TO15 PREPInitial/Final: 400 mL / 400 mLBatch: BD40407Sequence: S4D0428Calibration: SC40018Instrument: TO15 AIR3

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.842	0.58	U
540-84-1	2,2,4-Trimethylpentane	0.842	1.06	D
71-55-6	1,1,1-Trichloroethane	0.842	0.46	U
79-34-5	1,1,2,2-Tetrachloroethane	0.842	0.58	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.842	0.65	U
79-00-5	1,1,2-Trichloroethane	0.842	0.46	U
75-34-3	1,1-Dichloroethane	0.842	0.34	U
75-35-4	1,1-Dichloroethylene	0.842	0.083	U
120-82-1	1,2,4-Trichlorobenzene	0.842	0.62	U
95-63-6	1,2,4-Trimethylbenzene	0.842	0.41	U
106-93-4	1,2-Dibromoethane	0.842	0.65	U
95-50-1	1,2-Dichlorobenzene	0.842	0.51	U
107-06-2	1,2-Dichloroethane	0.842	0.34	U
78-87-5	1,2-Dichloropropane	0.842	0.39	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.842	0.59	U
108-67-8	1,3,5-Trimethylbenzene	0.842	0.41	U
106-99-0	1,3-Butadiene	0.842	0.56	U
541-73-1	1,3-Dichlorobenzene	0.842	0.51	U
142-28-9	1,3-Dichloropropane	0.842	0.39	U
106-46-7	1,4-Dichlorobenzene	0.842	0.51	U
123-91-1	1,4-Dioxane	0.842	0.61	U
78-93-3	2-Butanone	0.842	0.87	D
591-78-6	2-Hexanone	0.842	0.76	D
107-05-1	3-Chloropropene	0.842	1.3	U
108-10-1	4-Methyl-2-pentanone	0.842	0.34	U
67-64-1	Acetone	0.842	4.8	D
107-13-1	Acrylonitrile	0.842	3.3	D
71-43-2	Benzene	0.842	0.81	D
100-44-7	Benzyl chloride	0.842	0.44	U
75-27-4	Bromodichloromethane	0.842	0.56	U
75-25-2	Bromoform	0.842	0.87	U
74-83-9	Bromomethane	0.842	0.33	U
75-15-0	Carbon disulfide	0.842	0.26	U
56-23-5	Carbon tetrachloride	0.842	0.48	D
108-90-7	Chlorobenzene	0.842	0.39	U
75-00-3	Chloroethane	0.842	0.22	U
67-66-3	Chloroform	0.842	0.41	U
74-87-3	Chloromethane	0.842	1.0	D
156-59-2	cis-1,2-Dichloroethylene	0.842	0.083	U
10061-01-5	cis-1,3-Dichloropropylene	0.842	0.38	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

2 University Place

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: Indoor Ambient AirLaboratory ID: 24C1627-01File ID: TV023812.DSampled: 03/22/24 10:01Prepared: 04/03/24 12:00Analyzed: 04/04/24 01:01Solids: Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mLBatch: BD40407Sequence: S4D0428Calibration: SC40018Instrument: TO15 AIR3

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
110-82-7	Cyclohexane	0.842	0.58	D
124-48-1	Dibromochloromethane	0.842	0.72	U
75-71-8	Dichlorodifluoromethane	0.842	2.4	D
141-78-6	Ethyl acetate	0.842	0.61	U
100-41-4	Ethyl Benzene	0.842	0.37	D
87-68-3	Hexachlorobutadiene	0.842	0.90	U
67-63-0	Isopropanol	0.842	0.83	D
80-62-6	Methyl Methacrylate	0.842	0.34	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.842	0.30	U
75-09-2	Methylene chloride	0.842	0.58	U
91-20-3	Naphthalene	0.842	0.88	U
142-82-5	n-Heptane	0.842	0.79	D
110-54-3	n-Hexane	0.842	1.8	D
95-47-6	o-Xylene	0.842	0.44	D
179601-23-1	p- & m- Xylenes	0.842	1.2	D
622-96-8	p-Ethyltoluene	0.842	0.41	U
115-07-1	Propylene	0.842	0.32	D
100-42-5	Styrene	0.842	0.36	U
127-18-4	Tetrachloroethylene	0.842	0.57	U
109-99-9	Tetrahydrofuran	0.842	0.50	U
108-88-3	Toluene	0.842	1.9	D
156-60-5	trans-1,2-Dichloroethylene	0.842	0.33	U
10061-02-6	trans-1,3-Dichloropropylene	0.842	0.38	U
79-01-6	Trichloroethylene	0.842	0.11	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.842	1.2	D
108-05-4	Vinyl acetate	0.842	0.30	U
593-60-2	Vinyl bromide	0.842	0.37	U
75-01-4	Vinyl Chloride	0.842	0.11	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	317177	12.179	312285	12.179	
Bromochloromethane	317183	12.179	320251	12.176	
ISTD: 1,4-Difluorobenzene	1216057	13.765	1390664	13.765	
ISTD: d5-Chlorobenzene	1018226	19.047	1113630	19.05	

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023812.D
 Acq On : 04 Apr 2024 01:01 am
 Operator : YR
 Sample : 24C1627-01
 Misc : QBT03040124A .533X/750ML
 ALS Vial : 1 Sample Multiplier: 0.842
 InstName : T015_AIR3

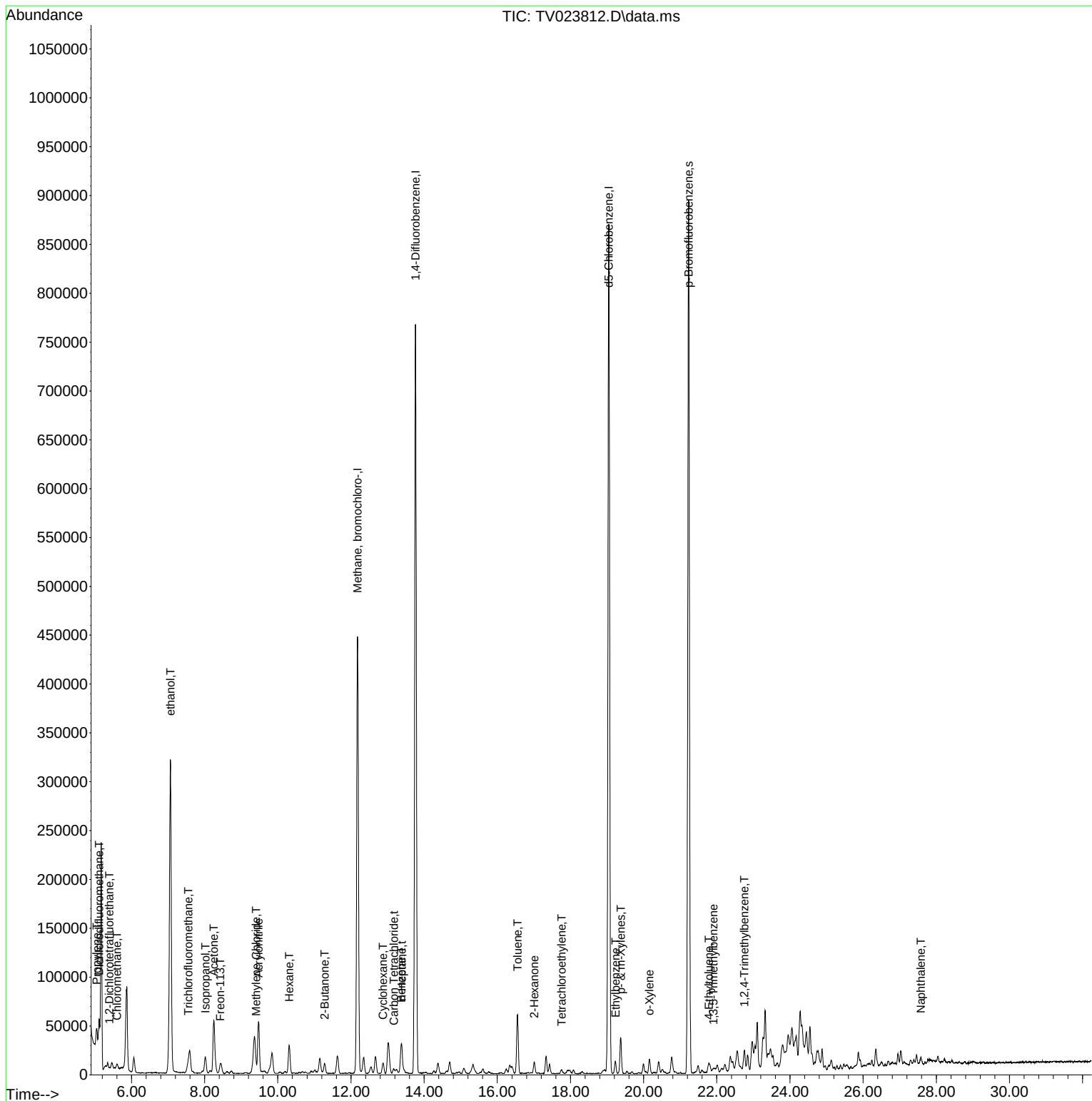
Quant Time: Apr 04 10:18:46 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

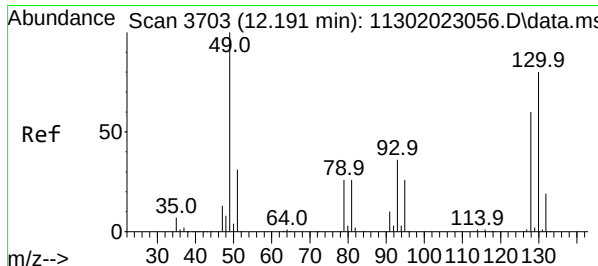
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.179	49	317177	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1216057	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.047	117	1018226	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.230	95	659362	9.08	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	90.80%
Target Compounds						
						Qvalue
2) Propylene	5.047	42	3852	0.22	ppbv	# 37
3) Dichlorodifluoromethane	5.116	85	40581	0.57	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.394	85	1140	0.02	ppbv	# 67
5) Chloromethane	5.603	50	7673	0.59	ppbv	# 86
10) ethanol	7.064	45	321534	29.55	ppbv	88
12) Trichlorofluoromethane	7.551	101	17307	0.26	ppbv	97
13) Isopropanol	8.018	45	37368	0.40	ppbv	100
15) Acetone	8.250	43	108326	2.41	ppbv	# 70
16) Freon-113	8.424	101	5280	0.09	ppbv	97
19) Methylene Chloride	9.408	49	5083	0.15	ppbv	# 1
20) Acrylonitrile	9.473	53	77619	1.78	ppbv	# 100
24) Hexane	10.310	57	27292	0.62	ppbv	95
27) 2-Butanone	11.280	43	22023	0.35	ppbv	92
33) Cyclohexane	12.872	56	9428	0.20	ppbv	91
34) Carbon Tetrachloride	13.170	117	5415	0.09	ppbv	99
36) Benzene	13.369	78	27847	0.30	ppbv	# 100
37) n-Heptane	13.389	43	12265	0.23	ppbv	# 92
46) Toluene	16.553	91	84328	0.60	ppbv	98
49) 2-Hexanone	17.007	43	15880	0.22	ppbv	99
51) Tetrachloroethylene	17.756	166	2019	0.03	ppbv	93
57) Ethylbenzene	19.230	91	18048	0.10	ppbv	91
58) p- & m-Xylenes	19.374	91	40850	0.33	ppbv	90
59) o-Xylene	20.158	91	15967	0.12	ppbv	96
66) 4-Ethyltoluene	21.776	105	15409	0.08	ppbv	# 87
67) 1,3,5-Trimethylbenzene	21.907	105	3511	0.02	ppbv	# 87
69) 1,2,4-Trimethylbenzene	22.750	105	12520	0.08	ppbv	# 89
79) Naphthalene	27.581	128	8067	0.03	ppbv	96

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023812.D
Acq On : 04 Apr 2024 01:01 am
Operator : YR
Sample : 24C1627-01
Misc : QBT03040124A .533X/750ML
ALS Vial : 1 Sample Multiplier: 0.842
InstName : T015_AIR3

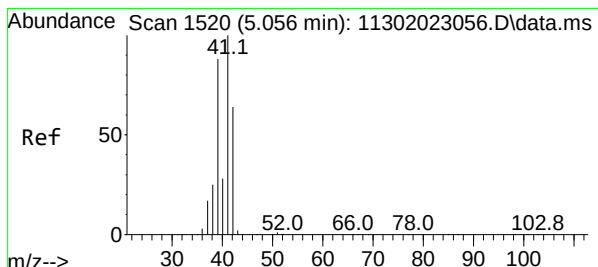
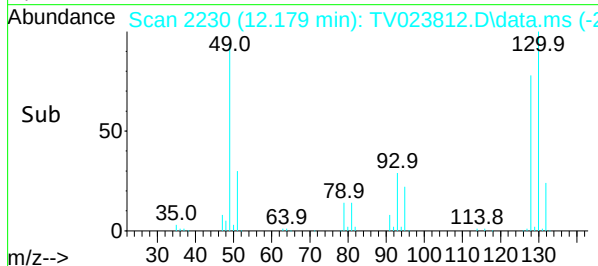
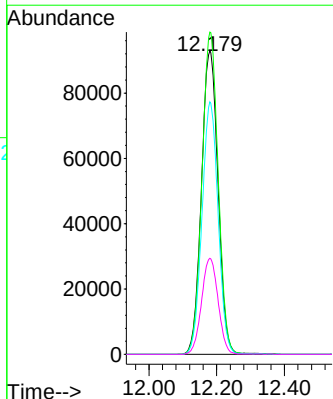
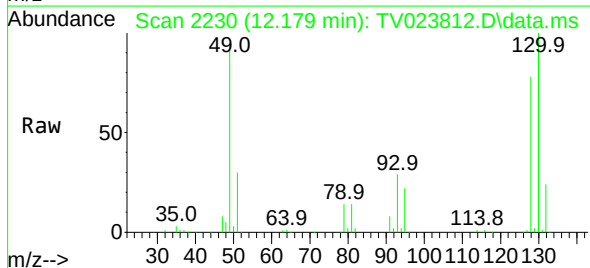
Quant Time: Apr 04 10:18:46 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration





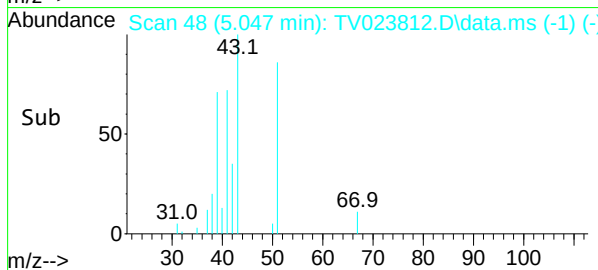
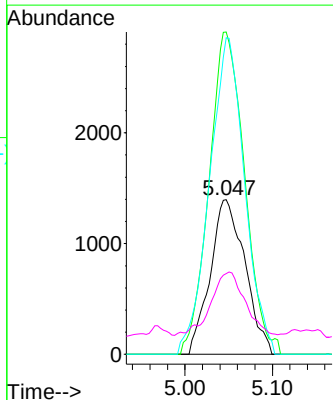
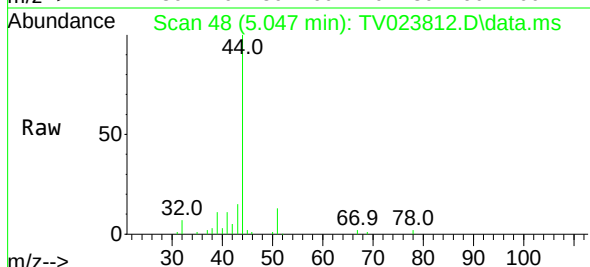
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.179 min Scan# 2230
Delta R.T. -0.003 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

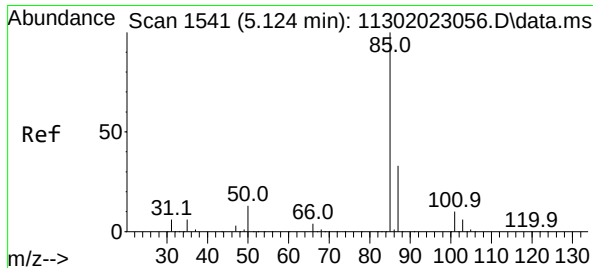
Tgt Ion:	49	Resp:	317177
Ion	Ratio	Lower	Upper
49	100		
130	103.9	44.5	92.3#
128	80.8	34.7	72.1#
51	31.6	21.5	44.6



#2
Propylene
Concen: 0.22 ppbv
RT: 5.047 min Scan# 48
Delta R.T. -0.006 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

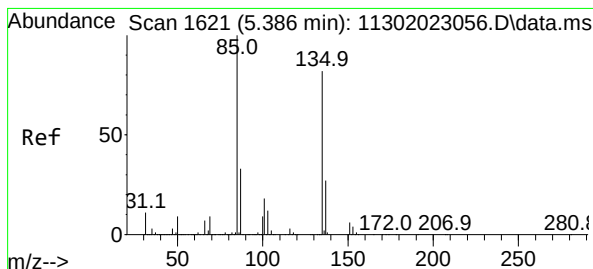
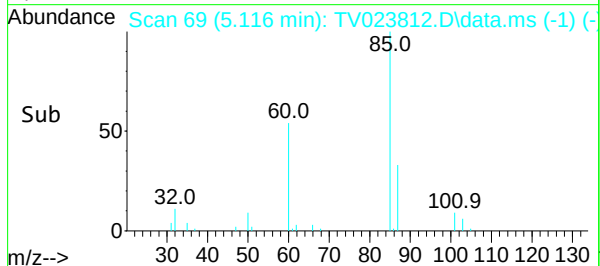
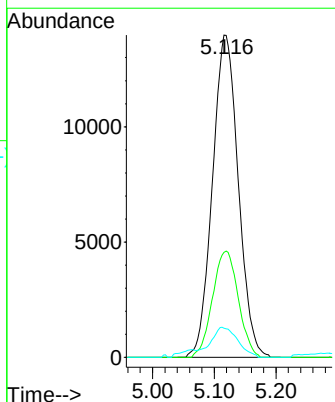
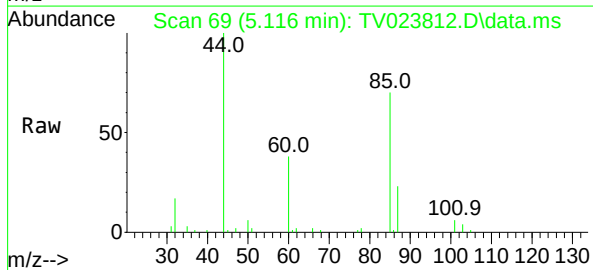
Tgt Ion:	42	Resp:	3852
Ion	Ratio	Lower	Upper
42	100		
41	212.9	88.9	207.5#
39	207.0	52.2	156.6#
40	37.8	18.4	55.4





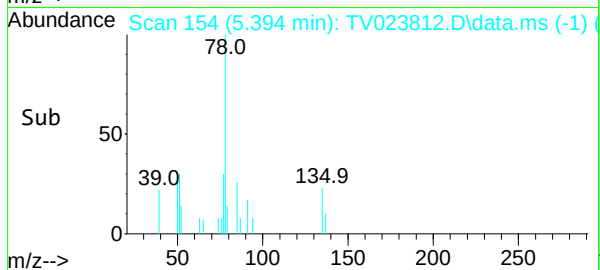
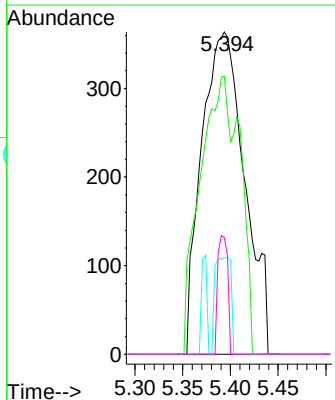
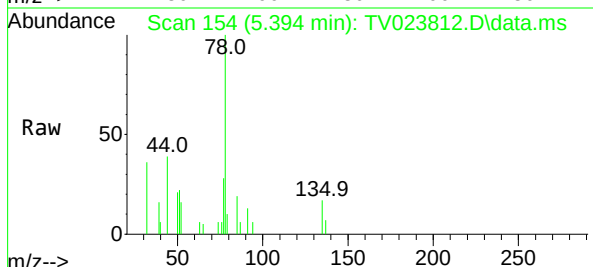
#3
 Dichlorodifluoromethane
 Concen: 0.57 ppbv
 RT: 5.116 min Scan# 69
 Delta R.T. -0.009 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

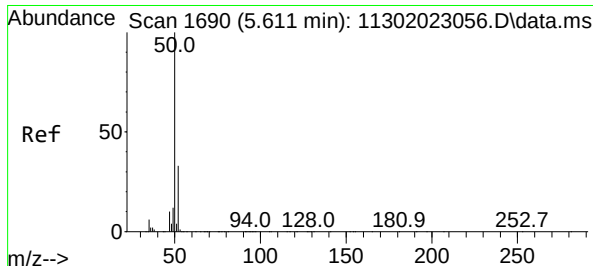
Tgt Ion:	85	Resp:	40581
Ion	Ratio	Lower	Upper
85	100		
87	33.0	21.0	43.6
50	11.4	6.8	14.2



#4
 1,2-Dichlorotetrafluoroethane
 Concen: 0.02 ppbv
 RT: 5.394 min Scan# 154
 Delta R.T. 0.008 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

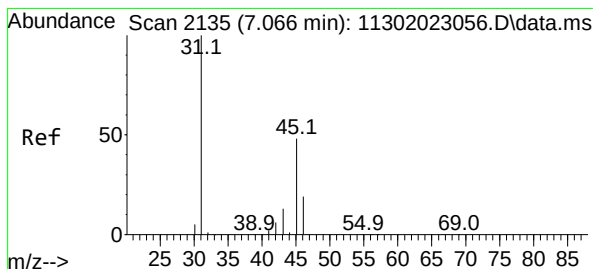
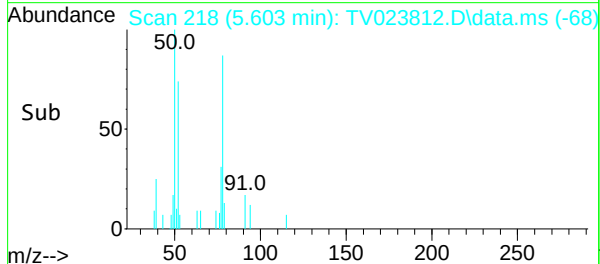
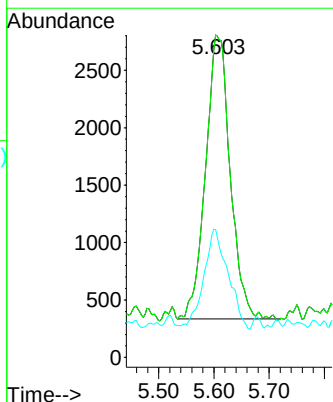
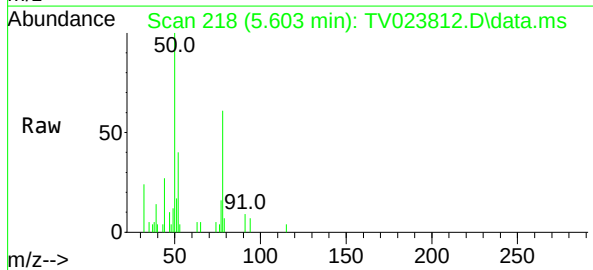
Tgt Ion:	85	Resp:	1140
Ion	Ratio	Lower	Upper
85	100		
135	80.4	43.7	90.7
87	0.0	20.9	43.3#
137	0.0	13.9	28.9#





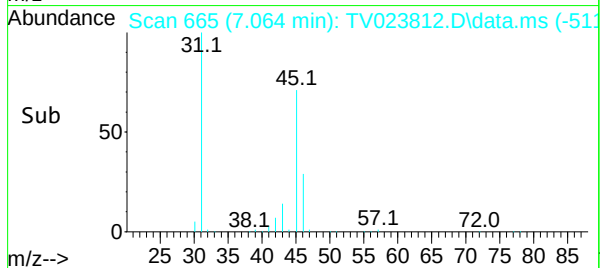
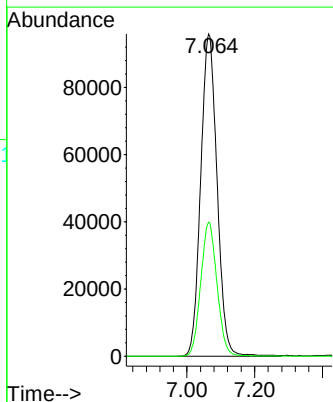
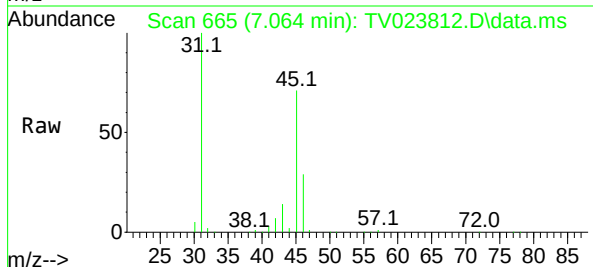
#5
Chloromethane
Concen: 0.59 ppbv
RT: 5.603 min Scan# 218
Delta R.T. -0.009 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

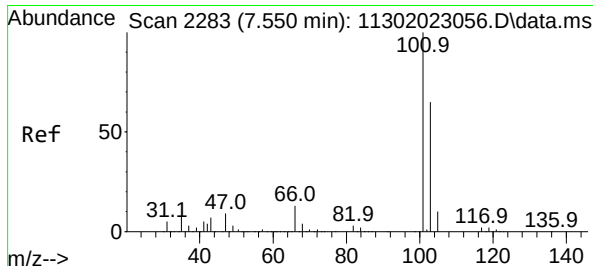
Tgt Ion	Ratio	Lower	Upper
50	100		
50	100.0	65.0	135.0
52	0.0	16.5	49.5



#10
ethanol
Concen: 29.55 ppbv
RT: 7.064 min Scan# 665
Delta R.T. 0.004 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

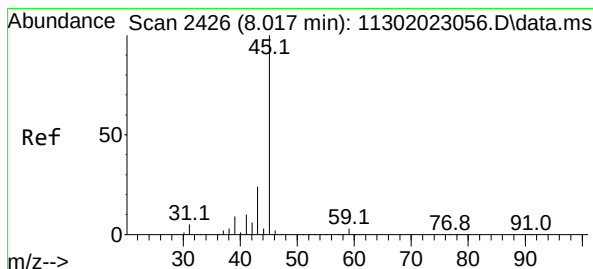
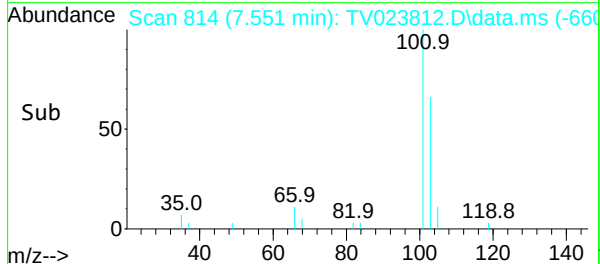
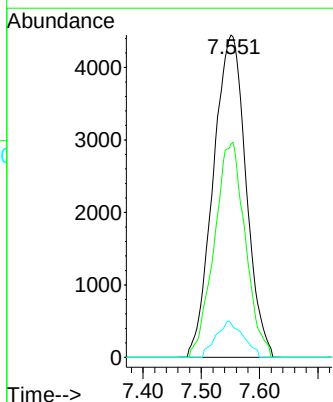
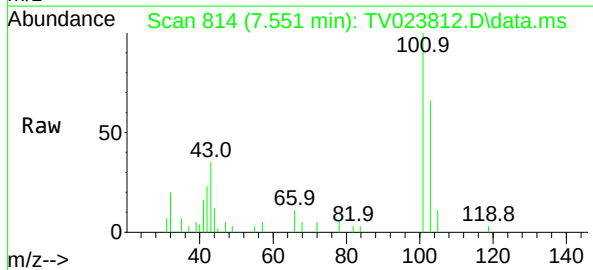
Tgt Ion	Ratio	Lower	Upper
45	100		
46	41.6	40.0	60.0





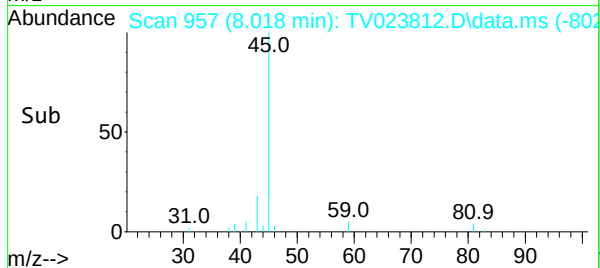
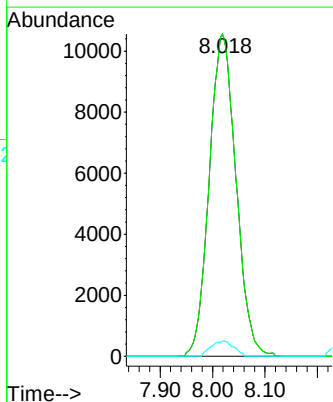
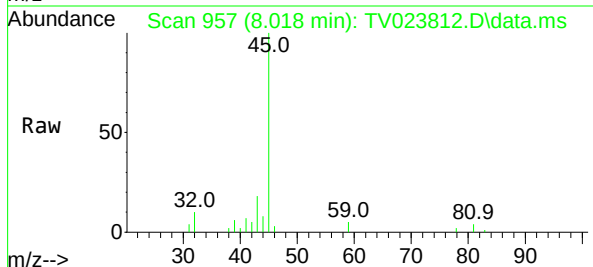
#12
Trichlorofluoromethane
Concen: 0.26 ppbv
RT: 7.551 min Scan# 814
Delta R.T. 0.004 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

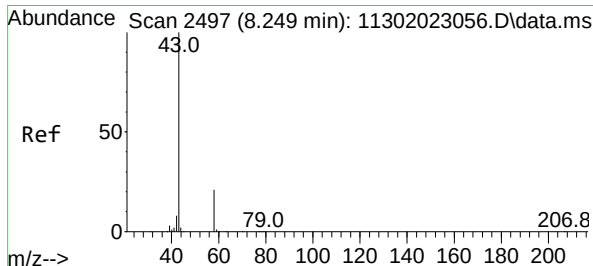
Tgt Ion	101	Resp	17307
Ion	Ratio	Lower	Upper
101	100		
103	63.2	42.4	88.0
66	9.4	7.9	16.5



#13
Isopropanol
Concen: 0.40 ppbv
RT: 8.018 min Scan# 957
Delta R.T. 0.007 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

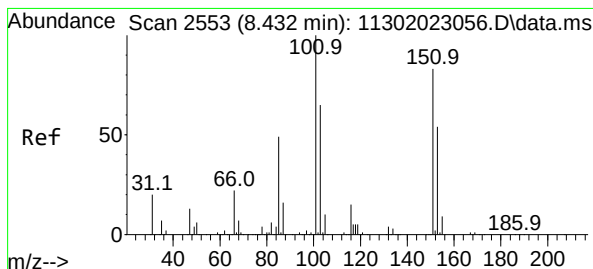
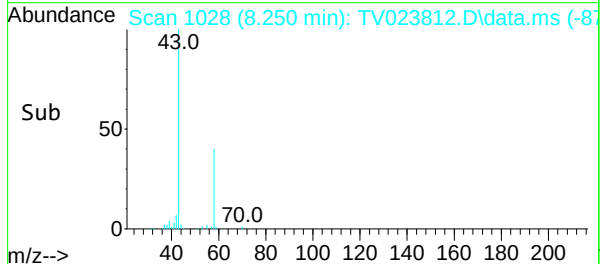
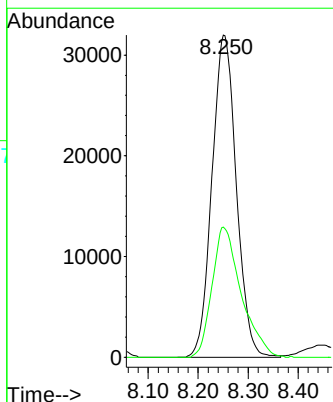
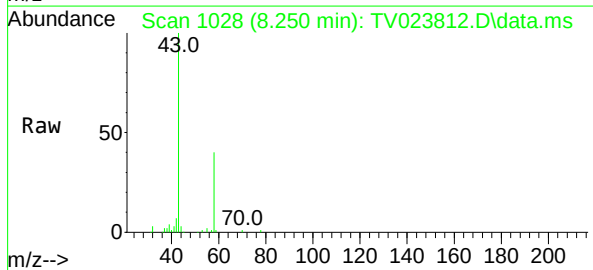
Tgt Ion	45	Resp	37368
Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.0	0.0	8.4





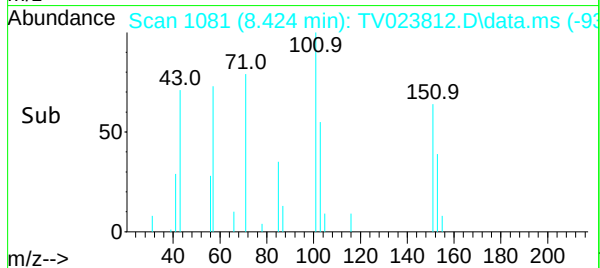
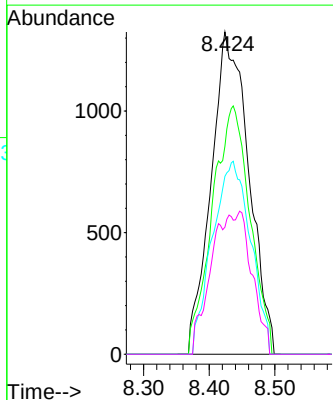
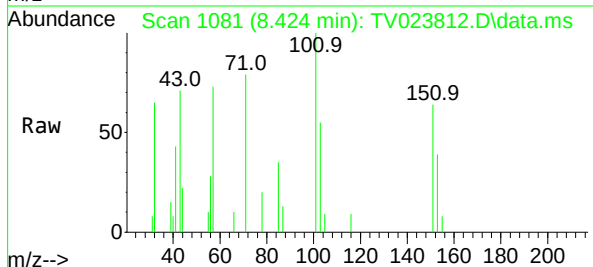
#15
Acetone
Concen: 2.41 ppbv
RT: 8.250 min Scan# 1028
Delta R.T. 0.004 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

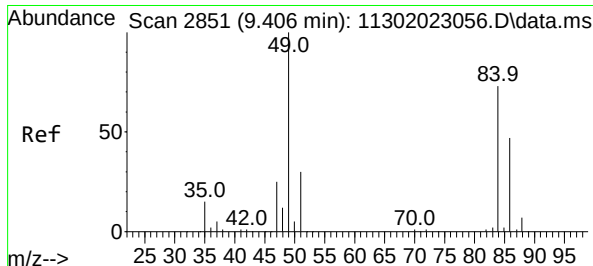
Tgt Ion: 43 Resp: 108326
Ion Ratio Lower Upper
43 100
58 48.5 20.7 42.9#



#16
Freon-113
Concen: 0.09 ppbv
RT: 8.424 min Scan# 1081
Delta R.T. -0.005 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

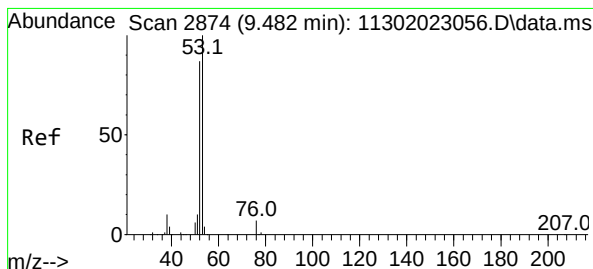
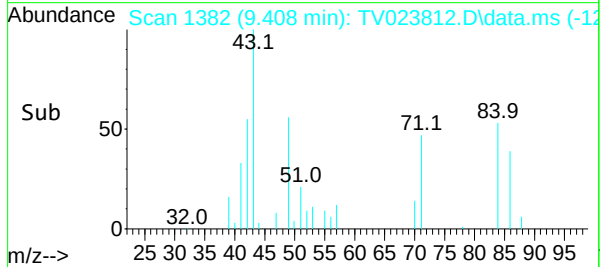
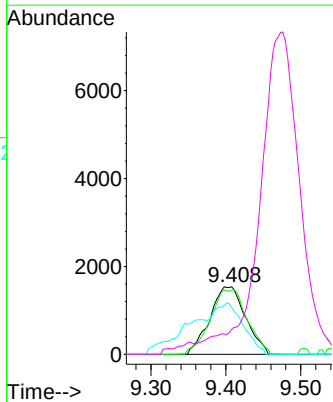
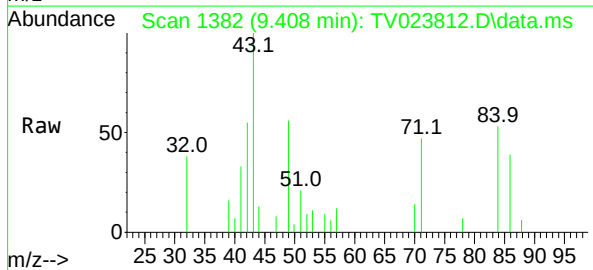
Tgt Ion:101 Resp: 5280
Ion Ratio Lower Upper
101 100
151 77.3 48.6 100.8
103 60.9 42.0 87.2
153 47.9 31.0 64.4





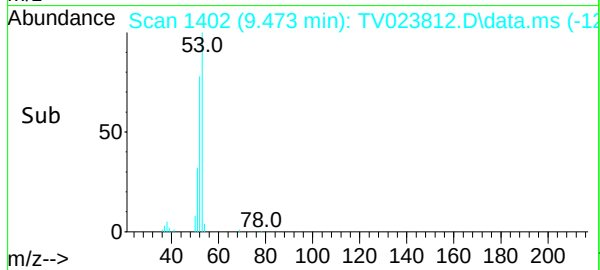
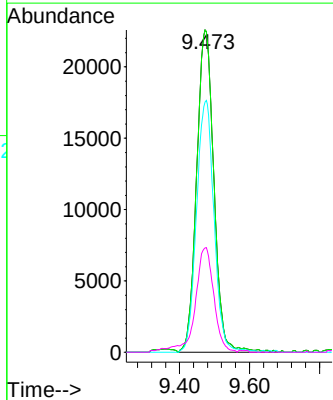
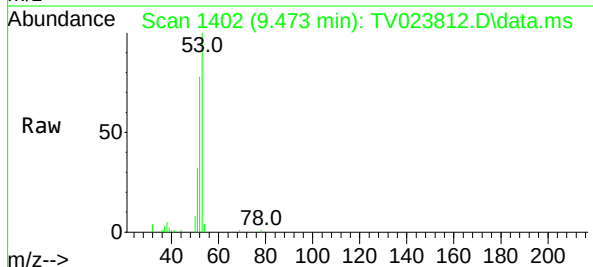
#19
Methylene Chloride
Concen: 0.15 ppbv
RT: 9.408 min Scan# 1382
Delta R.T. 0.005 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

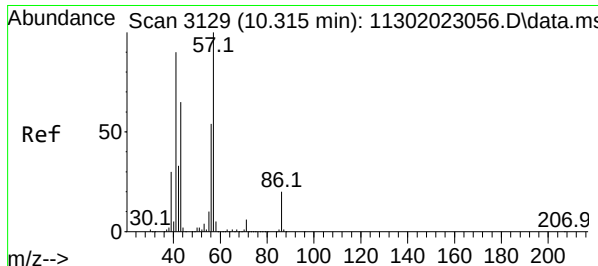
Tgt Ion:	49	Resp:	5083
Ion	Ratio	Lower	Upper
49	100		
84	99.5	50.1	104.0
86	112.8	32.2	66.8#
51	540.1	20.2	41.9#



#20
Acrylonitrile
Concen: 1.78 ppbv
RT: 9.473 min Scan# 1402
Delta R.T. 0.001 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

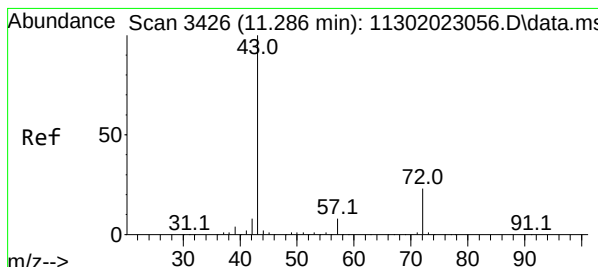
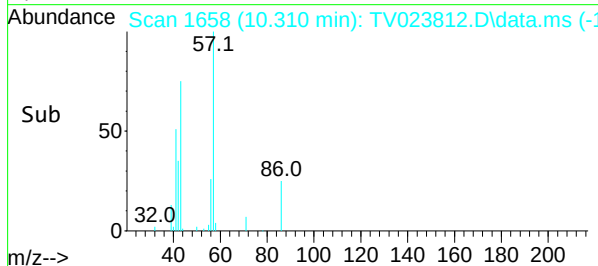
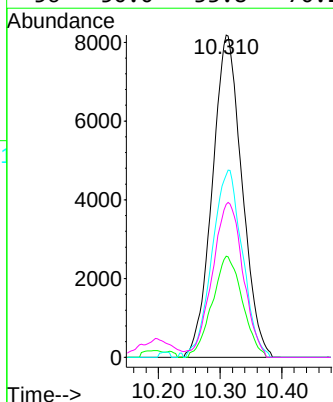
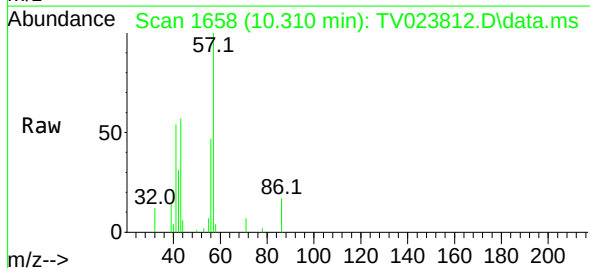
Tgt Ion:	53	Resp:	77619
Ion	Ratio	Lower	Upper
53	100		
53	100.0	80.0	120.0
52	0.0	0.0	0.0
51	0.0	0.0	0.0





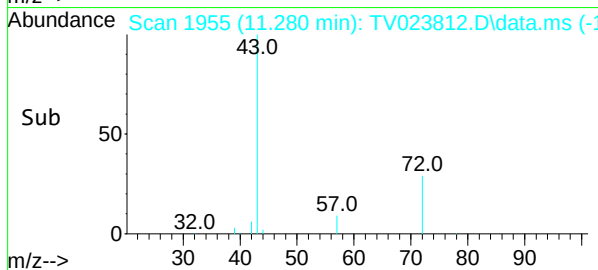
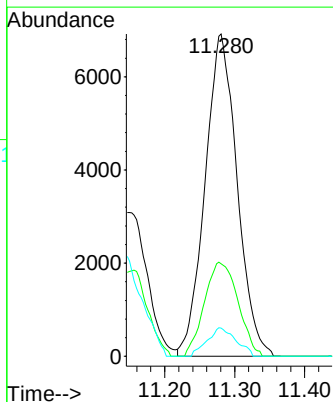
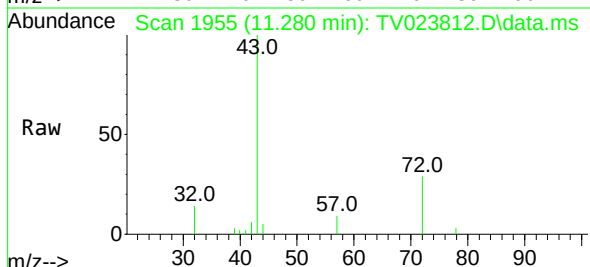
#24
Hexane
Concen: 0.62 ppbv
RT: 10.310 min Scan# 1658
Delta R.T. 0.001 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

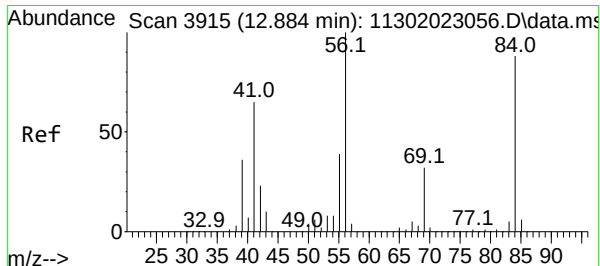
Tgt Ion:	57	Resp:	27292
Ion	Ratio	Lower	Upper
57	100		
42	32.0	22.2	46.0
43	59.3	42.9	89.1
56	50.0	33.8	70.2



#27
2-Butanone
Concen: 0.35 ppbv
RT: 11.280 min Scan# 1955
Delta R.T. 0.004 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

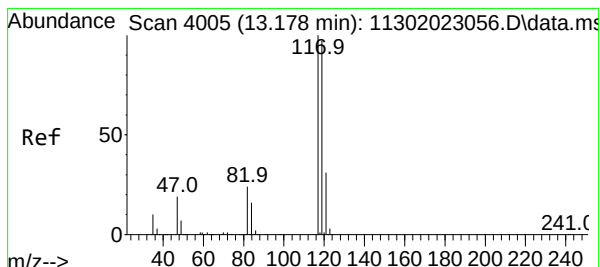
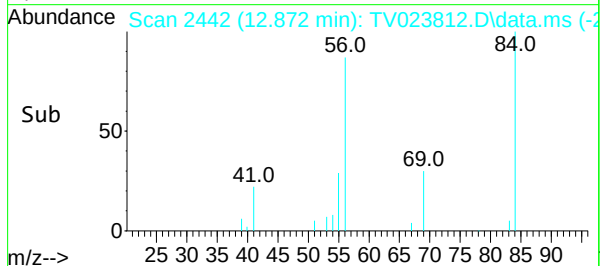
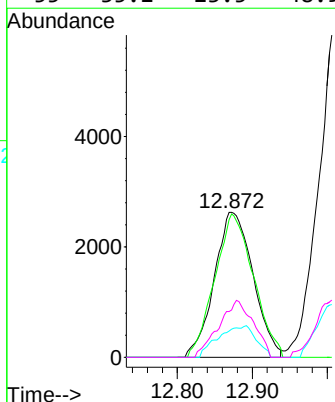
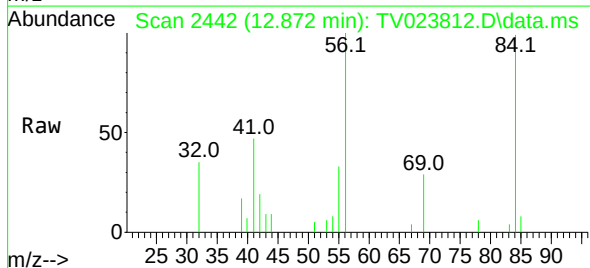
Tgt Ion:	43	Resp:	22023
Ion	Ratio	Lower	Upper
43	100		
72	30.6	16.4	34.2
57	8.0	5.0	10.4





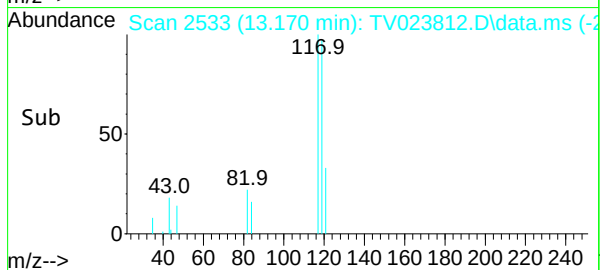
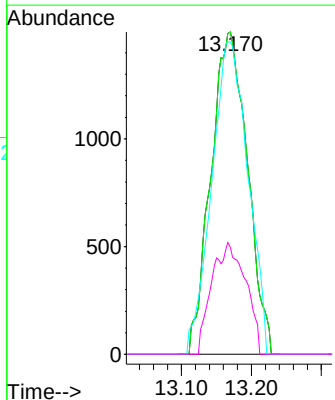
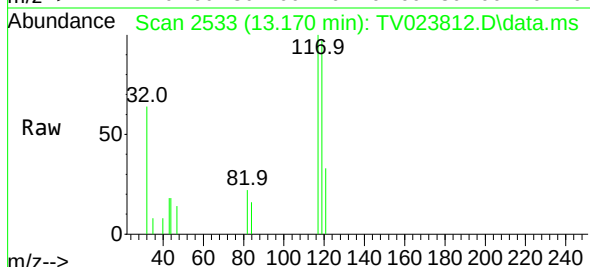
#33
Cyclohexane
Concen: 0.20 ppbv
RT: 12.872 min Scan# 2442
Delta R.T. -0.006 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

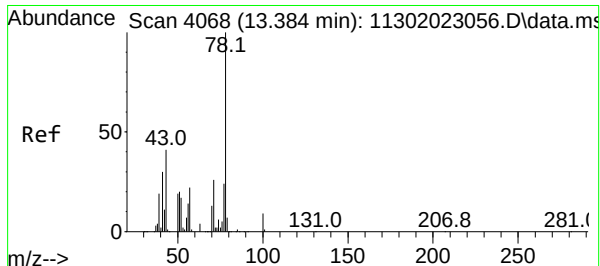
Tgt Ion:	56	Resp:	9428
Ion	Ratio	Lower	Upper
56	100		
84	98.8	56.4	117.0
42	21.2	15.3	31.7
55	35.2	23.5	48.9



#34
Carbon Tetrachloride
Concen: 0.09 ppbv
RT: 13.170 min Scan# 2533
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

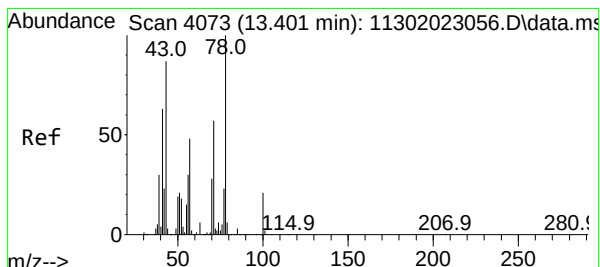
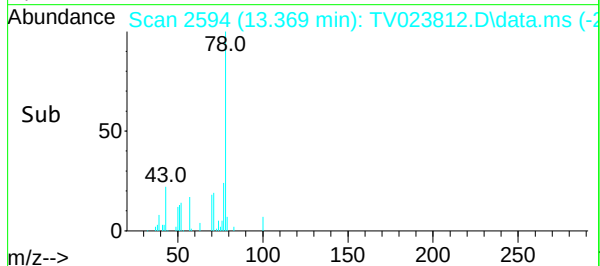
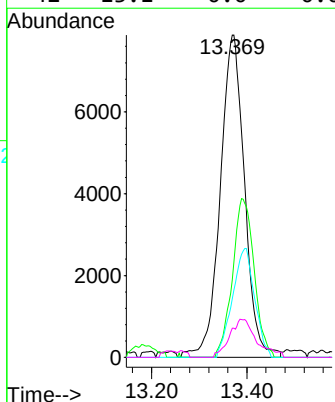
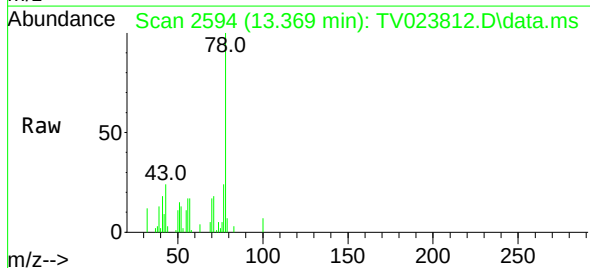
Tgt Ion:	117	Resp:	5415
Ion	Ratio	Lower	Upper
117	100		
119	100.0	80.0	120.0
121	96.5	76.5	114.7
121	32.2	21.5	39.9





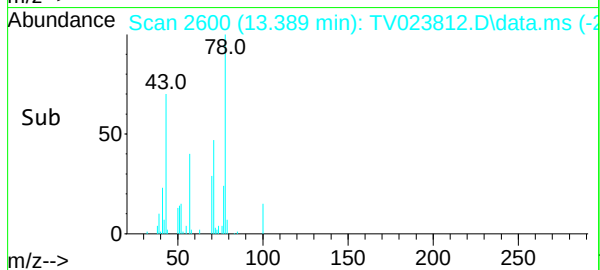
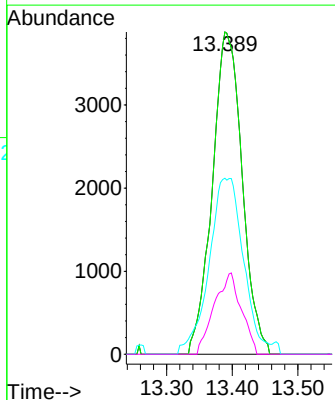
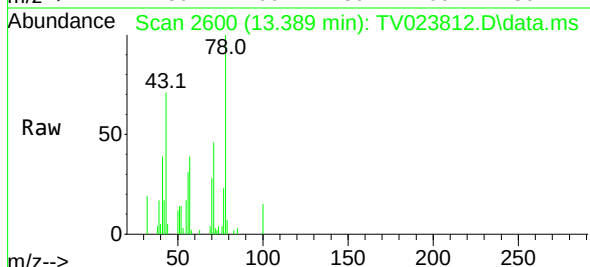
#36
Benzene
Concen: 0.30 ppbv
RT: 13.369 min Scan# 2594
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

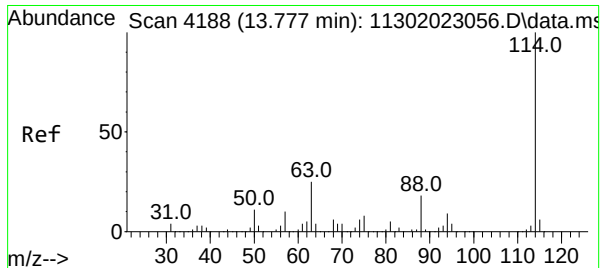
Tgt Ion:	78	Resp:	27847
Ion	Ratio	Lower	Upper
78	100		
43	44.0	0.0	0.0#
71	30.9	0.0	0.0#
42	13.1	0.0	0.0#



#37
n-Heptane
Concen: 0.23 ppbv
RT: 13.389 min Scan# 2600
Delta R.T. -0.005 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

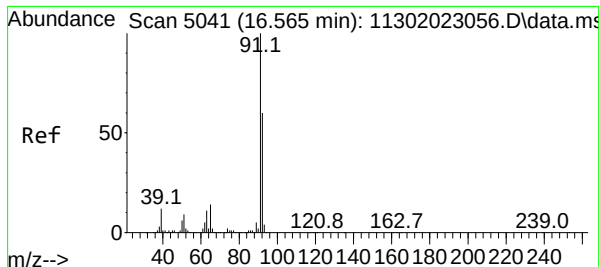
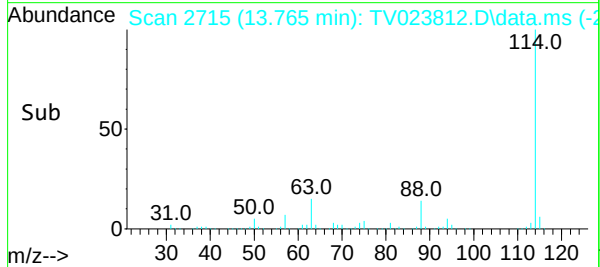
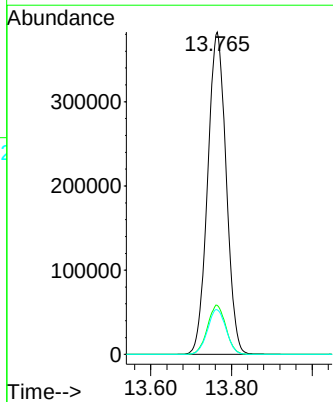
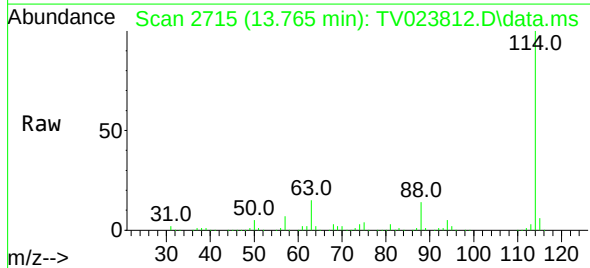
Tgt Ion:	43	Resp:	12265
Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	63.7	39.8	59.8#
100	22.9	12.6	18.8#





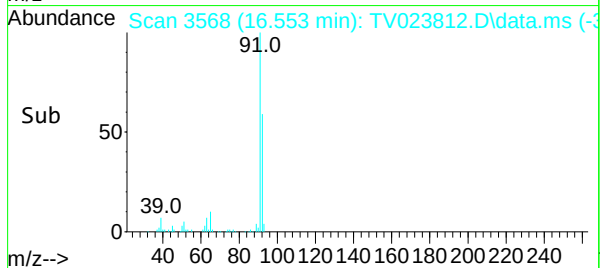
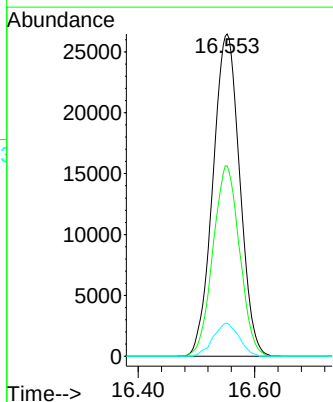
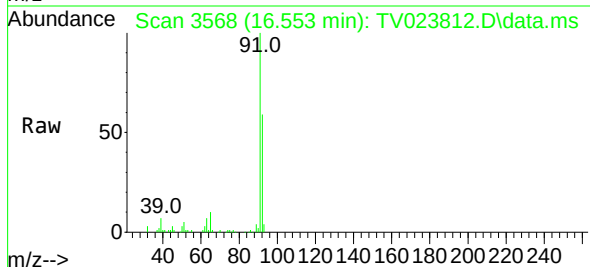
#38
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.765 min Scan# 2715
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

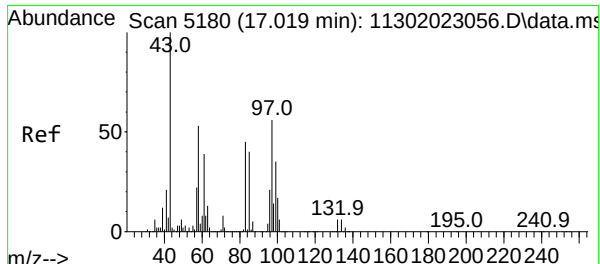
Tgt Ion:	114	Resp:	1216057
Ion	Ratio	Lower	Upper
114	100		
63	15.3	14.0	29.2
88	14.0	11.2	23.2



#46
Toluene
Concen: 0.60 ppbv
RT: 16.553 min Scan# 3568
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

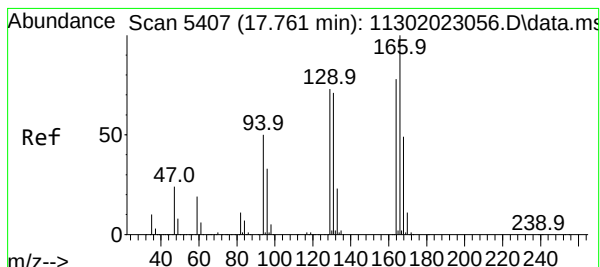
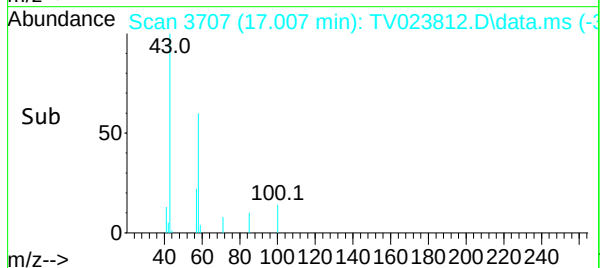
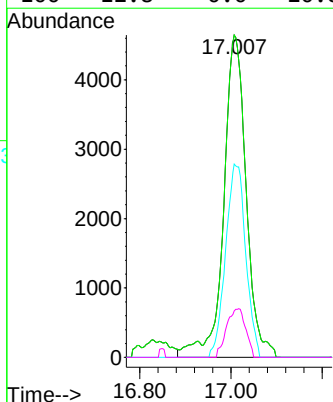
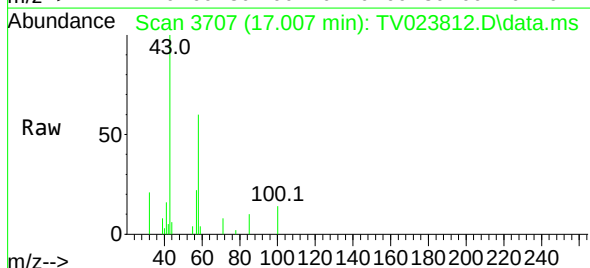
Tgt Ion:	91	Resp:	84328
Ion	Ratio	Lower	Upper
91	100		
92	58.7	39.0	81.0
65	10.0	7.7	16.1





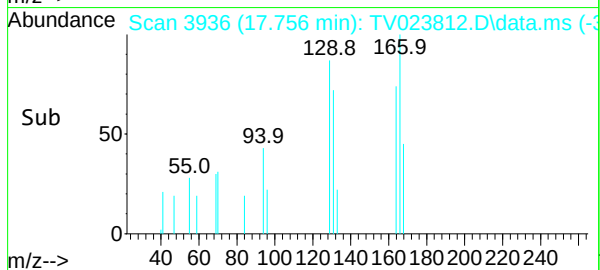
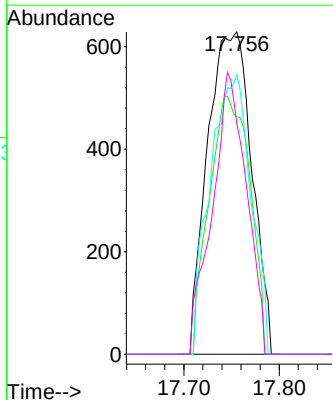
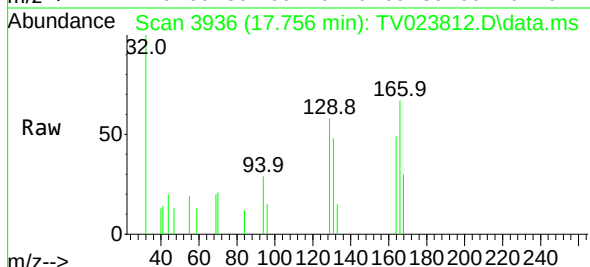
#49
2-Hexanone
Concen: 0.22 ppbv
RT: 17.007 min Scan# 3707
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

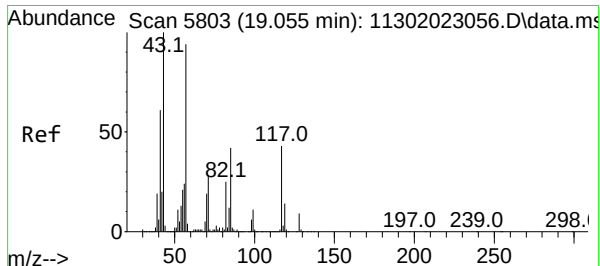
Tgt Ion:	43	Resp:	15880
Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	53.5	43.4	65.2
100	12.8	0.0	20.8



#51
Tetrachloroethylene
Concen: 0.03 ppbv
RT: 17.756 min Scan# 3936
Delta R.T. 0.005 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

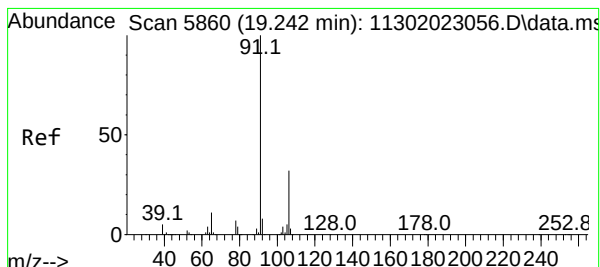
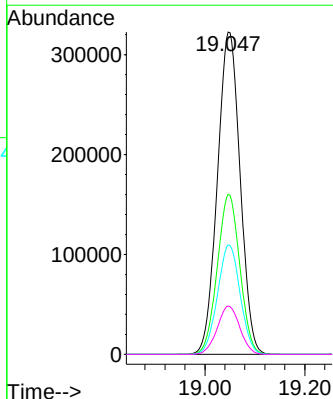
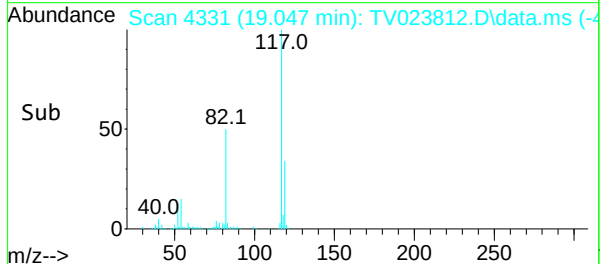
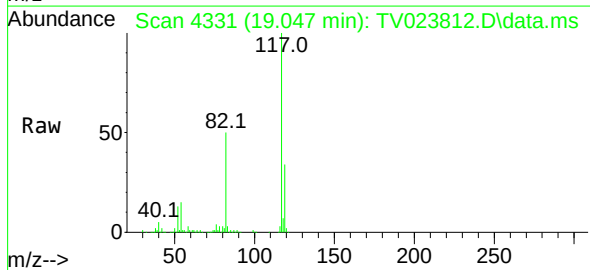
Tgt Ion:	166	Resp:	2019
Ion	Ratio	Lower	Upper
166	100		
164	74.1	51.4	106.8
129	80.6	47.0	97.6
131	68.0	46.5	96.5





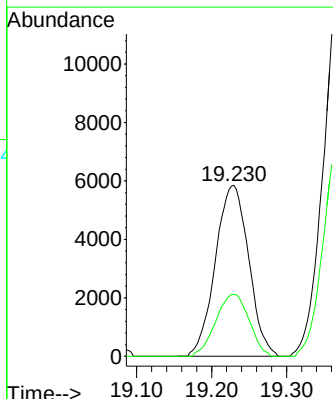
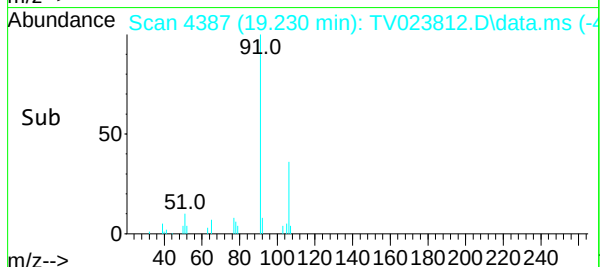
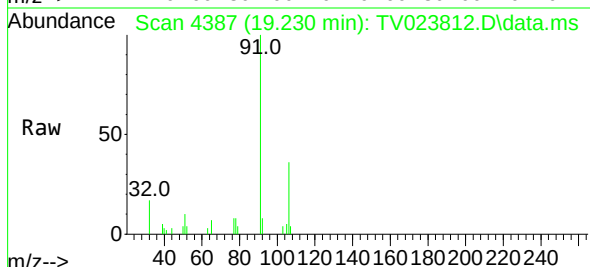
#54
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.047 min Scan# 4331
Delta R.T. -0.005 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

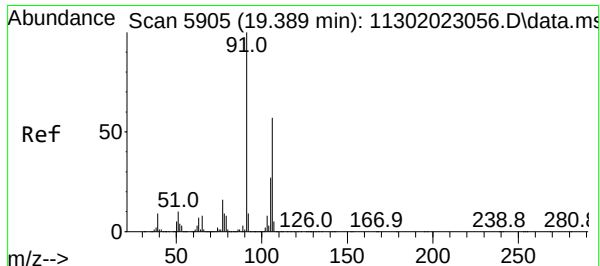
Tgt Ion:	117	Resp:	1018226
Ion	Ratio	Lower	Upper
117	100		
82	49.2	38.7	80.5
119	33.9	20.3	42.3
54	15.0	14.6	30.2



#57
Ethylbenzene
Concen: 0.10 ppbv
RT: 19.230 min Scan# 4387
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

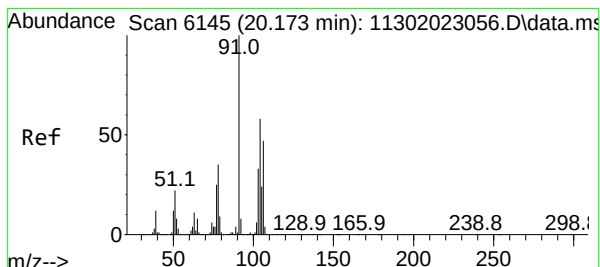
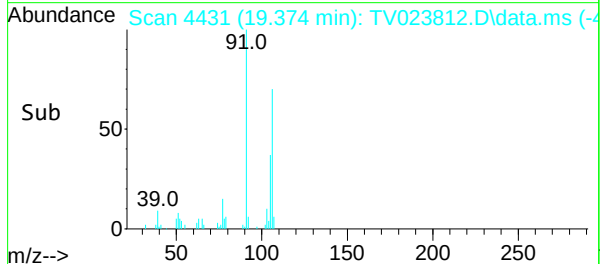
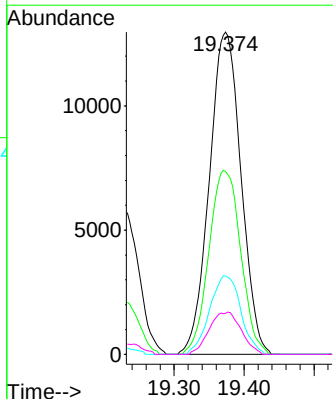
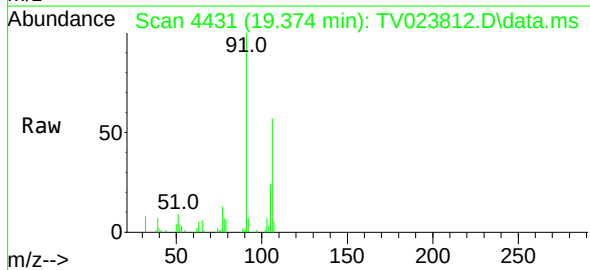
Tgt Ion:	91	Resp:	18048
Ion	Ratio	Lower	Upper
91	100		
106	36.2	20.3	42.3





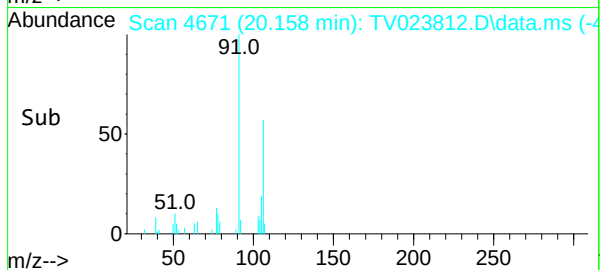
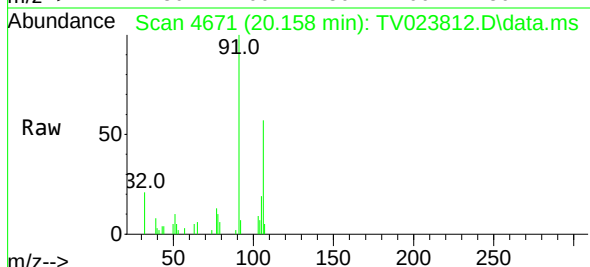
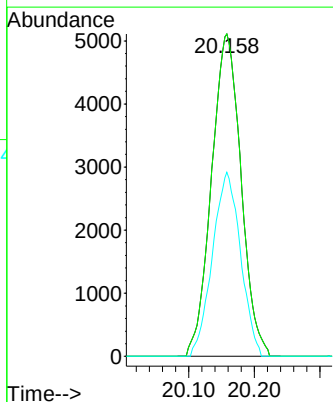
#58
p- & m-Xylenes
Concen: 0.33 ppbv
RT: 19.374 min Scan# 4431
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

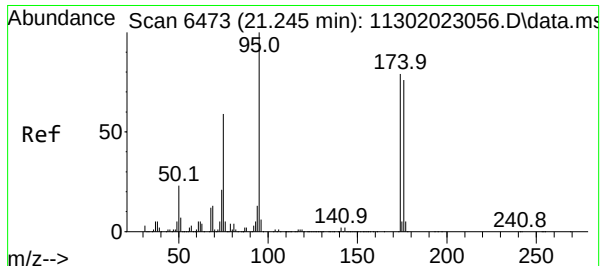
Tgt Ion:	91	Resp:	40850
Ion	Ratio	Lower	Upper
91	100		
106	57.3	31.0	64.4
105	24.0	13.4	27.8
77	13.3	8.6	18.0



#59
o-Xylene
Concen: 0.12 ppbv
RT: 20.158 min Scan# 4671
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

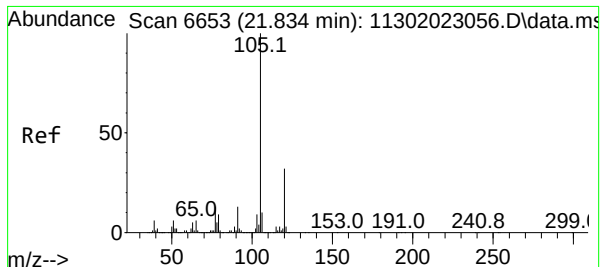
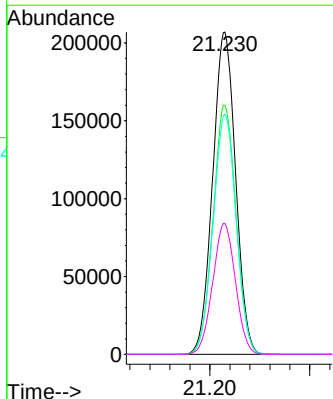
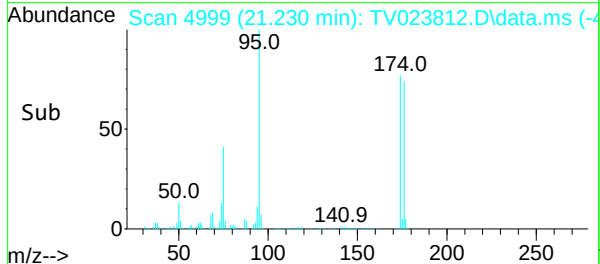
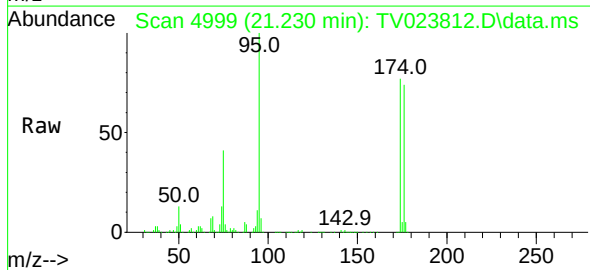
Tgt Ion:	91	Resp:	15967
Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	54.2	36.9	55.3





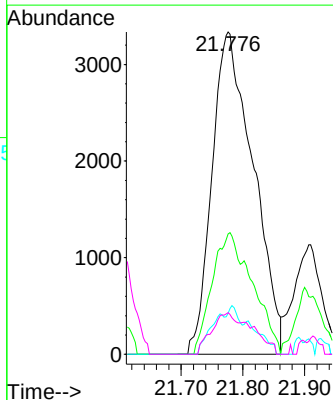
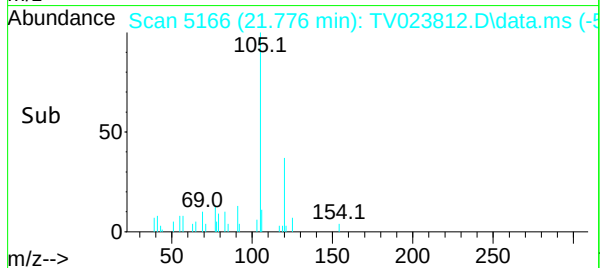
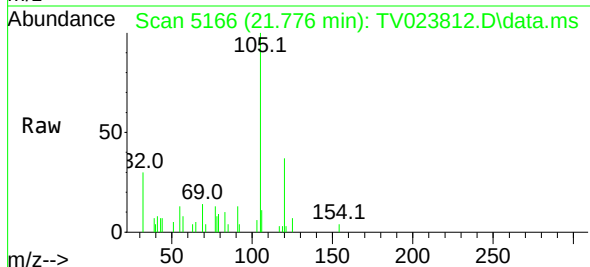
#65
 p-Bromofluorobenzene
 Concen: 9.08 ppbv
 RT: 21.230 min Scan# 4999
 Delta R.T. -0.002 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

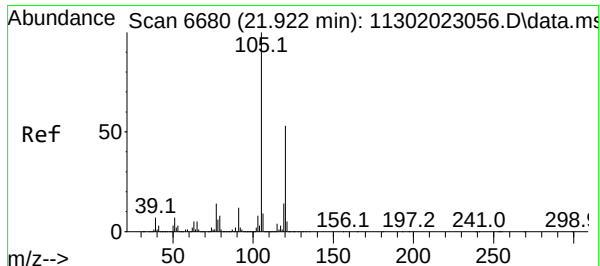
Tgt Ion	Ratio	Lower	Upper
95	100		
174	77.8	50.0	103.8
176	74.7	48.2	100.2
75	40.4	31.5	65.3



#66
 4-Ethyltoluene
 Concen: 0.08 ppbv
 RT: 21.776 min Scan# 5166
 Delta R.T. -0.045 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

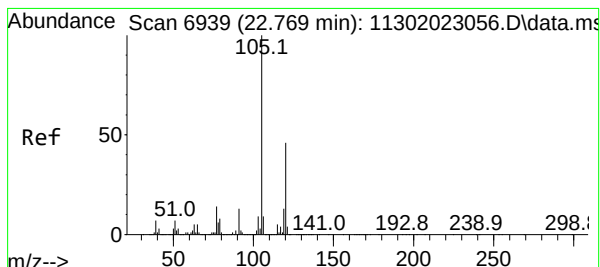
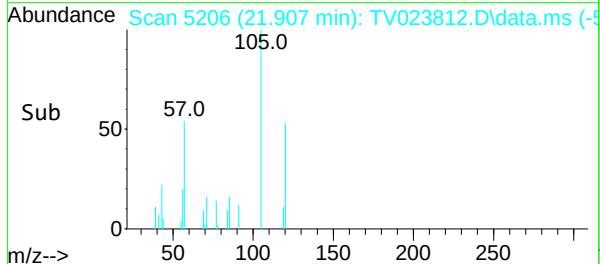
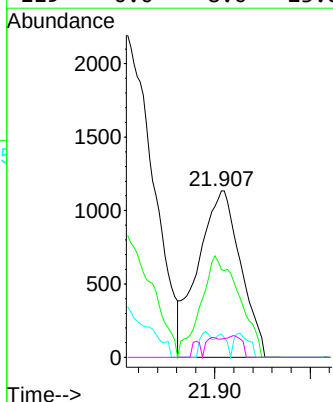
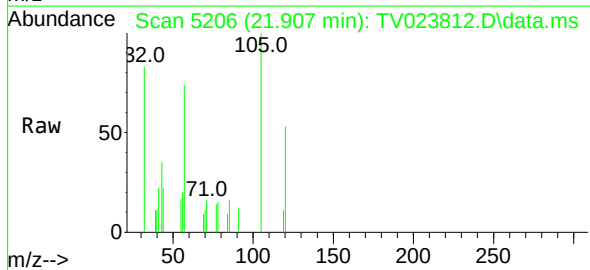
Tgt Ion	Ratio	Lower	Upper
105	100		
120	37.2	17.2	35.6#
77	13.8	7.6	15.8
91	12.8	7.7	16.1





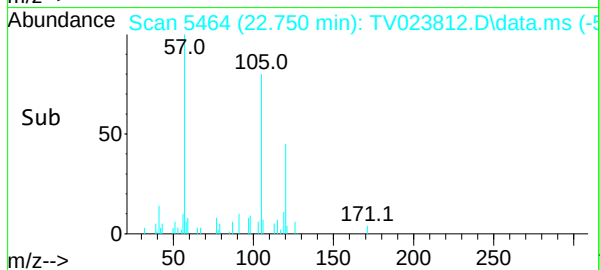
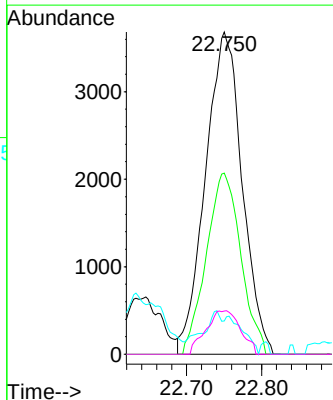
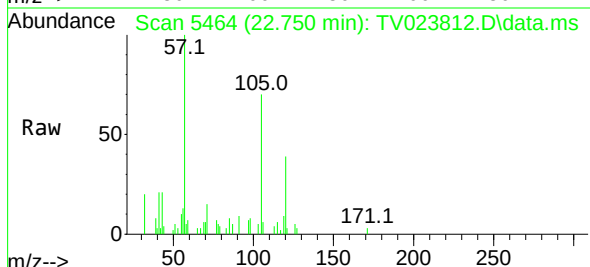
#67
 1,3,5-Trimethylbenzene
 Concen: 0.02 ppbv
 RT: 21.907 min Scan# 5206
 Delta R.T. -0.002 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

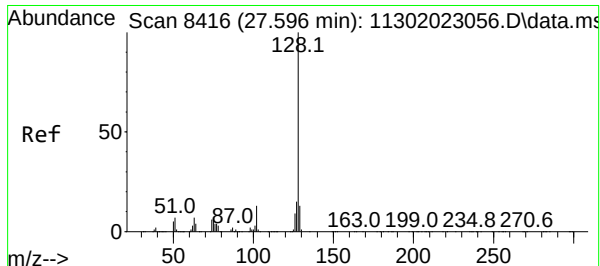
Tgt Ion:	105	Resp:	3511
Ion	Ratio	Lower	Upper
105	100		
120	55.0	43.4	65.2
77	0.0	10.8	16.2#
119	0.0	8.0	23.8#



#69
 1,2,4-Trimethylbenzene
 Concen: 0.08 ppbv
 RT: 22.750 min Scan# 5464
 Delta R.T. -0.006 min
 Lab File: TV023812.D
 Acq: 04 Apr 2024 01:01 am

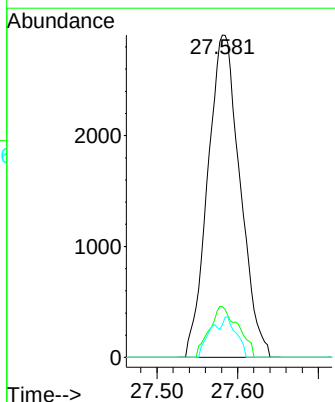
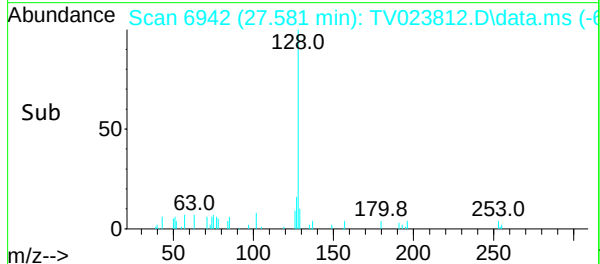
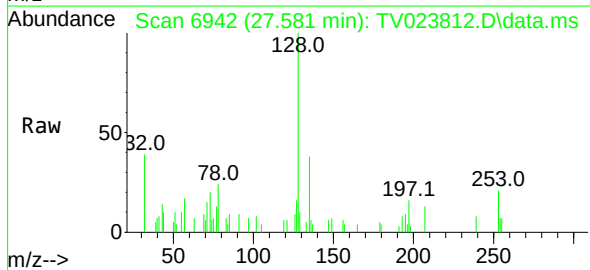
Tgt Ion:	105	Resp:	12520
Ion	Ratio	Lower	Upper
105	100		
120	52.7	29.0	60.2
77	14.3	8.2	17.0
119	12.7	0.0	0.0#





#79
Naphthalene
Concen: 0.03 ppbv
RT: 27.581 min Scan# 6942
Delta R.T. -0.002 min
Lab File: TV023812.D
Acq: 04 Apr 2024 01:01 am

Tgt Ion:	128	Resp:	8067
Ion Ratio	Lower	Upper	
128	100		
127	14.0	8.1	16.9
129	9.8	7.3	15.1



FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	0.025		0.05		0.1	0.576152	0.2	0.6046079	0.5	0.5936837	3	0.6013415
1,1,1-Trichloroethane	0.025		0.05		0.1	1.852251	0.2	1.890123	0.5	1.836247	3	1.851086
1,1,2,2-Tetrachloroethane	0.025		0.05		0.1	1.096749	0.2	1.108053	0.5	1.111101	3	1.10173
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.025		0.05		0.1	1.953381	0.2	1.941234	0.5	1.890144	3	1.915294
1,1,2-Trichloroethane	0.025		0.05		0.1	0.4302547	0.2	0.4385269	0.5	0.4238595	3	0.417779
1,1-Dichloroethane	0.025		0.05		0.1	1.571503	0.2	1.508195	0.5	1.526433	3	1.499672
1,1-Dichloroethylene	0.025	1.122758	0.05	1.173448	0.1	1.268113	0.2	1.224822	0.5	1.251836	3	1.240341
1,2,4-Trichlorobenzene	0.025		0.05		0.1	0.5240313	0.2	0.5074566	0.5	0.6270541	3	0.7870155
1,2,4-Trimethylbenzene	0.025		0.05		0.1	1.516921	0.2	1.555912	0.5	1.568409	3	1.600054
1,2-Dibromoethane	0.025		0.05		0.1	0.6695802	0.2	0.6770509	0.5	0.6802623	3	0.6805381
1,2-Dichlorobenzene	0.025		0.05		0.1	0.9925077	0.2	1.028475	0.5	1.053794	3	1.092251
1,2-Dichloroethane	0.025		0.05		0.1	0.9869329	0.2	0.9537416	0.5	0.9977668	3	0.9730275
1,2-Dichloropropane	0.025		0.05		0.1	0.3606811	0.2	0.3639174	0.5	0.3527212	3	0.3482242
1,2-Dichlorotetrafluoroethane	0.025		0.05		0.1	1.805028	0.2	1.700992	0.5	1.720636	3	1.702848
1,3,5-Trimethylbenzene	0.025		0.05		0.1	1.491738	0.2	1.444129	0.5	1.48012	3	1.514413
1,3-Butadiene	0.025		0.05		0.1	0.7206314	0.2	0.7081087	0.5	0.6706463	3	0.6824557
1,3-Dichlorobenzene	0.025		0.05		0.1	1.020133	0.2	1.076191	0.5	1.101437	3	1.14776
1,3-Dichloropropane	0.025		0.05		0.1	0.5701987	0.2	0.5748168	0.5	0.5775924	3	0.5715053
1,4-Dichlorobenzene	0.025		0.05		0.1	1.083776	0.2	1.056326	0.5	1.098466	3	1.149663
1,4-Dioxane	0.025		0.05		0.1	0.2431095	0.2	0.232226	0.5	0.2269928	3	0.2114094
2-Butanone	0.025		0.05		0.1	2.688675	0.2	2.314859	0.5	2.170539	3	1.909588
2-Hexanone	0.025		0.05		0.1	0.7104746	0.2	0.694712	0.5	0.6765761	3	0.6543307
3-Chloropropene	0.025		0.05		0.1	1.246334	0.2	1.241535	0.5	1.220185	3	1.202043
4-Methyl-2-pentanone	0.025		0.05		0.1	0.7282664	0.2	0.7222698	0.5	0.711038	3	0.6973136
Acetone	0.025		0.05		0.1	6.995429	0.2	4.152901	0.5	2.573631	3	1.368087
Acrolein	0.025		0.05		0.1	0.4206917	0.2	0.4279707	0.5	0.4433326	3	0.3859511
Acrylonitrile	0.025		0.05		0.1	11.04149	0.2	5.776148	0.5	2.793215	3	1.175631
Benzene	0.025		0.05		0.1	3.465801	0.2	3.195493	0.5	3.088555	3	2.993417
Benzyl chloride	0.025		0.05		0.1	0.2389314	0.2	0.3058951	0.5	0.3341634	3	0.380589
Bromodichloromethane	0.025		0.05		0.1	0.6126864	0.2	0.6026746	0.5	0.6165229	3	0.6317116
Bromoform	0.025		0.05		0.1	0.5669947	0.2	0.5739688	0.5	0.6039597	3	0.7050537

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	0.025		0.05		0.1	0.9720545	0.2	0.9777874	0.5	0.9508697	3	0.9392049
Carbon disulfide	0.025		0.05		0.1	2.779239	0.2	2.629933	0.5	2.64913	3	2.663005
Carbon tetrachloride	0.025	1.737457	0.05	1.798854	0.1	1.92039	0.2	1.860578	0.5	1.900795	3	1.940843
Chlorobenzene	0.025		0.05		0.1	1.194199	0.2	1.134452	0.5	1.123414	3	1.152711
Chloroethane	0.025		0.05		0.1	0.4551923	0.2	0.4607505	0.5	0.4652351	3	0.472378
Chloroform	0.025		0.05		0.1	2.021735	0.2	1.866293	0.5	1.901825	3	1.888211
Chloromethane	0.025		0.05		0.1	0.5733569	0.2	0.4900798	0.5	0.4400258	3	0.3914173
cis-1,2-Dichloroethylene	0.025	1.04993	0.05	1.287983	0.1	1.143479	0.2	1.199159	0.5	1.133047	3	1.157061
cis-1,3-Dichloropropylene	0.025		0.05		0.1	0.5341505	0.2	0.5331634	0.5	0.5259061	3	0.5369267
Cyclohexane	0.025		0.05		0.1	1.509401	0.2	1.488894	0.5	1.507623	3	1.506241
Dibromochloromethane	0.025		0.05		0.1	0.6533817	0.2	0.6591899	0.5	0.6917584	3	0.7446929
Dichlorodifluoromethane	0.025		0.05		0.1	2.236933	0.2	2.220293	0.5	2.166717	3	2.21112
Ethanol	0.025		0.05		0.1	2.175694	0.2	1.38581	0.5	0.9276788	3	0.4678381
Ethyl acetate	0.025		0.05		0.1	2.327066	0.2	2.210804	0.5	2.254112	3	2.102758
Ethyl Benzene	0.025		0.05		0.1	1.786834	0.2	1.757741	0.5	1.742336	3	1.70893
Hexachlorobutadiene	0.025		0.05		0.1	0.6034716	0.2	0.5981134	0.5	0.626564	3	0.6577141
Isopropanol	0.025		0.05		0.1	7.95778	0.2	4.676838	0.5	2.79184	3	1.82321
Isopropylbenzene	0.025		0.05		0.1	1.944876	0.2	1.921596	0.5	1.937903	3	1.950652
Methyl Methacrylate	0.025		0.05		0.1	0.3605483	0.2	0.350455	0.5	0.3659279	3	0.3590528
Methyl tert-butyl ether (MTBE)	0.025		0.05		0.1	2.449543	0.2	2.397779	0.5	2.404681	3	2.407897
Methylene chloride	0.025		0.05		0.1	1.163102	0.2	1.111818	0.5	1.098819	3	1.026318
Naphthalene	0.025		0.05		0.1	1.872227	0.2	1.881941	0.5	2.125445	3	2.466145
n-Butylbenzene	0.025		0.05		0.1	1.609486	0.2	1.632434	0.5	1.807943	3	1.915434
n-Heptane	0.025		0.05		0.1	1.886536	0.2	1.824671	0.5	1.811295	3	1.78774
n-Hexane	0.025		0.05		0.1	1.514792	0.2	1.410826	0.5	1.445136	3	1.436821
n-Propylbenzene	0.025		0.05		0.1	2.332309	0.2	2.270775	0.5	2.314717	3	2.328016
o-Xylene	0.025		0.05		0.1	1.381773	0.2	1.334218	0.5	1.313559	3	1.287219
p- & m- Xylenes	0.05		0.1		0.2	1.328965	0.4	1.295403	1	1.304531	6	1.26222
p-Ethyltoluene	0.025		0.05		0.1	1.917403	0.2	1.915903	0.5	1.942344	3	1.979312
p-Isopropyltoluene	0.025		0.05		0.1	2.134128	0.2	2.057677	0.5	2.154404	3	2.218536
Propylene	0.025		0.05		0.1	0.7137312	0.2	0.6077205	0.5	0.556152	3	0.5227548

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	0.025		0.05		0.1	2.386414	0.2	2.343668	0.5	2.420479	3	2.470685
Styrene	0.025		0.05		0.1	1.084539	0.2	1.027635	0.5	1.060915	3	1.088075
tert-Butylbenzene	0.025		0.05		0.1	1.882834	0.2	1.886869	0.5	1.912021	3	1.949443
Tetrachloroethylene	0.025		0.05		0.1	0.5506809	0.2	0.594144	0.5	0.5614023	3	0.5391556
Tetrahydrofuran	0.025		0.05		0.1	1.2707	0.2	1.228488	0.5	1.1793	3	1.128691
Toluene	0.025		0.05		0.1	1.393067	0.2	1.285357	0.5	1.236135	3	1.129775
trans-1,2-Dichloroethylene	0.025		0.05		0.1	1.154261	0.2	1.221911	0.5	1.218767	3	1.199638
trans-1,3-Dichloropropylene	0.025		0.05		0.1	0.470087	0.2	0.4652517	0.5	0.464169	3	0.4728268
Trichloroethylene	0.025	0.4805479	0.05	0.447019	0.1	0.4428019	0.2	0.4286967	0.5	0.4287391	3	0.4270506
Trichlorofluoromethane (Freon 11)	0.025		0.05		0.1	2.04718	0.2	2.04917	0.5	2.026197	3	2.041788
Vinyl acetate	0.025		0.05		0.1	2.456443	0.2	2.303752	0.5	2.376594	3	2.258527
Vinyl bromide	0.025		0.05		0.1	0.9821891	0.2	0.9523399	0.5	0.9576122	3	0.9617061
Vinyl Chloride	0.025	0.8496545	0.05	0.781434	0.1	0.8068829	0.2	0.7110201	0.5	0.7372557	3	0.7452429

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	10	0.5973055	20	0.6127698	30	0.6141253	50	0.6001625				
1,1,1-Trichloroethane	10	1.871022	20	1.957187	30	2.041684	50	2.032424				
1,1,2,2-Tetrachloroethane	10	1.056618	20	1.044893	30	1.011433	50	0.9690698				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10	1.859076	20	1.860769	30	1.879241	50	1.782494				
1,1,2-Trichloroethane	10	0.401481	20	0.3814627	30	0.3585555	50	0.2928072				
1,1-Dichloroethane	10	1.461434	20	1.460058	30	1.451791	50	1.407524				
1,1-Dichloroethylene	10	1.222758	20	1.231146	30	1.24882	50	1.221082				
1,2,4-Trichlorobenzene	10	0.8439156	20	0.8642414	30	0.8347759	50	0.8323616				
1,2,4-Trimethylbenzene	10	1.58591	20	1.623038	30	1.580645	50	1.556228				
1,2-Dibromoethane	10	0.6792407	20	0.6710599	30	0.6584888	50	0.5874804				
1,2-Dichlorobenzene	10	1.07994	20	1.088395	30	1.049252	50	1.027944				
1,2-Dichloroethane	10	0.9872569	20	1.024296	30	1.053561	50	1.051094				
1,2-Dichloropropane	10	0.3313955	20	0.3145925	30	0.2960557	50	0.2447779				
1,2-Dichlorotetrafluoroethane	10	1.664483	20	1.563639	30	1.491873	50	1.426589				
1,3,5-Trimethylbenzene	10	1.487041	20	1.52591	30	1.531096	50	1.555575				
1,3-Butadiene	10	0.6760148	20	0.6628038	30	0.6653061	50	0.6428477				
1,3-Dichlorobenzene	10	1.122922	20	1.136091	30	1.101582	50	1.082908				
1,3-Dichloropropane	10	0.560155	20	0.5385342	30	0.5389231	50	0.4889221				
1,4-Dichlorobenzene	10	1.133936	20	1.156491	30	1.113153	50	1.105301				
1,4-Dioxane	10	0.1958253	20	0.1920629	30	0.1918644	50	0.1133833				
2-Butanone	10	1.801642	20	1.781768	30	1.765599	50	1.646347				
2-Hexanone	10	0.611444	20	0.565922	30	0.5081922	50	0.4025269				
3-Chloropropene	10	1.163051	20	1.154072	30	1.158521	50	1.103454				
4-Methyl-2-pentanone	10	0.6610634	20	0.636997	30	0.6154278	50	0.5558045				
Acetone	10	1.194232	20	1.151915	30	1.156453	50	1.070223				
Acrolein	10	0.3726556	20	0.3679742	30	0.3770861	50	0.3634857				
Acrylonitrile	10	0.9016943	20	0.8434059	30	0.8372684	50	0.773379				
Benzene	10	2.868525	20	2.791389	30	2.691187	50	2.303773				
Benzyl chloride	10	0.3922515	20	0.4036249	30	0.4028141	50	0.3992913				
Bromodichloromethane	10	0.626319	20	0.6314869	30	0.636633	50	0.5942361				
Bromoform	10	0.7323594	20	0.7653316	30	0.7654597	50	0.7786737				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	10	0.9295768	20	0.9272293	30	0.9380402	50	0.9227322				
Carbon disulfide	10	2.597896	20	2.59787	30	2.579091	50	2.492234				
Carbon tetrachloride	10	1.995802	20	2.099125	30	2.205997	50	2.163963				
Chlorobenzene	10	1.114619	20	1.117181	30	1.112519	50	1.075355				
Chloroethane	10	0.4616132	20	0.4554245	30	0.4624155	50	0.4441774				
Chloroform	10	1.849265	20	1.900428	30	1.943922	50	1.89132				
Chloromethane	10	0.3708688	20	0.3607461	30	0.3432566	50	0.311573				
cis-1,2-Dichloroethylene	10	1.134021	20	1.156937	30	1.129677	50	1.107158				
cis-1,3-Dichloropropylene	10	0.5343277	20	0.5370399	30	0.532078	50	0.4947778				
Cyclohexane	10	1.451811	20	1.438069	30	1.417811	50	1.334911				
Dibromochloromethane	10	0.7663339	20	0.7677832	30	0.7546843	50	0.6771689				
Dichlorodifluoromethane	10	2.256234	20	2.277331	30	2.322276	50	2.187169				
Ethanol	10	0.4032141	20	0.3852633	30	0.3874897	50	0.2698443				
Ethyl acetate	10	2.024549	20	1.992322	30	1.963906	50	1.858326				
Ethyl Benzene	10	1.659351	20	1.662152	30	1.662192	50	1.613431				
Hexachlorobutadiene	10	0.6115921	20	0.5609904	30	0.5273924	50	0.5581895				
Isopropanol	10	1.552641	20	1.4504	30	1.445794	50	1.25665				
Isopropylbenzene	10	1.914849	20	1.933124	30	1.882917	50	1.829969				
Methyl Methacrylate	10	0.3516899	20	0.3389853	30	0.3215955	50	0.2707877				
Methyl tert-butyl ether (MTBE)	10	2.356484	20	2.400987	30	2.432849	50	2.389935				
Methylene chloride	10	0.9863867	20	0.9770217	30	0.972122	50	0.9405209				
Naphthalene	10	2.52581	20	2.54736	30	2.489662	50	2.421635				
n-Butylbenzene	10	1.877689	20	1.846172	30	1.731214	50	1.679611				
n-Heptane	10	1.670577	20	1.561747	30	1.456548	50	1.200137				
n-Hexane	10	1.373568	20	1.359392	30	1.343905	50	1.259012				
n-Propylbenzene	10	2.258946	20	2.252803	30	2.220311	50	2.16714				
o-Xylene	10	1.267146	20	1.257693	30	1.209101	50	1.189347				
p- & m- Xylenes	20	1.219326	40	1.182022	60	1.108109	100	1.079308				
p-Ethyltoluene	10	1.938718	20	1.943723	30	1.904084	50	1.846884				
p-Isopropyltoluene	10	2.161577	20	2.159328	30	2.056498	50	2.033516				
Propylene	10	0.5094827	20	0.5016034	30	0.4793251	50	0.4468831				

FORM VI**INITIAL CALIBRATION DATA (Continued)****EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	10	2.41365	20	2.396301	30	2.287555	50	2.198365				
Styrene	10	1.062636	20	1.04247	30	0.9885129	50	0.934457				
tert-Butylbenzene	10	1.905997	20	1.938898	30	1.874693	50	1.841602				
Tetrachloroethylene	10	0.5285999	20	0.5114385	30	0.4885852	50	0.4194185				
Tetrahydrofuran	10	1.08975	20	1.063321	30	1.054523	50	0.9802436				
Toluene	10	1.087934	20	1.066649	30	1.047868	50	0.9543997				
trans-1,2-Dichloroethylene	10	1.184358	20	1.206702	30	1.209965	50	1.169385				
trans-1,3-Dichloropropylene	10	0.4789598	20	0.4770646	30	0.4800157	50	0.4534165				
Trichloroethylene	10	0.4207091	20	0.4225256	30	0.4201873	50	0.3818923				
Trichlorofluoromethane (Freon 11)	10	2.049007	20	2.110872	30	2.17659	50	2.180017				
Vinyl acetate	10	2.2932	20	2.306768	30	2.333599	50	2.21797				
Vinyl bromide	10	0.9367556	20	0.9465766	30	0.9571859	50	0.9414541				
Vinyl Chloride	10	0.7395577	20	0.7004176	30	0.6952071	50	0.6799772				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1,2-Tetrachloroethane	0.6000185	1.993542	19.17163	7.695377E-03			30	
1,1,1-Trichloroethane	1.916503	4.337694	12.703	3.697241E-03			30	
1,1,2,2-Tetrachloroethane	1.062456	4.881724	20.989	1.326077E-02			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.885204	2.876321	8.429625	0.0485893			30	
1,1,2-Trichloroethane	0.3930908	12.33481	17.003	9.826319E-03			30	
1,1-Dichloroethane	1.485826	3.434622	10.6765	1.797653E-02			30	
1,1-Dichloroethylene	1.220512	3.492117	8.6517	4.445476E-02			30	
1,2,4-Trichlorobenzene	0.7276065	20.66162	27.18875	0.0133431			30	
1,2,4-Trimethylbenzene	1.57339	2.038193	22.75613	1.954837E-02			30	
1,2-Dibromoethane	0.6629627	4.735241	18.31775	1.247571E-02			30	
1,2-Dichlorobenzene	1.05157	3.295438	24.44812	1.580633E-02			30	
1,2-Dichloroethane	1.00346	3.60877	13.23438	2.661443E-02			30	
1,2-Dichloropropane	0.3265457	12.41187	14.63525	1.768971E-02			30	
1,2-Dichlorotetrafluoroethane	1.634511	7.84451	5.386125	5.599384E-02			30	
1,3,5-Trimethylbenzene	1.503753	2.32752	21.91188	1.333401E-02			30	
1,3-Butadiene	0.6786018	3.70574	5.973	6.077611E-02			30	
1,3-Dichlorobenzene	1.098628	3.662952	23.56887	1.113998E-02			30	
1,3-Dichloropropane	0.5525809	5.421404	17.4315	1.988974E-02			30	
1,4-Dichlorobenzene	1.112139	3.04057	23.75475	0.0115958			30	
1,4-Dioxane	0.2008592	20.09049	14.95425	3.161868E-02			30	
2-Butanone	2.009877	17.60961	11.28137	4.834869E-02			30	
2-Hexanone	0.6030223	17.57613	17.013	2.928644E-02			30	
3-Chloropropene	1.186149	4.186931	9.2495	1.317676E-02			30	
4-Methyl-2-pentanone	0.6660226	9.083185	15.54037	2.006865E-02			30	
Acetone	2.457859	86.42422	8.2485	4.904546E-02		0.9993407	0.99	
Acrolein	0.3948935	7.839521	8.139125	4.263159E-02			30	
Acrylonitrile	3.017779	121.7079	9.473125	3.265548E-02		0.9972797	0.99	
Benzene	2.924767	11.9751	13.36988	1.177266E-02			30	
Benzyl chloride	0.3571951	16.70851	23.90262	1.416266E-02			30	
Bromodichloromethane	0.6190338	2.448178	14.99787	6.087971E-03			30	
Bromoform	0.6864752	13.16238	20.73538	9.284415E-03			30	
Bromomethane	0.9446869	2.181207	6.7835	4.315734E-02			30	

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Carbon disulfide	2.62355	3.124245	9.53925	3.453424E-02			30	
Carbon tetrachloride	1.96238	7.848927	13.1694	0.0276849			30	
Chlorobenzene	1.128056	3.064061	19.12138	9.595891E-03			30	
Chloroethane	0.4596483	1.807238	6.95825	3.757052E-02			30	
Chloroform	1.907875	2.814279	11.9545	1.460149E-02			30	
Chloromethane	0.4101655	21.10291	5.614625	3.495386E-02			30	
cis-1,2-Dichloroethylene	1.149845	5.376837	11.6758	5.578688E-02			30	
cis-1,3-Dichloropropylene	0.5285463	2.664443	15.89087	2.567611E-02			30	
Cyclohexane	1.456845	4.149179	12.878	2.599313E-02			30	
Dibromochloromethane	0.7143742	6.849061	17.94338	2.004457E-02			30	
Dichlorodifluoromethane	2.234759	2.243717	5.124375	4.589437E-02			30	
Ethanol	0.800354	83.72248	7.0625	6.271534E-02		0.9944468	0.99	
Ethyl acetate	2.09173	7.693066	11.59	2.297504E-02			30	
Ethyl Benzene	1.699121	3.499451	19.2325	2.188883E-02			30	
Hexachlorobutadiene	0.5930034	7.079338	27.469	0.0179514			30	
Isopropanol	2.869394	81.87393	8.01575	5.191731E-02		0.9991877	0.99	
Isopropylbenzene	1.914486	2.100287	20.82175	7.494171E-03			30	
Methyl Methacrylate	0.3398803	9.192738	14.64762	2.281338E-02			30	
Methyl tert-butyl ether (MTBE)	2.405019	1.156728	9.810125	0.0731453			30	
Methylene chloride	1.034514	7.755685	9.401125	2.761378E-02			30	
Naphthalene	2.291278	12.54302	27.58512	5.682937E-03			30	
n-Butylbenzene	1.762498	6.571469	24.19625	4.529688E-03			30	
n-Heptane	1.649906	14.11155	13.39462	3.114265E-02			30	
n-Hexane	1.392931	5.538342	10.3105	1.578832E-02			30	
n-Propylbenzene	2.268127	2.510005	21.59875	8.263167E-03			30	
o-Xylene	1.280007	4.974725	20.1605	1.318574E-02			30	
p- & m- Xylenes	1.222485	7.585505	19.37825	2.959821E-03			30	
p-Ethyltoluene	1.923546	2.0089	21.82212	1.298748E-02			30	
p-Isopropyltoluene	2.121958	3.071386	23.41	2.143183E-02			30	
Propylene	0.5422066	15.59444	5.052625	7.184421E-02			30	
sec-Butylbenzene	2.36464	3.65441	23.14675	1.814662E-02			30	
Styrene	1.036155	5.038102	20.17975	1.960933E-02			30	

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
tert-Butylbenzene	1.899045	1.850917	22.68625	6.000708E-03			30	
Tetrachloroethylene	0.5241781	10.10279	17.75375	2.425212E-02			30	
Tetrahydrofuran	1.124377	8.627165	12.27762	5.065818E-02			30	
Toluene	1.150148	12.50154	16.55575	9.803585E-03			30	
trans-1,2-Dichloroethylene	1.195623	2.02356	10.01025	1.756676E-02			30	
trans-1,3-Dichloropropylene	0.4702239	1.918416	16.7055	3.094837E-02			30	
Trichloroethylene	0.4300169	5.787024	14.4069	1.761171E-02			30	
Trichlorofluoromethane (Freon 11)	2.085103	3.001679	7.547375	5.542382E-03			30	
Vinyl acetate	2.318357	3.149913	10.6195	5.17711E-03			30	
Vinyl bromide	0.9544774	1.475249	7.42025	2.679054E-02			30	
Vinyl Chloride	0.744665	7.22439	5.8928	5.988741E-02			30	

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SE40002Instrument: TO15 AIR3Calibration Date: 03/29/24 20:48

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
2,2,4-Trimethylpentane	0.025	5.019327	0.05	5.207436	0.1	5.094882	0.2	5.029328	0.5	5.215306	3	5.238724

INITIAL CALIBRATION DATA (Continued)
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002Instrument: TO15_AIR3

Calibration Date: 03/29/24 20:48

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
2,2,4-Trimethylpentane	10	5.10168	20	4.915549	30	4.713876	50	3.717922				

INITIAL CALIBRATION DATA (Continued)
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002Instrument: TO15_AIR3

Calibration Date: 03/29/24 20:48

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,2,4-Trimethylpentane	4.925403	9.190102	13.0303	2.221839E-02			30	

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023217.D
 Acq On : 20 Feb 2024 08:07 pm
 Operator : VH
 Sample : SEQ-CAL1
 Misc : QBT03022024A 0.025 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:26 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

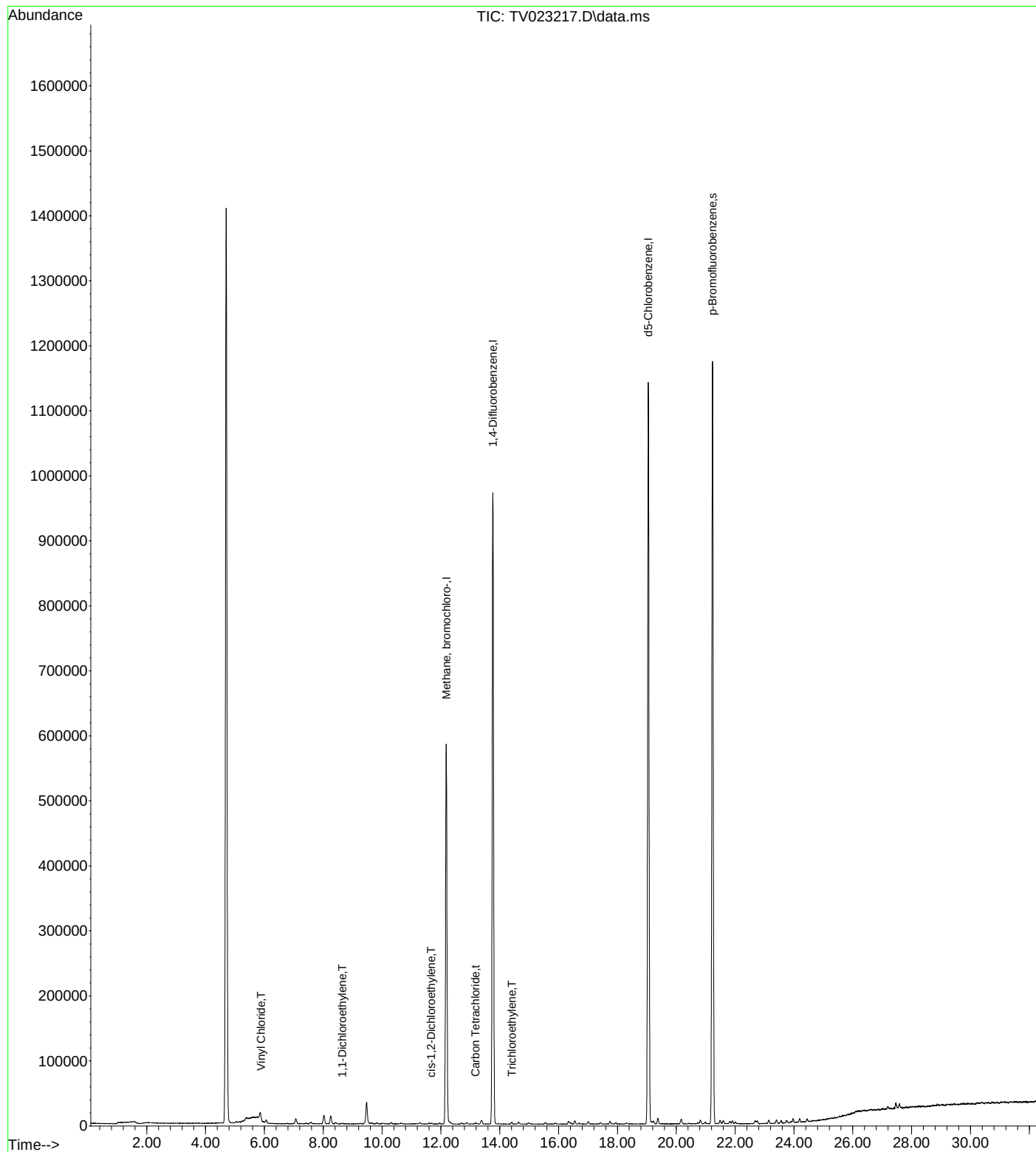
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.178	49	461364	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.764	114	1496625	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.049	117	1299804	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	848980	9.16	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.60%
Target Compounds						
					Qvalue	
6) Vinyl Chloride	5.886	62	980	0.03	ppbv #	42
17) 1,1-Dichloroethylene	8.645	61	1295	0.02	ppbv #	49
29) cis-1,2-Dichloroethylene	11.665	61	1211	0.02	ppbv #	63
34) Carbon Tetrachloride	13.169	117	2004	0.02	ppbv	95
39) Trichloroethylene	14.411	95	1798	0.03	ppbv	92

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023217.D
Acq On : 20 Feb 2024 08:07 pm
Operator : VH
Sample : SEQ-CAL1
Misc : QBT03022024A 0.025 PPBV
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Feb 21 13:02:26 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023218.D
 Acq On : 20 Feb 2024 08:48 pm
 Operator : VH
 Sample : SEQ-CAL2
 Misc : QBT03022024A 0.050 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:28 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

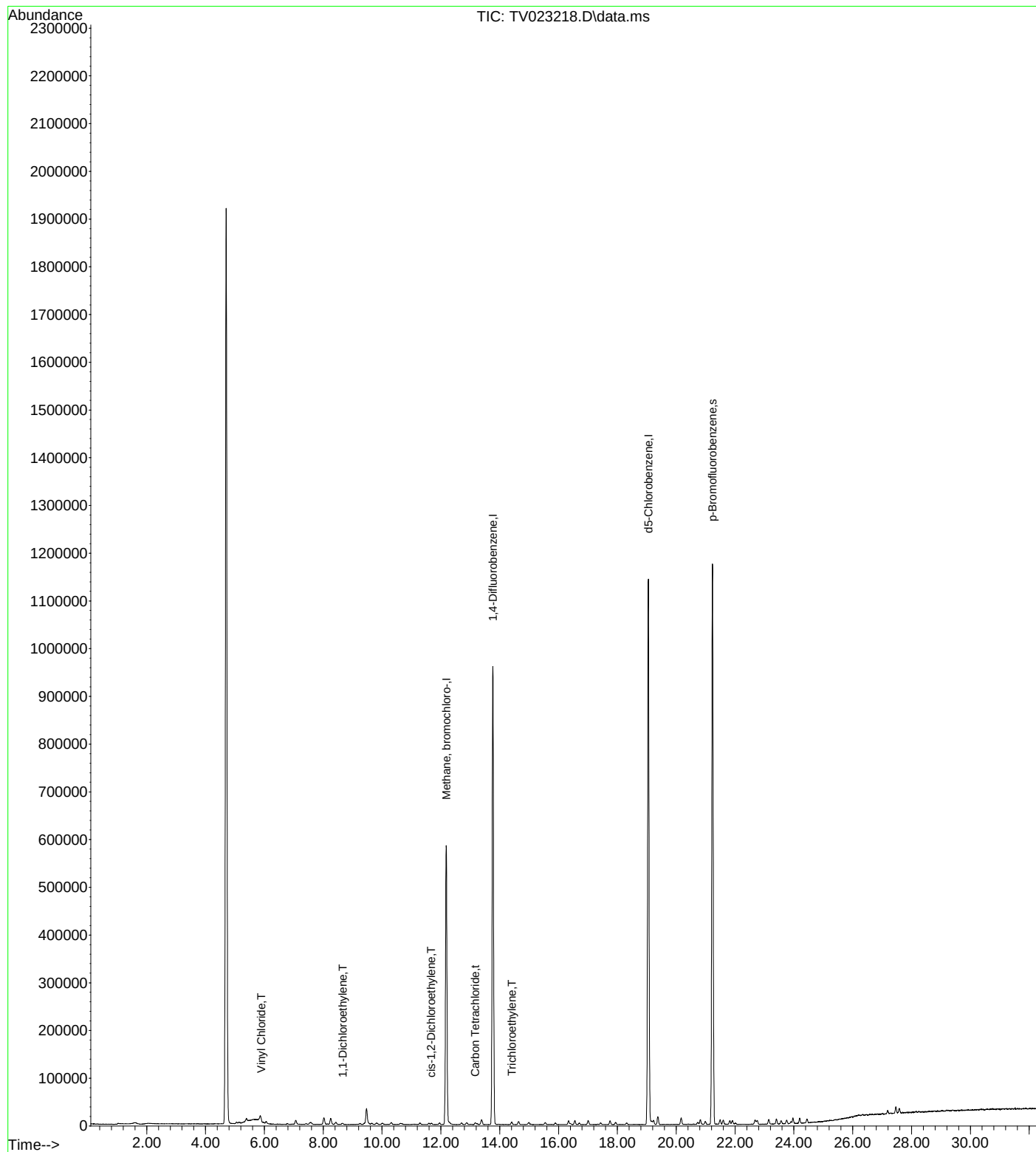
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	462739	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1495686	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1297065	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.229	95	852307	9.21	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.10%
Target Compounds						
					Qvalue	
6) Vinyl Chloride	5.893	62	1808	0.05	ppbv	99
17) 1,1-Dichloroethylene	8.658	61	2715	0.05	ppbv #	80
29) cis-1,2-Dichloroethylene	11.665	61	2980	0.06	ppbv	89
34) Carbon Tetrachloride	13.162	117	4162	0.05	ppbv	96
39) Trichloroethylene	14.407	95	3343	0.05	ppbv	90

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023218.D
Acq On : 20 Feb 2024 08:48 pm
Operator : VH
Sample : SEQ-CAL2
Misc : QBT03022024A 0.050 PPBV
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Feb 21 13:02:28 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023219.D
 Acq On : 20 Feb 2024 09:30 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03022024A 0.100 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:30 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	463760	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1506317	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1310418	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	861134	9.21	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.10%

Target Compounds						Qvalue
2) Propylene	5.056	42	3310	0.13	ppbv	89
3) Dichlorodifluoromethane	5.125	85	10374	0.10	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.383	85	8371	0.11	ppbv	94
5) Chloromethane	5.618	50	2659	0.14	ppbv	97
6) Vinyl Chloride	5.899	62	3742	0.11	ppbv	96
7) 1,3-Butadiene	5.965	54	3342	0.11	ppbv #	81
8) Bromomethane	6.788	94	4508	0.10	ppbv #	91
9) Chloroethane	6.955	64	2111	0.10	ppbv #	72
10) ethanol	7.069	45	10090	0.12	ppbv #	85
11) Vinyl Bromide	7.422	106	4555	0.10	ppbv	98
12) Trichlorofluoromethane	7.547	101	9494	0.10	ppbv	99
13) Isopropanol	8.021	45	36905	0.16	ppbv	100
14) Acrolein	8.141	56	1951	0.11	ppbv #	100
15) Acetone	8.256	43	32442	0.14	ppbv	88
16) Freon-113	8.436	101	9059	0.10	ppbv	98
17) 1,1-Dichloroethylene	8.648	61	5881	0.10	ppbv #	81
18) 3-Chloropropene	9.250	41	5780	0.11	ppbv #	97
19) Methylene Chloride	9.406	49	5394	0.11	ppbv #	1
20) Acrylonitrile	9.469	53	51206	0.18	ppbv #	100
21) Carbon disulfide	9.531	76	12889	0.11	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.825	73	11360	0.10	ppbv #	98
23) trans-1,2-Dichloroethy...	10.008	61	5353	0.10	ppbv #	77
24) Hexane	10.312	57	7025	0.11	ppbv	98
25) Vinyl Acetate	10.619	43	11392	0.11	ppbv	100
26) 1,1-Dichloroethane	10.675	63	7288	0.11	ppbv #	98
27) 2-Butanone	11.289	43	12469	0.13	ppbv	98
28) Ethyl Acetate	11.593	43	10792	0.11	ppbv	98
29) cis-1,2-Dichloroethylene	11.672	61	5303	0.10	ppbv	83
30) Chloroform	11.953	83	9376	0.11	ppbv	93
31) Tetrahydrofuran	12.280	42	5893	0.11	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	8590	0.10	ppbv	95
33) Cyclohexane	12.884	56	7000	0.10	ppbv	96
34) Carbon Tetrachloride	13.169	117	8906	0.10	ppbv #	58
35) 1,2-Dichloroethane	13.237	62	4577m	0.10	ppbv	
36) Benzene	13.365	78	16073	0.12	ppbv #	100
37) n-Heptane	13.388	43	8749	0.11	ppbv	98
39) Trichloroethylene	14.404	95	6670	0.10	ppbv	92
40) 1,2-Dichloropropane	14.636	63	5433	0.11	ppbv #	97
41) Methyl Methacrylate	14.646	69	5431	0.11	ppbv #	69
42) 1,4-Dioxane	14.963	88	3662	0.12	ppbv #	100
43) Bromodichloromethane	14.999	83	9229	0.10	ppbv	95
44) Methyl Isobutyl Ketone	15.538	43	10970	0.11	ppbv	96
45) cis-1,3-Dichloropropene	15.885	75	8046	0.10	ppbv	93
46) Toluene	16.552	91	20984	0.12	ppbv	99
47) trans-1,3-Dichloropropene	16.696	75	7081	0.10	ppbv	95
48) 1,1,2-Trichlorethane	17.006	97	6481	0.11	ppbv	91

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023219.D
 Acq On : 20 Feb 2024 09:30 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03022024A 0.100 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:30 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	10702	0.12	ppbv	99
50) 1,3-Dichloropropane	17.428	76	8589	0.10	ppbv #	98
51) Tetrachloroethylene	17.758	166	8295	0.11	ppbv	90
52) Dibromchloromethane	17.941	129	9842	0.09	ppbv	97
53) 1,2-Dibromoethane	18.317	107	10086	0.10	ppbv	98
55) Chlorobenzene	19.118	112	15649	0.11	ppbv #	99
56) 1,1,1,2-Tetrachloroethane	19.167	131	7550	0.10	ppbv #	91
57) Ethylbenzene	19.229	91	23415	0.11	ppbv	90
58) p- & m-Xylenes	19.379	91	34830	0.22	ppbv	89
59) o-Xylene	20.160	91	18107	0.11	ppbv	98
60) Styrene	20.177	104	14212	0.10	ppbv #	74
61) Bromoform	20.732	173	7430	0.08	ppbv	96
62) n-Propylbenzene	21.598	91	30563	0.10	ppbv	99
63) Isopropylbenzene	20.824	105	25486	0.10	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	14372	0.10	ppbv	96
66) 4-Ethyltoluene	21.821	105	25126	0.10	ppbv	91
67) 1,3,5-Trimethylbenzene	21.912	105	19548	0.10	ppbv	96
68) tert-Butylbenzene	22.680	119	24673	0.10	ppbv #	93
69) 1,2,4-Trimethylbenzene	22.752	105	19878	0.10	ppbv #	76
70) sec-Butylbenzene	23.148	105	31272	0.10	ppbv #	99
71) p-Isopropyltoluene	23.409	119	27966	0.10	ppbv #	89
72) 1,3-Dichlorobenzene	23.563	146	13368	0.09	ppbv	95
73) 1,4-Dichlorobenzene	23.746	146	14202	0.10	ppbv	96
74) Benzyl chloride	23.903	126	3131	0.07	ppbv #	1
75) n-Butylbenzene	24.194	91	21091	0.09	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	13006	0.09	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	6867	0.07	ppbv	93
78) Hexachlorobutadiene	27.469	225	7908	0.10	ppbv	86
79) Naphthalene	27.580	128	24534	0.08	ppbv	96

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023220.D
 Acq On : 20 Feb 2024 10:11 pm
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03022024A 0.200 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:32 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	463700	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1500478	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1308782	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	861046	9.22	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.20%

Target Compounds						Qvalue
2) Propylene	5.053	42	5636	0.22	ppbv	96
3) Dichlorodifluoromethane	5.128	85	20591	0.20	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.383	85	15775	0.21	ppbv	95
5) Chloromethane	5.615	50	4545	0.24	ppbv	99
6) Vinyl Chloride	5.889	62	6594	0.19	ppbv	99
7) 1,3-Butadiene	5.971	54	6567	0.21	ppbv	96
8) Bromomethane	6.779	94	9068	0.21	ppbv	96
9) Chloroethane	6.955	64	4273	0.20	ppbv #	76
10) ethanol	7.063	45	12852	0.26	ppbv	89
11) Vinyl Bromide	7.419	106	8832	0.20	ppbv	98
12) Trichlorofluoromethane	7.550	101	19004	0.20	ppbv	97
13) Isopropanol	8.021	45	43373	0.25	ppbv	100
14) Acrolein	8.142	56	3969	0.22	ppbv #	100
15) Acetone	8.249	43	38514	0.25	ppbv	88
16) Freon-113	8.423	101	18003	0.21	ppbv	99
17) 1,1-Dichloroethylene	8.648	61	11359	0.20	ppbv	84
18) 3-Chloropropene	9.246	41	11514	0.21	ppbv	95
19) Methylene Chloride	9.397	49	10311	0.21	ppbv	87
20) Acrylonitrile	9.472	53	53568	0.24	ppbv #	100
21) Carbon disulfide	9.537	76	24390	0.20	ppbv	100
22) Methyl-tert-Butyl Ethe...	9.815	73	22237	0.20	ppbv	97
23) trans-1,2-Dichloroethy...	10.008	61	11332	0.20	ppbv	84
24) Hexane	10.309	57	13084	0.20	ppbv	96
25) Vinyl Acetate	10.619	43	21365	0.20	ppbv	100
26) 1,1-Dichloroethane	10.678	63	13987	0.20	ppbv #	98
27) 2-Butanone	11.289	43	21468	0.23	ppbv	97
28) Ethyl Acetate	11.593	43	20503	0.21	ppbv	99
29) cis-1,2-Dichloroethylene	11.681	61	11121	0.21	ppbv	87
30) Chloroform	11.953	83	17308	0.20	ppbv	98
31) Tetrahydrofuran	12.289	42	11393	0.22	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	17529	0.20	ppbv	92
33) Cyclohexane	12.875	56	13808	0.20	ppbv	95
34) Carbon Tetrachloride	13.165	117	17255	0.19	ppbv #	89
35) 1,2-Dichloroethane	13.228	62	8845m	0.19	ppbv	
36) Benzene	13.371	78	29635	0.22	ppbv #	100
37) n-Heptane	13.394	43	16922	0.22	ppbv	99
39) Trichloroethylene	14.404	95	12865	0.20	ppbv	88
40) 1,2-Dichloropropane	14.636	63	10921	0.22	ppbv #	94
41) Methyl Methacrylate	14.649	69	10517	0.21	ppbv #	57
42) 1,4-Dioxane	14.957	88	6969	0.23	ppbv #	100
43) Bromodichloromethane	14.996	83	18086	0.19	ppbv	99
44) Methyl Isobutyl Ketone	15.545	43	21675	0.22	ppbv	97
45) cis-1,3-Dichloropropene	15.891	75	16000	0.20	ppbv	96
46) Toluene	16.555	91	38573	0.22	ppbv	98
47) trans-1,3-Dichloropropene	16.705	75	13962	0.20	ppbv	94
48) 1,1,2-Trichlorethane	17.000	97	13160	0.22	ppbv	90

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023220.D
 Acq On : 20 Feb 2024 10:11 pm
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03022024A 0.200 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:32 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.016	43	20848	0.23	ppbv	99
50) 1,3-Dichloropropane	17.431	76	17250	0.21	ppbv #	86
51) Tetrachloroethylene	17.751	166	17830	0.23	ppbv	97
52) Dibromochloromethane	17.941	129	19782	0.18	ppbv	97
53) 1,2-Dibromoethane	18.317	107	20318	0.20	ppbv	100
55) Chlorobenzene	19.118	112	29695	0.20	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	15826	0.20	ppbv	93
57) Ethylbenzene	19.232	91	46010	0.21	ppbv	93
58) p- & m-Xylenes	19.379	91	67816	0.42	ppbv	89
59) o-Xylene	20.160	91	34924	0.21	ppbv	97
60) Styrene	20.177	104	26899	0.20	ppbv #	74
61) Bromoform	20.736	173	15024	0.17	ppbv	98
62) n-Propylbenzene	21.599	91	59439	0.20	ppbv	98
63) Isopropylbenzene	20.821	105	50299	0.20	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	29004	0.21	ppbv	95
66) 4-Ethyltoluene	21.821	105	50150	0.20	ppbv	91
67) 1,3,5-Trimethylbenzene	21.912	105	37801	0.19	ppbv	96
68) tert-Butylbenzene	22.687	119	49390	0.20	ppbv #	92
69) 1,2,4-Trimethylbenzene	22.756	105	40727	0.20	ppbv #	77
70) sec-Butylbenzene	23.141	105	61347	0.20	ppbv #	99
71) p-Isopropyltoluene	23.409	119	53861	0.19	ppbv #	100
72) 1,3-Dichlorobenzene	23.566	146	28170	0.20	ppbv	94
73) 1,4-Dichlorobenzene	23.759	146	27650	0.19	ppbv	95
74) Benzyl chloride	23.903	126	8007	0.17	ppbv #	1
75) n-Butylbenzene	24.194	91	42730	0.19	ppbv #	89
76) 1,2-Dichlorobenzene	24.445	146	26921	0.20	ppbv	95
77) 1,2,4-Trichlorobenzene	27.188	180	13283	0.14	ppbv	94
78) Hexachlorobutadiene	27.472	225	15656	0.20	ppbv	93
79) Naphthalene	27.587	128	49261	0.16	ppbv	99

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

```
Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023220.D
Acq On    : 20 Feb 2024 10:11 pm
Operator   : VH
Sample     : SEQ-CAL4
Misc       : QBT03022024A 0.200 PPBV
ALS Vial   : 2 Sample Multiplier: 1
InstName   : T015_AIR3
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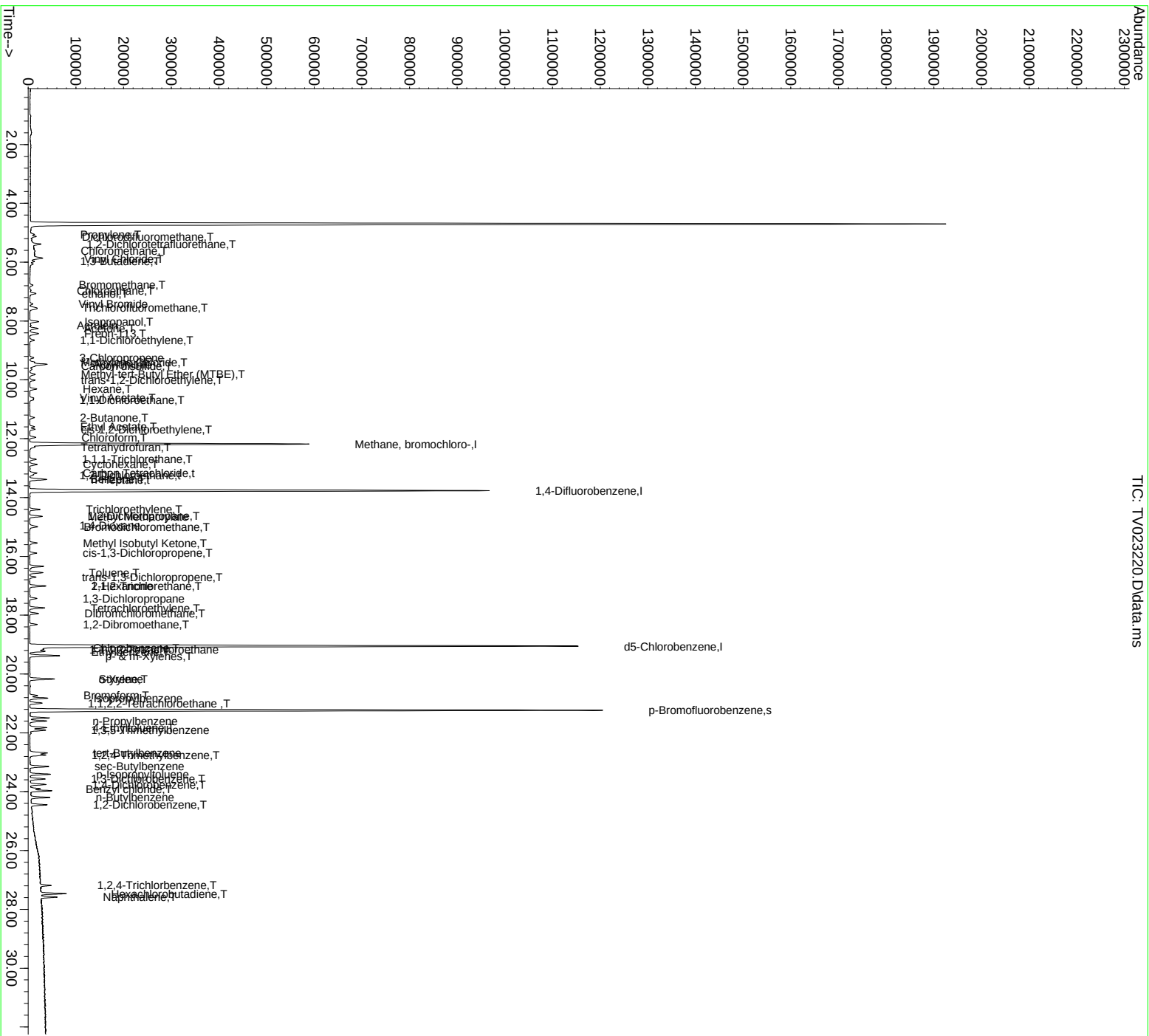
Quant Time: Feb 21 13:02:32 2024

Quant Method : D:\MasHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

qlast Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023221.D
 Acq On : 20 Feb 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03022024A 0.500 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:34 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	465700	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.764	114	1508330	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1305948	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.233	95	868435	9.32	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.20%

Target Compounds						Qvalue
2) Propylene	5.059	42	12950	0.51	ppbv	97
3) Dichlorodifluoromethane	5.121	85	50452	0.48	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.393	85	40065	0.53	ppbv	95
5) Chloromethane	5.612	50	10246	0.54	ppbv #	86
6) Vinyl Chloride	5.893	62	17167	0.50	ppbv	100
7) 1,3-Butadiene	5.978	54	15616	0.49	ppbv	95
8) Bromomethane	6.782	94	22141	0.50	ppbv	99
9) Chloroethane	6.962	64	10833	0.51	ppbv	96
10) ethanol	7.056	45	21601	0.69	ppbv	86
11) Vinyl Bromide	7.423	106	22298	0.50	ppbv	98
12) Trichlorofluoromethane	7.547	101	47180	0.49	ppbv	99
13) Isopropanol	8.017	45	65008	0.53	ppbv	100
14) Acrolein	8.132	56	10323	0.56	ppbv #	100
15) Acetone	8.253	43	59927	0.63	ppbv	87
16) Freon-113	8.433	101	44012	0.50	ppbv	96
17) 1,1-Dichloroethylene	8.655	61	29149	0.51	ppbv	83
18) 3-Chloropropene	9.250	41	28412	0.51	ppbv	94
19) Methylene Chloride	9.403	49	25586	0.53	ppbv	93
20) Acrylonitrile	9.475	53	65040	0.53	ppbv #	100
21) Carbon disulfide	9.541	76	61685	0.50	ppbv	97
22) Methyl-tert-Butyl Ethe...	9.812	73	55993	0.50	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	28379	0.51	ppbv	85
24) Hexane	10.309	57	33650	0.52	ppbv	97
25) Vinyl Acetate	10.619	43	55339	0.51	ppbv	100
26) 1,1-Dichloroethane	10.672	63	35543	0.51	ppbv #	100
27) 2-Butanone	11.280	43	50541	0.54	ppbv	98
28) Ethyl Acetate	11.590	43	52487	0.54	ppbv	98
29) cis-1,2-Dichloroethylene	11.678	61	26383	0.49	ppbv	81
30) Chloroform	11.956	83	44284	0.50	ppbv	97
31) Tetrahydrofuran	12.280	42	27460	0.52	ppbv	98
32) 1,1,1-Trichlorethane	12.705	97	42757	0.48	ppbv	97
33) Cyclohexane	12.875	56	35105	0.52	ppbv	98
34) Carbon Tetrachloride	13.169	117	44260	0.48	ppbv	96
35) 1,2-Dichloroethane	13.234	62	23233m	0.49	ppbv	
36) Benzene	13.368	78	71917	0.53	ppbv #	100
37) n-Heptane	13.391	43	42176	0.55	ppbv #	98
39) Trichloroethylene	14.404	95	32334	0.50	ppbv	88
40) 1,2-Dichloropropane	14.633	63	26601	0.54	ppbv #	96
41) Methyl Methacrylate	14.646	69	27597	0.54	ppbv #	49
42) 1,4-Dioxane	14.954	88	17119	0.57	ppbv #	100
43) Bromodichloromethane	14.996	83	46496	0.50	ppbv	99
44) Methyl Isobutyl Ketone	15.539	43	53624	0.53	ppbv	97
45) cis-1,3-Dichloropropene	15.888	75	39662	0.50	ppbv	95
46) Toluene	16.555	91	93225	0.54	ppbv	97
47) trans-1,3-Dichloropropene	16.706	75	35006	0.49	ppbv	94
48) 1,1,2-Trichlorethane	17.003	97	31966	0.54	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023221.D
 Acq On : 20 Feb 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03022024A 0.500 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:34 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.016	43	51025	0.56	ppbv	# 97
50) 1,3-Dichloropropane	17.428	76	43560	0.52	ppbv	# 99
51) Tetrachloroethylene	17.751	166	42339	0.54	ppbv	94
52) Dibromchloromethane	17.944	129	52170	0.48	ppbv	98
53) 1,2-Dibromoethane	18.314	107	51303	0.51	ppbv	100
55) Chlorobenzene	19.124	112	73356	0.50	ppbv	# 100
56) 1,1,1,2-Tetrachloroethane	19.173	131	38766	0.49	ppbv	93
57) Ethylbenzene	19.232	91	113770	0.51	ppbv	93
58) p- & m-Xylenes	19.376	91	170365	1.07	ppbv	90
59) o-Xylene	20.160	91	85772	0.51	ppbv	96
60) Styrene	20.177	104	69275	0.51	ppbv	# 74
61) Bromoform	20.736	173	39437	0.44	ppbv	99
62) n-Propylbenzene	21.599	91	151145	0.51	ppbv	98
63) Isopropylbenzene	20.821	105	126540	0.51	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	72552	0.52	ppbv	97
66) 4-Ethyltoluene	21.818	105	126830	0.50	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	96648	0.49	ppbv	94
68) tert-Butylbenzene	22.684	119	124850	0.50	ppbv	# 92
69) 1,2,4-Trimethylbenzene	22.753	105	102413	0.50	ppbv	# 76
70) sec-Butylbenzene	23.145	105	158051	0.51	ppbv	# 99
71) p-Isopropyltoluene	23.406	119	140677	0.51	ppbv	# 100
72) 1,3-Dichlorobenzene	23.566	146	71921	0.50	ppbv	96
73) 1,4-Dichlorobenzene	23.753	146	71727	0.49	ppbv	96
74) Benzyl chloride	23.903	126	21820	0.47	ppbv	# 1
75) n-Butylbenzene	24.197	91	118054	0.51	ppbv	# 89
76) 1,2-Dichlorobenzene	24.446	146	68810	0.50	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	40945	0.43	ppbv	96
78) Hexachlorobutadiene	27.466	225	40913	0.53	ppbv	93
79) Naphthalene	27.584	128	138786	0.46	ppbv	100

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

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Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023221.D
Acq On    : 20 Feb 2024 10:52 pm
Operator  : VH
Sample    : SEQ-CAL5
Misc      : QBT03022024A 0.500 PPBV
ALS Vial  : 2 Sample Multiplier: 1
InstName  : T015_AIR3
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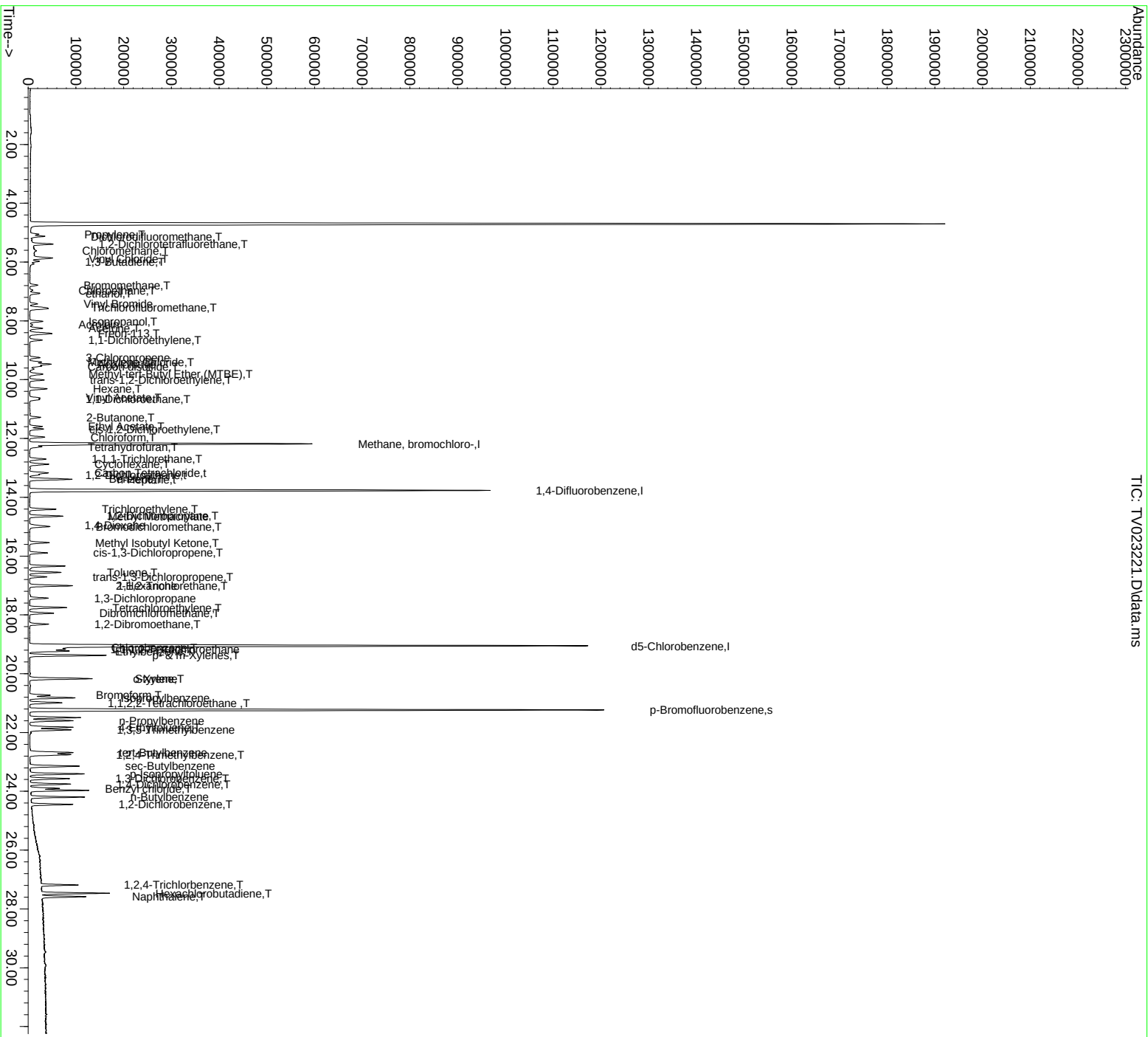
Quant Time: Feb 21 13:02:34 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Qlast Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023222.D
 Acq On : 20 Feb 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03022024A 3.000 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:36 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	471381	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1517892	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1315531	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	906611	9.66	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	96.60%

Target Compounds						Qvalue
2) Propylene	5.049	42	73925	2.89	ppbv	96
3) Dichlorodifluoromethane	5.121	85	312684	2.97	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	240807	3.13	ppbv	95
5) Chloromethane	5.615	50	55352	2.86	ppbv	100
6) Vinyl Chloride	5.893	62	105388	3.00	ppbv	100
7) 1,3-Butadiene	5.974	54	96509	3.02	ppbv	96
8) Bromomethane	6.785	94	132817	2.98	ppbv	99
9) Chloroethane	6.958	64	66801	3.08	ppbv	98
10) ethanol	7.060	45	66159	2.88	ppbv	87
11) Vinyl Bromide	7.422	106	135999	3.02	ppbv	99
12) Trichlorofluoromethane	7.547	101	288738	2.94	ppbv	98
13) Isopropanol	8.014	45	257828	3.11	ppbv	100
14) Acrolein	8.138	56	54579	2.93	ppbv #	100
15) Acetone	8.246	43	193467	3.00	ppbv	90
16) Freon-113	8.429	101	270850	3.05	ppbv	99
17) 1,1-Dichloroethylene	8.651	61	175402	3.05	ppbv	85
18) 3-Chloropropene	9.250	41	169986	3.04	ppbv	93
19) Methylene Chloride	9.400	49	145136	2.98	ppbv	95
20) Acrylonitrile	9.472	53	166251	3.07	ppbv #	100
21) Carbon disulfide	9.541	76	376587	3.05	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.809	73	340511	3.00	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	169646	3.01	ppbv	83
24) Hexane	10.309	57	203187	3.09	ppbv	98
25) Vinyl Acetate	10.619	43	319388	2.92	ppbv	100
26) 1,1-Dichloroethane	10.675	63	212075	3.03	ppbv #	99
27) 2-Butanone	11.276	43	270043	2.85	ppbv	99
28) Ethyl Acetate	11.590	43	297360	3.02	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	163625	3.02	ppbv	84
30) Chloroform	11.953	83	267020	2.97	ppbv	98
31) Tetrahydrofuran	12.280	42	159613	3.01	ppbv	97
32) 1,1,1-Trichlorethane	12.701	97	261770	2.90	ppbv	97
33) Cyclohexane	12.878	56	213004	3.10	ppbv	97
34) Carbon Tetrachloride	13.172	117	274463	2.97	ppbv #	58
35) 1,2-Dichloroethane	13.234	62	137600m	2.89	ppbv	
36) Benzene	13.371	78	423312	3.07	ppbv #	100
37) n-Heptane	13.394	43	252812	3.25	ppbv #	98
39) Trichloroethylene	14.404	95	194465	2.98	ppbv	88
40) 1,2-Dichloropropane	14.636	63	158570	3.20	ppbv #	98
41) Methyl Methacrylate	14.643	69	163501	3.17	ppbv #	79
42) 1,4-Dioxane	14.950	88	96269	3.16	ppbv #	100
43) Bromodichloromethane	14.996	83	287661	3.06	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	317534	3.14	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	244499	3.05	ppbv	96
46) Toluene	16.555	91	514463	2.95	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	215310	3.02	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	190243	3.19	ppbv	93

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023222.D
 Acq On : 20 Feb 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03022024A 3.000 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:36 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	297961	3.26	ppbv	99
50) 1,3-Dichloropropane	17.431	76	260245	3.10	ppbv #	100
51) Tetrachloroethylene	17.751	166	245514	3.09	ppbv	96
52) Dibromchloromethane	17.941	129	339109	3.13	ppbv	98
53) 1,2-Dibromoethane	18.317	107	309895	3.08	ppbv	100
55) Chlorobenzene	19.121	112	454928	3.07	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	237325	3.01	ppbv	93
57) Ethylbenzene	19.229	91	674445	3.02	ppbv	91
58) p- & m-Xylenes	19.376	91	996294	6.20	ppbv	89
59) o-Xylene	20.160	91	508013	3.02	ppbv	96
60) Styrene	20.180	104	429419	3.15	ppbv #	100
61) Bromoform	20.732	173	278256	3.08	ppbv	99
62) n-Propylbenzene	21.595	91	918773	3.08	ppbv	98
63) Isopropylbenzene	20.821	105	769843	3.06	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	434808	3.11	ppbv	97
66) 4-Ethyltoluene	21.821	105	781154	3.09	ppbv	90
67) 1,3,5-Trimethylbenzene	21.909	105	597677	3.02	ppbv	94
68) tert-Butylbenzene	22.684	119	769366	3.08	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.752	105	631476	3.05	ppbv #	76
70) sec-Butylbenzene	23.145	105	975079	3.13	ppbv #	99
71) p-Isopropyltoluene	23.409	119	875566	3.14	ppbv #	89
72) 1,3-Dichlorobenzene	23.570	146	452974	3.13	ppbv	95
73) 1,4-Dichlorobenzene	23.753	146	453725	3.10	ppbv	96
74) Benzyl chloride	23.903	126	150203	3.20	ppbv #	1
75) n-Butylbenzene	24.194	91	755944	3.26	ppbv #	89
76) 1,2-Dichlorobenzene	24.446	146	431067	3.12	ppbv	96
77) 1,2,4-Trichlorobenzene	27.185	180	310603	3.24	ppbv	95
78) Hexachlorobutadiene	27.466	225	259573	3.33	ppbv	93
79) Naphthalene	27.583	128	973287	3.23	ppbv	99

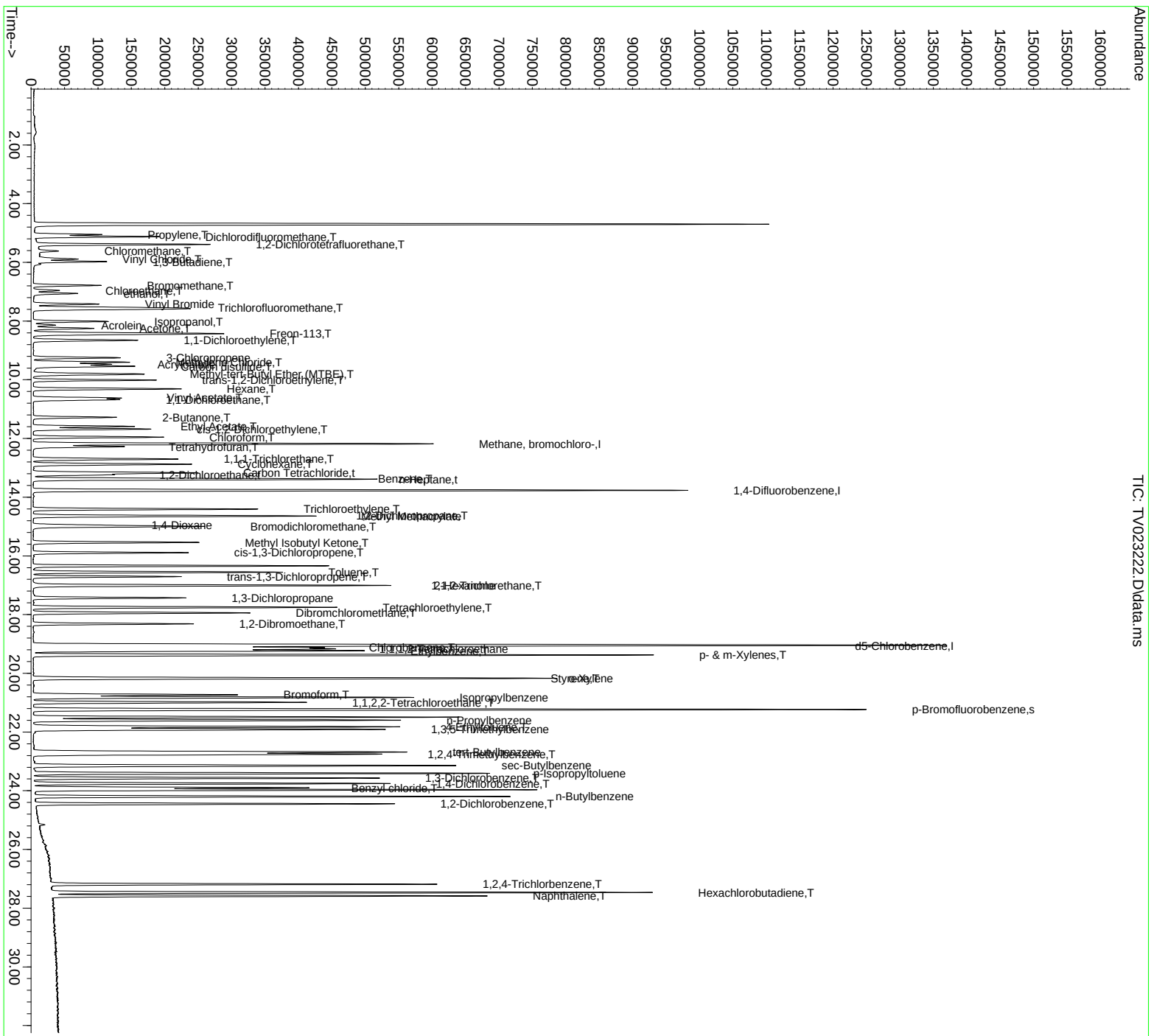
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Data Path      : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File     : TV022322.D
Acq On        : 20 Feb 2024  11:33 pm
Operator      : VH
Sample        : SEQ-CAL6
Misc          : QBT03022024A 3.000 PPBV
ALS Vial      : 3      Sample Multiplier: 1
InstName      : T015_AIR3

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Quant Time: Feb 21 13:02:36 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
Quant Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023223.D
 Acq On : 21 Feb 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03022024A 10.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:38 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	475710	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1550178	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1348469	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	964997	10.03	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.30%

Target Compounds						Qvalue
2) Propylene	5.053	42	242366	9.40	ppbv	97
3) Dichlorodifluoromethane	5.125	85	1073313	10.10	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	791811	10.18	ppbv	92
5) Chloromethane	5.612	50	176426	9.04	ppbv #	86
6) Vinyl Chloride	5.893	62	351815	9.93	ppbv	99
7) 1,3-Butadiene	5.974	54	321587	9.96	ppbv	95
8) Bromomethane	6.785	94	442209	9.84	ppbv	99
9) Chloroethane	6.962	64	219594	10.04	ppbv	98
10) ethanol	7.060	45	191813	9.51	ppbv	87
11) Vinyl Bromide	7.419	106	445624	9.81	ppbv	99
12) Trichlorofluoromethane	7.547	101	974733	9.83	ppbv	99
13) Isopropanol	8.011	45	738607	9.74	ppbv	100
14) Acrolein	8.138	56	177276	9.44	ppbv #	100
15) Acetone	8.246	43	568108	9.72	ppbv	91
16) Freon-113	8.429	101	884381	9.86	ppbv	98
17) 1,1-Dichloroethylene	8.651	61	581678	10.02	ppbv	85
18) 3-Chloropropene	9.250	41	553275	9.81	ppbv	93
19) Methylene Chloride	9.403	49	469234	9.53	ppbv	93
20) Acrylonitrile	9.472	53	428945	9.74	ppbv #	100
21) Carbon disulfide	9.541	76	1235845	9.90	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	1121003	9.80	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	563411	9.91	ppbv	84
24) Hexane	10.309	57	653420	9.86	ppbv	98
25) Vinyl Acetate	10.619	43	1090898	9.89	ppbv #	100
26) 1,1-Dichloroethane	10.678	63	695219	9.84	ppbv #	99
27) 2-Butanone	11.276	43	857059	8.96	ppbv	98
28) Ethyl Acetate	11.587	43	963098	9.68	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	539465	9.86	ppbv	85
30) Chloroform	11.953	83	879714	9.69	ppbv	99
31) Tetrahydrofuran	12.273	42	518405	9.69	ppbv	97
32) 1,1,1-Trichlorethane	12.701	97	890064	9.76	ppbv	97
33) Cyclohexane	12.878	56	690641	9.97	ppbv	96
34) Carbon Tetrachloride	13.172	117	949423	10.17	ppbv	96
35) 1,2-Dichloroethane	13.234	62	469648m	9.77	ppbv	
36) Benzene	13.371	78	1364586	9.81	ppbv #	100
37) n-Heptane	13.394	43	794710	10.13	ppbv #	97
39) Trichloroethylene	14.408	95	652174	9.78	ppbv	89
40) 1,2-Dichloropropane	14.636	63	513722	10.15	ppbv #	99
41) Methyl Methacrylate	14.646	69	545182	10.35	ppbv #	79
42) 1,4-Dioxane	14.950	88	303564	9.75	ppbv #	100
43) Bromodichloromethane	14.996	83	970906	10.12	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	1024766	9.93	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	828303	10.11	ppbv	96
46) Toluene	16.555	91	1686491	9.46	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	742473	10.19	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	622367	10.21	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023223.D
 Acq On : 21 Feb 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03022024A 10.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:38 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	947847	10.14	ppbv	98
50) 1,3-Dichloropropane	17.431	76	868340	10.14	ppbv #	100
51) Tetrachloroethylene	17.751	166	819424	10.08	ppbv	94
52) Dibromchloromethane	17.944	129	1187954	10.73	ppbv	98
53) 1,2-Dibromoethane	18.317	107	1052944	10.25	ppbv	100
55) Chlorobenzene	19.121	112	1503029	9.88	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	805448	9.95	ppbv	94
57) Ethylbenzene	19.232	91	2237583	9.77	ppbv	92
58) p- & m-Xylenes	19.376	91	3288446	19.95	ppbv	90
59) o-Xylene	20.160	91	1708707	9.90	ppbv	96
60) Styrene	20.177	104	1432932	10.26	ppbv #	74
61) Bromoform	20.736	173	987564	10.67	ppbv	99
62) n-Propylbenzene	21.599	91	3046119	9.96	ppbv	98
63) Isopropylbenzene	20.821	105	2582115	10.00	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	1424816	9.95	ppbv	98
66) 4-Ethyltoluene	21.821	105	2614301	10.08	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	2005229	9.89	ppbv	94
68) tert-Butylbenzene	22.684	119	2570178	10.04	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.756	105	2138551	10.08	ppbv #	77
70) sec-Butylbenzene	23.148	105	3254732	10.21	ppbv #	93
71) p-Isopropyltoluene	23.409	119	2914819	10.19	ppbv #	89
72) 1,3-Dichlorobenzene	23.570	146	1514225	10.22	ppbv	96
73) 1,4-Dichlorobenzene	23.756	146	1529077	10.20	ppbv	97
74) Benzyl chloride	23.900	126	528939	10.98	ppbv #	1
75) n-Butylbenzene	24.197	91	2532005	10.65	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	1456266	10.27	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	1137994	11.60	ppbv	96
78) Hexachlorobutadiene	27.469	225	824713	10.31	ppbv #	92
79) Naphthalene	27.583	128	3405977	11.02	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023223.D
Acq On : 21 Feb 2024 12:14 am
Operator : VH
Sample : SEQ-CAL7
Misc : QBT03022024A 10.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

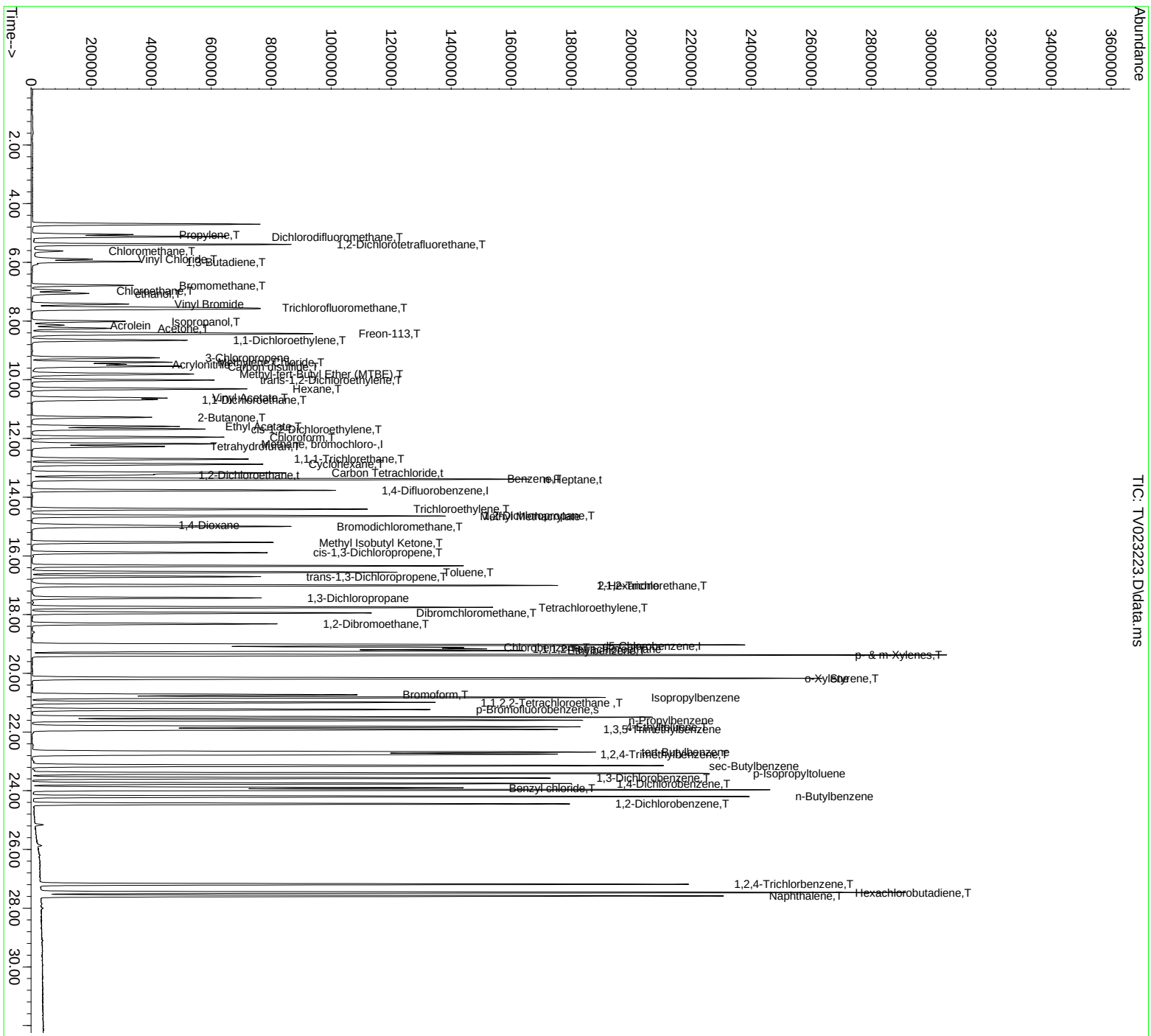
Quant Time: Feb 21 13:02:38 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023224.D
 Acq On : 21 Feb 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03022024A 20.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:40 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	488026	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1610480	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.056	117	1344917	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	1007177	10.50	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	105.00%

Target Compounds						Qvalue
2) Propylene	5.053	42	489591	18.50	ppbv	96
3) Dichlorodifluoromethane	5.125	85	2222793	20.38	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	1526193	19.13	ppbv	92
5) Chloromethane	5.615	50	352107	17.59	ppbv	100
6) Vinyl Chloride	5.893	62	683644	18.81	ppbv	99
7) 1,3-Butadiene	5.974	54	646931	19.53	ppbv	95
8) Bromomethane	6.782	94	905024	19.63	ppbv	99
9) Chloroethane	6.958	64	444518	19.82	ppbv	98
10) ethanol	7.060	45	376037	20.43	ppbv	88
11) Vinyl Bromide	7.419	106	923908	19.83	ppbv	99
12) Trichlorofluoromethane	7.547	101	2060321	20.25	ppbv	99
13) Isopropanol	8.011	45	1415666	19.38	ppbv	100
14) Acrolein	8.142	56	359162	18.64	ppbv #	100
15) Acetone	8.246	43	1124329	19.62	ppbv	91
16) Freon-113	8.429	101	1816207	19.74	ppbv	99
17) 1,1-Dichloroethylene	8.655	61	1201663	20.17	ppbv	86
18) 3-Chloropropene	9.250	41	1126434	19.46	ppbv	93
19) Methylene Chloride	9.400	49	953624	18.89	ppbv	92
20) Acrylonitrile	9.472	53	823208	19.64	ppbv #	100
21) Carbon disulfide	9.541	76	2535656	19.80	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	2343488	19.97	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	1177804	20.19	ppbv	84
24) Hexane	10.312	57	1326837	19.52	ppbv	97
25) Vinyl Acetate	10.619	43	2251526	19.90	ppbv #	99
26) 1,1-Dichloroethane	10.678	63	1425093	19.65	ppbv #	99
27) 2-Butanone	11.279	43	1739098	17.73	ppbv	97
28) Ethyl Acetate	11.587	43	1944610	19.05	ppbv	98
29) cis-1,2-Dichloroethylene	11.678	61	1129231	20.12	ppbv	86
30) Chloroform	11.956	83	1854917	19.92	ppbv	99
31) Tetrahydrofuran	12.273	42	1037857	18.91	ppbv	96
32) 1,1,1-Trichlorethane	12.705	97	1910316	20.42	ppbv	97
33) Cyclohexane	12.878	56	1403630	19.74	ppbv	95
34) Carbon Tetrachloride	13.172	117	2048855	21.39	ppbv	97
35) 1,2-Dichloroethane	13.234	62	999766m	20.27	ppbv	
36) Benzene	13.371	78	2724541	19.09	ppbv #	100
37) n-Heptane	13.394	43	1524346	18.93	ppbv #	75
39) Trichloroethylene	14.408	95	1360938	19.65	ppbv	90
40) 1,2-Dichloropropane	14.636	63	1013290	19.27	ppbv #	99
41) Methyl Methacrylate	14.646	69	1091858	19.95	ppbv #	79
42) 1,4-Dioxane	14.950	88	618627	19.12	ppbv #	100
43) Bromodichloromethane	14.999	83	2033994	20.40	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	2051742	19.13	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	1729784	20.32	ppbv	96
46) Toluene	16.558	91	3435635	18.55	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	1536606	20.29	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	1228676	19.41	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023224.D
 Acq On : 21 Feb 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03022024A 20.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:40 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.013	43	1822812	18.77	ppbv #	74
50) 1,3-Dichloropropane	17.431	76	1734597	19.49	ppbv #	86
51) Tetrachloroethylene	17.755	166	1647323	19.51	ppbv	93
52) Dibromchloromethane	17.944	129	2472999	21.50	ppbv	98
53) 1,2-Dibromoethane	18.320	107	2161457	20.24	ppbv	99
55) Chlorobenzene	19.124	112	3005032	19.81	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.173	131	1648249	20.43	ppbv	95
57) Ethylbenzene	19.232	91	4470912	19.56	ppbv	92
58) p- & m-Xylenes	19.379	91	6358888	38.68	ppbv	91
59) o-Xylene	20.160	91	3382985	19.65	ppbv	96
60) Styrene	20.180	104	2804071	20.12	ppbv #	100
61) Bromoform	20.736	173	2058615	22.30	ppbv	99
62) n-Propylbenzene	21.599	91	6059667	19.86	ppbv	98
63) Isopropylbenzene	20.821	105	5199782	20.19	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	2810589	19.67	ppbv	99
66) 4-Ethyltoluene	21.824	105	5228293	20.21	ppbv	90
67) 1,3,5-Trimethylbenzene	21.912	105	4104445	20.29	ppbv	97
68) tert-Butylbenzene	22.687	119	5215313	20.42	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.759	105	4365703	20.63	ppbv #	79
70) sec-Butylbenzene	23.148	105	6445651	20.27	ppbv #	99
71) p-Isopropyltoluene	23.409	119	5808235	20.35	ppbv #	100
72) 1,3-Dichlorobenzene	23.570	146	3055896	20.68	ppbv	97
73) 1,4-Dichlorobenzene	23.756	146	3110768	20.80	ppbv	97
74) Benzyl chloride	23.900	126	1085684	22.60	ppbv #	1
75) n-Butylbenzene	24.197	91	4965896	20.95	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	2927602	20.70	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	2324666	23.76	ppbv	96
78) Hexachlorobutadiene	27.469	225	1508971	18.92	ppbv #	89
79) Naphthalene	27.587	128	6851976	22.24	ppbv	100

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023224.D
Acq On : 21 Feb 2024 12:55 am
Operator : VH
Sample : SEQ-CAL8
Misc : QBT03022024A 20.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

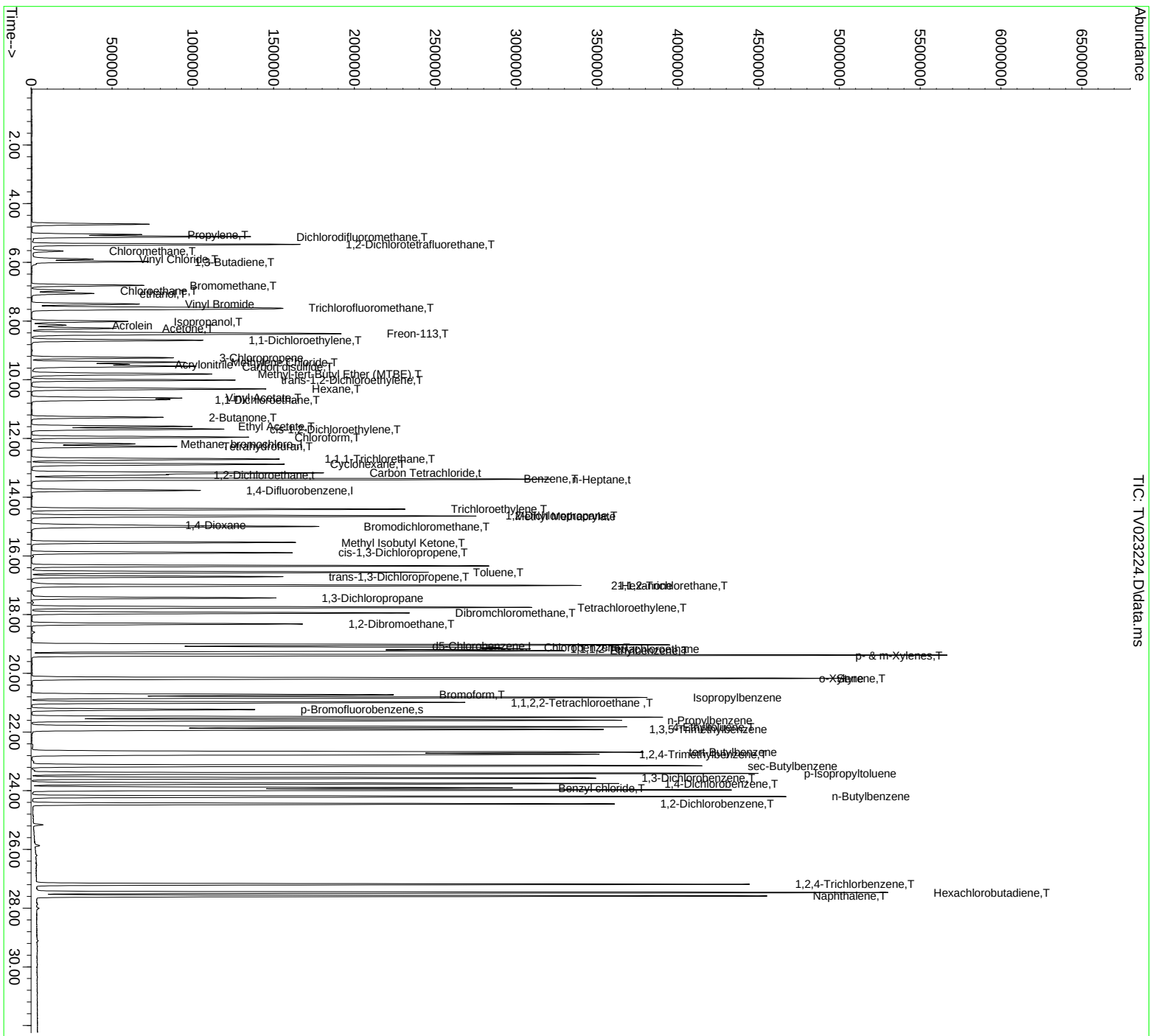
Quant Time: Feb 21 13:02:40 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023225.D
 Acq On : 21 Feb 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03022024A 30.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:42 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.185	49	485089	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1620917	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.056	117	1302389	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.236	95	1015904	10.94	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.40%

Target Compounds						Qvalue
2) Propylene	5.049	42	697546	26.52	ppbv	96
3) Dichlorodifluoromethane	5.125	85	3379532	31.17	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	2171074	27.38	ppbv	92
5) Chloromethane	5.615	50	499530	25.11	ppbv	100
6) Vinyl Chloride	5.893	62	1011712	28.01	ppbv	99
7) 1,3-Butadiene	5.974	54	968198	29.41	ppbv	96
8) Bromomethane	6.782	94	1365099	29.79	ppbv	99
9) Chloroethane	6.958	64	672938	30.18	ppbv	97
10) ethanol	7.063	45	563901	36.59	ppbv	88
11) Vinyl Bromide	7.419	106	1392961	30.09	ppbv	99
12) Trichlorofluoromethane	7.547	101	3167519	31.32	ppbv	99
13) Isopropanol	8.014	45	2104016	30.88	ppbv	100
14) Acrolein	8.138	56	548761	28.65	ppbv #	100
15) Acetone	8.246	43	1682948	30.60	ppbv	91
16) Freon-113	8.429	101	2734798	29.91	ppbv	99
17) 1,1-Dichloroethylene	8.651	61	1817367	30.70	ppbv	86
18) 3-Chloropropene	9.250	41	1685957	29.30	ppbv	93
19) Methylene Chloride	9.400	49	1414697	28.19	ppbv	91
20) Acrylonitrile	9.475	53	1218449	30.55	ppbv #	100
21) Carbon disulfide	9.541	76	3753266	29.49	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	3540445	30.35	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	1760822	30.36	ppbv	84
24) Hexane	10.312	57	1955741	28.94	ppbv	97
25) Vinyl Acetate	10.619	43	3396010	30.20	ppbv #	98
26) 1,1-Dichloroethane	10.678	63	2112744	29.31	ppbv #	99
27) 2-Butanone	11.279	43	2569418	26.35	ppbv	96
28) Ethyl Acetate	11.590	43	2858007	28.17	ppbv	98
29) cis-1,2-Dichloroethylene	11.681	61	1643981	29.47	ppbv	84
30) Chloroform	11.956	83	2828925	30.57	ppbv	98
31) Tetrahydrofuran	12.273	42	1534612	28.14	ppbv	96
32) 1,1,1-Trichlorethane	12.705	97	2971195	31.96	ppbv	96
33) Cyclohexane	12.878	56	2063293	29.20	ppbv	94
34) Carbon Tetrachloride	13.172	117	3210315	33.72	ppbv	97
35) 1,2-Dichloroethane	13.237	62	1533212m	31.28	ppbv	
36) Benzene	13.371	78	3916396	27.60	ppbv #	100
37) n-Heptane	13.398	43	2119666	26.48	ppbv #	96
39) Trichloroethylene	14.408	95	2043266	29.31	ppbv	90
40) 1,2-Dichloropropane	14.636	63	1439645	27.20	ppbv #	99
41) Methyl Methacrylate	14.649	69	1563839	28.39	ppbv #	49
42) 1,4-Dioxane	14.950	88	932989	28.66	ppbv #	100
43) Bromodichloromethane	14.999	83	3095788	30.85	ppbv	99
44) Methyl Isobutyl Ketone	15.542	43	2992672	27.72	ppbv	98
45) cis-1,3-Dichloropropene	15.895	75	2587363	30.20	ppbv	96
46) Toluene	16.558	91	5095523	27.33	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	2334197	30.62	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	1743566	27.36	ppbv	95

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023225.D
 Acq On : 21 Feb 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03022024A 30.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:42 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.013	43	2471212	25.28	ppbv	98
50) 1,3-Dichloropropane	17.434	76	2620649	29.26	ppbv #	100
51) Tetrachloroethylene	17.755	166	2375868	27.96	ppbv	93
52) Dibromchloromethane	17.944	129	3669842	31.69	ppbv	99
53) 1,2-Dibromoethane	18.320	107	3202067	29.80	ppbv	100
55) Chlorobenzene	19.121	112	4346799	29.59	ppbv #	86
56) 1,1,1,2-Tetrachloroethane	19.173	131	2399490	30.71	ppbv	97
57) Ethylbenzene	19.235	91	6494462	29.35	ppbv	92
58) p- & m-Xylenes	19.379	91	8659133	54.39	ppbv	92
59) o-Xylene	20.160	91	4724161	28.34	ppbv	97
60) Styrene	20.183	104	3862285	28.62	ppbv #	100
61) Bromoform	20.736	173	2990779	33.45	ppbv	99
62) n-Propylbenzene	21.599	91	8675124	29.37	ppbv	98
63) Isopropylbenzene	20.821	105	7356871	29.51	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	3951836	28.56	ppbv	99
66) 4-Ethyltoluene	21.824	105	7439576	29.70	ppbv	90
67) 1,3,5-Trimethylbenzene	21.916	105	5982247	30.55	ppbv	98
68) tert-Butylbenzene	22.690	119	7324738	29.62	ppbv #	94
69) 1,2,4-Trimethylbenzene	22.759	105	6175844	30.14	ppbv #	79
70) sec-Butylbenzene	23.148	105	8937859	29.02	ppbv #	99
71) p-Isopropyltoluene	23.413	119	8035080	29.07	ppbv #	100
72) 1,3-Dichlorobenzene	23.570	146	4304063	30.08	ppbv	97
73) 1,4-Dichlorobenzene	23.756	146	4349275	30.03	ppbv	97
74) Benzyl chloride	23.903	126	1573862	33.83	ppbv #	1
75) n-Butylbenzene	24.197	91	6764142	29.47	ppbv #	83
76) 1,2-Dichlorobenzene	24.449	146	4099604	29.93	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	3261609	34.42	ppbv	96
78) Hexachlorobutadiene	27.469	225	2060610	26.68	ppbv #	87
79) Naphthalene	27.587	128	9727526	32.60	ppbv	100

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023225.D
Acq On : 21 Feb 2024 01:36 am
Operator : VH
Sample : SEQ-CAL9
Misc : Q8T03022024A 30.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

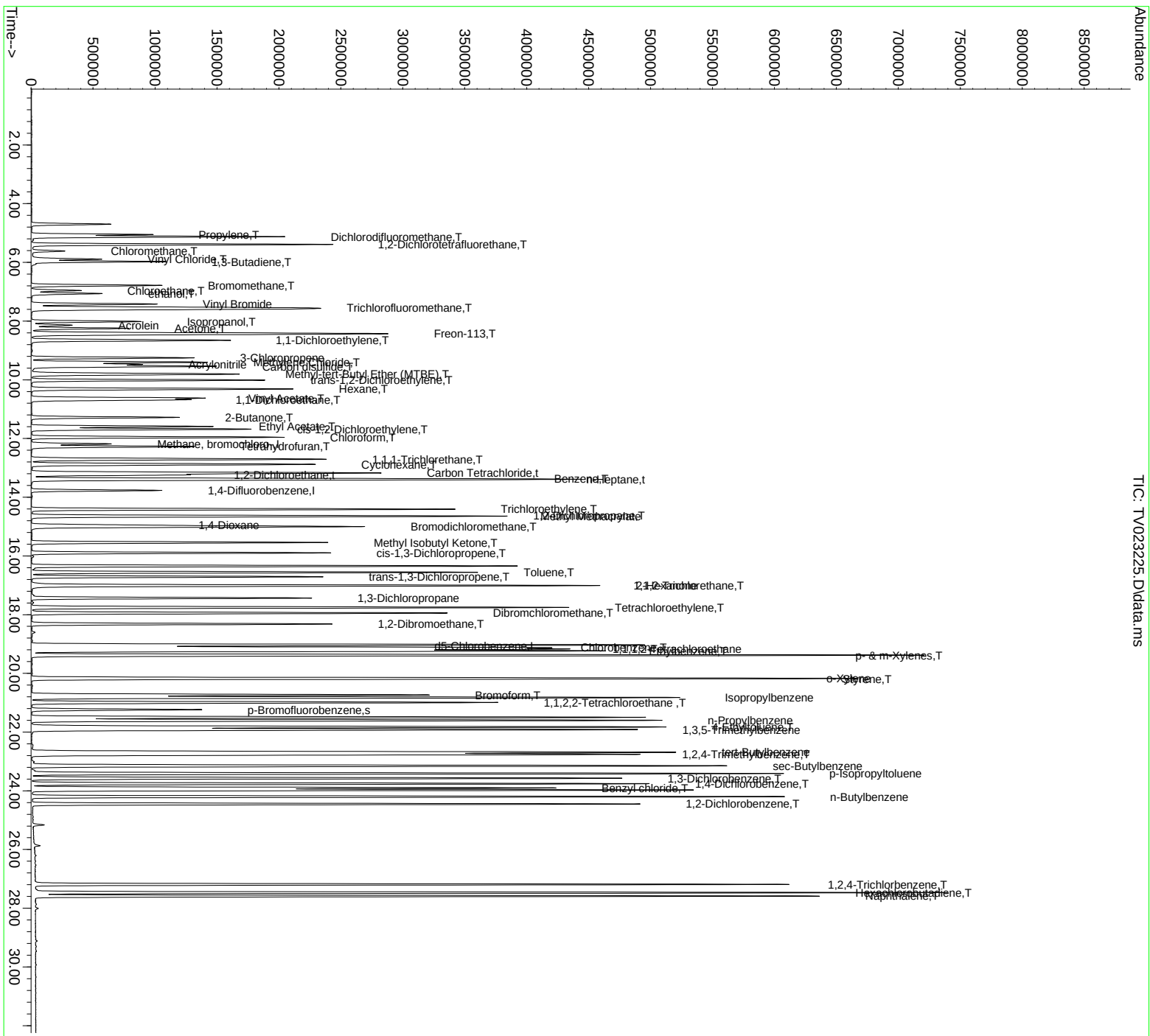
Quant Time: Feb 21 13:02:42 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023226.D
 Acq On : 21 Feb 2024 02:19 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03022024A 50.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:44 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.185	49	485646	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.770	114	1631804	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.062	117	1148224	10.00	ppbv	0.01

System Monitoring Compounds

65) p-Bromofluorobenzene	21.236	95	1042398	12.73	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	127.30%

Target Compounds						Qvalue
2) Propylene	5.049	42	1085135	41.21	ppbv	97
3) Dichlorodifluoromethane	5.125	85	5310950	48.94	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	3464086	43.64	ppbv	92
5) Chloromethane	5.615	50	756571	37.98	ppbv	100
6) Vinyl Chloride	5.896	62	1651141	45.66	ppbv	100
7) 1,3-Butadiene	5.974	54	1560982	47.37	ppbv	96
8) Bromomethane	6.785	94	2240606	48.84	ppbv	99
9) Chloroethane	6.958	64	1078565	48.32	ppbv	98
10) ethanol	7.069	45	655244	49.86	ppbv	87
11) Vinyl Bromide	7.419	106	2286067	49.32	ppbv	99
12) Trichlorofluoromethane	7.547	101	5293582	52.28	ppbv	99
13) Isopropanol	8.017	45	3051435	49.75	ppbv	100
14) Acrolein	8.142	56	882627	46.02	ppbv #	100
15) Acetone	8.246	43	2598748	49.84	ppbv	91
16) Freon-113	8.429	101	4328306	47.28	ppbv	98
17) 1,1-Dichloroethylene	8.655	61	2965069	50.02	ppbv	86
18) 3-Chloropropene	9.250	41	2679439	46.51	ppbv	94
19) Methylene Chloride	9.400	49	2283801	45.46	ppbv	90
20) Acrylonitrile	9.478	53	1877942	49.86	ppbv #	100
21) Carbon disulfide	9.541	76	6051717	47.50	ppbv	96
22) Methyl-tert-Butyl Ethe...	9.805	73	5803313	49.69	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	2839536	48.90	ppbv	84
24) Hexane	10.312	57	3057170	45.19	ppbv	97
25) Vinyl Acetate	10.623	43	5385741	47.83	ppbv #	99
26) 1,1-Dichloroethane	10.678	63	3417793	47.37	ppbv #	99
27) 2-Butanone	11.283	43	3997710	40.96	ppbv	95
28) Ethyl Acetate	11.590	43	4512443	44.42	ppbv	98
29) cis-1,2-Dichloroethylene	11.682	61	2688434	48.14	ppbv	84
30) Chloroform	11.956	83	4592561	49.57	ppbv	99
31) Tetrahydrofuran	12.273	42	2380257	43.59	ppbv	95
32) 1,1,1-Trichlorethane	12.705	97	4935193	53.02	ppbv	96
33) Cyclohexane	12.878	56	3241472	45.82	ppbv	93
34) Carbon Tetrachloride	13.172	117	5254601	55.14	ppbv	97
35) 1,2-Dichloroethane	13.237	62	2552298m	52.01	ppbv	
36) Benzene	13.371	78	5594091	39.38	ppbv #	100
37) n-Heptane	13.404	43	2914209	36.37	ppbv #	96
39) Trichloroethylene	14.411	95	3115867	44.40	ppbv	90
40) 1,2-Dichloropropane	14.633	63	1997148	37.48	ppbv #	98
41) Methyl Methacrylate	14.656	69	2209362	39.84	ppbv #	48
42) 1,4-Dioxane	14.960	88	925097	28.22	ppbv #	100
43) Bromodichloromethane	15.002	83	4848384	48.00	ppbv	99
44) Methyl Isobutyl Ketone	15.545	43	4534820	41.73	ppbv	97
45) cis-1,3-Dichloropropene	15.895	75	4036902	46.81	ppbv	96
46) Toluene	16.558	91	7786966	41.49	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	3699434	48.21	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	2389020	37.24	ppbv	96

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023226.D
 Acq On : 21 Feb 2024 02:19 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03022024A 50.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:44 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.019	43	3284225	33.38	ppbv	98
50) 1,3-Dichloropropane	17.438	76	3989125	44.24	ppbv #	86
51) Tetrachloroethylene	17.758	166	3422044	40.01	ppbv	92
52) Dibromchloromethane	17.948	129	5525035	47.40	ppbv	99
53) 1,2-Dibromoethane	18.320	107	4793264	44.31	ppbv	100
55) Chlorobenzene	19.124	112	6173743	47.66	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.177	131	3445605	50.01	ppbv	99
57) Ethylbenzene	19.239	91	9262901	47.48	ppbv	92
58) p- & m-Xylenes	19.382	91	12392870	88.29	ppbv	93
59) o-Xylene	20.164	91	6828182	46.46	ppbv	97
60) Styrene	20.187	104	5364830	45.09	ppbv #	100
61) Bromoform	20.739	173	4470459	56.72	ppbv	99
62) n-Propylbenzene	21.602	91	12441813	47.77	ppbv	98
63) Isopropylbenzene	20.824	105	10506065	47.79	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	5563546	45.61	ppbv	99
66) 4-Ethyltoluene	21.827	105	10603184	48.01	ppbv	91
67) 1,3,5-Trimethylbenzene	21.916	105	8930744	51.72	ppbv	98
68) tert-Butylbenzene	22.694	119	10572862	48.49	ppbv #	95
69) 1,2,4-Trimethylbenzene	22.762	105	8934493	49.45	ppbv #	80
70) sec-Butylbenzene	23.151	105	12621080	46.48	ppbv #	99
71) p-Isopropyltoluene	23.416	119	11674659	47.92	ppbv #	100
72) 1,3-Dichlorobenzene	23.576	146	6217105	49.28	ppbv	98
73) 1,4-Dichlorobenzene	23.759	146	6345666	49.69	ppbv	97
74) Benzyl chloride	23.906	126	2292379	55.89	ppbv #	1
75) n-Butylbenzene	24.200	91	9642849	47.65	ppbv #	88
76) 1,2-Dichlorobenzene	24.452	146	5901548	48.88	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	4778688	57.20	ppbv	94
78) Hexachlorobutadiene	27.472	225	3204633	47.06	ppbv #	86
79) Naphthalene	27.590	128	13902901	52.84	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023226.D
Acq On : 21 Feb 2024 02:19 am
Operator : VH
Sample : SEQ-CALA
Misc : Q8T03022024A 50.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

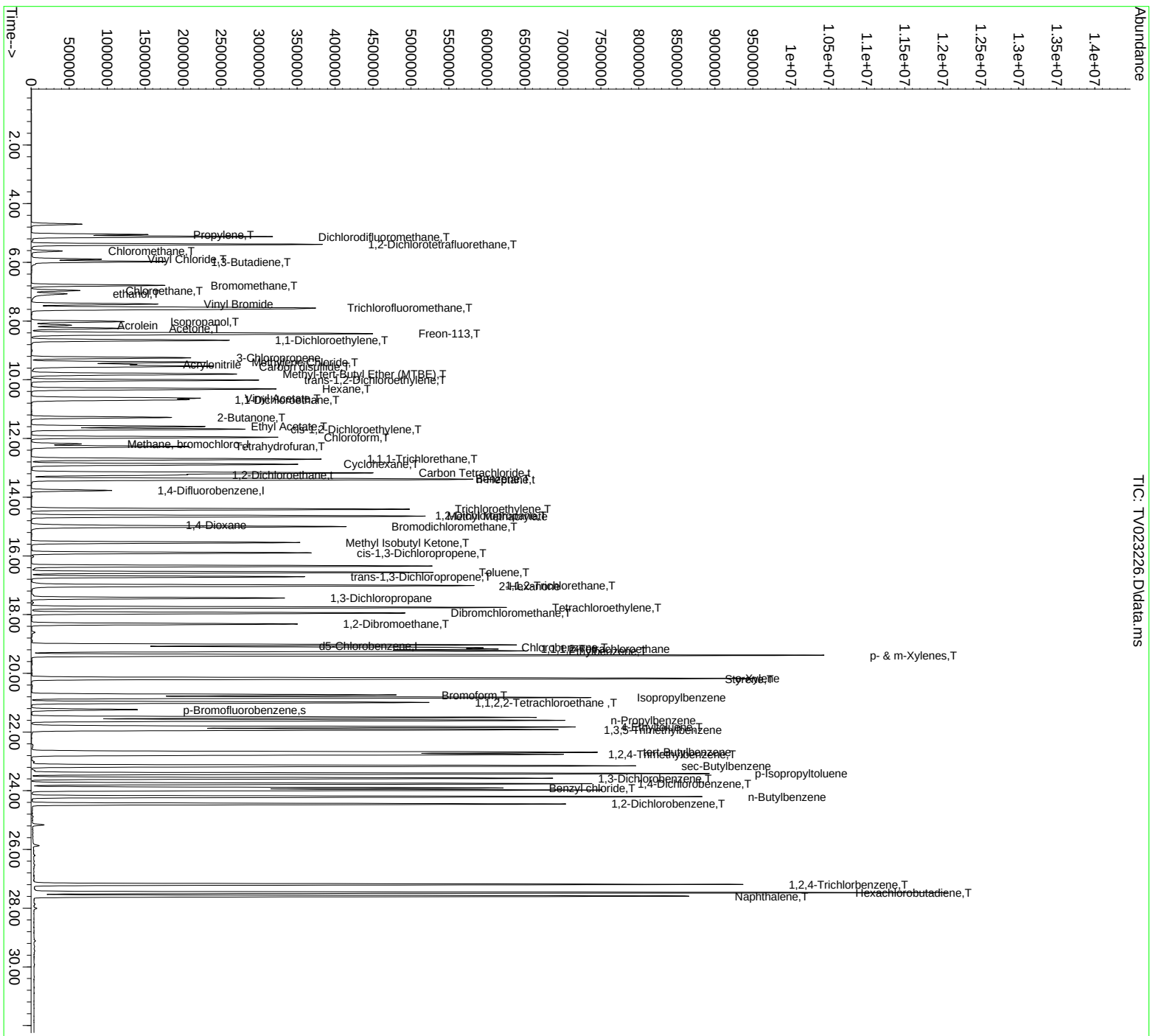
Quant Time: Feb 21 13:02:44 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023716.D
 Acq On : 29 Mar 2024 10:10 pm
 Operator : VH
 Sample : SEQ-CAL1
 Misc : QBT03032924A 0.025 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:25 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

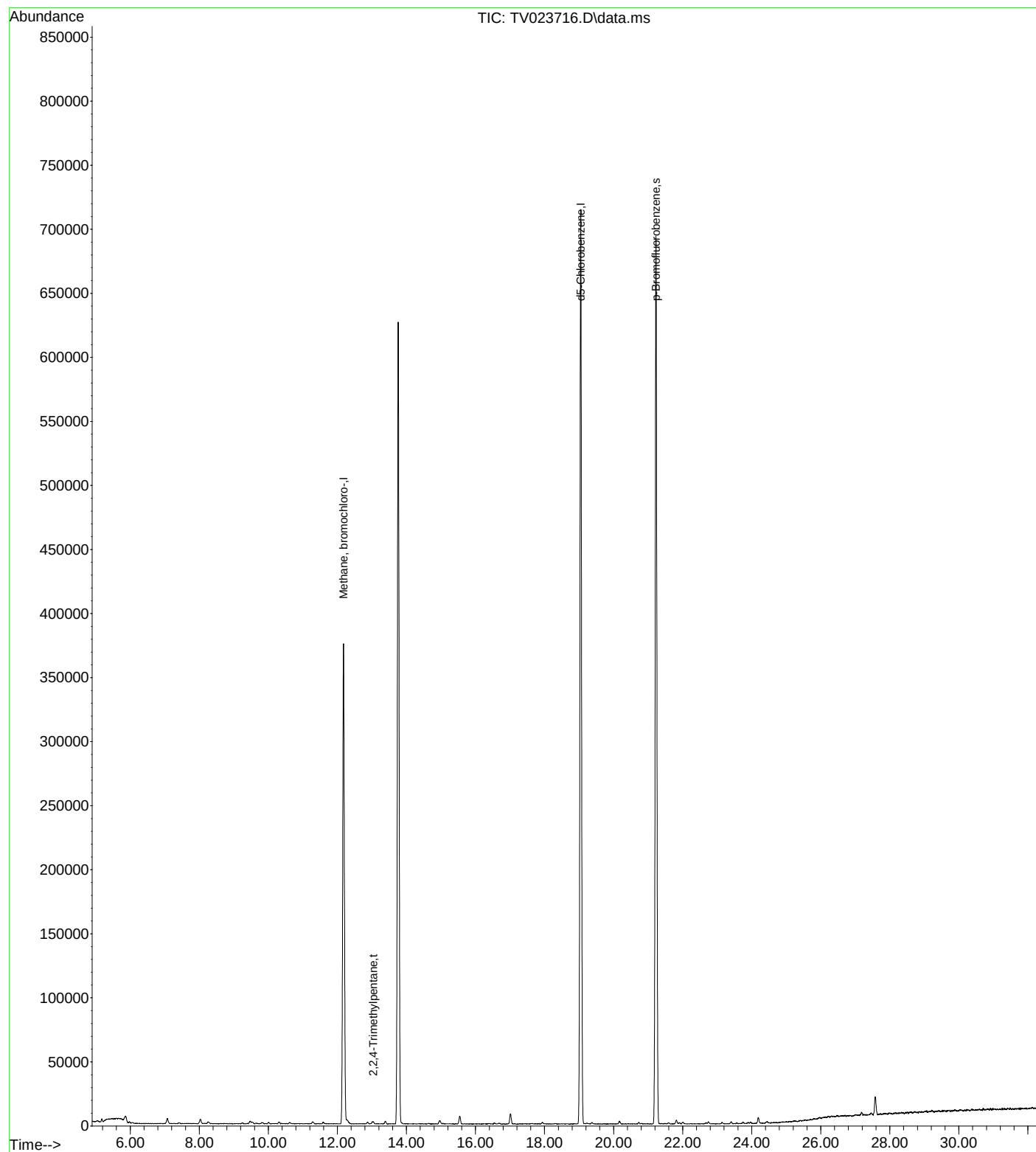
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	285616	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	837509	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	512732	9.87	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.70%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.036	57	3584	0.03	ppbv	Qvalue # 97

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023716.D
Acq On : 29 Mar 2024 10:10 pm
Operator : VH
Sample : SEQ-CAL1
Misc : QBT03032924A 0.025 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:25 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023717.D
 Acq On : 29 Mar 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL2
 Misc : QBT03032924A 0.050 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:27 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

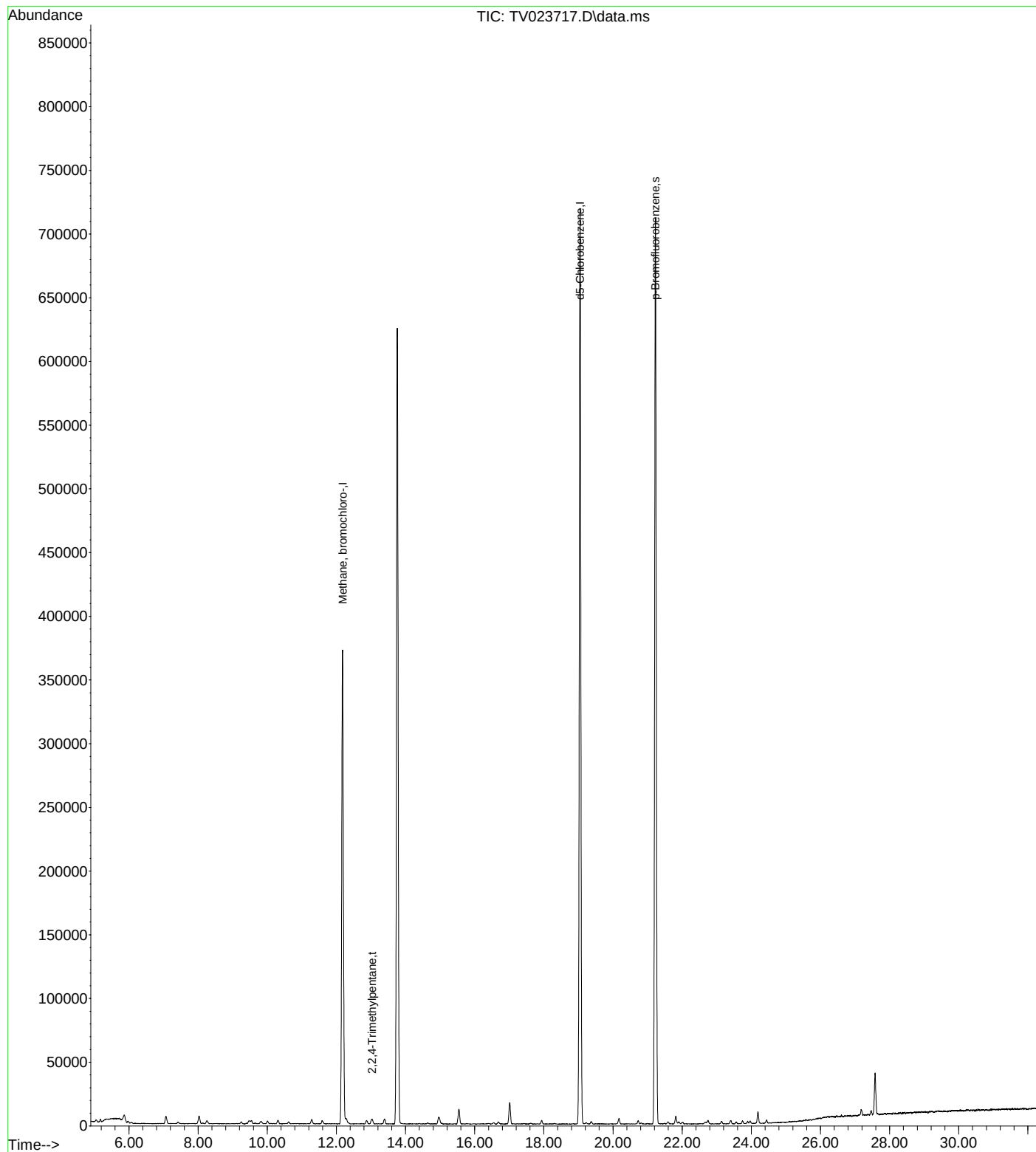
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	283172	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	843942	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	521255	9.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	7373	0.06	ppbv	Qvalue # 92

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023717.D
Acq On : 29 Mar 2024 10:52 pm
Operator : VH
Sample : SEQ-CAL2
Misc : QBT03032924A 0.050 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:27 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023718.D
 Acq On : 29 Mar 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03032924A 0.100 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:29 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

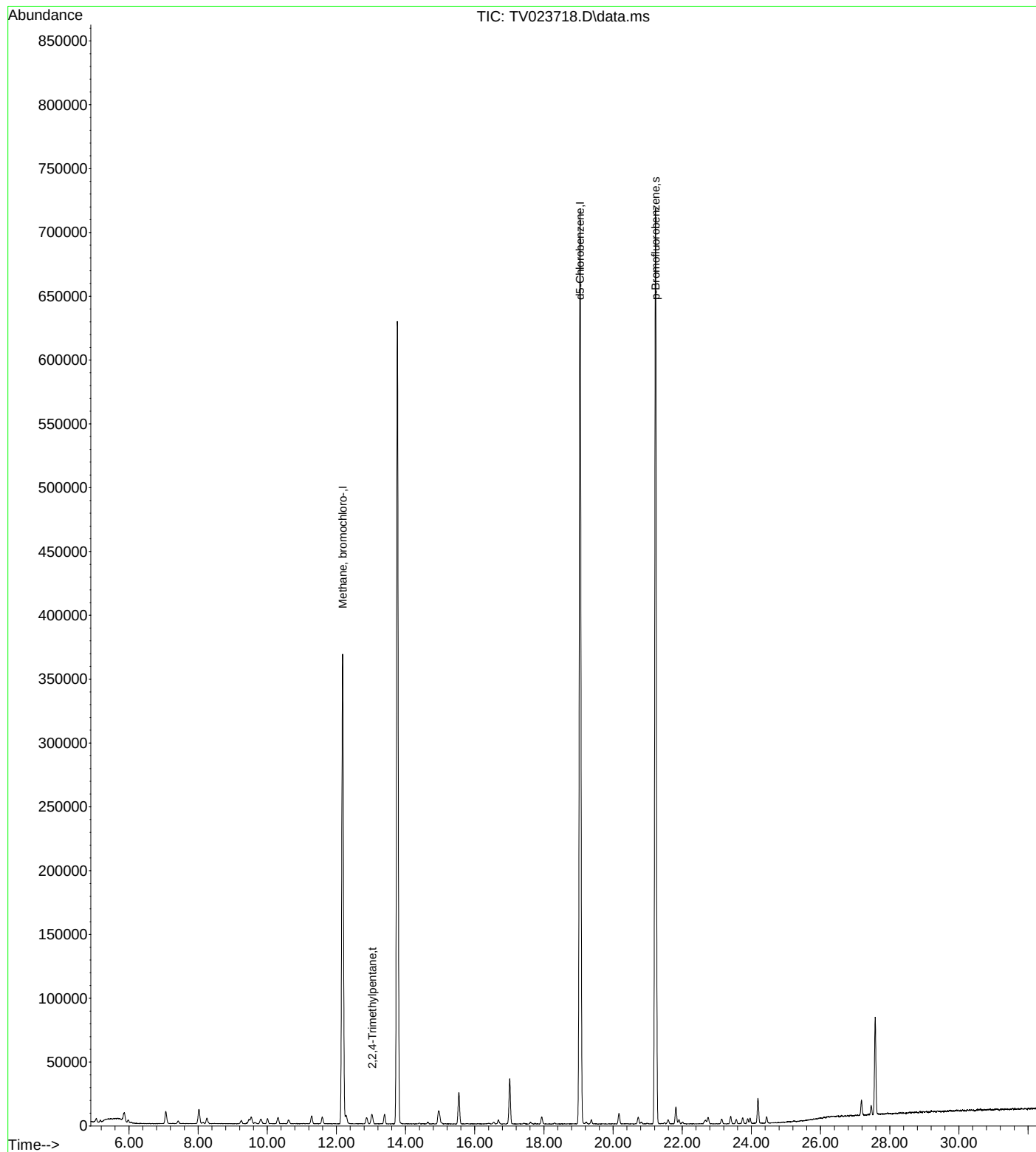
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	282087	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	836994	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	526571	10.15	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.50%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	14372	0.11	ppbv	Qvalue 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023718.D
Acq On : 29 Mar 2024 11:33 pm
Operator : VH
Sample : SEQ-CAL3
Misc : QBT03032924A 0.100 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:29 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023719.D
 Acq On : 30 Mar 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03032924A 0.200 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:31 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

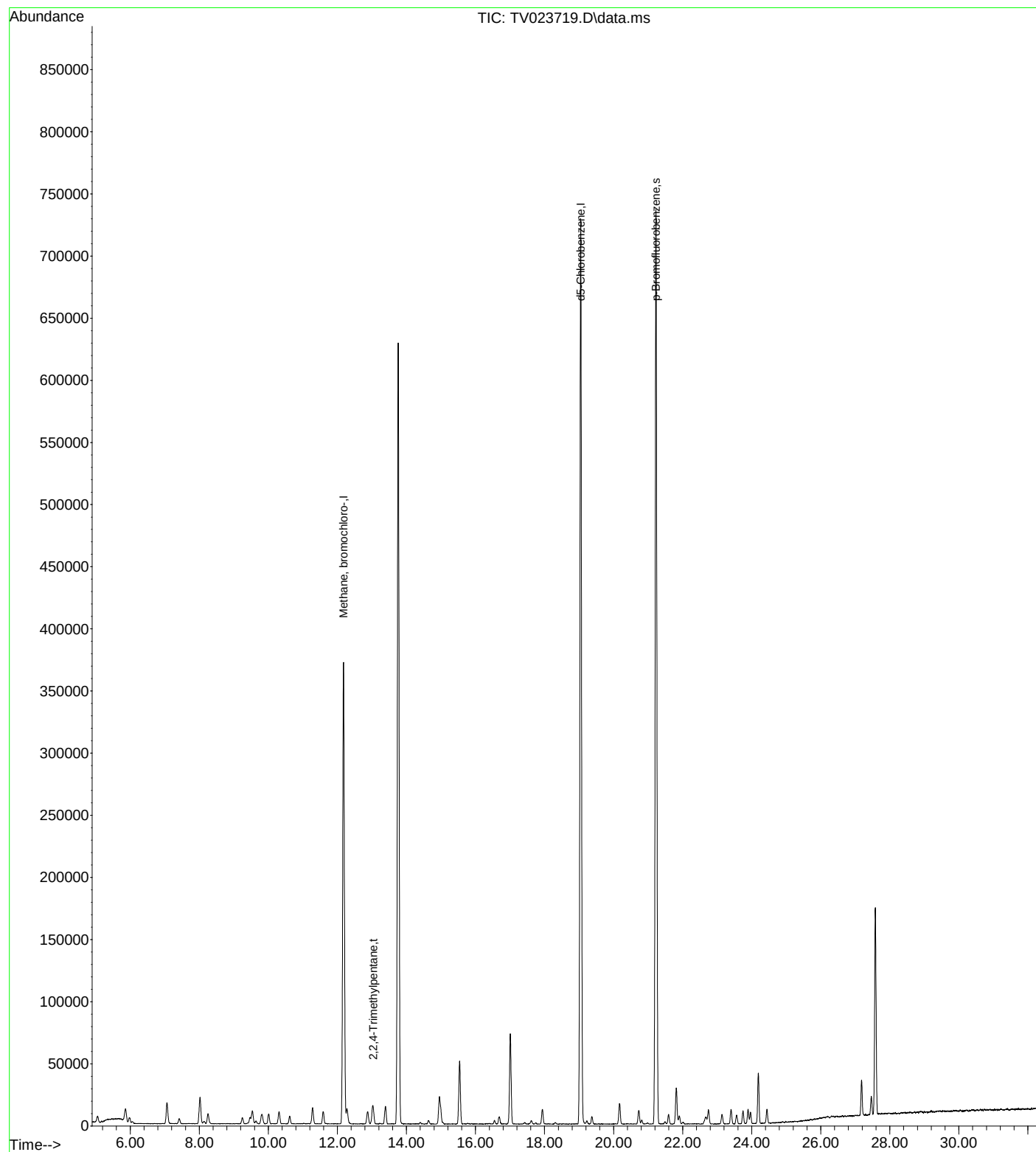
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	285396	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	853459	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	541180	10.23	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	102.30%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	28707	0.23	ppbv	Qvalue 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023719.D
Acq On : 30 Mar 2024 12:14 am
Operator : VH
Sample : SEQ-CAL4
Misc : QBT03032924A 0.200 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:31 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023720.D
 Acq On : 30 Mar 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03032924A 0.500 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:33 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

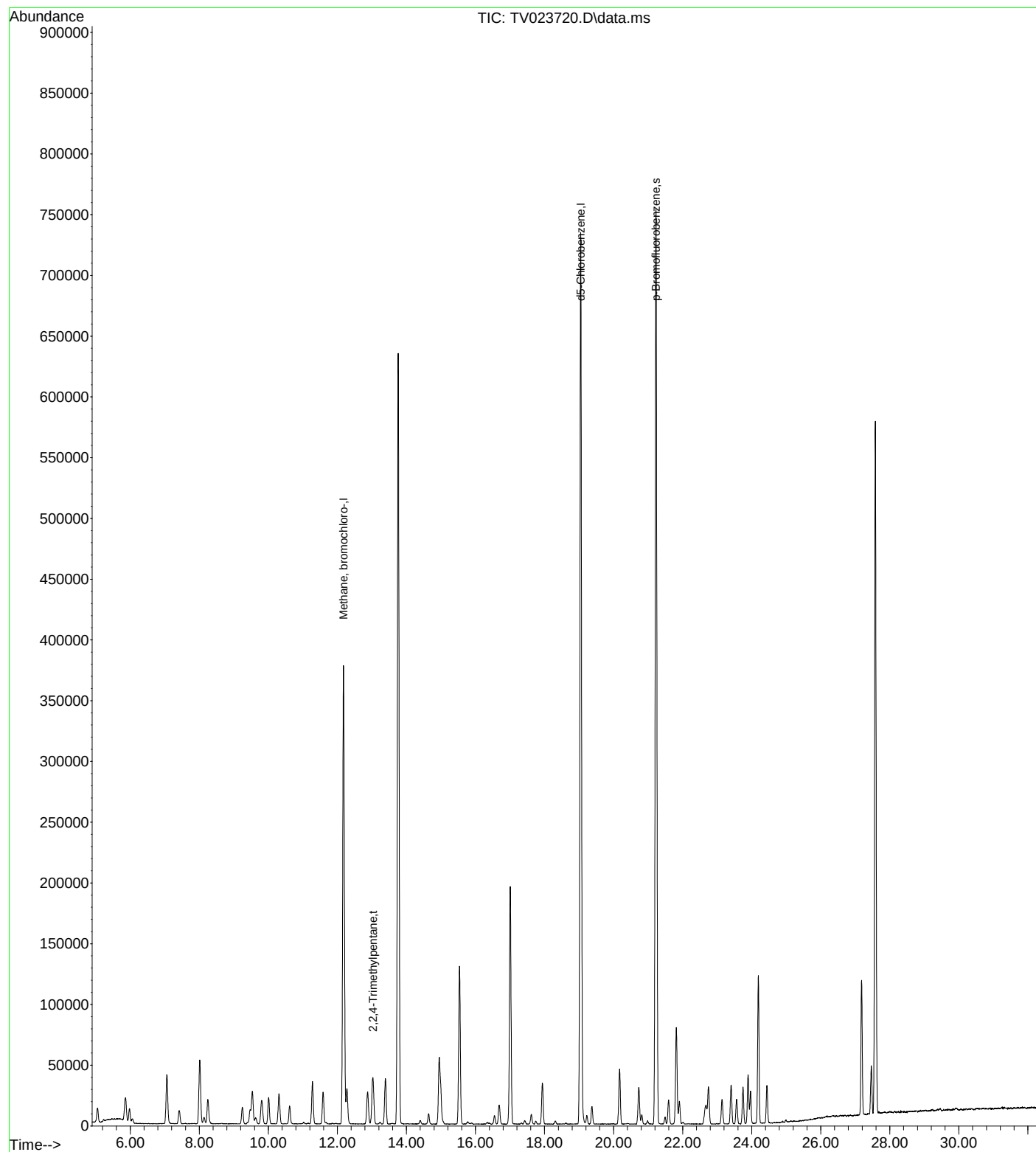
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	286081	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	859480	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	554046	10.40	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.00%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	74600	0.59	ppbv	Qvalue 99

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023720.D
Acq On : 30 Mar 2024 12:55 am
Operator : VH
Sample : SEQ-CAL5
Misc : QBT03032924A 0.500 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:33 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023721.D
 Acq On : 30 Mar 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03032924A 3.000 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:35 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

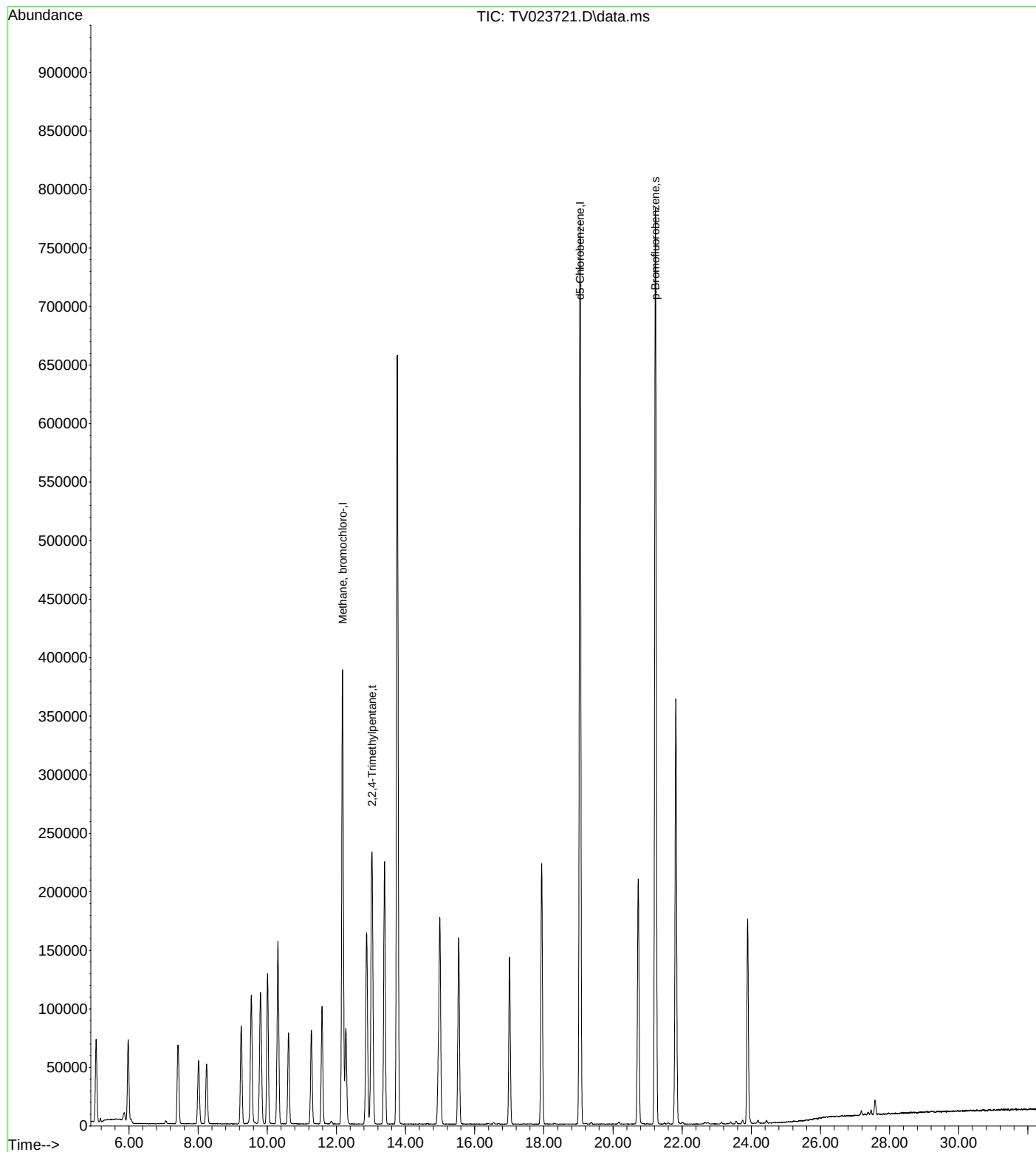
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	293952	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	895888	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	582511	10.49	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.90%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	461980	3.53	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023721.D
Acq On : 30 Mar 2024 01:36 am
Operator : VH
Sample : SEQ-CAL6
Misc : QBT03032924A 3.000 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:35 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023722.D
 Acq On : 30 Mar 2024 02:18 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03032924A 10.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:37 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

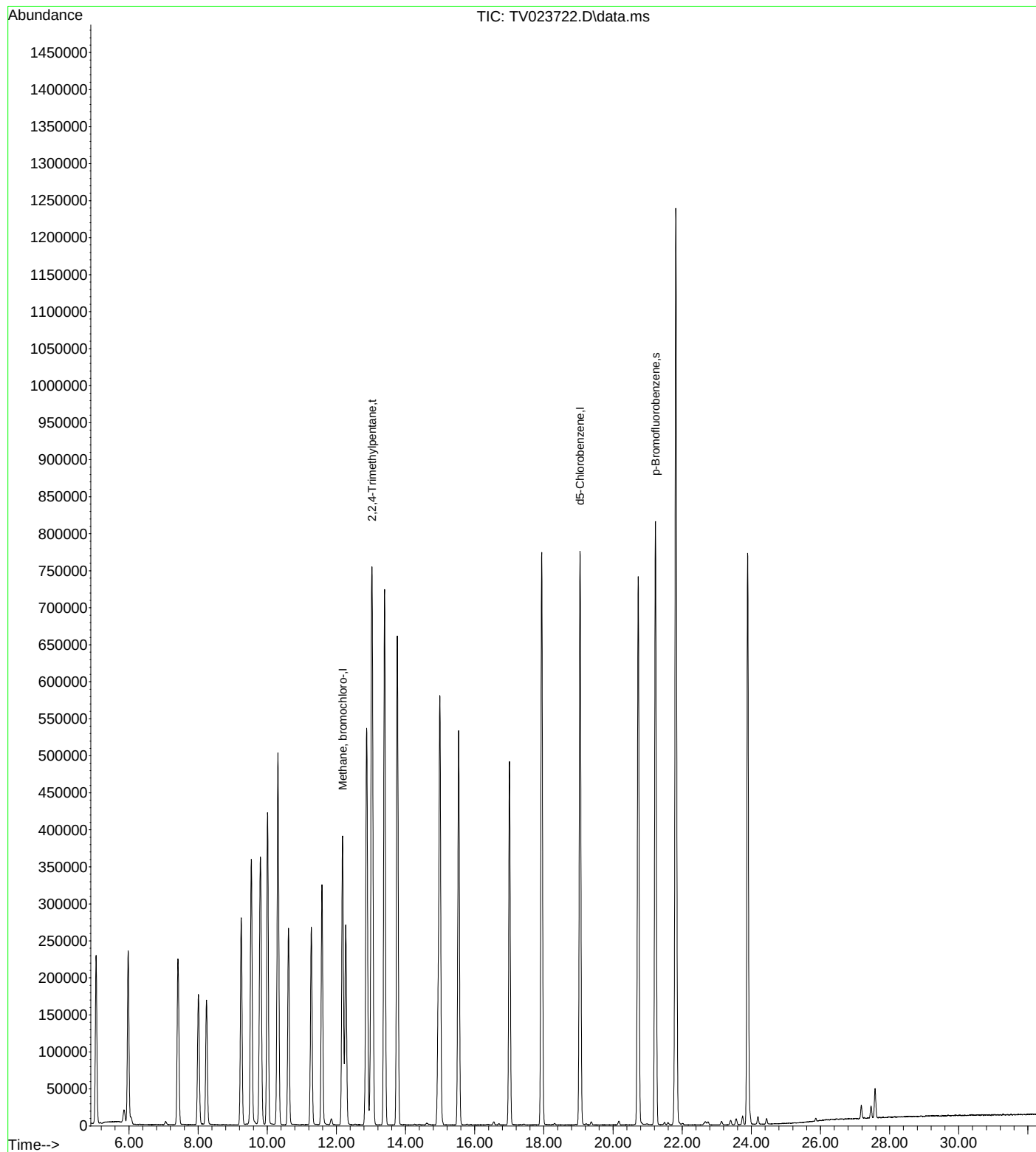
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	294857	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	915030	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	604296	10.65	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	106.50%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.026	57	1504266	11.45	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023722.D
Acq On : 30 Mar 2024 02:18 am
Operator : VH
Sample : SEQ-CAL7
Misc : QBT03032924A 10.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:37 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023723.D
 Acq On : 30 Mar 2024 02:59 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03032924A 20.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:39 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

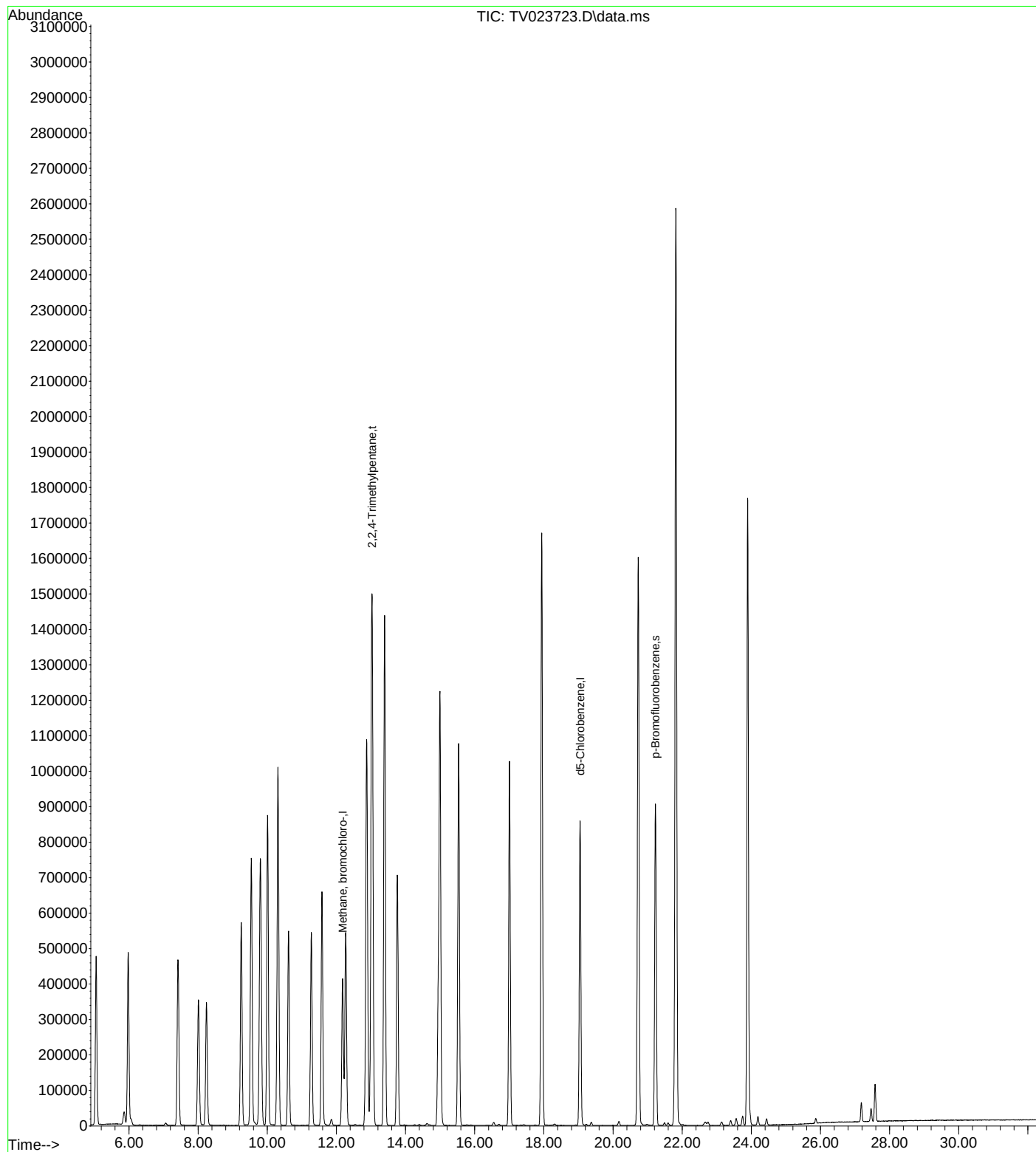
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	308350	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.050	117	1020288	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	680337	10.76	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	3031419	22.06	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023723.D
Acq On : 30 Mar 2024 02:59 am
Operator : VH
Sample : SEQ-CAL8
Misc : QBT03032924A 20.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:39 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023724.D
 Acq On : 30 Mar 2024 03:40 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03032924A 30.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:41 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

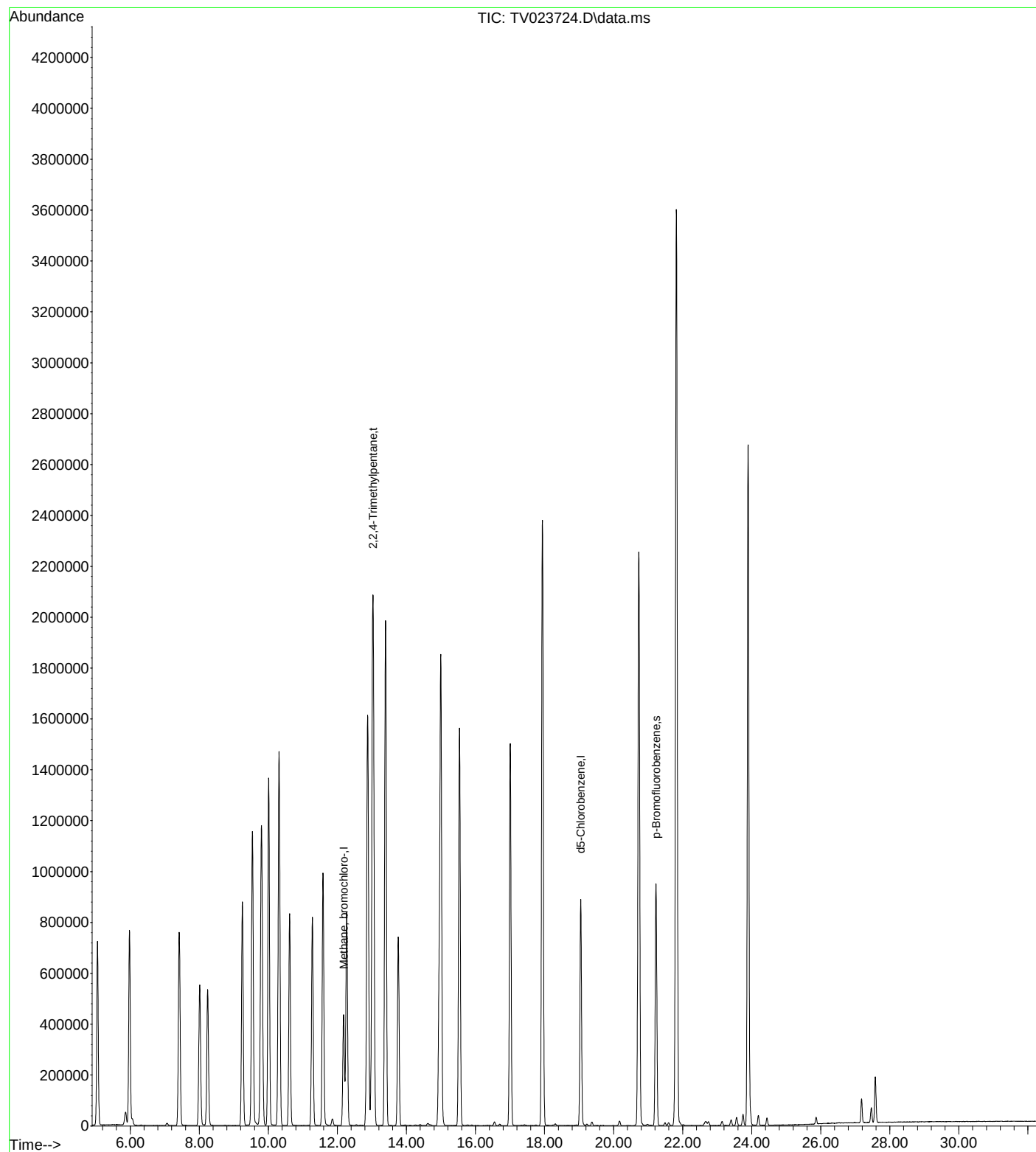
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	311846	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1066951	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	725099	10.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	4410010	31.73	ppbv	# 97

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023724.D
Acq On : 30 Mar 2024 03:40 am
Operator : VH
Sample : SEQ-CAL9
Misc : QBT03032924A 30.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:41 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023725.D
 Acq On : 30 Mar 2024 04:24 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03032924A 50.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:43 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

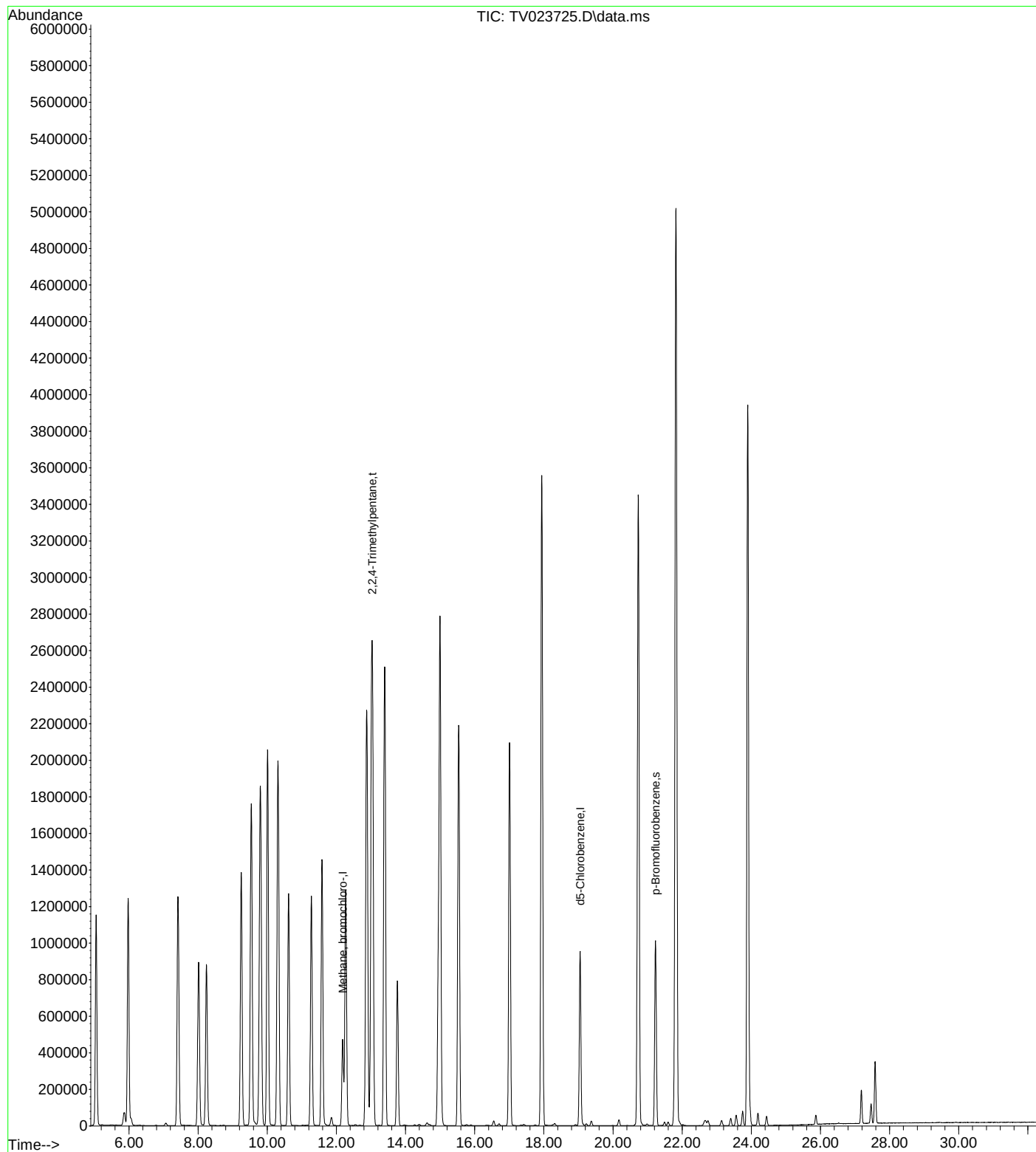
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	326416	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.050	117	1150388	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	777521	10.90	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.00%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	6067946	41.71	ppbv	# 96

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023725.D
Acq On : 30 Mar 2024 04:24 am
Operator : VH
Sample : SEQ-CALA
Misc : QBT03032924A 50.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:43 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
1,1,1,2-Tetrachloroethane	10.0	9.27	-7.3	30.00
1,1,1-Trichloroethane	10.0	9.33	-6.7	30.00
1,1,2,2-Tetrachloroethane	10.0	8.95	-10.5	30.00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	9.36	-6.4	30.00
1,1,2-Trichloroethane	10.0	9.25	-7.5	30.00
1,1-Dichloroethane	10.0	9.72	-2.8	30.00
1,1-Dichloroethylene	10.0	9.62	-3.8	30.00
1,2,4-Trichlorobenzene	10.0	9.89	-1.1	30.00
1,2,4-Trimethylbenzene	10.0	9.28	-7.2	30.00
1,2-Dibromoethane	10.0	9.54	-4.6	30.00
1,2-Dichlorobenzene	10.0	9.39	-6.1	30.00
1,2-Dichloroethane	10.0	9.52	-4.8	30.00
1,2-Dichloropropane	10.0	9.38	-6.2	30.00
1,2-Dichlorotetrafluoroethane	10.0	9.03	-9.7	30.00
1,3,5-Trimethylbenzene	10.0	9.10	-9.0	30.00
1,3-Butadiene	10.0	9.13	-8.7	30.00
1,3-Dichlorobenzene	10.0	9.35	-6.5	30.00
1,3-Dichloropropane	10.0	9.46	-5.4	30.00
1,4-Dichlorobenzene	10.0	9.53	-4.7	30.00
1,4-Dioxane	10.0	9.99	-0.1	30.00
2-Butanone	10.0	8.64	-13.6	30.00
2-Hexanone	10.0	9.87	-1.3	30.00
3-Chloropropene	10.0	9.15	-8.5	30.00
4-Methyl-2-pentanone	10.0	9.61	-3.9	30.00
Acetone	10.0	9.16	-8.4	30.00
Acrylonitrile	10.0	8.62	-13.8	30.00
Benzene	10.0	9.39	-6.1	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Benzyl chloride	10.0	10.2	1.9	30.00
Bromodichloromethane	10.0	9.37	-6.3	30.00
Bromoform	10.0	10.1	0.6	30.00
Bromomethane	10.0	9.17	-8.3	30.00
Carbon disulfide	10.0	9.87	-1.3	30.00
Carbon tetrachloride	10.0	9.89	-1.1	30.00
Chlorobenzene	10.0	9.28	-7.2	30.00
Chloroethane	10.0	9.26	-7.4	30.00
Chloroform	10.0	9.38	-6.2	30.00
Chloromethane	10.0	8.48	-15.2	30.00
cis-1,2-Dichloroethylene	10.0	9.26	-7.4	30.00
cis-1,3-Dichloropropylene	10.0	9.43	-5.7	30.00
Cyclohexane	10.0	9.49	-5.1	30.00
Dibromochloromethane	10.0	10.1	0.7	30.00
Dichlorodifluoromethane	10.0	9.35	-6.5	30.00
Ethyl acetate	10.0	9.21	-7.9	30.00
Ethyl Benzene	10.0	9.14	-8.6	30.00
Hexachlorobutadiene	10.0	9.20	-8.0	30.00
Isopropanol	10.0	10.1	0.7	30.00
Methyl Methacrylate	10.0	9.88	-1.2	30.00
Methyl tert-butyl ether (MTBE)	10.0	9.46	-5.4	30.00
Methylene chloride	10.0	8.97	-10.3	30.00
Naphthalene	10.0	9.00	-10.0	30.00
n-Heptane	10.0	9.62	-3.8	30.00
n-Hexane	10.0	9.45	-5.5	30.00
o-Xylene	10.0	9.14	-8.6	30.00
p- & m- Xylenes	20.0	18.7	-6.6	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
p-Ethyltoluene	10.0	9.31	-6.9	30.00
Propylene	10.0	8.58	-14.2	30.00
Styrene	10.0	9.55	-4.5	30.00
Tetrachloroethylene	10.0	9.45	-5.5	30.00
Tetrahydrofuran	10.0	9.30	-7.0	30.00
Toluene	10.0	8.93	-10.7	30.00
trans-1,2-Dichloroethylene	10.0	9.55	-4.5	30.00
trans-1,3-Dichloropropylene	10.0	9.35	-6.5	30.00
Trichloroethylene	10.0	9.12	-8.8	30.00
Trichlorofluoromethane (Freon 11)	10.0	9.32	-6.8	30.00
Vinyl acetate	10.0	9.74	-2.6	30.00
Vinyl bromide	10.0	9.05	-9.5	30.00
Vinyl Chloride	10.0	8.69	-13.1	30.00

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023228.D
 Acq On : 21 Feb 2024 03:42 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03022024A SCV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:46 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	486880	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1622626	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1402699	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	995901	9.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.60%

Target Compounds						Qvalue
2) Propylene	5.049	42	226587	8.58	ppbv	96
3) Dichlorodifluoromethane	5.125	85	1017095	9.35	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.389	85	718618	9.03	ppbv	92
5) Chloromethane	5.615	50	169310	8.48	ppbv	100
6) Vinyl Chloride	5.893	62	315151	8.69	ppbv	99
7) 1,3-Butadiene	5.978	54	301792	9.13	ppbv	95
8) Bromomethane	6.785	94	421925	9.17	ppbv	99
9) Chloroethane	6.962	64	207173	9.26	ppbv	98
10) ethanol	7.063	45	186783	8.99	ppbv	87
11) Vinyl Bromide	7.422	106	420638	9.05	ppbv	99
12) Trichlorofluoromethane	7.550	101	946567	9.32	ppbv	99
13) Isopropanol	8.011	45	779278	10.07	ppbv	100
14) Acrolein	8.141	56	178087	9.26	ppbv #	100
15) Acetone	8.249	43	550086	9.16	ppbv	90
16) Freon-113	8.429	101	859288	9.36	ppbv	98
17) 1,1-Dichloroethylene	8.655	61	571646	9.62	ppbv	85
18) 3-Chloropropene	9.250	41	528600	9.15	ppbv	93
19) Methylene Chloride	9.403	49	451965	8.97	ppbv	92
20) Acrylonitrile	9.475	53	394598	8.62	ppbv #	100
21) Carbon disulfide	9.540	76	1261218	9.87	ppbv	94
22) Methyl-tert-Butyl Ethe...	9.808	73	1107266	9.46	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	555859	9.55	ppbv	83
24) Hexane	10.312	57	640581	9.45	ppbv	97
25) Vinyl Acetate	10.619	43	1099719	9.74	ppbv #	98
26) 1,1-Dichloroethane	10.678	63	703282	9.72	ppbv #	99
27) 2-Butanone	11.279	43	845199	8.64	ppbv	97
28) Ethyl Acetate	11.587	43	938125	9.21	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	518359	9.26	ppbv	83
30) Chloroform	11.956	83	871642	9.38	ppbv	99
31) Tetrahydrofuran	12.273	42	508973	9.30	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	870936	9.33	ppbv	96
33) Cyclohexane	12.878	56	672780	9.49	ppbv	96
34) Carbon Tetrachloride	13.172	117	944599	9.89	ppbv	97
35) 1,2-Dichloroethane	13.234	62	468598m	9.52	ppbv	
36) Benzene	13.371	78	1336794	9.39	ppbv #	100
37) n-Heptane	13.394	43	772634	9.62	ppbv #	97
39) Trichloroethylene	14.407	95	636630	9.12	ppbv	89
40) 1,2-Dichloropropane	14.636	63	497070	9.38	ppbv #	98
41) Methyl Methacrylate	14.646	69	544751	9.88	ppbv #	50
42) 1,4-Dioxane	14.947	88	325728	9.99	ppbv #	100
43) Bromodichloromethane	14.999	83	940744	9.37	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	1038653	9.61	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	808583	9.43	ppbv	95
46) Toluene	16.555	91	1665715	8.93	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	713609	9.35	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	590270	9.25	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023228.D
 Acq On : 21 Feb 2024 03:42 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03022024A SCV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:46 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	965517	9.87	ppbv	98
50) 1,3-Dichloropropane	17.431	76	847922	9.46	ppbv #	100
51) Tetrachloroethylene	17.755	166	803833	9.45	ppbv	95
52) Dibromchloromethane	17.944	129	1167116	10.07	ppbv	98
53) 1,2-Dibromoethane	18.317	107	1026214	9.54	ppbv	100
55) Chlorobenzene	19.121	112	1467779	9.28	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.173	131	779836	9.27	ppbv	94
57) Ethylbenzene	19.232	91	2177654	9.14	ppbv	92
58) p- & m-Xylenes	19.379	91	3202952	18.68	ppbv	90
59) o-Xylene	20.160	91	1640457	9.14	ppbv	96
60) Styrene	20.177	104	1388595	9.55	ppbv #	74
61) Bromoform	20.732	173	968989	10.06	ppbv	99
62) n-Propylbenzene	21.598	91	2922524	9.19	ppbv	98
63) Isopropylbenzene	20.821	105	2477949	9.23	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	1334063	8.95	ppbv	98
66) 4-Ethyltoluene	21.824	105	2512522	9.31	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	1919058	9.10	ppbv	94
68) tert-Butylbenzene	22.684	119	2454641	9.21	ppbv #	91
69) 1,2,4-Trimethylbenzene	22.756	105	2048082	9.28	ppbv #	77
70) sec-Butylbenzene	23.145	105	3133215	9.45	ppbv #	99
71) p-Isopropyltoluene	23.409	119	2808894	9.44	ppbv #	89
72) 1,3-Dichlorobenzene	23.569	146	1440836	9.35	ppbv	96
73) 1,4-Dichlorobenzene	23.756	146	1487108	9.53	ppbv	97
74) Benzyl chloride	23.900	126	510646	10.19	ppbv #	1
75) n-Butylbenzene	24.197	91	2375748	9.61	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	1385252	9.39	ppbv	96
77) 1,2,4-Trichlorobenzene	27.188	180	1009399	9.89	ppbv	95
78) Hexachlorobutadiene	27.469	225	765267	9.20	ppbv #	92
79) Naphthalene	27.587	128	2891406	9.00	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023228.D
Acq On : 21 Feb 2024 03:42 am
Operator : VH
Sample : SEQ-SCV1
Misc : QBTO3022024A SCV
ALS Vial : 4 Sample Multiplier: 1
InstName : TO15_AIR3

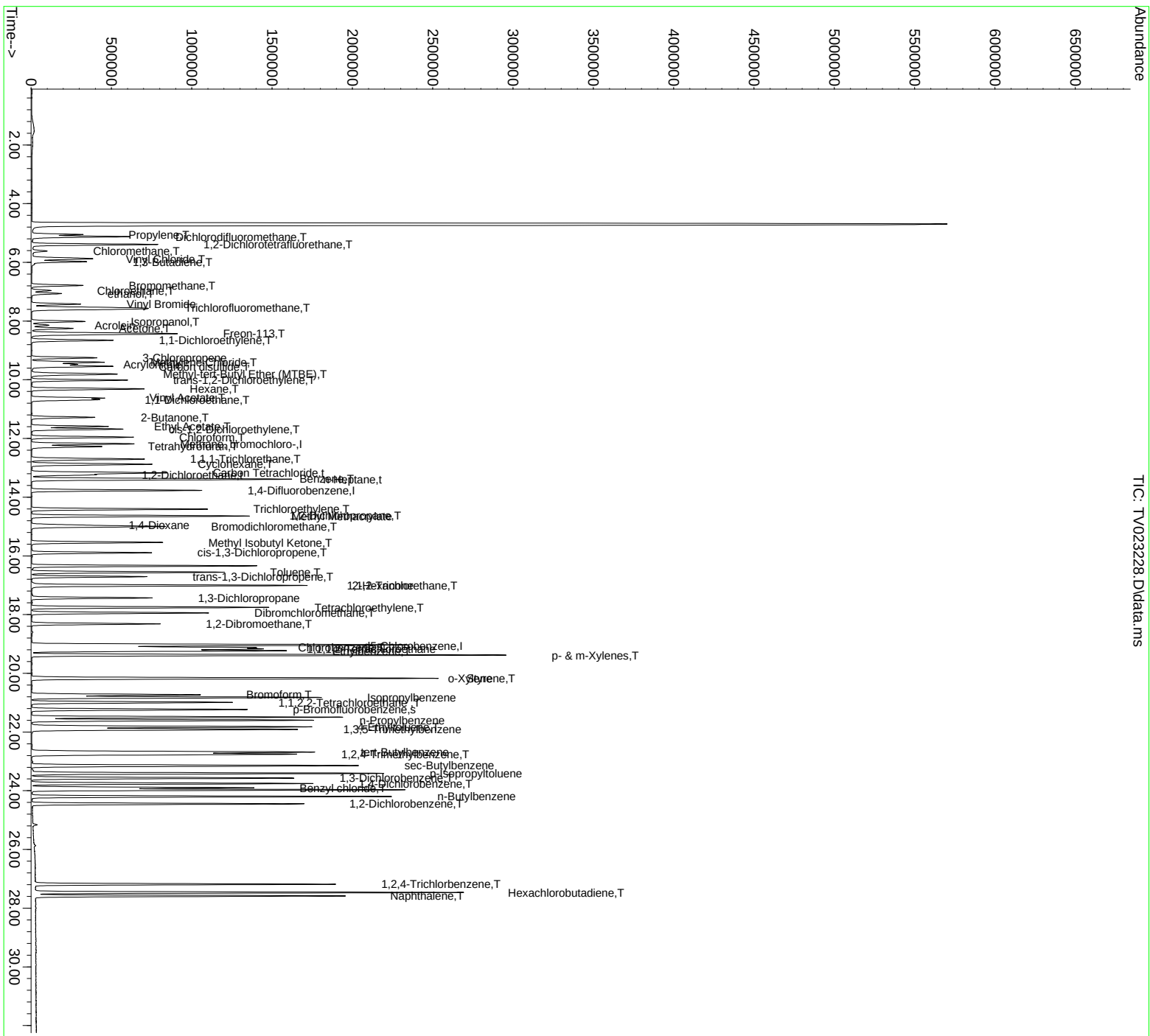
Quant Time: Feb 21 13:02:46 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : TO15 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1627

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002

Laboratory ID: S4E0224-SCV1

Sequence: S4E0224

Standard ID: S24D377

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
2,2,4-Trimethylpentane	10.0	10.3	3.2	30.00

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023727.D
 Acq On : 30 Mar 2024 05:47 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03032924A ICV
 ALS Vial : 6 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:50:05 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

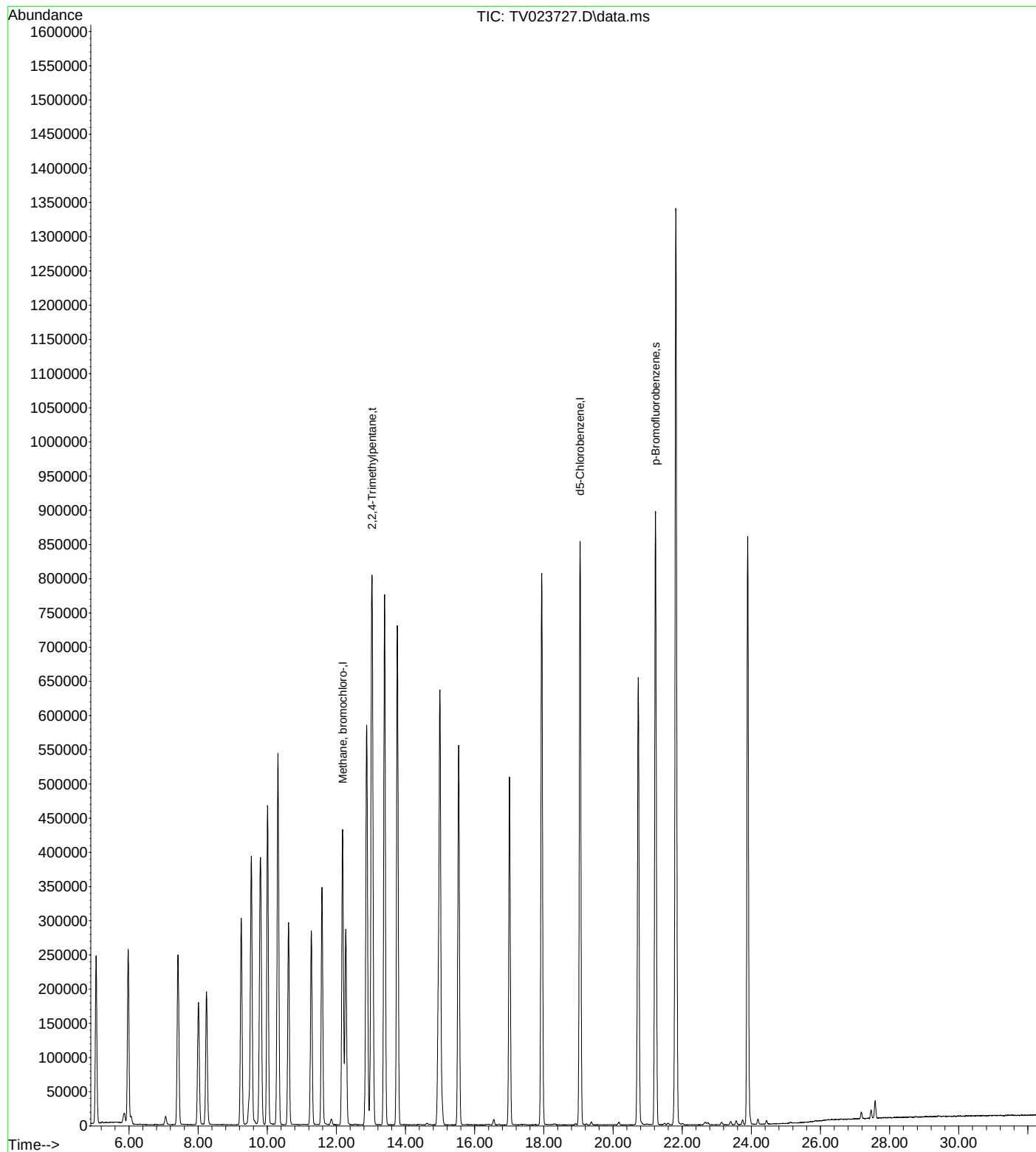
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	318034	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.046	117	1014763	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	680157	10.36	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	103.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	1617209	10.32	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023727.D
Acq On : 30 Mar 2024 05:47 am
Operator : VH
Sample : SEQ-SCV1
Misc : QBT03032924A ICV
ALS Vial : 6 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:50:05 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,1,2-Tetrachloroethane	A	10.0	9.74	0.6000185	0.5842955		-2.6	30
1,1,1-Trichloroethane	A	10.0	12.7	1.916503	2.429601		26.8	30
1,1,2,2-Tetrachloroethane	A	10.0	8.64	1.062456	0.9184621		-13.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	10.0	12.3	1.885204	2.323976		23.3	30
1,1,2-Trichloroethane	A	10.0	8.52	0.3930908	0.33483		-14.8	30
1,1-Dichloroethane	A	10.0	11.0	1.485826	1.642003		10.5	30
1,1-Dichloroethylene	A	10.0	11.3	1.220512	1.378523		12.9	30
1,2,4-Trichlorobenzene	A	10.0	11.2	0.7276065	0.8151199		12.0	30
1,2,4-Trimethylbenzene	A	10.0	9.44	1.57339	1.485054		-5.6	30
1,2-Dibromoethane	A	10.0	8.78	0.6629627	0.5819019		-12.2	30
1,2-Dichlorobenzene	A	10.0	9.86	1.05157	1.03662		-1.4	30
1,2-Dichloroethane	A	10.0	11.8	1.00346	1.19136		18.7	30
1,2-Dichloropropane	A	10.0	7.32	0.3265457	0.2391297		-26.8	30
1,2-Dichlorotetrafluoroethane	A	10.0	11.4	1.634511	1.860586		13.8	30
1,3,5-Trimethylbenzene	A	10.0	9.78	1.503753	1.470161		-2.2	30
1,3-Butadiene	A	10.0	10.1	0.6786018	0.6848007		0.9	30
1,3-Dichlorobenzene	A	10.0	9.81	1.098628	1.077264		-1.9	30
1,3-Dichloropropane	A	10.0	8.45	0.5525809	0.4668051		-15.5	30
1,4-Dichlorobenzene	A	10.0	9.75	1.112139	1.083978		-2.5	30
1,4-Dioxane	A	10.0	8.54	0.2008592	0.1716137		-14.6	30
2-Butanone	A	10.0	7.99	2.009877	1.606789		-20.1	30
2-Hexanone	A	10.0	6.14	0.6030223	0.3699758		-38.6	30 *
3-Chloropropene	A	10.0	8.52	1.186149	1.010548		-14.8	30
4-Methyl-2-pentanone	A	10.0	6.37	0.6660226	0.424055		-36.3	30 *
Acetone	A	10.0	9.36	2.457859	1.152988		-6.4	30
Acrylonitrile	A	10.0	7.40	3.017779	0.7114879		-26.0	30
Benzene	A	10.0	10.7	2.924767	3.118779		6.6	30
Benzyl chloride	A	10.0	10.2	0.3571951	0.3638444		1.9	30
Bromodichloromethane	A	10.0	8.94	0.6190338	0.5531171		-10.6	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Bromoform	A	10.0	10.8	0.6864752	0.741882		8.1	30
Bromomethane	A	10.0	11.9	0.9446869	1.120342		18.6	30
Carbon disulfide	A	10.0	11.5	2.62355	3.021003		15.1	30
Carbon tetrachloride	A	10.0	13.5	1.96238	2.645238		34.8	30 *
Chlorobenzene	A	10.0	9.24	1.128056	1.041785		-7.6	30
Chloroethane	A	10.0	10.8	0.4596483	0.4984357		8.4	30
Chloroform	A	10.0	12.0	1.907875	2.28092		19.6	30
Chloromethane	A	10.0	9.25	0.4101655	0.3792946		-7.5	30
cis-1,2-Dichloroethylene	A	10.0	11.0	1.149845	1.260656		9.6	30
cis-1,3-Dichloropropylene	A	10.0	8.51	0.5285463	0.4497672		-14.9	30
Cyclohexane	A	10.0	10.0	1.456845	1.457915		0.07	30
Dibromochloromethane	A	10.0	9.70	0.7143742	0.6931113		-3.0	30
Dichlorodifluoromethane	A	10.0	12.4	2.234759	2.779704		24.4	30
Ethyl acetate	A	10.0	8.66	2.09173	1.810442		-13.4	30
Ethyl Benzene	A	10.0	8.91	1.699121	1.513943		-10.9	30
Hexachlorobutadiene	A	10.0	10.1	0.5930034	0.6008998		1.3	30
Isopropanol	A	10.0	9.07	2.869394	1.453871		-9.3	30
Methyl Methacrylate	A	10.0	7.87	0.3398803	0.2673996		-21.3	30
Methyl tert-butyl ether (MTBE)	A	10.0	11.8	2.405019	2.844985		18.3	30
Methylene chloride	A	10.0	9.09	1.034514	0.9403141		-9.1	30
Naphthalene	A	10.0	10.5	2.291278	2.414307		5.4	30
n-Heptane	A	10.0	8.19	1.649906	1.351435		-18.1	30
n-Hexane	A	10.0	10.0	1.392931	1.395994		0.2	30
o-Xylene	A	10.0	8.85	1.280007	1.133385		-11.5	30
p- & m- Xylenes	A	20.0	17.6	1.222485	1.073979		-12.1	30
p-Ethyltoluene	A	10.0	9.25	1.923546	1.779175		-7.5	30
Propylene	A	10.0	8.62	0.5422066	0.4673103		-13.8	30
Styrene	A	10.0	9.11	1.036155	0.9439616		-8.9	30
Tetrachloroethylene	A	10.0	9.10	0.5241781	0.4770059		-9.0	30

FORM VII**CONTINUING CALIBRATION CHECK****EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrahydrofuran	A	10.0	8.22	1.124377	0.9245881		-17.8	30
Toluene	A	10.0	8.17	1.150148	0.9395965		-18.3	30
trans-1,2-Dichloroethylene	A	10.0	10.9	1.195623	1.305836		9.2	30
trans-1,3-Dichloropropylene	A	10.0	8.76	0.4702239	0.4120729		-12.4	30
Trichloroethylene	A	10.0	8.47	0.4300169	0.3643238		-15.3	30
Trichlorofluoromethane (Freon 11)	A	10.0	13.0	2.085103	2.703665		29.7	30
Vinyl acetate	A	10.0	8.86	2.318357	2.053278		-11.4	30
Vinyl bromide	A	10.0	12.3	0.9544774	1.172394		22.8	30
Vinyl Chloride	A	10.0	12.1	0.744665	0.9012409		21.0	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023795.D
 Acq On : 03 Apr 2024 01:16 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A CCV
 ALS Vial : 111 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 03 14:16:36 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	312285	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1390664	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	1113630	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.230	95	804674	10.13	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.30%

Target Compounds						Qvalue
2) Propylene	5.054	42	145934	8.62	ppbv	95
3) Dichlorodifluoromethane	5.125	85	868060	12.44	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.387	85	581033	11.38	ppbv	87
5) Chloromethane	5.616	50	118448	9.25	ppbv	100
6) Vinyl Chloride	5.890	62	281444	12.10	ppbv	99
7) 1,3-Butadiene	5.975	54	213853	10.09	ppbv	95
8) Bromomethane	6.783	94	349866	11.86	ppbv	99
9) Chloroethane	6.959	64	155654	10.84	ppbv	96
10) ethanol	7.057	45	91756	6.66	ppbv	89
11) Vinyl Bromide	7.420	106	366121	12.28	ppbv	99
12) Trichlorofluoromethane	7.544	101	844314	12.97	ppbv	99
13) Isopropanol	8.008	45	454022	9.07	ppbv	100
14) Acrolein	8.136	56	127457	10.34	ppbv	# 100
15) Acetone	8.244	43	360061	9.36	ppbv	85
16) Freon-113	8.427	101	725743	12.33	ppbv	96
17) 1,1-Dichloroethylene	8.652	61	430492	11.29	ppbv	# 80
18) 3-Chloropropene	9.247	41	315579	8.52	ppbv	88
19) Methylene Chloride	9.401	49	293646	9.09	ppbv	# 75
20) Acrylonitrile	9.470	53	222187	7.40	ppbv	# 100
21) Carbon disulfide	9.538	76	943414	11.51	ppbv	91
22) Methyl-tert-Butyl Ethe...	9.803	73	888446	11.83	ppbv	94
23) trans-1,2-Dichloroethy...	10.009	61	407793	10.92	ppbv	# 76
24) Hexane	10.310	57	435948	10.02	ppbv	90
25) Vinyl Acetate	10.614	43	641208	8.86	ppbv	# 99
26) 1,1-Dichloroethane	10.672	63	512773	11.05	ppbv	# 98
27) 2-Butanone	11.274	43	501776	7.99	ppbv	# 85
28) Ethyl Acetate	11.584	43	565374	8.66	ppbv	95
29) cis-1,2-Dichloroethylene	11.676	61	393684	10.96	ppbv	# 76
30) Chloroform	11.950	83	712297	11.96	ppbv	97
31) Tetrahydrofuran	12.267	42	288735	8.22	ppbv	# 85
32) 1,1,1-Trichlorethane	12.699	97	758728	12.68	ppbv	94
33) Cyclohexane	12.875	56	455285	10.01	ppbv	85
34) Carbon Tetrachloride	13.166	117	826068	13.48	ppbv	97
35) 1,2-Dichloroethane	13.232	62	372044m	11.79	ppbv	
36) Benzene	13.366	78	973948	10.66	ppbv	# 100
37) n-Heptane	13.395	43	422033	8.19	ppbv	# 91
39) Trichloroethylene	14.405	95	506652	8.47	ppbv	86
40) 1,2-Dichloropropane	14.631	63	332549	7.32	ppbv	# 99
41) Methyl Methacrylate	14.644	69	371863	7.87	ppbv	# 77
42) 1,4-Dioxane	14.944	88	238657	8.54	ppbv	# 100
43) Bromodichloromethane	14.993	83	769200	8.94	ppbv	97
44) Methyl Isobutyl Ketone	15.536	43	589718	6.37	ppbv	90
45) cis-1,3-Dichloropropene	15.889	75	625475	8.51	ppbv	94
46) Toluene	16.553	91	1306663	8.17	ppbv	99
47) trans-1,3-Dichloropropene	16.703	75	573055	8.76	ppbv	93
48) 1,1,2-Trichlorethane	17.000	97	465636	8.52	ppbv	91

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023795.D
 Acq On : 03 Apr 2024 01:16 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A CCV
 ALS Vial : 111 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 03 14:16:36 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.007	43	514512	6.14	ppbv #	94
50) 1,3-Dichloropropane	17.429	76	649169	8.45	ppbv #	100
51) Tetrachloroethylene	17.749	166	663355	9.10	ppbv	95
52) Dibromchloromethane	17.939	129	963885	9.70	ppbv	97
53) 1,2-Dibromoethane	18.314	107	809230	8.78	ppbv	100
55) Chlorobenzene	19.119	112	1160163	9.24	ppbv #	86
56) 1,1,1,2-Tetrachloroethane	19.168	131	650689	9.74	ppbv	96
57) Ethylbenzene	19.230	91	1685972	8.91	ppbv	91
58) p- & m-Xylenes	19.373	91	2392031	17.57	ppbv	90
59) o-Xylene	20.155	91	1262171	8.85	ppbv	96
60) Styrene	20.178	104	1051224	9.11	ppbv #	74
61) Bromoform	20.730	173	826182	10.81	ppbv	99
62) n-Propylbenzene	21.593	91	2307934	9.14	ppbv	98
63) Isopropylbenzene	20.818	105	1984549	9.31	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.985	83	1022827	8.64	ppbv	99
66) 4-Ethyltoluene	21.818	105	1981343	9.25	ppbv	89
67) 1,3,5-Trimethylbenzene	21.907	105	1637215	9.78	ppbv	97
68) tert-Butylbenzene	22.681	119	1992590	9.42	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.750	105	1653801	9.44	ppbv #	77
70) sec-Butylbenzene	23.142	105	2461228	9.35	ppbv #	99
71) p-Isopropyltoluene	23.404	119	2256725	9.55	ppbv #	100
72) 1,3-Dichlorobenzene	23.564	146	1199674	9.81	ppbv	95
73) 1,4-Dichlorobenzene	23.750	146	1207150	9.75	ppbv	95
74) Benzyl chloride	23.897	126	405188	10.19	ppbv #	1
75) n-Butylbenzene	24.191	91	1869701	9.53	ppbv #	88
76) 1,2-Dichlorobenzene	24.443	146	1154411	9.86	ppbv	96
77) 1,2,4-Trichlorobenzene	27.186	180	907742	11.20	ppbv	95
78) Hexachlorobutadiene	27.467	225	669180	10.13	ppbv #	92
79) Naphthalene	27.581	128	2688645	10.54	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023795.D
Acq On : 03 Apr 2024 01:16 pm
Operator : YR
Sample : SEQ-CCV1
Misc : QBTO3040224A CCV
ALS Vial : 111 Sample Multiplier: 1
InstName : T015_AIR3

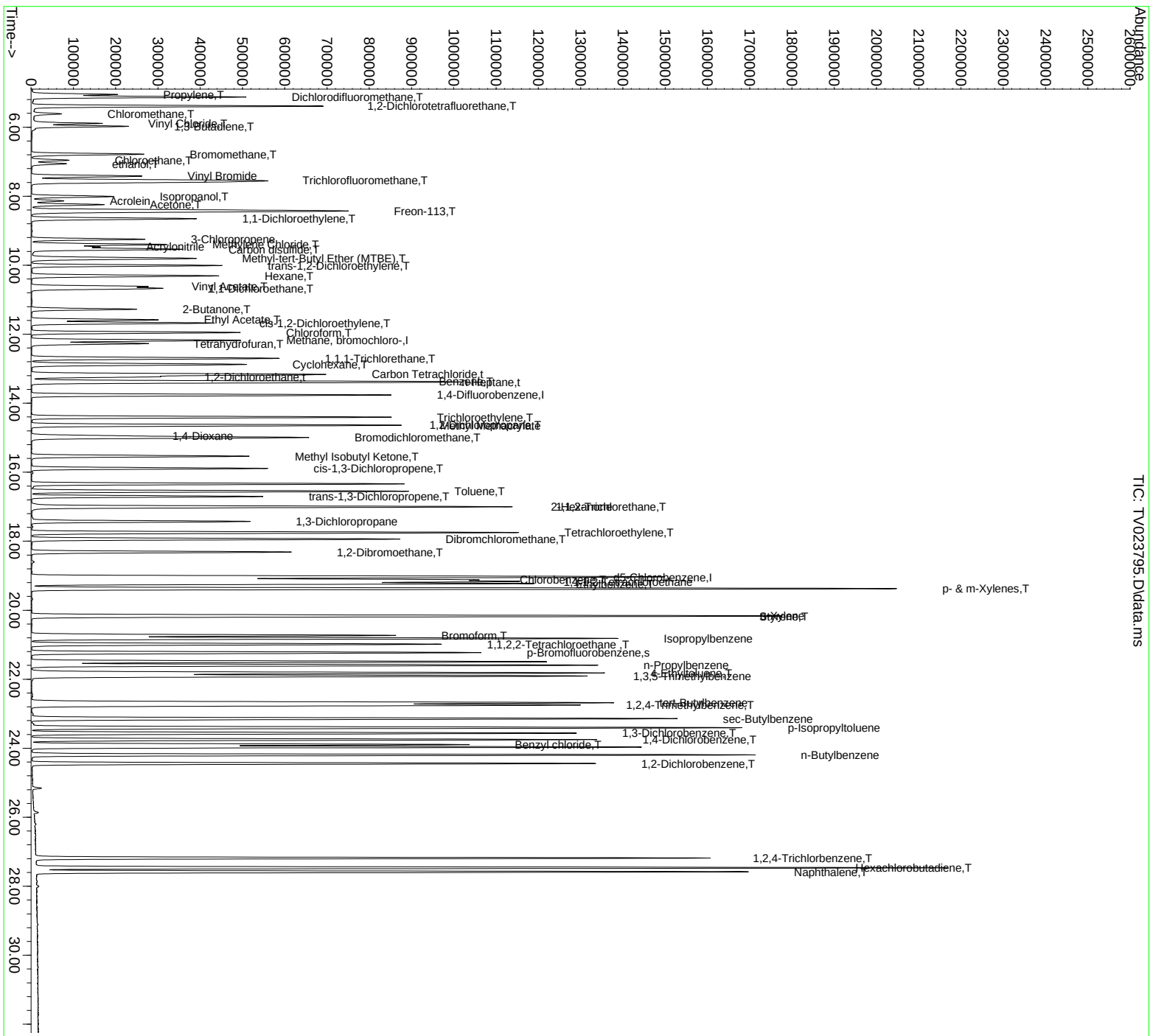
Quant Time: Apr 03 14:16:36 2024

Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1627
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Instrument ID: TO15_AIR3 Calibration: SE40002
Lab File ID: TV023796.D Calibration Date: 03/29/24 20:48
Sequence: S4D0429 Injection Date: 04/03/24
Lab Sample ID: S4D0429-CCV1 Injection Time: 13:57

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2,2,4-Trimethylpentane	A	10.0	9.19	4.925403	4.526278		-8.1	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023796.D
 Acq On : 03 Apr 2024 01:57 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A ISOCTANE CCV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:14:48 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

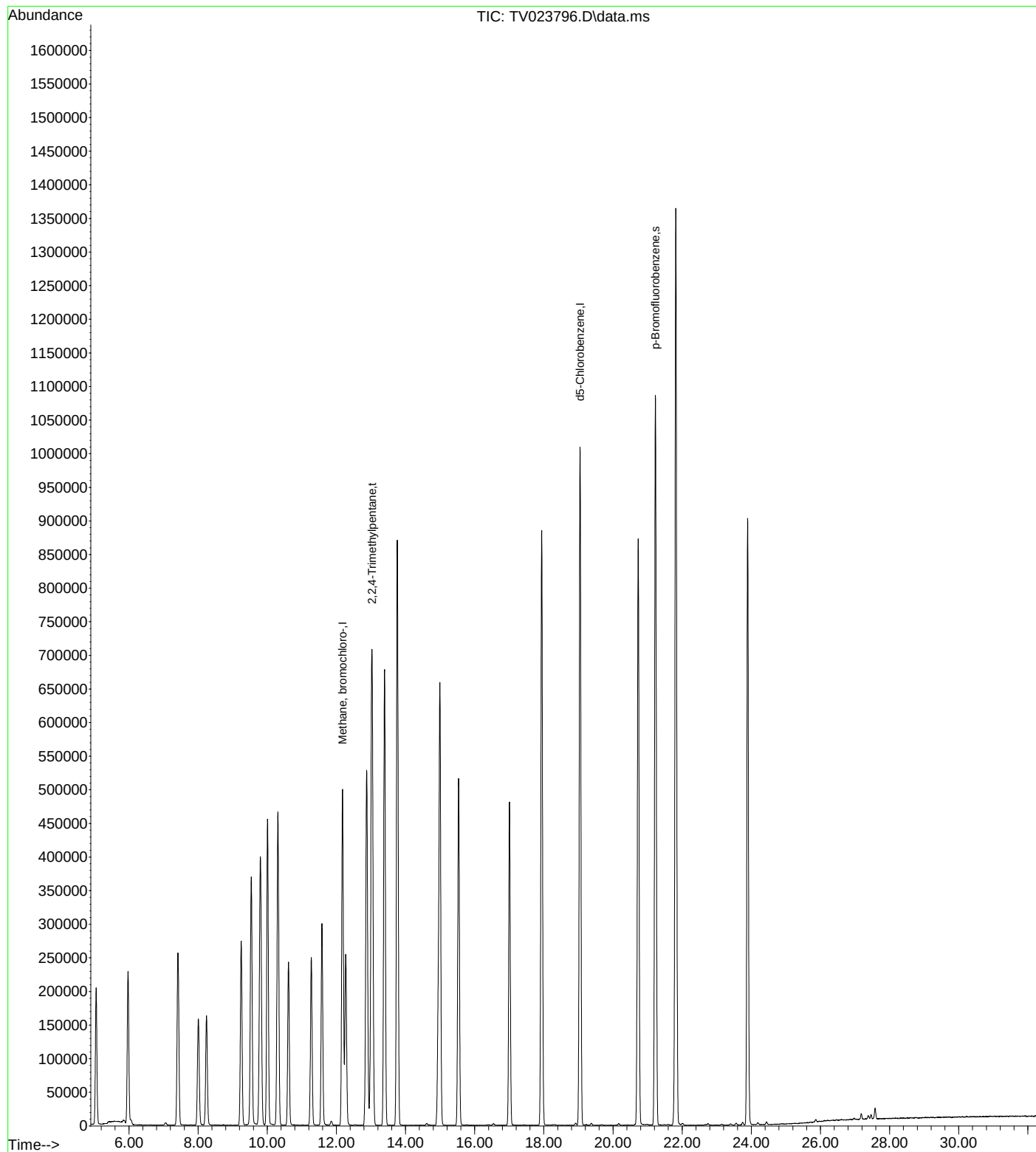
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	320251	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1229612	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	821486	10.32	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	103.20%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	1449545	9.19	ppbv	# Qvalue 96

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023796.D
Acq On : 03 Apr 2024 01:57 pm
Operator : YR
Sample : SEQ-CCV1
Misc : QBT03040224A ISOCTANE CCV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

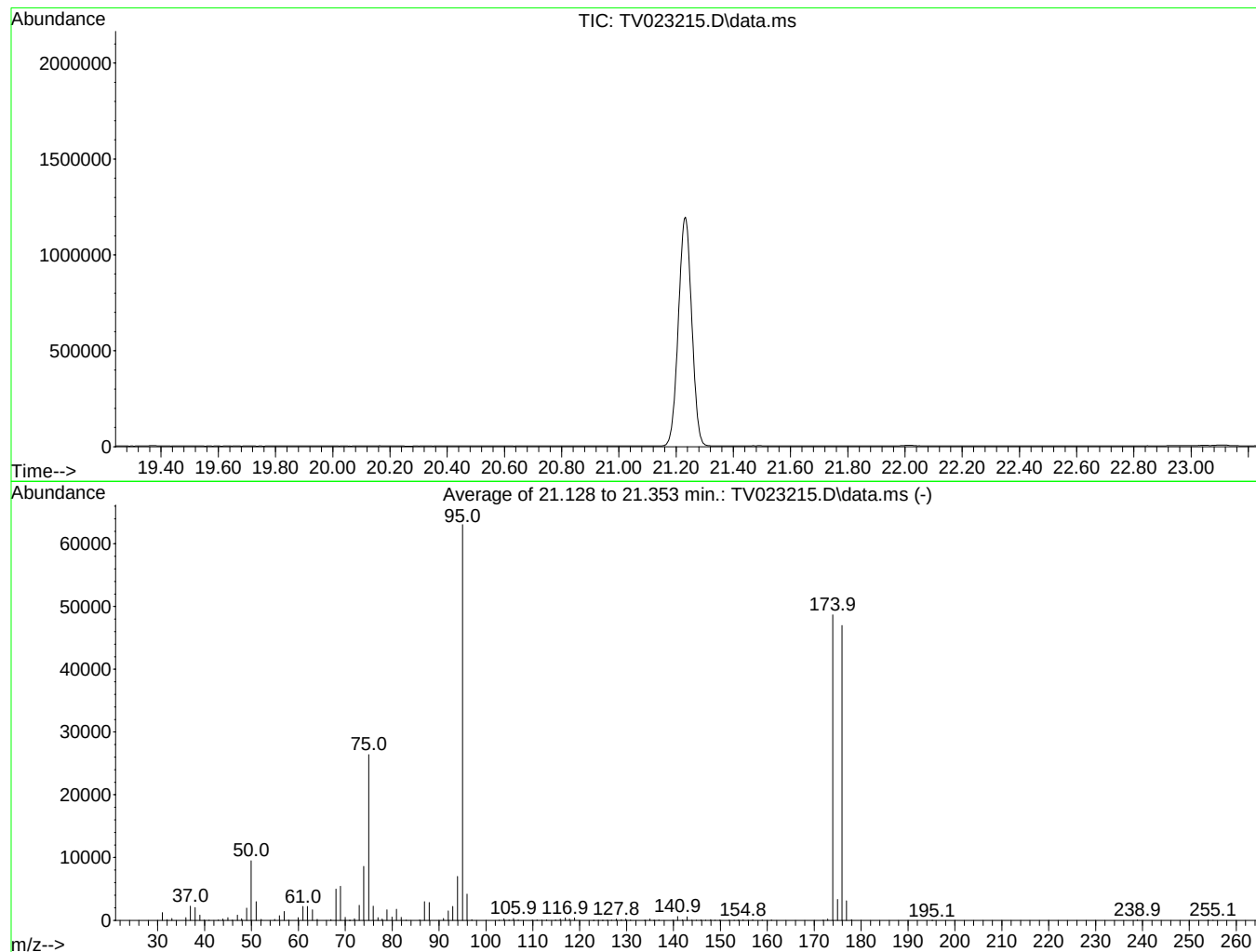
Quant Time: Apr 04 00:14:48 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023215.D
 Acq On : 20 Feb 2024 06:46 pm
 Operator : VH
 Sample : SEQ-TUN1
 Misc : QBT03022024A TUNE
 ALS Vial : 1 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteint.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Title : T015 VOC Analysis
 Last Update : Wed Feb 21 13:01:26 2024



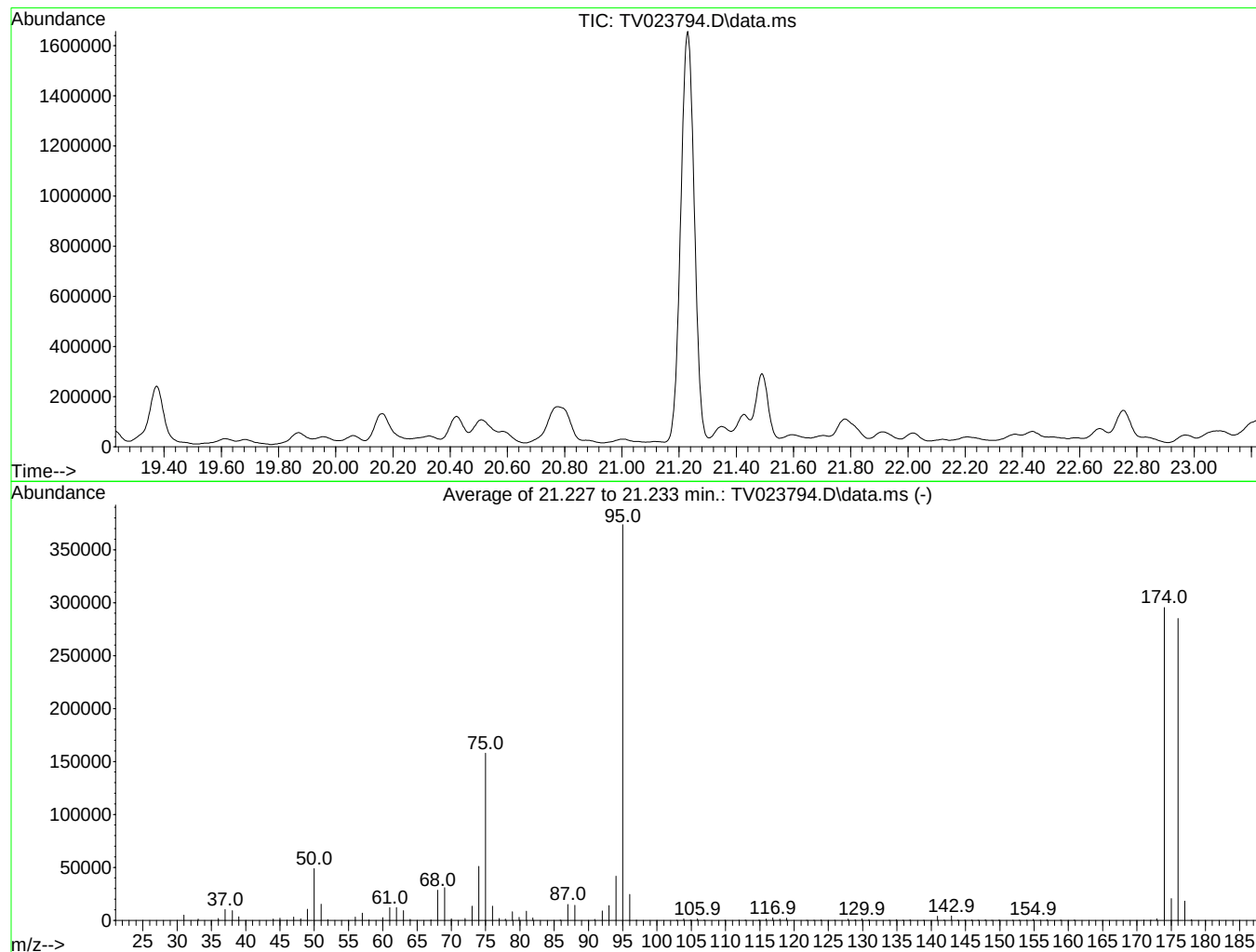
AutoFind: Averaged scan 6436 to 6505; Bkg corrected with scan 6435

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.1	9495	PASS
75	95	30	66	41.9	26391	PASS
95	95	100	100	100.0	63044	PASS
96	95	5	9	6.6	4156	PASS
173	174	0.00	2	0.4	216	PASS
174	95	50	120	77.2	48680	PASS
175	174	4	9	6.8	3319	PASS
176	174	93	101	96.5	46960	PASS
177	176	5	9	6.6	3111	PASS

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023794.D
 Acq On : 03 Apr 2024 12:36 pm
 Operator : YR
 Sample : SEQ-TUN1
 Misc : QBT03040224A TUNE
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteint.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Title : T015 VOC Analysis
 Last Update : Wed Feb 21 13:01:26 2024



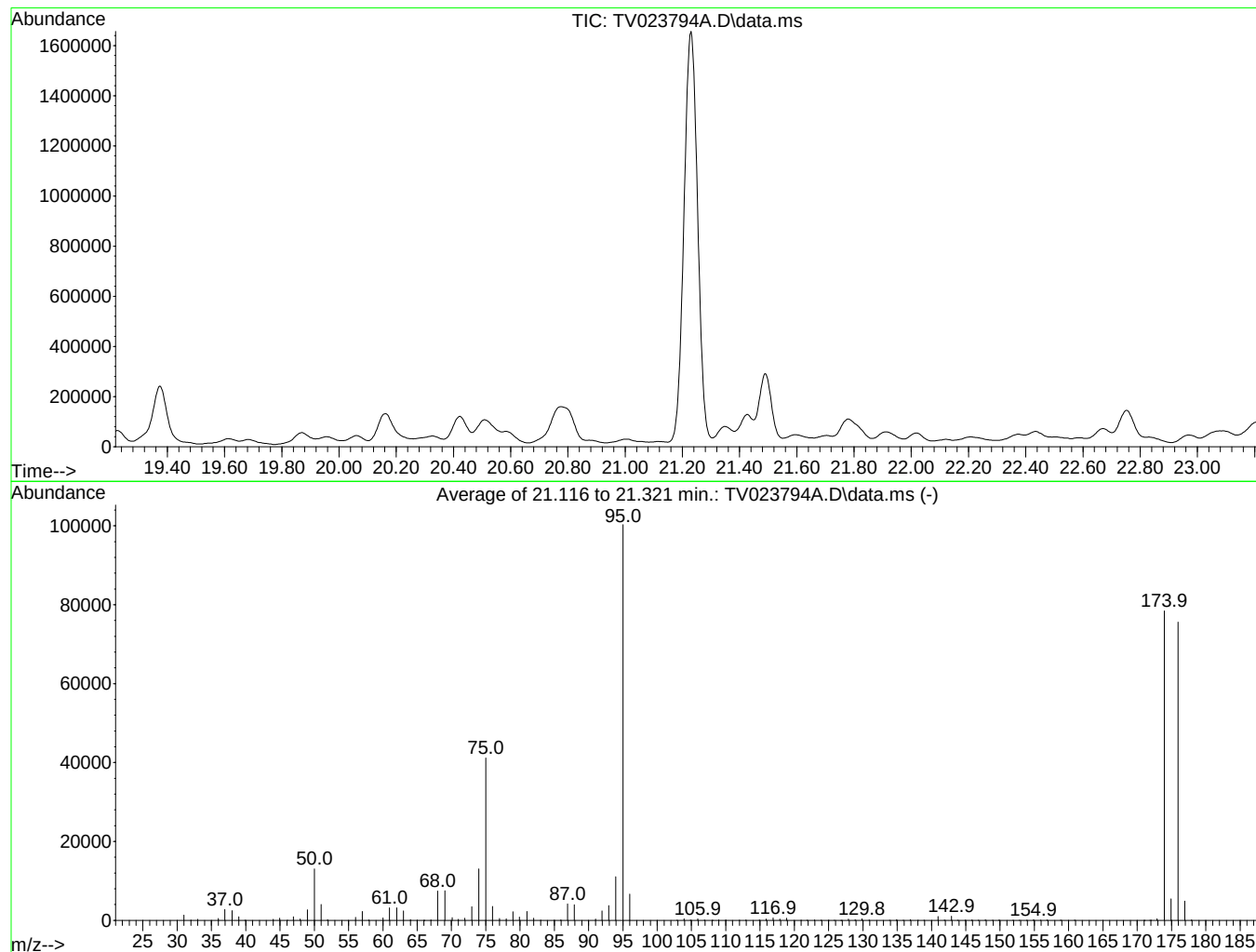
AutoFind: Scans 4998, 4999, 5000; Background Corrected with Scan 4956

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.0	48741	PASS
75	95	30	66	42.3	157888	PASS
95	95	100	100	100.0	373670	PASS
96	95	5	9	6.6	24623	PASS
173	174	0.00	2	0.5	1524	PASS
174	95	50	120	79.0	295296	PASS
175	174	4	9	6.9	20421	PASS
176	174	93	101	96.5	285035	PASS
177	176	5	9	6.4	18152	PASS

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023794A.D
 Acq On : 03 Apr 2024 12:36 pm
 Operator : YR
 Sample : SEQ-TUN1
 Misc : QBT03040224A TUNE
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteintnew.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Title : T015 VOC Analysis
 Last Update : Mon Apr 01 10:48:02 2024



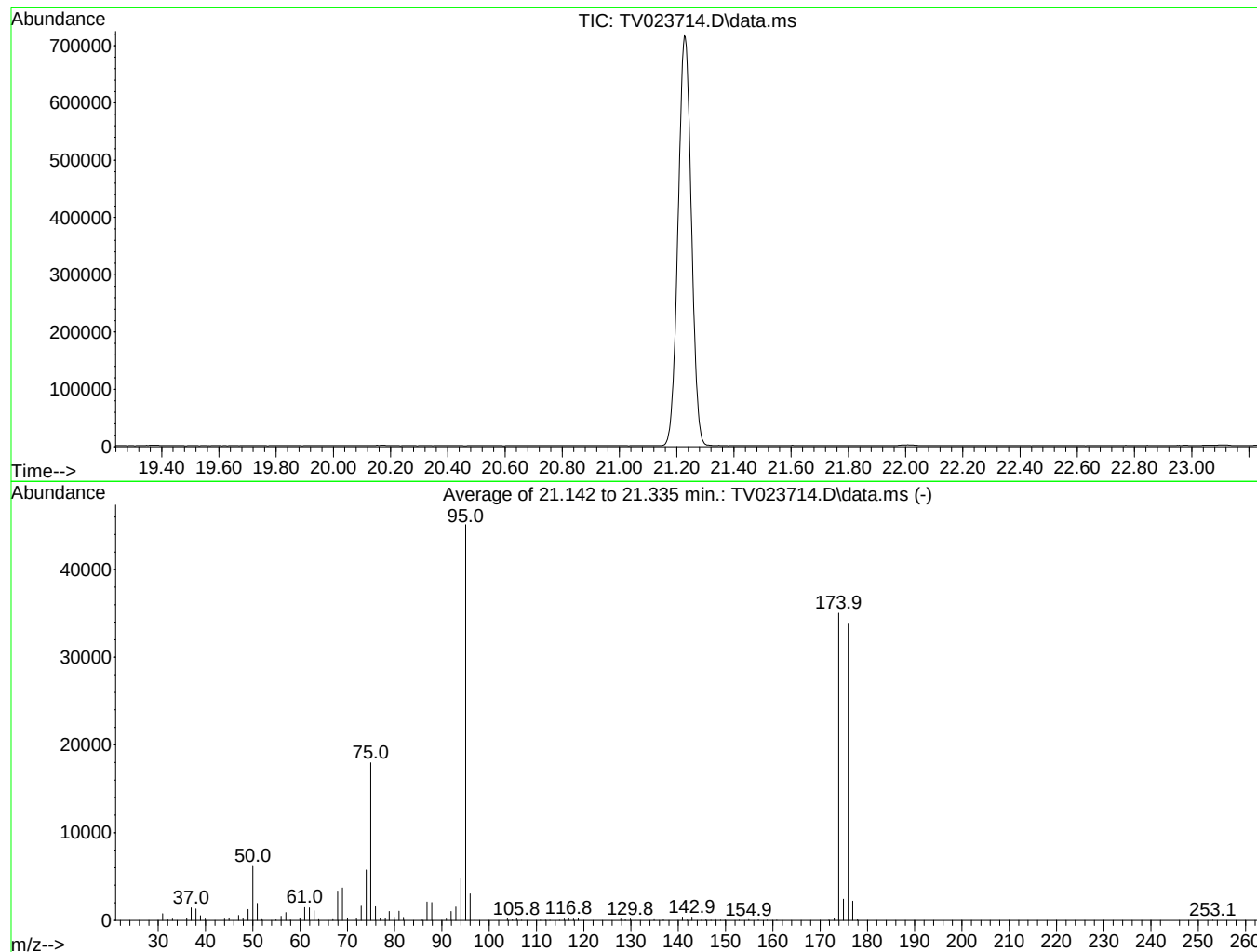
AutoFind: Averaged scan 4964 to 5027; Bkg corrected with scan 4963

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.0	13023	PASS
75	95	30	66	41.0	41156	PASS
95	95	100	100	100.0	100306	PASS
96	95	5	9	6.6	6621	PASS
173	174	0.00	2	0.5	385	PASS
174	95	50	120	78.2	78470	PASS
175	174	4	9	6.9	5425	PASS
176	174	93	101	96.3	75573	PASS
177	176	5	9	6.5	4903	PASS

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023714.D
Acq On : 29 Mar 2024 08:48 pm
Operator : VH
Sample : SEQ-TUN1
Misc : QBT03032924A TUNE
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

Integration File: rteintnew.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Title : T015 VOC Analysis
Last Update : Mon Apr 01 10:48:02 2024



AutoFind: Averaged scan 4972 to 5031; Bkg corrected with scan 4971

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.6	6155	PASS
75	95	30	66	39.8	17975	PASS
95	95	100	100	100.0	45120	PASS
96	95	5	9	6.7	3030	PASS
173	174	0.00	2	0.5	165	PASS
174	95	50	120	77.6	35034	PASS
175	174	4	9	6.9	2402	PASS
176	174	93	101	96.5	33793	PASS
177	176	5	9	6.5	2181	PASS

METHOD BLANK RAW DATA

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1627
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.099	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1627
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.099	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
91-20-3	Naphthalene	1.0	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.68	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1627

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Matrix: AirLaboratory ID: BD40407-BLK1File ID: TV023799.D

Prepared: 04/03/24 12:00Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

Analyzed: 04/03/24 16:01Instrument: TO15_AIR3

Batch: BD40407Sequence: S4D0428Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
156-60-5	trans-1,2-Dichloroethylene	0.40	U
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.13	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	307883	12.176	312285	12.179	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023799.D
 Acq On : 03 Apr 2024 04:01 pm
 Operator : YR
 Sample : BD40407-BLK1
 Misc : QBT03040224A BLANK
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:12:22 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

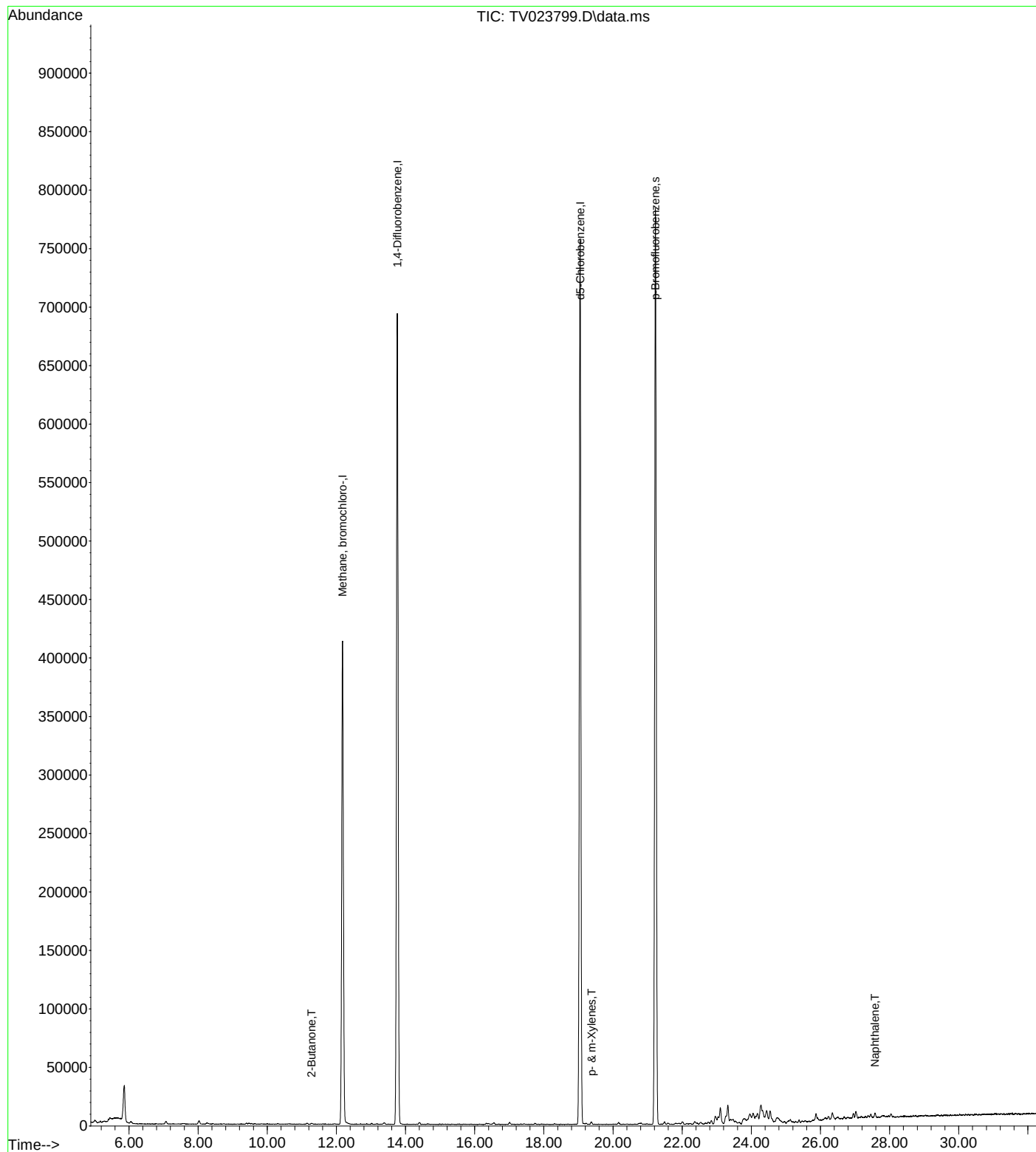
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

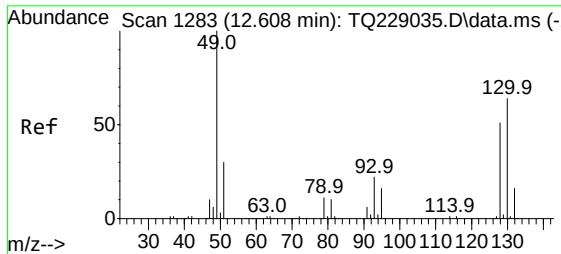
Internal Standards						
1) Methane, bromochloro-	12.176	49	307883	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.761	114	1102029	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	883047	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.227	95	572374	9.09	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	90.90%
Target Compounds						
						Qvalue
10) ethanol	7.074	45	2345	Below Cal	#	85
13) Isopropanol	8.025	45	6900	Below Cal	#	99
15) Acetone	8.254	43	2591	Below Cal	#	42
20) Acrylonitrile	9.476	53	1111	Below Cal	#	100
27) 2-Butanone	11.280	43	1820	0.03 ppbv	#	56
58) p- & m-Xylenes	19.377	91	3015	0.03 ppbv	#	80
79) Naphthalene	27.578	128	5341	0.03 ppbv	#	86

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023799.D
Acq On : 03 Apr 2024 04:01 pm
Operator : YR
Sample : BD40407-BLK1
Misc : QBT03040224A BLANK
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

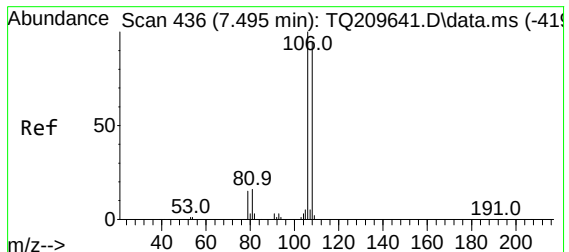
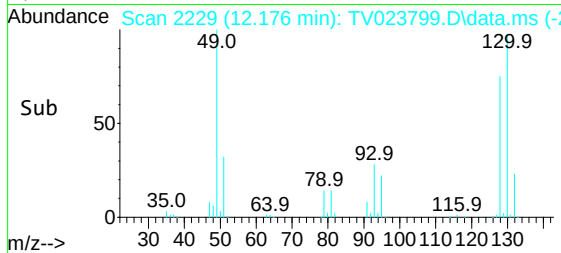
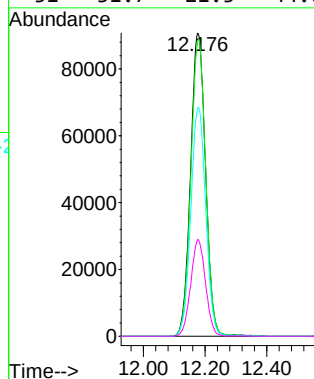
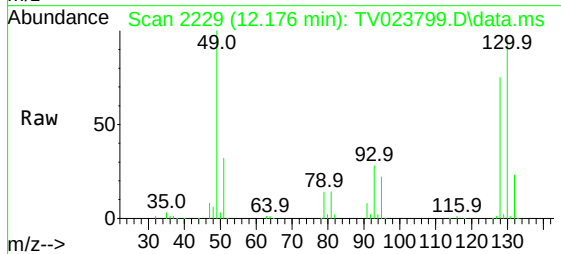
Quant Time: Apr 04 00:12:22 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration





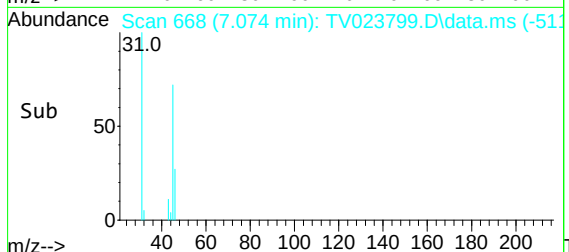
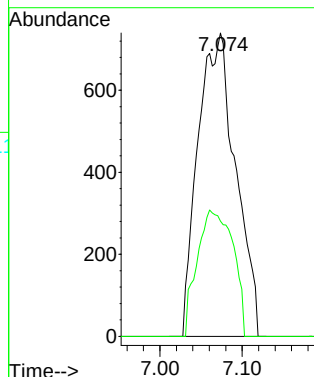
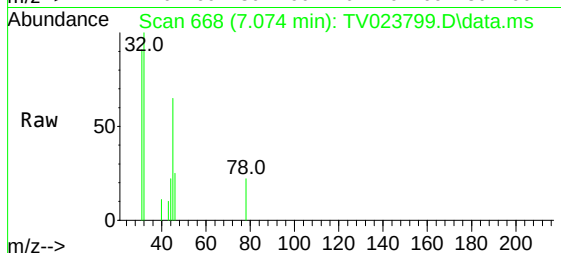
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.176 min Scan# 2229
Delta R.T. -0.006 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

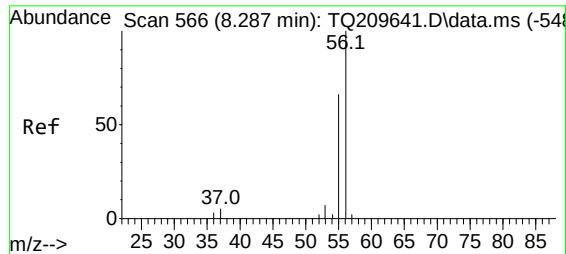
Tgt Ion:	49	Resp:	307883
Ion Ratio	Lower	Upper	
49	100		
130	97.1	44.5	92.3#
128	75.6	34.7	72.1#
51	31.7	21.5	44.6



#10
ethanol
Concen: Below Cal
RT: 7.074 min Scan# 668
Delta R.T. 0.014 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

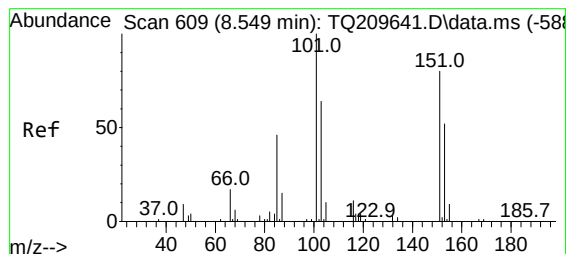
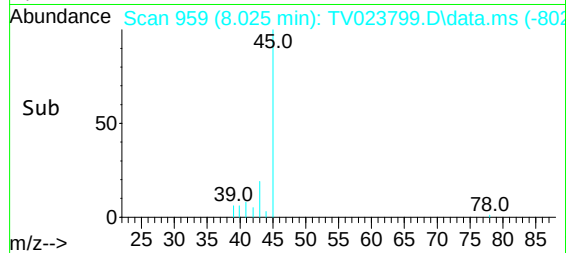
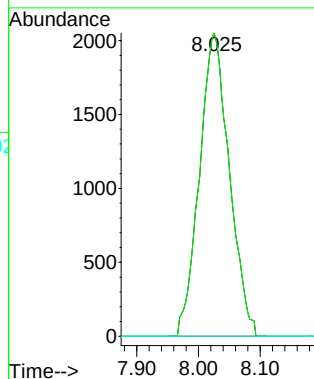
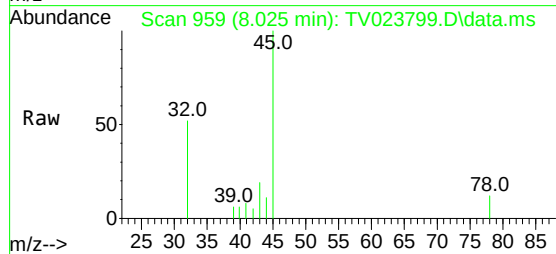
Tgt Ion:	45	Resp:	2345
Ion Ratio	Lower	Upper	
45	100		
46	39.7	40.0	60.0#





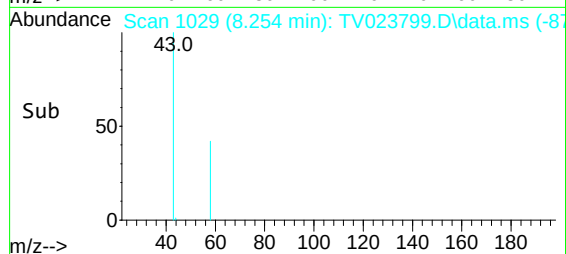
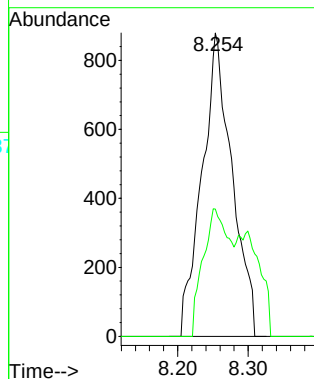
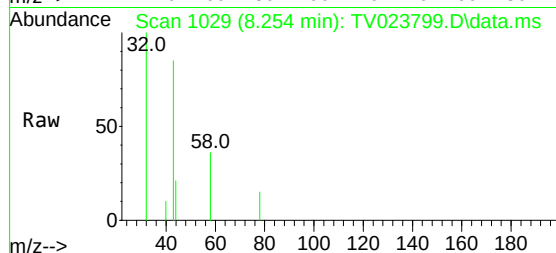
#13
Isopropanol
Concen: Below Cal
RT: 8.025 min Scan# 959
Delta R.T. 0.014 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

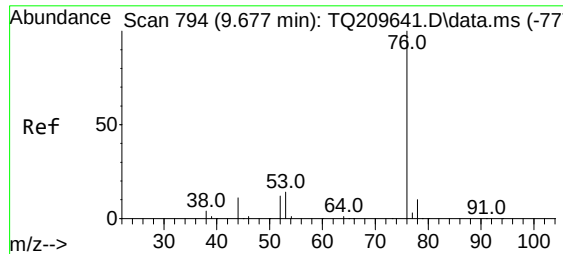
Tgt Ion: 45 Resp: 6900
Ion Ratio Lower Upper
45 100
45 100.0 65.0 135.0
59 0.0 0.0 8.4



#15
Acetone
Concen: Below Cal
RT: 8.254 min Scan# 1029
Delta R.T. 0.008 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

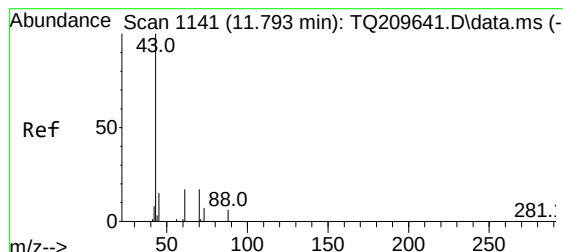
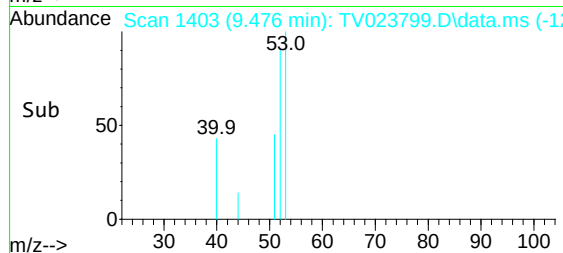
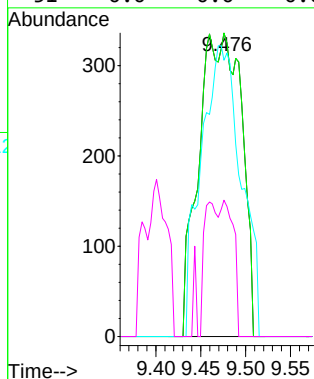
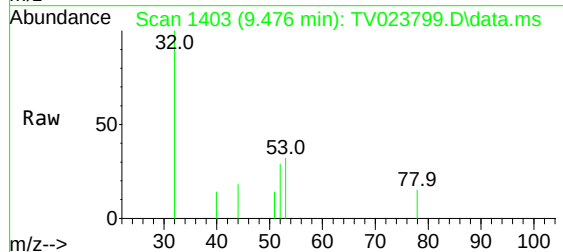
Tgt Ion: 43 Resp: 2591
Ion Ratio Lower Upper
43 100
58 64.2 20.7 42.9#





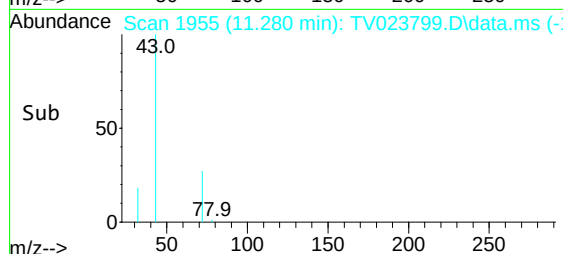
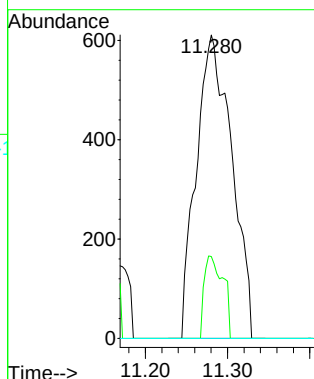
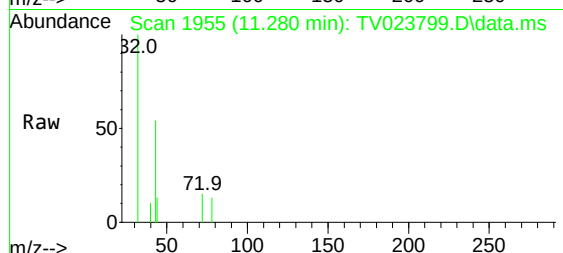
#20
Acrylonitrile
Concen: Below Cal
RT: 9.476 min Scan# 1403
Delta R.T. 0.004 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

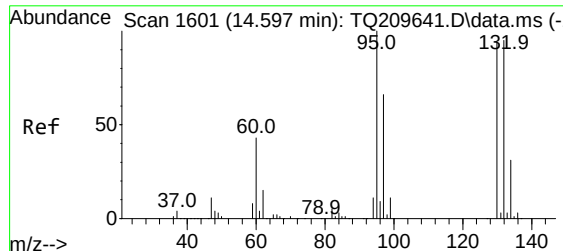
Tgt Ion: 53	Resp: 1111		
Ion	Ratio	Lower	Upper
53	100		
53	100.0	80.0	120.0
52	90.0	0.0	0.0#
51	0.0	0.0	0.0



#27
2-Butanone
Concen: 0.03 ppbv
RT: 11.280 min Scan# 1955
Delta R.T. 0.004 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

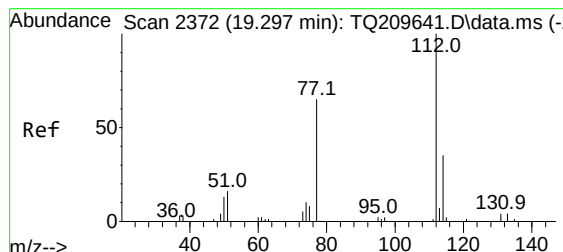
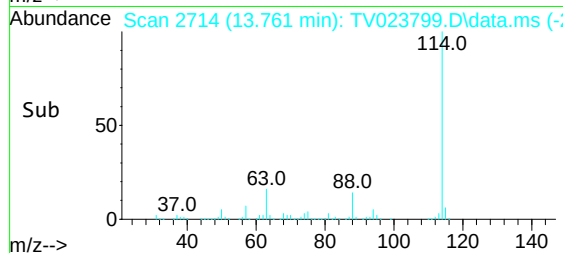
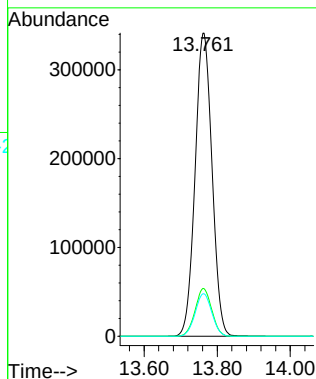
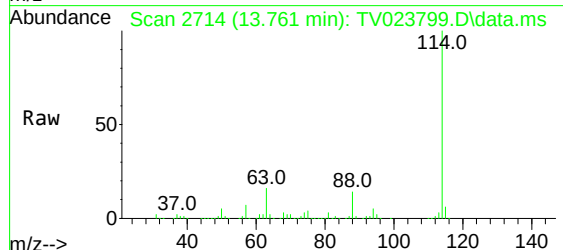
Tgt Ion: 43	Resp: 1820		
Ion	Ratio	Lower	Upper
43	100		
72	0.0	16.4	34.2#
57	0.0	5.0	10.4#





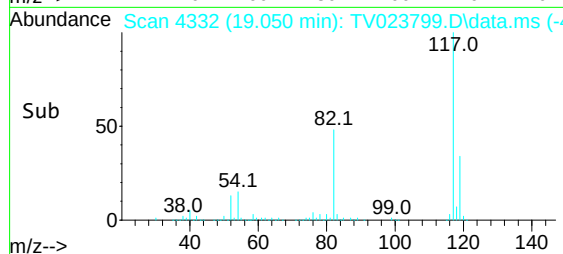
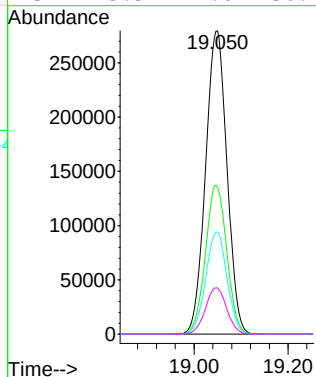
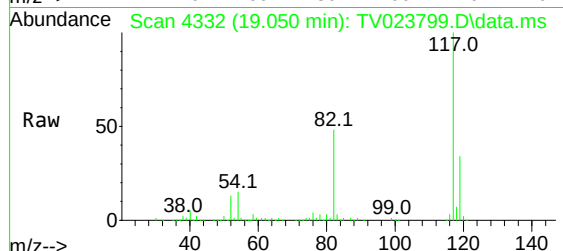
#38
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.761 min Scan# 2714
Delta R.T. -0.006 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

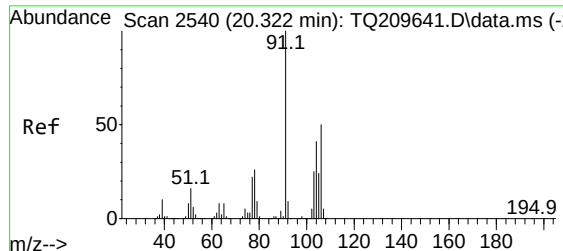
Tgt Ion:114 Resp: 1102029
Ion Ratio Lower Upper
114 100
63 15.5 14.0 29.2
88 13.9 11.2 23.2



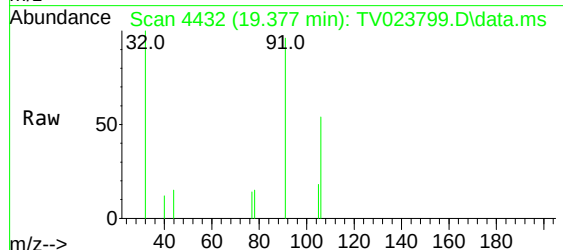
#54
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.050 min Scan# 4332
Delta R.T. -0.002 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

Tgt Ion:117 Resp: 883047
Ion Ratio Lower Upper
117 100
82 48.9 38.7 80.5
119 33.7 20.3 42.3
54 15.3 14.6 30.2

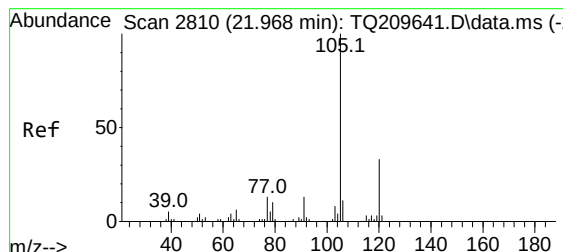
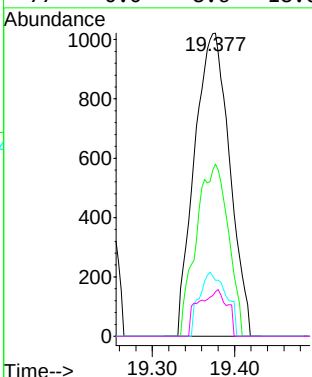
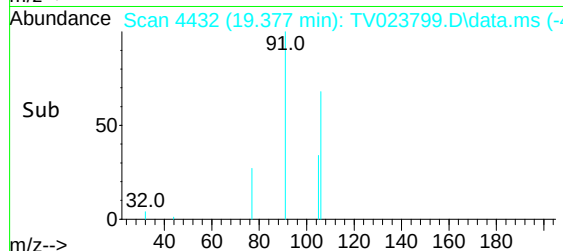




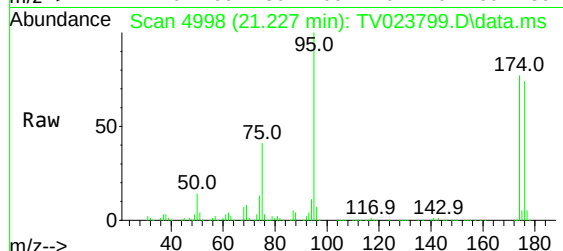
#58
p- & m-Xylenes
Concen: 0.03 ppbv
RT: 19.377 min Scan# 4432
Delta R.T. 0.001 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm



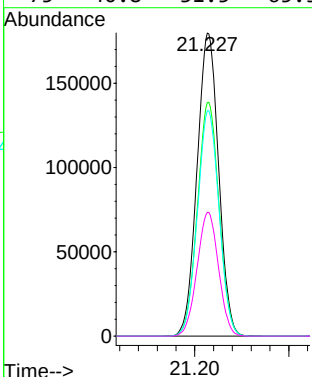
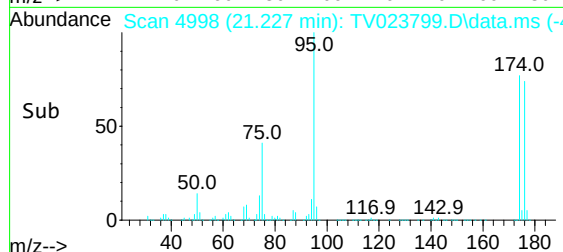
Tgt Ion:	91	Resp:	3015
Ion	Ratio	Lower	Upper
91	100		
106	52.0	31.0	64.4
105	0.0	13.4	27.8#
77	0.0	8.6	18.0#

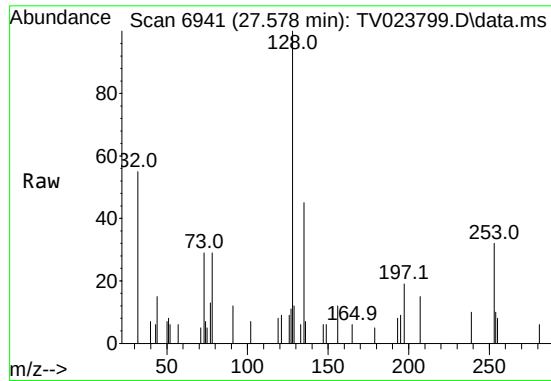


#65
p-Bromofluorobenzene
Concen: 9.09 ppbv
RT: 21.227 min Scan# 4998
Delta R.T. -0.005 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm



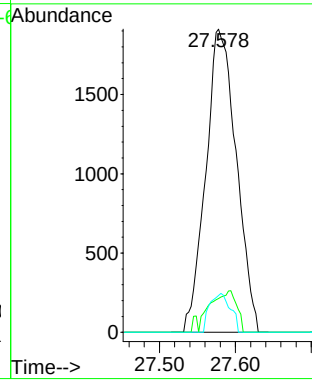
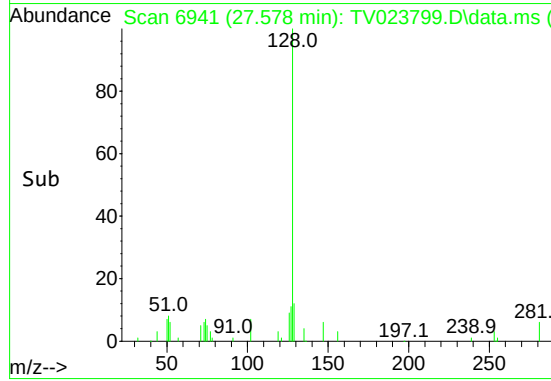
Tgt Ion:	95	Resp:	572374
Ion	Ratio	Lower	Upper
95	100		
174	77.6	50.0	103.8
176	74.7	48.2	100.2
75	40.8	31.5	65.3





#79
Naphthalene
Concen: 0.03 ppbv
RT: 27.578 min Scan# 6941
Delta R.T. -0.005 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

Tgt Ion	Ratio	Resp	Lower	Upper
128	100			
127	12.5	8.1	16.9	
129	0.0	7.3	15.1	



METHOD BLANK RAW DATA

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:	<u>York Analytical Laboratories, Inc. - Stratford</u>	SDG:	<u>24C1627</u>		
Client:	<u>Walden Associates</u>	Project:	<u>IMPL 0115.6 Imperial Cleaners</u>		
Matrix:	<u>Air</u>	Laboratory ID:	<u>BD40409-BLK1</u>	File ID:	<u>TV023800.D</u>
Prepared:	<u>04/03/24 12:00</u>	Preparation:	<u>EPA TO15 PREP</u>	Initial/Final:	<u>400 mL / 400 mL</u>
Analyzed:	<u>04/03/24 16:42</u>	Instrument:	<u>TO15_AIR3</u>		
Batch:	<u>BD40409</u>	Sequence:	<u>S4D0429</u>	Calibration:	<u>SE40002</u>

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
540-84-1	2,2,4-Trimethylpentane	0.234	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	289517	12.176	320251	12.176	

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023800.D
 Acq On : 03 Apr 2024 04:42 pm
 Operator : YR
 Sample : BD40409-BLK1
 Misc : QBT03040224A BLANK
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 14:35:41 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	289517	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	818385	10.00	ppbv	0.00

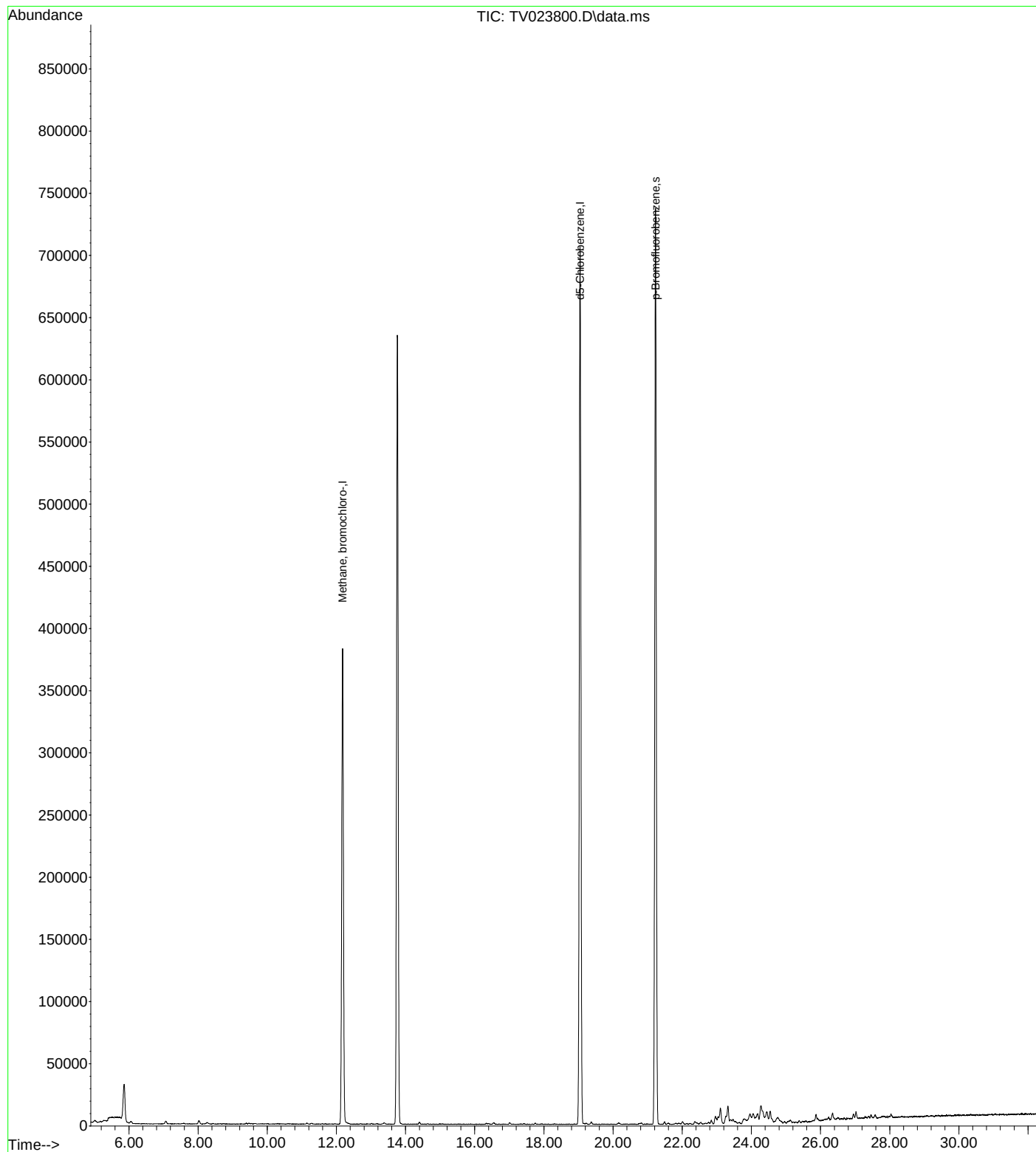
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	526242	9.94	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.40%

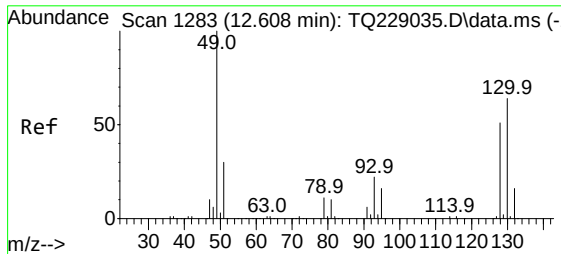
Target Compounds	Qvalue

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023800.D
Acq On : 03 Apr 2024 04:42 pm
Operator : YR
Sample : BD40409-BLK1
Misc : QBT03040224A BLANK
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

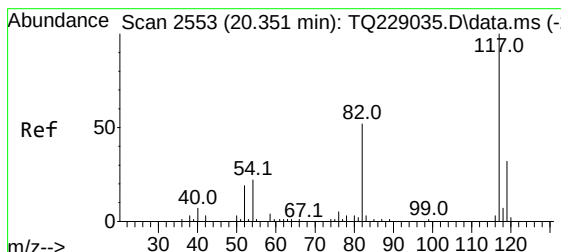
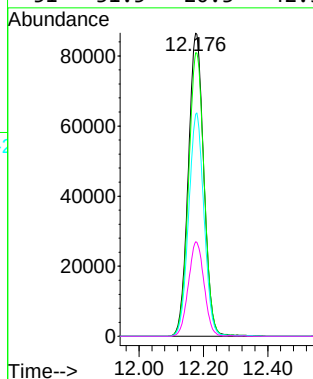
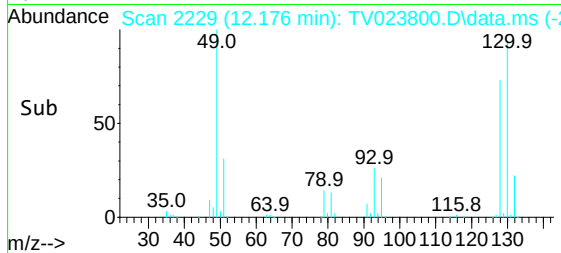
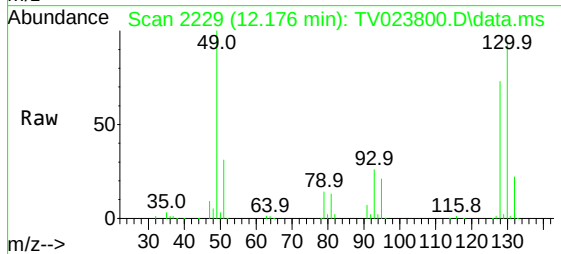
Quant Time: Apr 04 14:35:41 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration





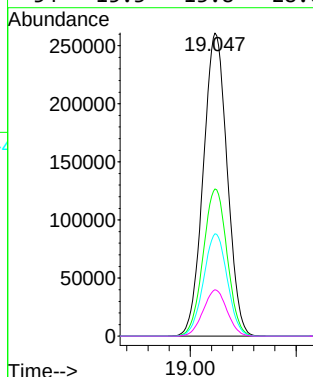
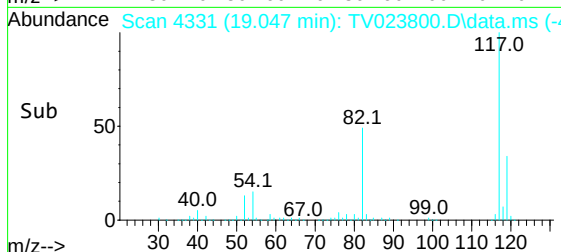
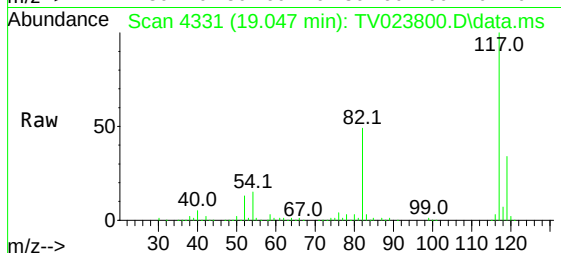
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.176 min Scan# 2229
Delta R.T. -0.003 min
Lab File: TV023800.D
Acq: 03 Apr 2024 04:42 pm

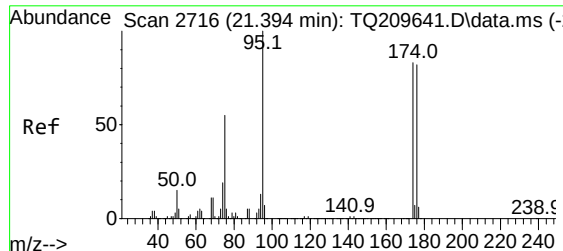
Tgt Ion:	49	Resp:	289517
Ion Ratio	Lower	Upper	
49	100		
130	94.3	48.1	99.9
128	73.0	38.3	79.5
51	31.5	20.3	42.3



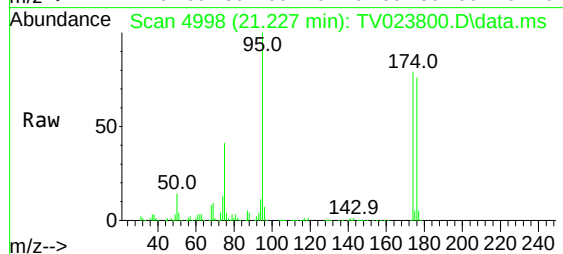
#3
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.047 min Scan# 4331
Delta R.T. -0.000 min
Lab File: TV023800.D
Acq: 03 Apr 2024 04:42 pm

Tgt Ion:	117	Resp:	818385
Ion Ratio	Lower	Upper	
117	100		
82	48.8	37.1	77.1
119	33.7	22.1	45.9
54	15.3	13.8	28.6

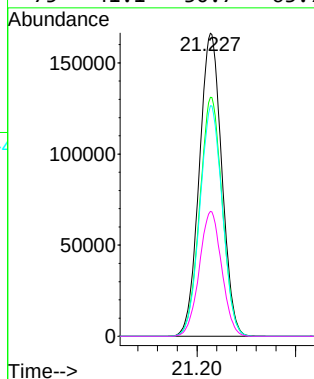
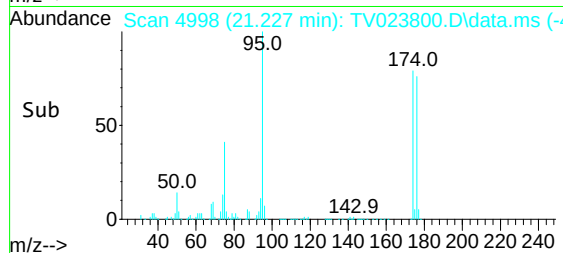




#4
 p-Bromofluorobenzene
 Concen: 9.94 ppbv
 RT: 21.227 min Scan# 4998
 Delta R.T. -0.003 min
 Lab File: TV023800.D
 Acq: 03 Apr 2024 04:42 pm



Tgt Ion:	95	Resp:	526242
Ion	Ratio	Lower	Upper
95	100		
174	79.0	53.2	110.6
176	76.0	51.6	107.2
75	41.1	30.7	63.7



LCS RAW DATA

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023797.D
 Acq On : 03 Apr 2024 02:38 pm
 Operator : YR
 Sample : BD40407-BS1
 Misc : QBT03040224A LCS
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:12:04 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	327568	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1322339	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	1085556	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.227	95	797007	10.29	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	102.90%

Target Compounds						Qvalue
2) Propylene	5.050	42	156341	8.80	ppbv	# 87
3) Dichlorodifluoromethane	5.126	85	804454	10.99	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.390	85	531972	9.94	ppbv	88
5) Chloromethane	5.613	50	113006	8.41	ppbv	100
6) Vinyl Chloride	5.884	62	231108	9.47	ppbv	99
7) 1,3-Butadiene	5.972	54	208801	9.39	ppbv	95
8) Bromomethane	6.783	94	335254	10.83	ppbv	99
9) Chloroethane	6.956	64	154790	10.28	ppbv	96
10) ethanol	7.057	45	112375	7.92	ppbv	87
11) Vinyl Bromide	7.420	106	337725	10.80	ppbv	99
12) Trichlorofluoromethane	7.544	101	747410	10.94	ppbv	99
13) Isopropanol	8.005	45	507133	9.71	ppbv	100
14) Acrolein	8.136	56	127821	9.88	ppbv	# 100
15) Acetone	8.244	43	352575	8.69	ppbv	84
16) Freon-113	8.427	101	686407	11.12	ppbv	97
17) 1,1-Dichloroethylene	8.652	61	416314	10.41	ppbv	# 79
18) 3-Chloropropene	9.247	41	326637	8.41	ppbv	87
19) Methylene Chloride	9.398	49	302774	8.93	ppbv	80
20) Acrylonitrile	9.470	53	235991	7.51	ppbv	# 100
21) Carbon disulfide	9.538	76	967724	11.26	ppbv	90
22) Methyl-tert-Butyl Ethe...	9.803	73	832508	10.57	ppbv	95
23) trans-1,2-Dichloroethy...	10.009	61	400973	10.24	ppbv	# 77
24) Hexane	10.310	57	445729	9.77	ppbv	92
25) Vinyl Acetate	10.614	43	683468	9.00	ppbv	# 99
26) 1,1-Dichloroethane	10.672	63	515785	10.60	ppbv	# 99
27) 2-Butanone	11.274	43	540152	8.20	ppbv	90
28) Ethyl Acetate	11.584	43	599874	8.75	ppbv	96
29) cis-1,2-Dichloroethylene	11.676	61	383185	10.17	ppbv	# 78
30) Chloroform	11.950	83	666688	10.67	ppbv	97
31) Tetrahydrofuran	12.271	42	316413	8.59	ppbv	88
32) 1,1,1-Trichlorethane	12.699	97	668156	10.64	ppbv	95
33) Cyclohexane	12.875	56	464547	9.73	ppbv	89
34) Carbon Tetrachloride	13.166	117	730742	11.37	ppbv	97
35) 1,2-Dichloroethane	13.232	62	338904m	10.24	ppbv	
36) Benzene	13.369	78	971535	10.14	ppbv	# 100
37) n-Heptane	13.392	43	451021	8.35	ppbv	# 93
39) Trichloroethylene	14.405	95	482663	8.49	ppbv	87
40) 1,2-Dichloropropane	14.634	63	340993	7.90	ppbv	# 98
41) Methyl Methacrylate	14.644	69	381170	8.48	ppbv	# 78
42) 1,4-Dioxane	14.945	88	251577	9.47	ppbv	# 100
43) Bromodichloromethane	14.994	83	706859	8.64	ppbv	98
44) Methyl Isobutyl Ketone	15.536	43	643830	7.31	ppbv	94
45) cis-1,3-Dichloropropene	15.889	75	593866	8.50	ppbv	94
46) Toluene	16.553	91	1269411	8.35	ppbv	99
47) trans-1,3-Dichloropropene	16.703	75	529679	8.52	ppbv	# 93
48) 1,1,2-Trichlorethane	17.000	97	440811	8.48	ppbv	92

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023797.D
 Acq On : 03 Apr 2024 02:38 pm
 Operator : YR
 Sample : BD40407-BS1
 Misc : QBT03040224A LCS
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

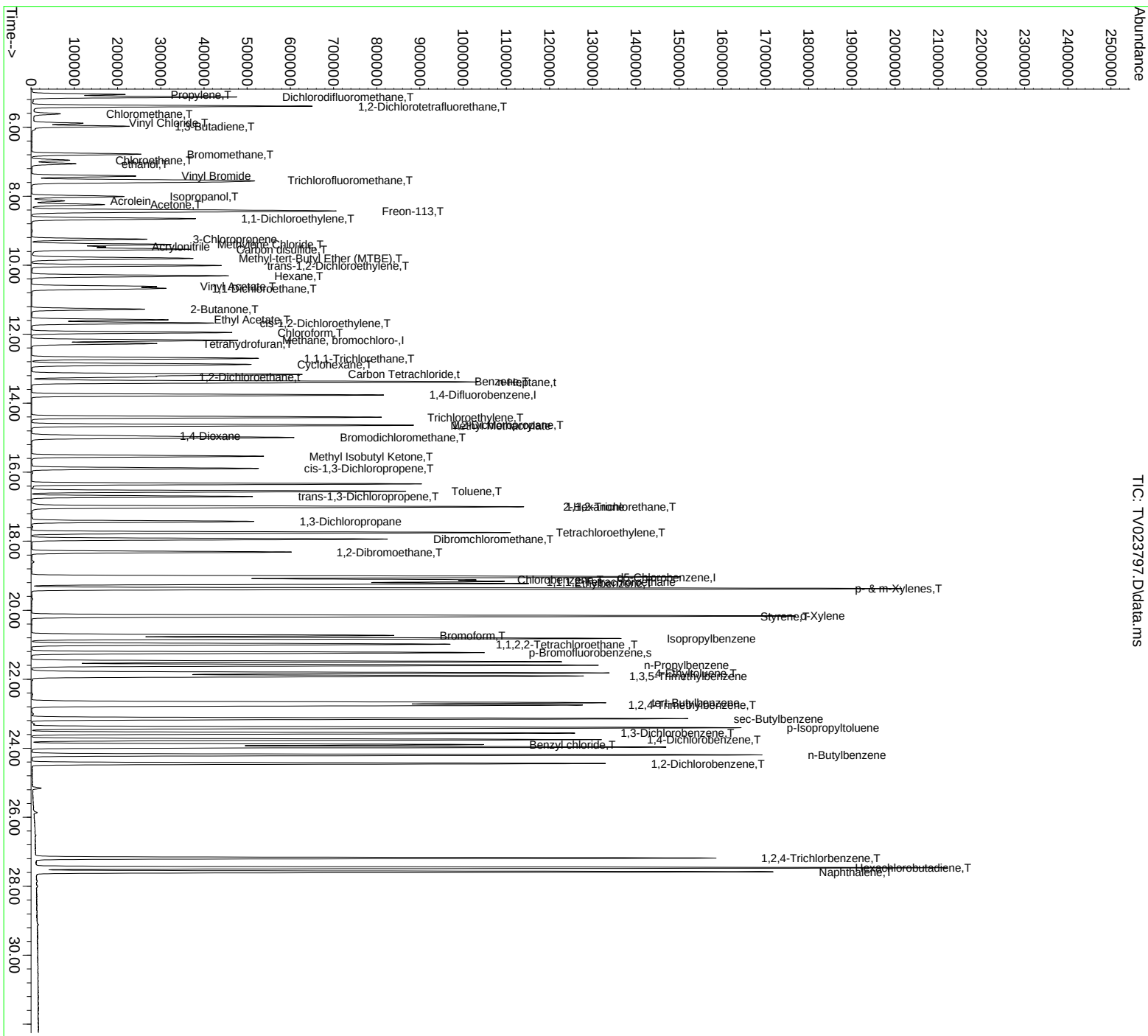
Quant Time: Apr 04 00:12:04 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.007	43	566209	7.10	ppbv	95
50) 1,3-Dichloropropane	17.429	76	640055	8.76	ppbv #	86
51) Tetrachloroethylene	17.749	166	630376	9.09	ppbv	96
52) Dibromchloromethane	17.939	129	912001	9.65	ppbv	97
53) 1,2-Dibromoethane	18.311	107	786672	8.97	ppbv	100
55) Chlorobenzene	19.119	112	1123359	9.17	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.168	131	602411	9.25	ppbv	95
57) Ethylbenzene	19.226	91	1626746	8.82	ppbv	91
58) p- & m-Xylenes	19.374	91	2305533	17.37	ppbv	89
59) o-Xylene	20.158	91	1216533	8.76	ppbv	96
60) Styrene	20.178	104	1034785	9.20	ppbv #	74
61) Bromoform	20.730	173	800033	10.74	ppbv	98
62) n-Propylbenzene	21.596	91	2253076	9.15	ppbv	98
63) Isopropylbenzene	20.818	105	1931535	9.29	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.985	83	1035120	8.97	ppbv	98
66) 4-Ethyltoluene	21.818	105	1926293	9.23	ppbv	89
67) 1,3,5-Trimethylbenzene	21.907	105	1572197	9.63	ppbv	96
68) tert-Butylbenzene	22.681	119	1932797	9.38	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.750	105	1614907	9.45	ppbv #	76
70) sec-Butylbenzene	23.142	105	2434253	9.48	ppbv #	99
71) p-Isopropyltoluene	23.404	119	2201463	9.56	ppbv #	100
72) 1,3-Dichlorobenzene	23.564	146	1171313	9.82	ppbv	95
73) 1,4-Dichlorobenzene	23.750	146	1191792	9.87	ppbv	95
74) Benzyl chloride	23.894	126	410374	10.58	ppbv #	1
75) n-Butylbenzene	24.191	91	1842835	9.63	ppbv #	88
76) 1,2-Dichlorobenzene	24.443	146	1148723	10.06	ppbv	95
77) 1,2,4-Trichlorobenzene	27.186	180	888804	11.25	ppbv	95
78) Hexachlorobutadiene	27.463	225	658803	10.23	ppbv #	92
79) Naphthalene	27.581	128	2674335	10.75	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023797.D
Acq On : 03 Apr 2024 02:38 pm
Operator : YR
Sample : BD40407-BS1
Misc : Q8T03040224A LCS
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 04 00:12:04 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
Quant Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



LCS RAW DATA

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023798.D
 Acq On : 03 Apr 2024 03:20 pm
 Operator : YR
 Sample : BD40409-BS1
 Misc : QBT03040224A ISOCTANE LCS
 ALS Vial : 6 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:15:06 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

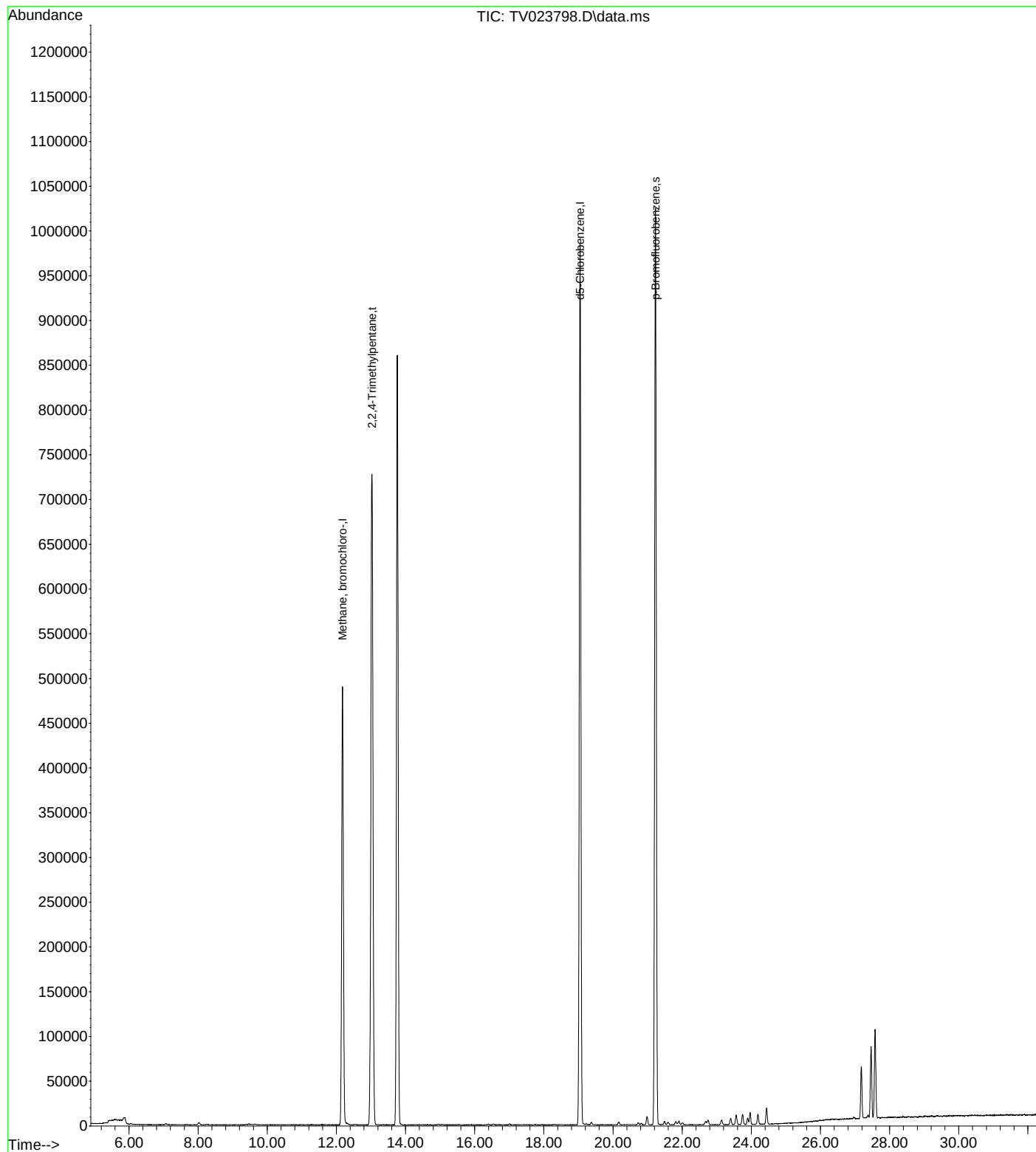
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	327367	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1194980	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	775536	10.03	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.30%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.026	57	1503294	9.32	ppbv	# Qvalue 96

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023798.D
Acq On : 03 Apr 2024 03:20 pm
Operator : YR
Sample : BD40409-BS1
Misc : QBT03040224A ISOCTANE LCS
ALS Vial : 6 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 04 00:15:06 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



BENCHSHEETS

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR :

BD40407

Preparation Date: 04/03/2024 12:00

York Analytical Laboratories, Inc. - Stratford

Printed: 4/5/2024 5:41:23AM

Matrix: Air

Preparation: EPA TO15 PREP

Lab Number	Analysis	Canister Vacuum (in. Hg) upon receipt	Final Canister Press. (psig) for Analysis	Qualifier	LCS No. &Source ID for Duplicate	Comments
24C1497-01 A	Volatile Organics, EPA TO15 Full List	-5.44	+5.30			
24C1497-02 A	Volatile Organics, EPA TO15 Full List	-2.41	+4.87			
24C1497-02RE1 A	Volatile Organics, EPA TO15 Full List	-2.41	+4.87			Added 4/4/2024 by YR
24C1497-03 A	Volatile Organics, EPA TO15 Full List	-3.36	+5.53			
24C1612-01 A	VOA, TO15 MASTER	-4.95	+5.11			
24C1612-02 A	VOA, TO15 MASTER	-5.41	+5.35			
24C1612-03 A	VOA, TO15 MASTER	-4.61	+5.56			
24C1613-01 A	Volatile Organics, EPA TO15 Full List	-7.51	+6.36			
24C1613-02 A	Volatile Organics, EPA TO15 Full List	-1.67	+5.05			
24C1613-03 A	Volatile Organics, EPA TO15 Full List	-8.23	+4.51			
24C1627-01 A	Volatile Organics, EPA TO15 Full List	-4.60	+4.96			
24C1629-01 A	Volatile Organics, EPA TO15 Full List	-3.52	+5.12			
24C1639-01RE1 A	Volatile Organics, EPA TO15 Full List	-7.82	+5.24			From BD40169 by YR on 04
24C1639-06 A	Volatile Organics, EPA TO15 Full List	-7.93	+5.07			
24C1639-06 A	VOA, TO15 MASTER	-7.93	+5.07			Added for BatchQC in: BD4
24C1639-07 A	Volatile Organics, EPA TO15 Full List	-10.20	+6.46			From BD40169 by YR on 04
24C1962-01 A	Volatile Organics, EPA TO15 Full List	-5.26	+5.06			
24C1962-02 A	Volatile Organics, EPA TO15 Full List	-3.69	+5.42			
24C1962-03 A	Volatile Organics, EPA TO15 Full List	-6.44	+5.36			
24C1962-04 A	Volatile Organics, EPA TO15 Full List	-6.87	+5.01			
24C1962-05 A	Volatile Organics, EPA TO15 Full List	-5.71	+4.38			
24C1962-06 A	Volatile Organics, EPA TO15 Full List	-3.97	+5.57			
BD40407-BLK1	QC	NA	NA			
BD40407-BS1	QC	NA	NA		S24D006	
BD40407-DUP1	QC	-7.93	+5.07		24C1639-06	

From BA41406 on 1/24/2024 by VH

Preparations Performed by YR

Date: 04/03/2024 12:00

BENCHSHEETS

SDG: 24C1627
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR :

BD40409

Preparation Date: 04/03/2024 12:00

York Analytical Laboratories, Inc. - Stratford

Printed: 4/5/2024 5:41:35AM

Matrix: Air

Preparation: EPA TO15 PREP

Lab Number	Analysis	Canister Vacuum (in. Hg) upon receipt	Final Canister Press. (psig) for Analysis	Qualifier	LCS No. &Source ID for Duplicate	Comments
24C1497-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.44	+5.30			From BD40407 by YR on 04
24C1497-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-2.41	+4.87			From BD40407 by YR on 04
24C1497-02RE1 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-2.41	+4.87			From BD40407 by YR on 04
24C1497-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.36	+5.53			From BD40407 by YR on 04
24C1612-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.95	+5.11			From BD40407 by YR on 04
24C1612-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.41	+5.35			From BD40407 by YR on 04
24C1612-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.61	+5.56			From BD40407 by YR on 04
24C1613-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.51	+6.36			From BD40407 by YR on 04
24C1613-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-1.67	+5.05			From BD40407 by YR on 04
24C1613-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-8.23	+4.51			From BD40407 by YR on 04
24C1627-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.60	+4.96			From BD40407 by YR on 04
24C1629-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.52	+5.12			From BD40407 by YR on 04
24C1639-01RE1 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.82	+5.24			From BD40407 by YR on 04
24C1639-06 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.93	+5.07			From BD40407 by YR on 04
24C1639-07 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-10.02	+4.46			From BD40407 by YR on 04
24C1962-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.26	+5.06			From BD40407 by YR on 04
24C1962-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.69	+5.42			From BD40407 by YR on 04
24C1962-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-6.44	+5.36			From BD40407 by YR on 04
24C1962-04 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-6.87	+5.01			From BD40407 by YR on 04
24C1962-05 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.71	+4.38			From BD40407 by YR on 04
24C1962-06 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.97	+5.57			From BD40407 by VH on 04
BD40409-BLK1	QC	NA	NA			
BD40409-BS1	QC	NA	NA		S24D006	
BD40409-DUP1	QC	-7.93	+5.07		24C1639-06	

From BD40407 on 04/04/2024 by YR

Preparations Performed by YR

Date: 04/03/2024 12:00

Page 1 of 1

Data Usability Summary Report

Former Imperial Cleaners Site
BCP Site # C130225

Indoor Air Quality Sampling
2 University Place
Lake Success, NY 11020

This Data Usability Summary Report (DUSR) has been prepared to validate the results of the indoor air sampling conducted at 2 University Place, Lake Success, NY on March 21-22, 2024 in accordance with the *Generic Interim Remedial Measure Work Plan (IRM Work Plan*, Walden, March 4, 2022) approved by the New York State Department of Environmental Conservation (NYSDEC).

This DUSR has been prepared in accordance with NYSDEC Draft DER-10 Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports. The DUSR provides a thorough evaluation of analytical data without using the services of an independent third-party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project specific criteria for data quality and use.

The analytical data was evaluated by Mr. Lawrence Zeman (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume (see Attachment A). The indoor air sample collected for laboratory analysis was submitted to York Analytical Laboratories, Inc. (York Labs) of Stratford, CT, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #10854), and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (USEPA) Method TO-15 with the analytical detection limits set forth in the NYSDOH soil vapor intrusion (SVI) guidance document *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (2006, including updates). The DUSR process consisted of evaluating the analytical data package produced by York Labs and answering the following questions.

1. Were there any components of the sampling protocol which deviated from established sampling procedures?

The indoor air sample was collected in a laboratory-provided, individually certified 6-liter Summa[®] canister equipped with a flow regulator. The regulator was calibrated by the

laboratory for a sampling period of 24 hours; this sampling duration was chosen in accordance with the established sampling procedures in the NYSDEC-approved *IRM Work Plan*.

2. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

The sampling and analytical program outlined in the *IRM Work Plan* was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. The analytical laboratory (York Labs) included method blanks, duplicates and batch QA/QC samples as part of their standard QA/QC program. Additionally, the sample was handled in compliance with the holding time allowances, meeting the NYSDEC ASP Category B and USEPA CLP deliverables criteria requirements.

3. Have all holding times been met?

Times of sample receipt, extraction, and analysis have been inspected to determine whether the holding time specifications have been met. The indoor air sample was analyzed within the specified holding times.

4. Do all QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data) fall within the protocol-required limits and specifications?

All of the primary sample and QC data were reviewed. Laboratory duplicate sample analyses demonstrated a reasonable level of accuracy in the analytical results. The evaluation of the QA/QC data indicated that all of the QA/QC data met the protocol-required criteria and all laboratory control sample recovery values were within required limits with a few exceptions.

In summary, although analytes from the QA/QC sample data did not meet all required laboratory criteria, the reliability of the laboratory results should not be affected.

5. Have all the data been generated using established and agreed upon analytical protocols?

Laboratory analytical protocols have been developed by the USEPA and are published in *USEPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15* (Second Edition, January 1999). The review of the laboratory

deliverables indicated that the analytical data for this project were generated following these standard protocols.

6. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

An evaluation of the raw data confirmed the accuracy of the results provided in the data summary sheets and the quality control verification forms included in the analytical data package prepared by the laboratory.

7. Have the correct data qualifiers been used?

The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC Analytical Services Protocol (ASP) 95 revised guidelines.

8. Have the minimum reporting limits been met?

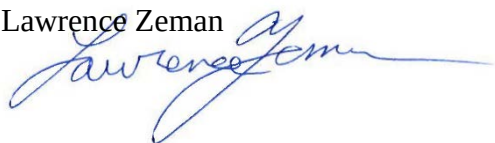
The laboratory's USEPA Method TO-15 analysis of the indoor air sample collected on March 21-22, 2024 achieved the minimum detection limits as required to evaluate the data based on the NYSDOH SVI Guidance and current decision matrix minimum reporting levels.

Summary

In summary, analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No significant QC exceedances were identified and it was determined that none of the data should be rejected. Therefore, there is no need for resampling or reanalysis based on the evaluation presented herein.

Prepared by:

Lawrence Zeman



Attachment A

Resume of Environmental Professional



Lawrence F. Zeman

Project Scientist III

Mr. Zeman has over 30 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in diverse areas that include regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses, and engineering/technical reporting.

EDUCATION

B.A. in Biology, Minor in Chemistry, Queens College

LICENSES/ CERTIFICATIONS

OSHA 40-hour HAZWOPER

OSHA 10-hour Construction Safety

New York State ELAP
Laboratory Director

New York State ELAP
Laboratory Microbiology
Director

SELECTED RELEVANT EXPERIENCE

- Performs sample collection of various sample types at industrial facilities and construction and remediation project sites
- Conducts soil sample collection, field activities oversight, and continuous air monitoring for Community Air Monitoring Programs (CAMP) in accordance with DER-10. Past projects include:
 - Elmhurst Tank Park and Playground, Queens, NY (2009–2011)
 - Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009–2011), as an Independent Environmental Monitor (IEM) on-site technician
 - Harlem River Greenway, Bronx, NY (2011–2012)
 - Beach Channel H.S. Athletic Fields (2016)
 - P.S. 63M William McKinley School, Manhattan, NY (2016)
 - P.S. 131 Abigail Adams Public School, Queens, NY (2017)
 - Forest Hills High School, Queens, NY (2017)
- Develops and implements new testing protocols and test procedures
- Conducts instrumentation repair and maintenance
- Conducts correlation studies of various analytic procedures
- Verifies laboratory Quality Assurance and Quality Control procedures and data
- Prepares and submits Data Usability Summary Reports (DUSR)
- Prepares and submits facility annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor, and opacity testing for DSNY permit renewal
- Provides environmental services to ensure compliance for NYSDEC Title V Air Facility Permits. Completes monthly, semi-annual, and annual compliance reports
- Provides environmental services to ensure compliance for NYCDEP Facility Air Permits
- Conducts field inspections and on-site audits
- Performs field measurements and recordings of noise and vibration
- Prepares engineering and technical reports
- Prepares New York City Community Right-to-Know Law and SARA reports for industrial facilities

ATTACHMENT F

6 University Place Indoor Air Sampling Documentation

6 University Place Lake Success, NY 11020					
Summary of Indoor Air Quality Sampling Results March 20-21, 2024					
Chemical Compound	CAS No.	NYSDOH Air Guideline Values (AGVs)	USEPA BASE Indoor Air 90th Percentile Conc (µg/m3)	6 University Place Indoor Air Concentration	
		µg/m3	µg/m3	µg/m3	Q
Isooctane	540-84-1	~	~	< 0.19	
1,1,1,2-Tetrachloroethane	630-20-6	~	~	< 0.56	
1,1,1-Trichloroethane	71-55-6	~	20.6	< 0.44	
1,1,2,2-Tetrachloroethane	79-34-5	~	~	< 0.56	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon	76-13-1	~	3.5	< 0.62	
1,1,2-Trichloroethane	79-00-5	~	< 1.5	< 0.44	
1,1-Dichloroethane	75-34-3	~	< 0.7	< 0.33	
1,1-Dichloroethylene	75-35-4	~	< 1.4	< 0.081	
1,2,4-Trichlorobenzene	120-82-1	~	< 6.8	< 0.60	
1,2,4-Trimethylbenzene	95-63-6	~	9.5	< 0.40	
1,2-Dibromoethane	106-93-4	~	< 1.5	< 0.63	
1,2-Dichlorobenzene	95-50-1	~	< 1.2	< 0.49	
1,2-Dichloroethane	107-06-2	~	< 0.9	< 0.33	
1,2-Dichloropropane	78-87-5	~	< 1.6	< 0.38	
1,2-Dichlorotetrafluoroethane	76-14-2	~	< 6.8	< 0.57	
1,3,5-Trimethylbenzene	108-67-8	~	3.7	< 0.40	
1,3-Butadiene	106-99-0	~	< 3.0	< 0.54	
1,3-Dichlorobenzene	541-73-1	~	< 2.4	< 0.49	
1,3-Dichloropropane	142-28-9	~	~	< 0.38	
1,4-Dichlorobenzene	106-46-7	~	5.5	< 0.49	
1,4-Dioxane	123-91-1	~	~	< 0.59	
2-Butanone	78-93-3	~	12	0.94	
2-Hexanone	591-78-6	~	~	0.80	TO-CCV
3-Chloropropene	107-05-1	~	~	< 1.3	
4-Methyl-2-pentanone	108-10-1	~	6.0	< 0.33	TO-CCV
Acetone	67-64-1	~	98.9	6.0	
Acrylonitrile	107-13-1	~	~	< 0.18	
Benzene	71-43-2	~	9.4	0.44	
Benzyl chloride	100-44-7	~	< 6.8	< 0.42	
Bromodichloromethane	75-27-4	~	~	< 0.55	
Bromoform	75-25-2	~	~	< 0.84	
Bromomethane	74-83-9	~	< 1.7	< 0.32	
Carbon disulfide	75-15-0	~	4.2	< 0.25	
Carbon tetrachloride	56-23-5	~	< 1.3	0.46	TO-CCV
Chlorobenzene	108-90-7	~	< 0.9	< 0.37	
Chloroethane	75-00-3	~	< 1.1	< 0.21	
Chloroform	67-66-3	~	1.1	< 0.40	
Chloromethane	74-87-3	~	3.7	0.97	
cis-1,2-Dichloroethylene	156-59-2	~	< 1.9	< 0.081	
cis-1,3-Dichloropropylene	10061-01-5	~	< 2.3	< 0.37	
Cyclohexane	110-82-7	~	~	< 0.28	
Dibromochloromethane	124-48-1	~	~	< 0.69	
Dichlorodifluoromethane	75-71-8	~	16.5	2.5	
Ethyl acetate	141-78-6	~	5.4	< 0.59	
Ethyl Benzene	100-41-4	~	5.7	< 0.35	
Hexachlorobutadiene	87-68-3	~	< 6.8	< 0.87	
Isopropanol	67-63-0	~	250	0.98	
Methyl Methacrylate	80-62-6	~	~	< 0.33	
Methyl tert-butyl ether (MTBE)	1634-04-4	~	11.5	< 0.29	
Methylene chloride	75-09-2	60	10.0	< 0.57	
Naphthalene	91-20-3	~	~	< 0.85	
n-Heptane	142-82-5	~	~	< 0.33	
n-Hexane	110-54-3	~	10.2	< 0.29	
o-Xylene	95-47-6	~	7.9	< 0.35	
p- & m- Xylenes	179601-23-1	~	~	< 0.71	
p-Ethyltoluene	622-96-8	~	3.6	< 0.40	
Propylene	115-07-1	~	~	< 0.14	
Styrene	100-42-5	~	1.9	< 0.35	
Tetrachloroethylene	127-18-4	30	15.9	0.72	
Tetrahydrofuran	109-99-9	~	~	< 0.48	
Toluene	108-88-3	~	43	0.58	
trans-1,2-Dichloroethylene	156-60-5	~	~	< 0.32	
trans-1,3-Dichloropropylene	10061-02-6	~	< 1.3	< 0.37	
Trichloroethylene	79-01-6	2	4.2	< 0.11	
Trichlorofluoromethane (Freon 11)	75-69-4	~	~	1.3	
Vinyl acetate	108-05-4	~	~	< 0.29	
Vinyl bromide	593-60-2	~	~	< 0.36	
Vinyl Chloride	75-01-4	~	< 1.9	< 0.10	

NOTES:
Highlighted analytes are included in the NYSDOH Decision Matrices
CAS - Chemical Abstract Service
NYSDOH - New York State Department of Health
USEPA - U.S. Environmental Protection Agency
µg/m³ - micrograms per cubic meter
Bold = compound detected above laboratory limit of quantification
Q = Laboratory data qualifier
TO-CCV = Estimated value reported by the laboratory

6 University Place (formerly 4)

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Jacqueline Bell Date/Time Prepared 3/20/24Preparer's Affiliation Wilder Environmental Engineering Phone No. 516-624-7200Purpose of Investigation SVI follow-up**1. OCCUPANT:**Interviewed: Y ☒ N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant ☒)

Interviewed: Y / N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS**Type of Building:** (Circle appropriate response)☒ Residential
IndustrialSchool
ChurchCommercial/Multi-use
Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	<u>Colonial</u>
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? N/A

If the property is commercial, type? N/A

Business Type(s) _____

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

Other characteristics:

Number of floors 2 1/2

Building age ~1929

Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with _____
- except laundry room
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with paint
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- except laundry room
- j. Sump present? Y/N
- k. Water in sump? Y / N / not applicable

Basement/Lowest level depth below grade: _____ (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	<u>laundry storage</u>
1 st Floor	<u>kitchen, play room, living areas</u>
2 nd Floor	<u>bedrooms</u>
3 rd Floor	<u></u>
4 th Floor	<u></u>

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- Is there an attached garage? (Y) / N
- Does the garage have a separate heating unit? Y (N) / NA
- Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) (Y) / N / NA
Please specify _____
- Has the building ever had a fire? Y / (N) When? _____
- Is a kerosene or unvented gas space heater present? Y / (N) Where? _____
- Is there a workshop or hobby/craft area? Y / N Where & Type? _____
- Is there smoking in the building? Y (N) How frequently? _____
- Have cleaning products been used recently? (Y) / N When & Type? _____
- Have cosmetic products been used recently? (Y) / N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____
- l. Have air fresheners been used recently? Y / N When & Type? _____
- m. Is there a kitchen exhaust fan? ☒ Y / N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? ☒ Y / N If yes, where vented? _____
- o. Is there a clothes dryer? ☒ Y / N If yes, is it vented outside? ☒ Y ☐ N
- p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y ☒ N

If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

No

☒ Unknown

Is there a radon mitigation system for the building/structure? ☒ Y ☐ N Date of Installation: _____

Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

a. Provide reasons why relocation is recommended: N/A

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

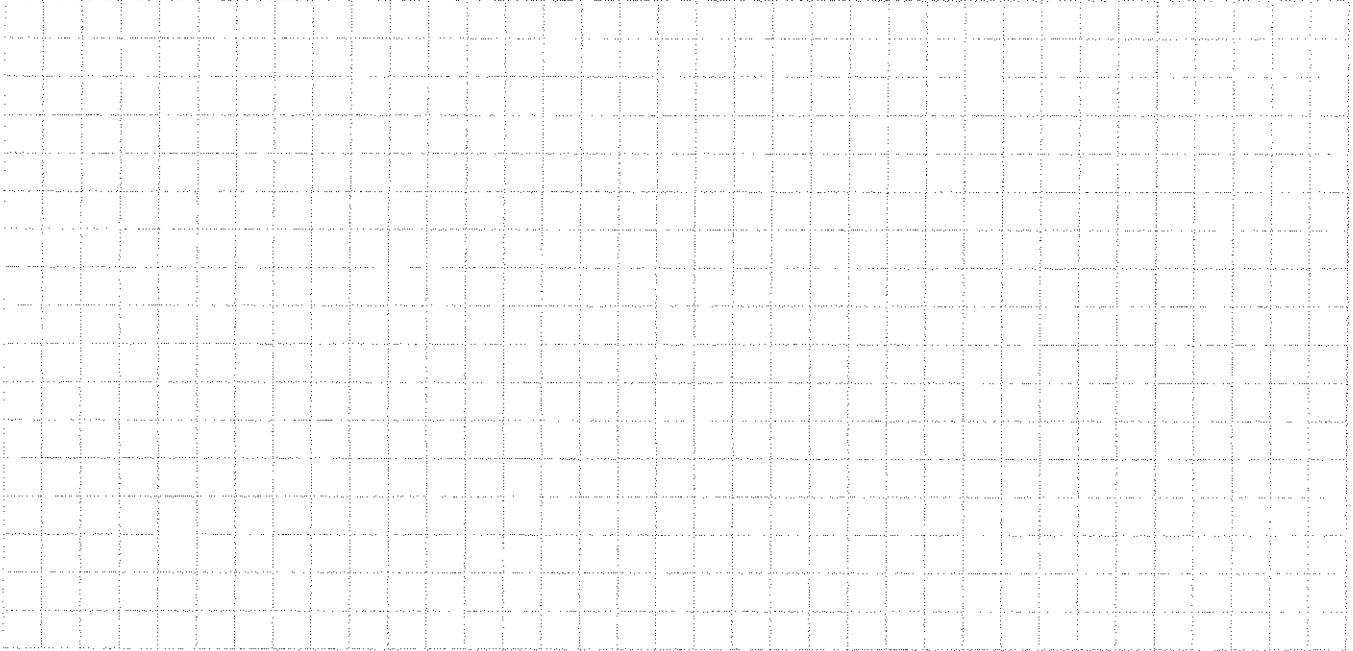
c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

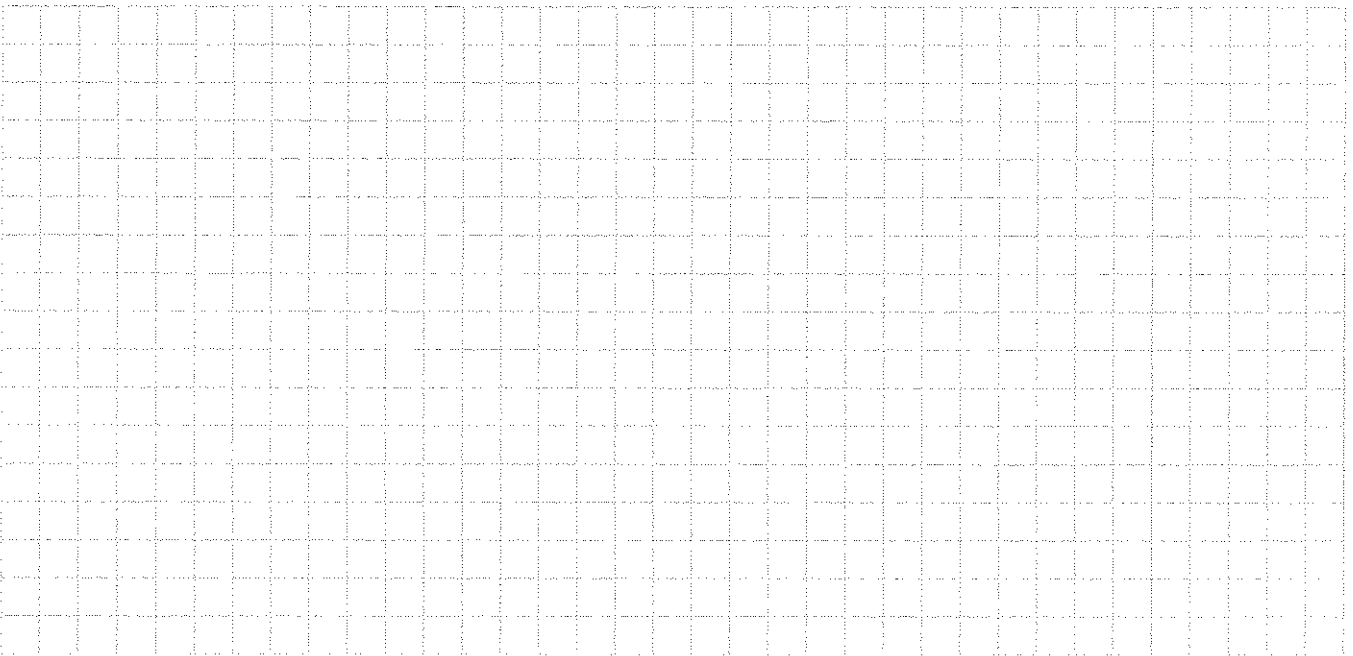
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



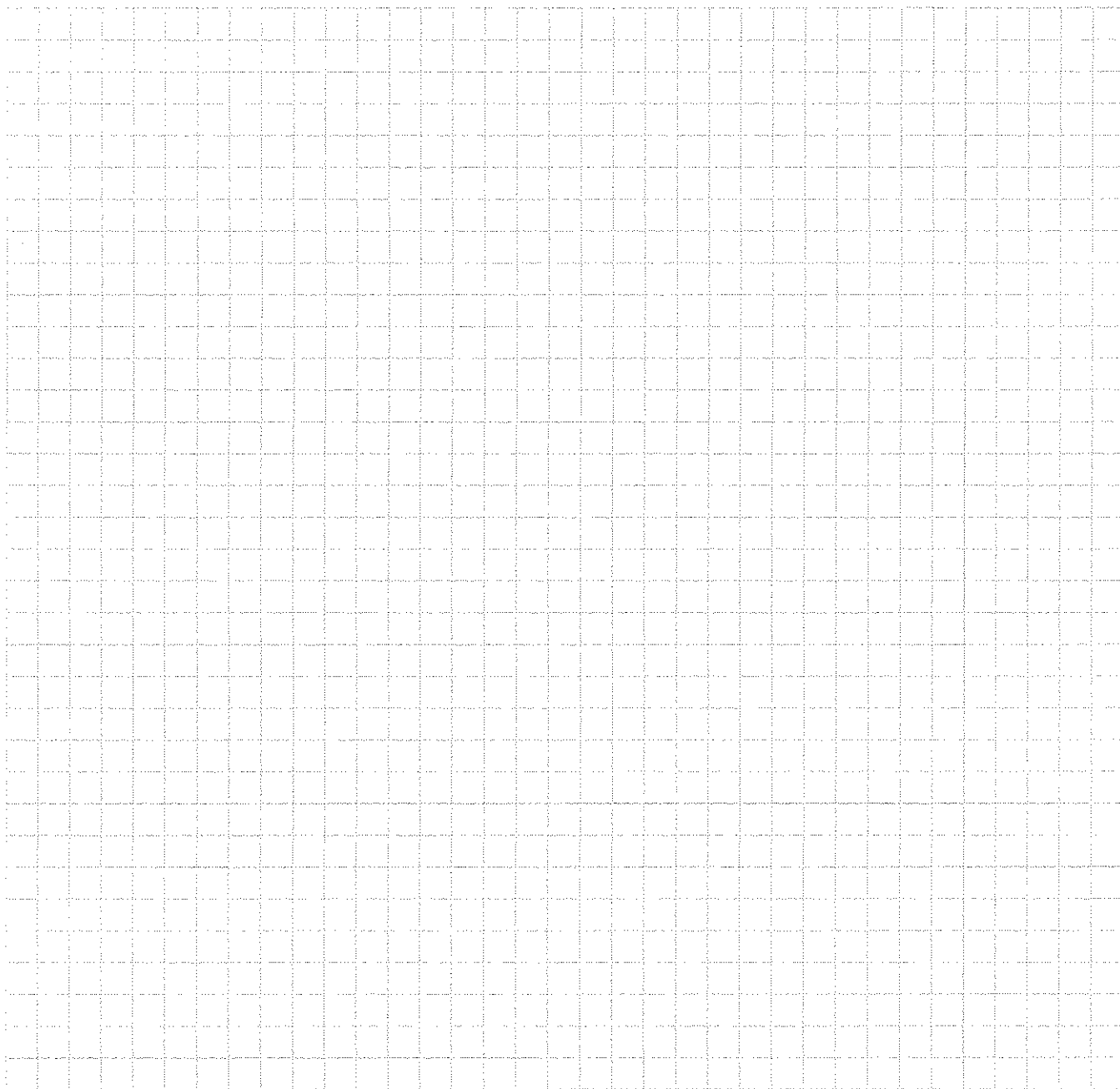
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

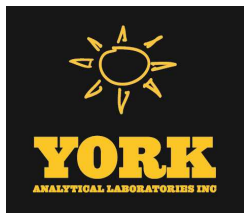
Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

[illegible]

* 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.



Technical Report

prepared for:

Walden Associates
16 Spring Street
Oyster Bay NY, 11771
Attention: Nora Brew

Report Date: 12/10/2024
Client Project ID: IMPL 0115.6 Imperial Cleaners
York Project (SDG) No.: 24C1629

Stratford, CT Laboratory IDs:
NY:10854, NJ: CT005, PA: 68-0440, CT: PH-0723



Richmond Hill, NY Laboratory IDs:
NY:12058, NJ: NY037, CT: PH-0721, NH: 2097,
EPA: NY01600

Table of Contents for York SDG 24C1629

24C1629 York QA Summary Report	1
Introduction and Sample Cross Reference	2
General Notes Relating to this Report	2
Sample Results	3
University Place 6	3
Case Narrative	6
Quality Batch Summary	14
QA/QC Summary Data	15
Volatile Organic Compounds in Air by GC/MS EPA TO-15	15
Chains of Custody	20
24C1629 Data Package	22
24C1629 Air Data	22
AIR QC Summary	24
Blank Spike Results - Batch: BD40407	25
Blank Spike Results - Batch: BD40409	28
Batch Summary - Batch: BD40407	29
Batch Summary - Batch: BD40409	30
Blank Results - Batch: BD40407	31
Blank Results - Batch: BD40409	34
Mass Spec Tune - Seq: S4C0663	35
Mass Spec Tune - Seq: S4D0428	36
Mass Spec Tune - Seq: S4D0429	37
Mass Spec Tune - Seq: S4E0224	38
Sequence Summary - Seq: S4C0663	39
Sequence Summary - Seq: S4D0428	40
Sequence Summary - Seq: S4D0429	41
Sequence Summary - Seq: S4E0224	42
Internal Std. Summary Seq: S4C0663	43
Internal Std. Summary Seq: S4D0428	45
Internal Std. Summary Seq: S4D0429	46
Internal Std. Summary Seq: S4E0224	47
Hold Time Summary	48
Reporting Limits Summary	49
AIR Sample Data	51
Sample Results and Raw Data	52

University Place 6.....	52
AIR Standards Data	72
Initial Calibration - Cal: SC40018.....	73
Initial Calibration - Cal: SE40002.....	82
Initial Calibration Raw Data - Cal: SC40018.....	85
Initial Calibration Raw Data - Cal: SE40002.....	113
Initial Calibration Check - Cal: SC40018	133
Initial Calibration Check - Cal: SE40002	139
Continuing Calibration Check - Seq: S4D0428.....	142
Continuing Calibration Check - Seq: S4D0429.....	148
AIR Raw QC Data.....	151
Mass Spec Tune Raw Data - Seq: S4C0663.....	152
Mass Spec Tune Raw Data - Seq: S4D0428.....	153
Mass Spec Tune Raw Data - Seq: S4D0429.....	154
Mass Spec Tune Raw Data - Seq: S4E0224.....	155
Blank Raw Data - Batch: BD40407.....	156
Blank Raw Data - Batch: BD40409.....	168
Blank Spike Raw Data - Batch: BD40407.....	174
Blank Spike Raw Data - Batch: BD40409.....	178
Preparation Benchsheets - Batch: BD40407	181
Preparation Benchsheets - Batch: BD40409	183

Report Date: 12/10/2024
Client Project ID: IMPL 0115.6 Imperial Cleaners
York Project (SDG) No.: 24C1629

Walden Associates
16 Spring Street
Oyster Bay NY, 11771
Attention: Nora Brew

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 March 25, 2024 and listed below. The project was identified as your project: **IMPL 0115.6 Imperial Cleaners**.

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>
24C1629-01	University Place 6	Indoor Ambient Air	03/21/2024	03/25/2024

General Notes for York Project (SDG) No.: 24C1629

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, NJ Cert No. CT005, PA Cert No. 68-04440, CT Cert No. PH-0723; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058, NJ Cert No. NY037, CT Cert No. PH-0721, NH Cert No. 2097, EPA Cert No. NY01600.

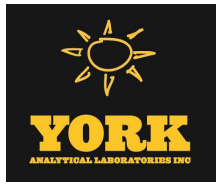
Approved By:



Cassie L. Mosher
Laboratory Manager

Date: 12/10/2024





Sample Information

Client Sample ID: University Place 6

York Sample ID: 24C1629-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

24C1629

IMPL 0115.6 Imperial Cleaners

Indoor Ambient Air

March 21, 2024 12:00 pm

03/25/2024

VOA, TO15 Isooctane (2,2,4-TMP) Add On

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
540-84-1	* 2,2,4-Trimethylpentane	ND		ug/m ³	0.190	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications:										

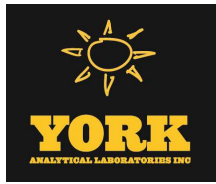
Volatile Organics, EPA TO15 Full List

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 ³	0.56	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications:										
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.44	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.56	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.62	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.44	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.33	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.081	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.60	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.40	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.63	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.49	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.33	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.38	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.57	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.40	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
106-99-0	1,3-Butadiene	ND		ug/m ³	0.54	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.49	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.38	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications:										
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.49	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										
123-91-1	1,4-Dioxane	ND		ug/m ³	0.59	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
Certifications: NELAC-NY12058,NJDEP-NY037										



Sample Information

Client Sample ID: University Place 6

York Sample ID: 24C1629-01

York Project (SDG) No.

24C1629

Client Project ID

IMPL 0115.6 Imperial Cleaners

Matrix

Indoor Ambient Air

Collection Date/Time

March 21, 2024 12:00 pm

Date Received

03/25/2024

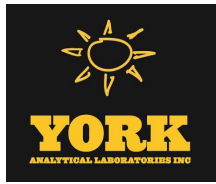
Volatile Organics, EPA TO15 Full List

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
78-93-3	2-Butanone	0.94		ug/m ³	0.24	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
591-78-6	* 2-Hexanone	0.80	TO-CC	ug/m ³	0.67	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
			V			Certifications:				
107-05-1	3-Chloropropene	ND		ug/m ³	1.3	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
108-10-1	4-Methyl-2-pentanone	ND	TO-CC	ug/m ³	0.33	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
			V			Certifications:	NELAC-NY12058,NJDEP-NY037			
67-64-1	Acetone	6.0		ug/m ³	0.39	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
107-13-1	Acrylonitrile	ND		ug/m ³	0.18	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
71-43-2	Benzene	0.44		ug/m ³	0.26	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
100-44-7	Benzyl chloride	ND		ug/m ³	0.42	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-27-4	Bromodichloromethane	ND		ug/m ³	0.55	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-25-2	Bromoform	ND		ug/m ³	0.84	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
74-83-9	Bromomethane	ND		ug/m ³	0.32	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-15-0	Carbon disulfide	ND		ug/m ³	0.25	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
56-23-5	Carbon tetrachloride	0.46	TO-CC	ug/m ³	0.13	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
			V			Certifications:	NELAC-NY12058,NJDEP-NY037			
108-90-7	Chlorobenzene	ND		ug/m ³	0.37	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-00-3	Chloroethane	ND		ug/m ³	0.21	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
67-66-3	Chloroform	ND		ug/m ³	0.40	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
74-87-3	Chloromethane	0.97		ug/m ³	0.17	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.081	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.37	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
110-82-7	Cyclohexane	ND		ug/m ³	0.28	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
124-48-1	Dibromochloromethane	ND		ug/m ³	0.69	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
75-71-8	Dichlorodifluoromethane	2.5		ug/m ³	0.40	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			
141-78-6	* Ethyl acetate	ND		ug/m ³	0.59	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:				
100-41-4	Ethyl Benzene	ND		ug/m ³	0.35	0.814	EPA TO-15	04/03/2024 12:00	04/04/2024 01:46	YR
						Certifications:	NELAC-NY12058,NJDEP-NY037			



Sample Information

Client Sample ID: University Place 6

York Sample ID: 24C1629-01

York Project (SDG) No.

24C1629

Client Project ID

IMPL 0115.6 Imperial Cleaners

Matrix

Indoor Ambient Air

Collection Date/Time

March 21, 2024 12:00 pm

Date Received

03/25/2024

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 ³	0.87	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
67-63-0	Isopropanol	0.98		ug/m ³	0.40	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.33	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.29	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
75-09-2	Methylene chloride	ND		ug/m ³	0.57	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
91-20-3	* Naphthalene	ND		ug/m ³	0.85	0.814	EPA TO-15 Certifications: NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
142-82-5	n-Heptane	ND		ug/m ³	0.33	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
110-54-3	n-Hexane	ND		ug/m ³	0.29	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
95-47-6	o-Xylene	ND		ug/m ³	0.35	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
179601-23-1	p- & m- Xylenes	ND		ug/m ³	0.71	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.40	0.814	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:46	YR
115-07-1	* Propylene	ND		ug/m ³	0.14	0.814	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:46	YR
100-42-5	Styrene	ND		ug/m ³	0.35	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
127-18-4	Tetrachloroethylene	0.72		ug/m ³	0.55	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.48	0.814	EPA TO-15 Certifications:	04/03/2024 12:00	04/04/2024 01:46	YR
108-88-3	Toluene	0.58		ug/m ³	0.31	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.32	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.37	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
79-01-6	Trichloroethylene	ND		ug/m ³	0.11	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.3		ug/m ³	0.46	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.29	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.36	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.10	0.814	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	04/03/2024 12:00	04/04/2024 01:46	YR



York Narrative Contents Summary

This Work Order Narrative includes the following items for full review of any quality issues encountered with samples and their analyses for the parameters requested:

1. Sample Receipt Information, including a Sample Summary which cross references your sample ID with York Analytical sample ID, identifying the matrix and Date/Time collected and received at York.
2. Analysis Methodologies employed for the work order
3. Any Sample Issues encountered such as Holding time exceedances, improper containers/preservation, or any related issue with sample integrity
4. Specific Analysis Findings in order: Volatiles, Semi-Volatiles, Pesticides/PCBs, Herbicides, other GC parameters, Metals, Mercury, Wet Chemistry.
5. Analysis Findings Include:
 - Analyte qualifier summary
 - Samples and associated Calibration Curve(s)
 - Calibration Outliers Discussion/Tabular presentation and affected samples
 - Initial Calibration Verification (ICV) information
 - Batch QC Sample Performance (Blanks, Blank Spikes (BS), MS/MSD)
 - Internal Standard Performance
 - Surrogate Performance
 - Example Calculations

Work Order Narrative

York Analytical Work Order No.: 24C1629

Client : Walden Associates

Client Project ID : IMPL 0115.6 Imperial Cleaners

Prepared for : Nora Brew

1.0) Introduction

This work order Narrative applies to the following samples submitted to our laboratory on: 03/25/2024 12:25 PM

1 Air sample(s) were received intact unless otherwise noted.

Sample Summary

<u>SampleName</u>	<u>Lab Number</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
University Place 6	24C1629-01	Air	03/21/2024 12:00 PM	03/25/2024 12:25 PM

WorkOrder Comments

York Analytical Work Order Narrative

2.0 Methodology

<u>Analysis Class</u>	<u>Preparation Method</u>	<u>Analysis Methodology</u>
AIR	EPA TO15 PREP	EPA TO-15

3.0 Sample Issues

No issues were encountered with the samples submitted other than those detailed below.

Qualifier Summary Report:

<u>SampleID</u>	<u>Method</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Analyte</u>	<u>Qualifier</u>
University Place 6	EPA TO-15	24C1629-01	Air	2-Hexanone	TO-CCV
University Place 6	EPA TO-15	24C1629-01	Air	4-Methyl-2-pentanone	TO-CCV
University Place 6	EPA TO-15	24C1629-01	Air	Carbon tetrachloride	TO-CCV

Qualifier Definitions :

TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

York Analytical Work Order Narrative

4.0 Analysis Issues

EPA TO-15

Volatile Organics, EPA TO15 Full List

No problems were encountered with analysis of the samples, other than detailed below.

Initial Calibration : SC40018

Samples and QC analyzed using this calibration / sequence.

Calibration	Batch	Sequence	SampleName	LabNumber	Instrument	File ID
SC40018	S4C0663	S4C0663	Secondary Cal Check	S4C0663-SCV1	TO15_AIR3	TV023228.D
SC40018	S4D0428	S4D0428	Calibration Check	S4D0428-CCV1	TO15_AIR3	TV023795.D
SC40018	BD40407	S4D0428	LCS	BD40407-BS1	TO15_AIR3	TV023797.D
SC40018	BD40407	S4D0428	Blank	BD40407-BLK1	TO15_AIR3	TV023799.D
SC40018	BD40407	S4D0428	University Place 6	24C1629-01	TO15_AIR3	TV023813.D

Initial calibration for EPA TO-15 met method guidelines.

EPA TO-15

Initial Calibration Verification-

The initial calibration verification for analytical method EPA TO-15

All target analytes recovered within method limits

Continuing Calibration Verification-

Calibration	Sequence	LabNumber	File ID	Date / Time
SC40018	S4D0428	S4D0428-CCV1	TV023795.D	04/03/24 13:16

The continuing calibration verification exceeded method limits for the following analytes.

Calibration	LabNumber	Analyte	Units	Result	TrueVal	REC%	Limits	File ID
SC40018	S4D0428-CCV1	2-Hexanone	ppbv	6.14	10.0	61.4	70 130	TV023795.D
SC40018	S4D0428-CCV1	4-Methyl-2-pentanone	ppbv	6.37	10.0	63.7	70 130	TV023795.D
SC40018	S4D0428-CCV1	Carbon tetrachloride	ppbv	13.5	10.0	135	70 130	TV023795.D

The following QC and or client samples were affected:

Calibration	Sequence	LabNumber	SampleName	Source Sample	File ID
SC40018	S4D0428	BD40407-BS1	LCS		TV023797.D
SC40018	S4D0428	BD40407-BLK1	Blank		TV023799.D
SC40018	S4D0428	24C1629-01	University Place 6		TV023813.D

York Analytical Work Order Narrative

EPA TO-15

Batch QC

Method Blank- No reportable target compounds were detected in the method blank(s)

	Batch	Sequence	Instrument	Blank	FileID
AIR	BD40407	S4D0428	TO15_AIR3	BD40407-BLK1	TV023799.D

Laboratory Control Sample (LCS) or Standard Reference Material (SRM)-

Were run as batch QC for this project. Please refer to the Quality Control Data attached to this report for bias information.

Calibration	Sequence	LabNumber	SampleName	File ID
SC40018	4D0428	BD40407-BS1	LCS	TV023797.D

EPA TO-15

Dilutions: No sample dilutions were required.

EPA TO-15

Internal Standards / Surrogates

Internal Standards Issues: No issues were encountered.

York Analytical Work Order Narrative

4.0 Analysis Issues

EPA TO-15

VOA, TO15 Isooctane (2,2,4-TMP) Add On

No problems were encountered with analysis of the samples, other than detailed below.

Initial Calibration : SE40002

Samples and QC analyzed using this calibration / sequence.

Calibration	Batch	Sequence	SampleName	LabNumber	Instrument	File ID
SE40002	S4D0429	S4D0429	Calibration Check	S4D0429-CCV1	TO15_AIR3	TV023796.D
SE40002	BD40409	S4D0429	LCS	BD40409-BS1	TO15_AIR3	TV023798.D
SE40002	BD40409	S4D0429	Blank	BD40409-BLK1	TO15_AIR3	TV023800.D
SE40002	BD40409	S4D0429	University Place 6	24C1629-01	TO15_AIR3	TV023813A.D
SE40002	S4E0224	S4E0224	Secondary Cal Check	S4E0224-SCV1	TO15_AIR3	TV023727.D

Initial calibration for EPA TO-15 met method guidelines.

EPA TO-15

Initial Calibration Verification-

The initial calibration verification for analytical method EPA TO-15

All target analytes recovered within method limits

Continuing Calibration Verification-

Calibration	Sequence	LabNumber	File ID	Date / Time
SE40002	S4D0429	S4D0429-CCV1	TV023796.D	04/03/24 13:57

The continuing calibration verification recovered within method limits.

EPA TO-15

Batch QC

Method Blank- No reportable target compounds were detected in the method blank(s)

	Batch	Sequence	Instrument	Blank	FileID
AIR	BD40409	S4D0429	TO15_AIR3	BD40409-BLK1	TV023800.D

Laboratory Control Sample (LCS) or Standard Reference Material (SRM)-

Were run as batch QC for this project. Please refer to the Quality Control Data attached to this report for bias information.

Calibration	Sequence	LabNumber	SampleName	File ID
SE40002	4D0429	BD40409-BS1	LCS	TV023798.D

York Analytical Work Order Narrative

EPA TO-15

Dilutions: No sample dilutions were required.

EPA TO-15

Internal Standards / Surrogates

Internal Standards Issues: No issues were encountered.

York Analytical Work Order Narrative

York Analytical Laboratories, Inc. **Formulae Used for Sample Calculations**

1. Volatiles in Air-ppbv

Cx (ppbv) = Compound concentration, ppbv (parts per billion by volume)

$$C_x = \frac{(A_x)(C_{is})(DF)}{(A_{is})(RRF)}$$

2. Volatiles in Air-ug/m³

Cx (ug/m³) = Compound concentration in ug/m³

$$C_x (\text{ug/m}^3) = \frac{(\text{ppbv} \times \text{Molecular wt.})}{(24.040)}$$

3. Volatile Organics (water and soil), ug/L or ug/kg

Soils/Waters

Medium Level Soils

$$C_x = \frac{(A_x)(IS)(DF)}{(A_{is})(RRF)(V)(\% \text{ solids})}$$

$$C_x = \frac{(A_x)(IS)(VT)(1000)(DF)}{(A_{is})(RRF)(VA)(V)(\% \text{ solids})}$$

4. Semi-Volatiles (waters and soils)

$$C_x = \frac{(A_x)(IS)(VE)(DF)}{(A_{is})(RRF)(\text{Volume injected, uL})(V)(\% \text{ solids})}$$

5. Pesticides/PCB (waters and soils), DRO, CTETPH

$$C_x = \frac{(A_x)(VE)(DF)}{(CF)(\text{Volume injected, uL})(V)(\% \text{ solids})}$$

WHERE:

Cx = concentration of analyte as ug/L or ug/kg

Ax = Area of the characteristic ion for the compound to be measured, counts.

Ais = Area of the characteristic ion for the specific internal standard, counts.

IS = Concentration of the internal standard spiking mixture, ng

RRF = Mean relative response factor from the initial calibration.

DF = Dilution factor calculated as described in section 2. If no dilution is performed, DF= 1

V = Volume for liquids in mL, weight for soils/solids in grams.

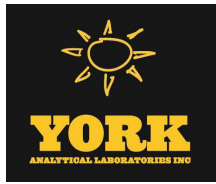
VA = volume of MeOH aliquot for medium level soils

VE = final volume of concentrated extract

VT = volume of MeOH for volatiles medium level soils

CF = calibration factor for external calibration used in GC pest/pcb

Cis = Concentration of the internal standard spiking mixture, ppbv



Analytical Batch Summary

Batch ID: BD40407 **Preparation Method:** EPA TO15 PREP **Prepared By:** YR

YORK Sample ID	Client Sample ID	Preparation Date
24C1629-01	University Place 6	04/03/24
BD40407-BLK1	Blank	04/03/24
BD40407-BS1	LCS	04/03/24

Batch ID: BD40409 **Preparation Method:** EPA TO15 PREP **Prepared By:** YR

YORK Sample ID	Client Sample ID	Preparation Date
24C1629-01	University Place 6	04/03/24
BD40409-BLK1	Blank	04/03/24
BD40409-BS1	LCS	04/03/24



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BD40407 - EPA TO15 PREP

Blank (BD40407-BLK1)

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	ND	0.69	ug/m ³
1,1,1-Trichloroethane	ND	0.55	"
1,1,2,2-Tetrachloroethane	ND	0.69	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"
1,1,2-Trichloroethane	ND	0.55	"
1,1-Dichloroethane	ND	0.40	"
1,1-Dichloroethylene	ND	0.099	"
1,2,4-Trichlorobenzene	ND	0.74	"
1,2,4-Trimethylbenzene	ND	0.49	"
1,2-Dibromoethane	ND	0.77	"
1,2-Dichlorobenzene	ND	0.60	"
1,2-Dichloroethane	ND	0.40	"
1,2-Dichloropropane	ND	0.46	"
1,2-Dichlorotetrafluoroethane	ND	0.70	"
1,3,5-Trimethylbenzene	ND	0.49	"
1,3-Butadiene	ND	0.66	"
1,3-Dichlorobenzene	ND	0.60	"
1,3-Dichloropropane	ND	0.46	"
1,4-Dichlorobenzene	ND	0.60	"
1,4-Dioxane	ND	0.72	"
2-Butanone	ND	0.29	"
2-Hexanone	ND	0.82	"
3-Chloropropene	ND	1.6	"
4-Methyl-2-pentanone	ND	0.41	"
Acetone	ND	0.48	"
Acrylonitrile	ND	0.22	"
Benzene	ND	0.32	"
Benzyl chloride	ND	0.52	"
Bromodichloromethane	ND	0.67	"
Bromoform	ND	1.0	"
Bromomethane	ND	0.39	"
Carbon disulfide	ND	0.31	"
Carbon tetrachloride	ND	0.16	"
Chlorobenzene	ND	0.46	"
Chloroethane	ND	0.26	"
Chloroform	ND	0.49	"
Chloromethane	ND	0.21	"
cis-1,2-Dichloroethylene	ND	0.099	"
cis-1,3-Dichloropropylene	ND	0.45	"
Cyclohexane	ND	0.34	"
Dibromochloromethane	ND	0.85	"
Dichlorodifluoromethane	ND	0.49	"
Ethyl acetate	ND	0.72	"
Ethyl Benzene	ND	0.43	"
Hexachlorobutadiene	ND	1.1	"
Isopropanol	ND	0.49	"
Methyl Methacrylate	ND	0.41	"
Methyl tert-butyl ether (MTBE)	ND	0.36	"
Methylene chloride	ND	0.69	"
Naphthalene	ND	1.0	"



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Flag	RPD		
		Limit							RPD	Limit	Flag

Batch BD40407 - EPA TO15 PREP

Blank (BD40407-BLK1)

Prepared & Analyzed: 04/03/2024

n-Heptane	ND	0.41	ug/m ³
n-Hexane	ND	0.35	"
o-Xylene	ND	0.43	"
p- & m- Xylenes	ND	0.87	"
p-Ethyltoluene	ND	0.49	"
Propylene	ND	0.17	"
Styrene	ND	0.43	"
Tetrachloroethylene	ND	0.68	"
Tetrahydrofuran	ND	0.59	"
Toluene	ND	0.38	"
trans-1,2-Dichloroethylene	ND	0.40	"
trans-1,3-Dichloropropylene	ND	0.45	"
Trichloroethylene	ND	0.13	"
Trichlorofluoromethane (Freon 11)	ND	0.56	"
Vinyl acetate	ND	0.35	"
Vinyl bromide	ND	0.44	"
Vinyl Chloride	ND	0.13	"

LCS (BD40407-BS1)

Prepared & Analyzed: 04/03/2024

1,1,1,2-Tetrachloroethane	9.25		ppbv	10.0	92.5	70-130
1,1,1-Trichloroethane	10.6		"	10.0	106	70-130
1,1,2,2-Tetrachloroethane	8.97		"	10.0	89.7	70-130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.1		"	10.0	111	70-130
1,1,2-Trichloroethane	8.48		"	10.0	84.8	70-130
1,1-Dichloroethane	10.6		"	10.0	106	70-130
1,1-Dichloroethylene	10.4		"	10.0	104	70-130
1,2,4-Trichlorobenzene	11.2		"	10.0	112	70-130
1,2,4-Trimethylbenzene	9.45		"	10.0	94.5	70-130
1,2-Dibromoethane	8.97		"	10.0	89.7	70-130
1,2-Dichlorobenzene	10.1		"	10.0	101	70-130
1,2-Dichloroethane	10.2		"	10.0	102	70-130
1,2-Dichloropropane	7.90		"	10.0	79.0	70-130
1,2-Dichlorotetrafluoroethane	9.94		"	10.0	99.4	70-130
1,3,5-Trimethylbenzene	9.63		"	10.0	96.3	70-130
1,3-Butadiene	9.39		"	10.0	93.9	70-130
1,3-Dichlorobenzene	9.82		"	10.0	98.2	70-130
1,3-Dichloropropane	8.76		"	10.0	87.6	70-130
1,4-Dichlorobenzene	9.87		"	10.0	98.7	70-130
1,4-Dioxane	9.47		"	10.0	94.7	70-130
2-Butanone	8.20		"	10.0	82.0	70-130
2-Hexanone	7.10		"	10.0	71.0	70-130
3-Chloropropene	8.41		"	10.0	84.1	70-130
4-Methyl-2-pentanone	7.31		"	10.0	73.1	70-130
Acetone	8.69		"	10.0	86.9	70-130
Acrylonitrile	7.51		"	10.0	75.1	70-130
Benzene	10.1		"	10.0	101	70-130
Benzyl chloride	10.6		"	10.0	106	70-130
Bromodichloromethane	8.64		"	10.0	86.4	70-130
Bromoform	10.7		"	10.0	107	70-130
Bromomethane	10.8		"	10.0	108	70-130
Carbon disulfide	11.3		"	10.0	113	70-130



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

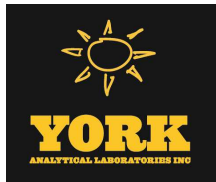
Analyte	Result	Reporting	Units	Spike	Source*	%REC	%REC	Limits	Flag	RPD	
		Limit			Result					RPD	Limit

Batch BD40407 - EPA TO15 PREP

LCS (BD40407-BS1)

Prepared & Analyzed: 04/03/2024

Carbon tetrachloride	11.4		ppbv	10.0		114	70-130
Chlorobenzene	9.17		"	10.0		91.7	70-130
Chloroethane	10.3		"	10.0		103	70-130
Chloroform	10.7		"	10.0		107	70-130
Chloromethane	8.41		"	10.0		84.1	70-130
cis-1,2-Dichloroethylene	10.2		"	10.0		102	70-130
cis-1,3-Dichloropropylene	8.50		"	10.0		85.0	70-130
Cyclohexane	9.73		"	10.0		97.3	70-130
Dibromochloromethane	9.65		"	10.0		96.5	70-130
Dichlorodifluoromethane	11.0		"	10.0		110	70-130
Ethyl acetate	8.75		"	10.0		87.5	70-130
Ethyl Benzene	8.82		"	10.0		88.2	70-130
Hexachlorobutadiene	10.2		"	10.0		102	70-130
Isopropanol	9.71		"	10.0		97.1	70-130
Methyl Methacrylate	8.48		"	10.0		84.8	70-130
Methyl tert-butyl ether (MTBE)	10.6		"	10.0		106	70-130
Methylene chloride	8.93		"	10.0		89.3	70-130
Naphthalene	10.8		"	10.0		108	70-130
n-Heptane	8.35		"	10.0		83.5	70-130
n-Hexane	9.77		"	10.0		97.7	70-130
o-Xylene	8.76		"	10.0		87.6	70-130
p- & m- Xylenes	17.4		"	20.0		86.8	70-130
p-Ethyltoluene	9.23		"	10.0		92.3	70-130
Propylene	8.80		"	10.0		88.0	70-130
Styrene	9.20		"	10.0		92.0	70-130
Tetrachloroethylene	9.09		"	10.0		90.9	70-130
Tetrahydrofuran	8.59		"	10.0		85.9	70-130
Toluene	8.35		"	10.0		83.5	70-130
trans-1,2-Dichloroethylene	10.2		"	10.0		102	70-130
trans-1,3-Dichloropropylene	8.52		"	10.0		85.2	70-130
Trichloroethylene	8.49		"	10.0		84.9	70-130
Trichlorofluoromethane (Freon 11)	10.9		"	10.0		109	70-130
Vinyl acetate	9.00		"	10.0		90.0	70-130
Vinyl bromide	10.8		"	10.0		108	70-130
Vinyl Chloride	9.47		"	10.0		94.7	70-130



Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD Limit	Flag

Batch BD40409 - EPA TO15 PREP

Blank (BD40409-BLK1)

Prepared & Analyzed: 04/03/2024

2,2,4-Trimethylpentane ND 0.234 ug/m³

LCS (BD40409-BS1)

Prepared & Analyzed: 04/03/2024

2,2,4-Trimethylpentane 9.32 ppbv 10.0 93.2 70-130



Sample and Data Qualifiers Relating to This Work Order

TO-CCV The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).

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.

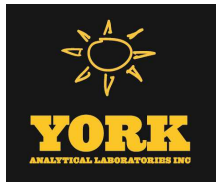
If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

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.



Laboratory Chain-of-Custody Record

York Project (SDG) No.: 24C1629

Samples Received: 03/25/2024 12:25 By: Lea M. Sherman Logged In: 03/26/2024 12:25 By: Lea M. Sherman

Sample Conditions:

☐ Custody Seals	☒ Chain of Custody Form Received
☒ Containers Intact	☒ Appropriate Sample Volumes Received
☒ COC/Labels Agree	☒ Appropriate Sample Containers Submitted
☐ Preservation Confirmed	☒ Samples Submitted within Holding Times
☒ Cooler Temperature Confirmed	☐ Corrective Action Form Required
☒ COC Complete	

Preparation Chain-of-Custody

Sample ID	Reason Prep	Prep Start Date	Prep End Date	Prep Analyst
24C1629-01	EPA TO15 PREP	04/03/2024 12:00	04/03/2024 12:00	Yamilex Ramos
24C1629-01	EPA TO15 PREP	04/03/2024 12:00	04/03/2024 12:00	Yamilex Ramos

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
24C1629-01	VOA, TO15 Isooctane (2,2,4-TMP) A	04/03/2024 12:00	04/04/2024 1:46	Yamilex Ramos
24C1629-01	Volatile Organics, EPA TO15 Full List	04/03/2024 12:00	04/04/2024 1:46	Yamilex Ramos

York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

CLASS: AIR

METHOD: EPA TO-15

DATA PACKAGE COVER PAGE

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Client Sample Id:

University Place 6

Lab Sample Id:

24C1629-01

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the project narrative. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the

Signature:



Name:

Cassie L. Mosher

Date:

12/9/2024

Title:

Laboratory Manager

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	10.0	9.25	92.5	70 - 130
1,1,1-Trichloroethane	10.0	10.6	106	70 - 130
1,1,2,2-Tetrachloroethane	10.0	8.97	89.7	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11.1	111	70 - 130
1,1,2-Trichloroethane	10.0	8.48	84.8	70 - 130
1,1-Dichloroethane	10.0	10.6	106	70 - 130
1,1-Dichloroethylene	10.0	10.4	104	70 - 130
1,2,4-Trichlorobenzene	10.0	11.2	112	70 - 130
1,2,4-Trimethylbenzene	10.0	9.45	94.5	70 - 130
1,2-Dibromoethane	10.0	8.97	89.7	70 - 130
1,2-Dichlorobenzene	10.0	10.1	101	70 - 130
1,2-Dichloroethane	10.0	10.2	102	70 - 130
1,2-Dichloropropane	10.0	7.90	79.0	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	9.94	99.4	70 - 130
1,3,5-Trimethylbenzene	10.0	9.63	96.3	70 - 130
1,3-Butadiene	10.0	9.39	93.9	70 - 130
1,3-Dichlorobenzene	10.0	9.82	98.2	70 - 130
1,3-Dichloropropane	10.0	8.76	87.6	70 - 130
1,4-Dichlorobenzene	10.0	9.87	98.7	70 - 130
1,4-Dioxane	10.0	9.47	94.7	70 - 130
2-Butanone	10.0	8.20	82.0	70 - 130
2-Hexanone	10.0	7.10	71.0	70 - 130
3-Chloropropene	10.0	8.41	84.1	70 - 130
4-Methyl-2-pentanone	10.0	7.31	73.1	70 - 130
Acetone	10.0	8.69	86.9	70 - 130
Acrylonitrile	10.0	7.51	75.1	70 - 130
Benzene	10.0	10.1	101	70 - 130
Benzyl chloride	10.0	10.6	106	70 - 130
Bromodichloromethane	10.0	8.64	86.4	70 - 130
Bromoform	10.0	10.7	107	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	10.8	108	70 - 130
Carbon disulfide	10.0	11.3	113	70 - 130
Carbon tetrachloride	10.0	11.4	114	70 - 130
Chlorobenzene	10.0	9.17	91.7	70 - 130
Chloroethane	10.0	10.3	103	70 - 130
Chloroform	10.0	10.7	107	70 - 130
Chloromethane	10.0	8.41	84.1	70 - 130
cis-1,2-Dichloroethylene	10.0	10.2	102	70 - 130
cis-1,3-Dichloropropylene	10.0	8.50	85.0	70 - 130
Cyclohexane	10.0	9.73	97.3	70 - 130
Dibromochloromethane	10.0	9.65	96.5	70 - 130
Dichlorodifluoromethane	10.0	11.0	110	70 - 130
Ethyl acetate	10.0	8.75	87.5	70 - 130
Ethyl Benzene	10.0	8.82	88.2	70 - 130
Hexachlorobutadiene	10.0	10.2	102	70 - 130
Isopropanol	10.0	9.71	97.1	70 - 130
Methyl Methacrylate	10.0	8.48	84.8	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	10.6	106	70 - 130
Methylene chloride	10.0	8.93	89.3	70 - 130
Naphthalene	10.0	10.8	108	70 - 130
n-Heptane	10.0	8.35	83.5	70 - 130
n-Hexane	10.0	9.77	97.7	70 - 130
o-Xylene	10.0	8.76	87.6	70 - 130
p- & m- Xylenes	20.0	17.4	86.8	70 - 130
p-Ethyltoluene	10.0	9.23	92.3	70 - 130
Propylene	10.0	8.80	88.0	70 - 130
Styrene	10.0	9.20	92.0	70 - 130
Tetrachloroethylene	10.0	9.09	90.9	70 - 130
Tetrahydrofuran	10.0	8.59	85.9	70 - 130
Toluene	10.0	8.35	83.5	70 - 130

FORM III**LCS / LCS DUPLICATE RECOVERY
EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: AirBatch: BD40407Laboratory ID: BD40407-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,2-Dichloroethylene	10.0	10.2	102	70 - 130
trans-1,3-Dichloropropylene	10.0	8.52	85.2	70 - 130
Trichloroethylene	10.0	8.49	84.9	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	10.9	109	70 - 130
Vinyl acetate	10.0	9.00	90.0	70 - 130
Vinyl bromide	10.0	10.8	108	70 - 130
Vinyl Chloride	10.0	9.47	94.7	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

FORM III

LCS / LCS DUPLICATE RECOVERY
EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - Stratford

SDG:24C1629

Client:Walden Associates

Project:IMPL 0115.6 Imperial Cleaners

Matrix:Air

Batch:BD40409

Laboratory ID:BD40409-BS1

Preparation:EPA TO15 PREP

Initial/Final:400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
2,2,4-Trimethylpentane	10.0	9.32	93.2	70 - 130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

PREPARATION BATCH SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Batch: BD40407Batch Matrix: AirPreparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
University Place 6	24C1629-01	TV023813.D	04/03/24 12:00	
Blank	BD40407-BLK1	TV023799.D	04/03/24 12:00	
LCS	BD40407-BS1	TV023797.D	04/03/24 12:00	

PREPARATION BATCH SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Batch: BD40409 Batch Matrix: Air

Preparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
University Place 6	24C1629-01	TV023813A.D	04/03/24 12:00	From BD40407 by YR on 04/04/2024
Blank	BD40409-BLK1	TV023800.D	04/03/24 12:00	
LCS	BD40409-BS1	TV023798.D	04/03/24 12:00	

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1629
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15 AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.099	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1629
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.099	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
91-20-3	Naphthalene	1.0	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.68	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - StratfordSDG:24C1629

Client:Walden AssociatesProject:IMPL 0115.6 Imperial Cleaners

Matrix:AirLaboratory ID:BD40407-BLK1File ID:TV023799.D

Prepared:04/03/24 12:00Preparation:EPA TO15 PREPInitial/Final:400 mL / 400 mL

Analyzed:04/03/24 16:01Instrument:TO15_AIR3

Batch:BD40407Sequence:S4D0428Calibration:SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
156-60-5	trans-1,2-Dichloroethylene	0.40	U
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.13	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	307883	12.176	312285	12.179	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:	<u>York Analytical Laboratories, Inc. - Stratford</u>	SDG:	<u>24C1629</u>		
Client:	<u>Walden Associates</u>	Project:	<u>IMPL 0115.6 Imperial Cleaners</u>		
Matrix:	<u>Air</u>	Laboratory ID:	<u>BD40409-BLK1</u>	File ID:	<u>TV023800.D</u>
Prepared:	<u>04/03/24 12:00</u>	Preparation:	<u>EPA TO15 PREP</u>	Initial/Final:	<u>400 mL / 400 mL</u>
Analyzed:	<u>04/03/24 16:42</u>	Instrument:	<u>TO15 AIR3</u>		
Batch:	<u>BD40409</u>	Sequence:	<u>S4D0429</u>	Calibration:	<u>SE40002</u>

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
540-84-1	2,2,4-Trimethylpentane	0.234	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	289517	12.176	320251	12.176	

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1629

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023215.D

Injection Date:

02/20/24

Instrument ID:

TO15_AIR3

Injection Time:

18:46

Sequence:

S4C0663

Lab Sample ID:

S4C0663-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	15.1	PASS
75	30 - 66% of 95	41.9	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.59	PASS
173	Less than 2% of 174	0.444	PASS
174	50 - 120% of 95	77.2	PASS
175	4 - 9% of 174	6.82	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.62	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - Stratford

SDG:24C1629

Client:Walden Associates

Project:IMPL 0115.6 Imperial Cleaners

Lab File ID:TV023794.D

Injection Date:04/03/24

Instrument ID:TO15_AIR3

Injection Time:12:36

Sequence:S4D0428

Lab Sample ID:S4D0428-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13	PASS
75	30 - 66% of 95	42.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.59	PASS
173	Less than 2% of 174	0.516	PASS
174	50 - 120% of 95	79	PASS
175	4 - 9% of 174	6.92	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.37	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1629

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023794A.D

Injection Date:

04/03/24

Instrument ID:

TO15_AIR3

Injection Time:

12:36

Sequence:

S4D0429

Lab Sample ID:

S4D0429-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13	PASS
75	30 - 66% of 95	42.3	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.6	PASS
173	Less than 2% of 174	0.516	PASS
174	50 - 120% of 95	79	PASS
175	4 - 9% of 174	6.92	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.37	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc. - Stratford

SDG:

24C1629

Client:

Walden Associates

Project:

IMPL 0115.6 Imperial Cleaners

Lab File ID:

TV023714.D

Injection Date:

03/29/24

Instrument ID:

TO15_AIR3

Injection Time:

20:48

Sequence:

S4E0224

Lab Sample ID:

S4E0224-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	13.6	PASS
75	30 - 66% of 95	39.8	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.72	PASS
173	Less than 2% of 174	0.471	PASS
174	50 - 120% of 95	77.6	PASS
175	4 - 9% of 174	6.86	PASS
176	93 - 101% of 174	96.5	PASS
177	5 - 9% of 176	6.45	PASS

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY**
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4C0663Instrument: TO15 AIR3Calibration: SC40018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4C0663-TUN1	TV023215.D	02/20/24 18:46
Cal Standard	S4C0663-CAL1	TV023217.D	02/20/24 20:07
Cal Standard	S4C0663-CAL2	TV023218.D	02/20/24 20:48
Cal Standard	S4C0663-CAL3	TV023219.D	02/20/24 21:30
Cal Standard	S4C0663-CAL4	TV023220.D	02/20/24 22:11
Cal Standard	S4C0663-CAL5	TV023221.D	02/20/24 22:52
Cal Standard	S4C0663-CAL6	TV023222.D	02/20/24 23:33
Cal Standard	S4C0663-CAL7	TV023223.D	02/21/24 00:14
Cal Standard	S4C0663-CAL8	TV023224.D	02/21/24 00:55
Cal Standard	S4C0663-CAL9	TV023225.D	02/21/24 01:36
Cal Standard	S4C0663-CALA	TV023226.D	02/21/24 02:19
Secondary Cal Check	S4C0663-SCV1	TV023228.D	02/21/24 03:42

ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sequence: S4D0428

Instrument: TO15 AIR3

Calibration: SC40018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4D0428-TUN1	TV023794.D	04/03/24 12:36
Calibration Check	S4D0428-CCV1	TV023795.D	04/03/24 13:16
LCS	BD40407-BS1	TV023797.D	04/03/24 14:38
Blank	BD40407-BLK1	TV023799.D	04/03/24 16:01
University Place 6	24C1629-01	TV023813.D	04/04/24 01:46

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - StratfordSDG:24C1629

Client:Walden AssociatesProject:IMPL 0115.6 Imperial Cleaners

Sequence:S4D0429Instrument:TO15 AIR3

Calibration:SE40002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4D0429-TUN1	TV023794A.D	04/03/24 12:36
Calibration Check	S4D0429-CCV1	TV023796.D	04/03/24 13:57
LCS	BD40409-BS1	TV023798.D	04/03/24 15:20
Blank	BD40409-BLK1	TV023800.D	04/03/24 16:42
University Place 6	24C1629-01	TV023813A.D	04/04/24 01:46

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY**
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4E0224Instrument: TO15 AIR3Calibration: SE40002

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	S4E0224-TUN1	TV023714.D	03/29/24 20:48
Cal Standard	S4E0224-CAL1	TV023716.D	03/29/24 22:10
Cal Standard	S4E0224-CAL2	TV023717.D	03/29/24 22:52
Cal Standard	S4E0224-CAL3	TV023718.D	03/29/24 23:33
Cal Standard	S4E0224-CAL4	TV023719.D	03/30/24 00:14
Cal Standard	S4E0224-CAL5	TV023720.D	03/30/24 00:55
Cal Standard	S4E0224-CAL6	TV023721.D	03/30/24 01:36
Cal Standard	S4E0224-CAL7	TV023722.D	03/30/24 02:18
Cal Standard	S4E0224-CAL8	TV023723.D	03/30/24 02:59
Cal Standard	S4E0224-CAL9	TV023724.D	03/30/24 03:40
Cal Standard	S4E0224-CALA	TV023725.D	03/30/24 04:24
Secondary Cal Check	S4E0224-SCV1	TV023727.D	03/30/24 05:47

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4C0663Instrument: TO15 AIR3Calibration: SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4C0663-CAL1)		Lab File ID: TV023217.D			Analyzed: 02/20/24 20:07				
Bromochloromethane	461364	12.178	475710	12.182	97	60 - 140	-0.0040	+/-0.33	
ISTD: 1,4-Difluorobenzene	1496625	13.764	1550178	13.767	97	60 - 140	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1299804	19.049	1348469	19.052	96	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4C0663-CAL2)		Lab File ID: TV023218.D			Analyzed: 02/20/24 20:48				
Bromochloromethane	462739	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1495686	13.767	1550178	13.767	96	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1297065	19.052	1348469	19.052	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL3)		Lab File ID: TV023219.D			Analyzed: 02/20/24 21:30				
Bromochloromethane	463760	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1506317	13.767	1550178	13.767	97	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1310418	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL4)		Lab File ID: TV023220.D			Analyzed: 02/20/24 22:11				
Bromochloromethane	463700	12.182	475710	12.182	97	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1500478	13.767	1550178	13.767	97	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1308782	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL5)		Lab File ID: TV023221.D			Analyzed: 02/20/24 22:52				
Bromochloromethane	465700	12.182	475710	12.182	98	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1508330	13.764	1550178	13.767	97	60 - 140	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1305948	19.052	1348469	19.052	97	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL6)		Lab File ID: TV023222.D			Analyzed: 02/20/24 23:33				
Bromochloromethane	471381	12.182	475710	12.182	99	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1517892	13.767	1550178	13.767	98	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1315531	19.052	1348469	19.052	98	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL7)		Lab File ID: TV023223.D			Analyzed: 02/21/24 00:14				
Bromochloromethane	475710	12.182	475710	12.182	100	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1550178	13.767	1550178	13.767	100	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1348469	19.052	1348469	19.052	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4C0663-CAL8)		Lab File ID: TV023224.D			Analyzed: 02/21/24 00:55				
Bromochloromethane	488026	12.182	475710	12.182	103	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1610480	13.767	1550178	13.767	104	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1344917	19.056	1348469	19.052	100	60 - 140	0.0040	+/-0.33	
Cal Standard (S4C0663-CAL9)		Lab File ID: TV023225.D			Analyzed: 02/21/24 01:36				
Bromochloromethane	485089	12.185	475710	12.182	102	60 - 140	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1620917	13.767	1550178	13.767	105	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1302389	19.056	1348469	19.052	97	60 - 140	0.0040	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - Stratford

SDG:24C1629

Client:Walden Associates

Project:IMPL 0115.6 Imperial Cleaners

Sequence:S4C0663

Instrument:TO15 AIR3

Calibration:SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4C0663-CALA)			Lab File ID: TV023226.D			Analyzed: 02/21/24 02:19			
Bromochloromethane	485646	12.185	475710	12.182	102	60 - 140	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1631804	13.77	1550178	13.767	105	60 - 140	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1148224	19.062	1348469	19.052	85	60 - 140	0.0100	+/-0.33	
Secondary Cal Check (S4C0663-SCV1)			Lab File ID: TV023228.D			Analyzed: 02/21/24 03:42			
Bromochloromethane	486880	12.182	475710	12.182	102	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1622626	13.767	1550178	13.767	105	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1402699	19.052	1348469	19.052	104	60 - 140	0.0000	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4D0428Instrument: TO15 AIR3Calibration: SC40018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S4D0428-CCV1)			Lab File ID: TV023795.D			Analyzed: 04/03/24 13:16			
Bromochloromethane	312285	12.179				60 - 140		+/-0.33	
ISTD: 1,4-Difluorobenzene	1390664	13.765				60 - 140		+/-0.33	
ISTD: d5-Chlorobenzene	1113630	19.05				60 - 140		+/-0.33	
LCS (BD40407-BS1)			Lab File ID: TV023797.D			Analyzed: 04/03/24 14:38			
Bromochloromethane	327568	12.176	312285	12.179	105	60 - 140	-0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1322339	13.765	1390664	13.765	95	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	1085556	19.05	1113630	19.05	97	60 - 140	0.0000	+/-0.33	
Blank (BD40407-BLK1)			Lab File ID: TV023799.D			Analyzed: 04/03/24 16:01			
Bromochloromethane	307883	12.176	312285	12.179	99	60 - 140	-0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	79	60 - 140	-0.0040	+/-0.33	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	79	60 - 140	0.0000	+/-0.33	
University Place 6 (24C1629-01)			Lab File ID: TV023813.D			Analyzed: 04/04/24 01:46			
Bromochloromethane	306083	12.179	312285	12.179	98	60 - 140	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	1184843	13.765	1390664	13.765	85	60 - 140	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	991751	19.05	1113630	19.05	89	60 - 140	0.0000	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4D0429Instrument: TO15 AIR3Calibration: SE40002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (S4D0429-CCV1)			Lab File ID: TV023796.D			Analyzed: 04/03/24 13:57			
Bromochloromethane	320251	12.176				60 - 140		+/-0.33	
LCS (BD40409-BS1)			Lab File ID: TV023798.D			Analyzed: 04/03/24 15:20			
Bromochloromethane	327367	12.176	320251	12.176	102	60 - 140	0.0000	+/-0.33	
Blank (BD40409-BLK1)			Lab File ID: TV023800.D			Analyzed: 04/03/24 16:42			
Bromochloromethane	289517	12.176	320251	12.176	90	60 - 140	0.0000	+/-0.33	
University Place 6 (24C1629-01)			Lab File ID: TV023813A.D			Analyzed: 04/04/24 01:46			
Bromochloromethane	306087	12.179	320251	12.176	96	60 - 140	0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersSequence: S4E0224Instrument: TO15 AIR3Calibration: SE40002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (S4E0224-CAL1)			Lab File ID: TV023716.D			Analyzed: 03/29/24 22:10			
Bromochloromethane	285616	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL2)			Lab File ID: TV023717.D			Analyzed: 03/29/24 22:52			
Bromochloromethane	283172	12.179	294857	12.179	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL3)			Lab File ID: TV023718.D			Analyzed: 03/29/24 23:33			
Bromochloromethane	282087	12.179	294857	12.179	96	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL4)			Lab File ID: TV023719.D			Analyzed: 03/30/24 00:14			
Bromochloromethane	285396	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL5)			Lab File ID: TV023720.D			Analyzed: 03/30/24 00:55			
Bromochloromethane	286081	12.176	294857	12.179	97	60 - 140	-0.0030	+/-0.33	
Cal Standard (S4E0224-CAL6)			Lab File ID: TV023721.D			Analyzed: 03/30/24 01:36			
Bromochloromethane	293952	12.179	294857	12.179	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL7)			Lab File ID: TV023722.D			Analyzed: 03/30/24 02:18			
Bromochloromethane	294857	12.179	294857	12.179	100	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL8)			Lab File ID: TV023723.D			Analyzed: 03/30/24 02:59			
Bromochloromethane	308350	12.179	294857	12.179	105	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CAL9)			Lab File ID: TV023724.D			Analyzed: 03/30/24 03:40			
Bromochloromethane	311846	12.179	294857	12.179	106	60 - 140	0.0000	+/-0.33	
Cal Standard (S4E0224-CALA)			Lab File ID: TV023725.D			Analyzed: 03/30/24 04:24			
Bromochloromethane	326416	12.179	294857	12.179	111	60 - 140	0.0000	+/-0.33	
Secondary Cal Check (S4E0224-SCV1)			Lab File ID: TV023727.D			Analyzed: 03/30/24 05:47			
Bromochloromethane	318034	12.179	294857	12.179	108	60 - 140	0.0000	+/-0.33	

HOLDING TIME SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
University Place 6	03/21/24 12:00	03/25/24 12:25	04/03/24 12:00	13.00	30.00	04/04/24 01:46	13.57	30.00	
University Place 6	03/21/24 12:00	03/25/24 12:25	04/03/24 12:00	13.00	30.00	04/04/24 01:46	13.57	30.00	

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Matrix: Air

Instrument: TO15_AIR3

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.7	0.7	ug/m ³
1,1,1-Trichloroethane	0.55	0.55	ug/m ³
1,1,2,2-Tetrachloroethane	0.7	0.7	ug/m ³
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.78	0.78	ug/m ³
1,1,2-Trichloroethane	0.55	0.55	ug/m ³
1,1-Dichloroethane	0.41	0.41	ug/m ³
1,1-Dichloroethylene	0.1	0.1	ug/m ³
1,2,4-Trichlorobenzene	0.75	0.75	ug/m ³
1,2,4-Trimethylbenzene	0.5	0.5	ug/m ³
1,2-Dibromoethane	0.78	0.78	ug/m ³
1,2-Dichlorobenzene	0.61	0.61	ug/m ³
1,2-Dichloroethane	0.41	0.41	ug/m ³
1,2-Dichloropropane	0.47	0.47	ug/m ³
1,2-Dichlorotetrafluoroethane	0.71	0.71	ug/m ³
1,3,5-Trimethylbenzene	0.5	0.5	ug/m ³
1,3-Butadiene	0.68	0.68	ug/m ³
1,3-Dichlorobenzene	0.61	0.61	ug/m ³
1,3-Dichloropropane	0.47	0.47	ug/m ³
1,4-Dichlorobenzene	0.61	0.61	ug/m ³
1,4-Dioxane	0.73	0.73	ug/m ³
2,2,4-Trimethylpentane	0.12	0.24	ug/m ³
2-Butanone	0.3	0.3	ug/m ³
2-Hexanone	0.83	0.83	ug/m ³
3-Chloropropene	1.6	1.6	ug/m ³
4-Methyl-2-pentanone	0.42	0.42	ug/m ³
Acetone	0.48	1.9	ug/m ³
Acrylonitrile	0.22	2.9	ug/m ³
Benzene	0.32	0.32	ug/m ³
Benzyl chloride	0.53	0.53	ug/m ³
Bromodichloromethane	0.68	0.68	ug/m ³
Bromoform	1.1	1.1	ug/m ³
Bromomethane	0.39	0.39	ug/m ³
Carbon disulfide	0.32	0.32	ug/m ³
Carbon tetrachloride	0.16	0.16	ug/m ³
Chlorobenzene	0.47	0.47	ug/m ³
Chloroethane	0.27	0.27	ug/m ³

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Matrix: Air

Instrument: TO15_AIR3

Analyte	LOD	LOQ	Units
Chloroform	0.5	0.5	ug/m ³
Chloromethane	0.21	0.21	ug/m ³
cis-1,2-Dichloroethylene	0.1	0.1	ug/m ³
cis-1,3-Dichloropropylene	0.46	0.46	ug/m ³
Cyclohexane	0.35	0.35	ug/m ³
Dibromochloromethane	0.87	0.87	ug/m ³
Dichlorodifluoromethane	0.5	0.5	ug/m ³
Ethyl acetate	0.73	0.73	ug/m ³
Ethyl Benzene	0.44	0.44	ug/m ³
Hexachlorobutadiene	1.1	1.1	ug/m ³
Isopropanol	0.5	1.5	ug/m ³
Methyl Methacrylate	0.42	0.42	ug/m ³
Methyl tert-butyl ether (MTBE)	0.37	0.37	ug/m ³
Methylene chloride	0.71	2.1	ug/m ³
Naphthalene	1.1	1.1	ug/m ³
n-Heptane	0.42	0.42	ug/m ³
n-Hexane	0.36	0.36	ug/m ³
o-Xylene	0.44	0.44	ug/m ³
p- & m- Xylenes	0.88	0.88	ug/m ³
p-Ethyltoluene	0.5	0.5	ug/m ³
Propylene	0.18	0.18	ug/m ³
Styrene	0.43	0.43	ug/m ³
Tetrachloroethylene	0.69	0.69	ug/m ³
Tetrahydrofuran	0.6	0.6	ug/m ³
Toluene	0.38	0.38	ug/m ³
trans-1,2-Dichloroethylene	0.4	0.4	ug/m ³
trans-1,3-Dichloropropylene	0.46	0.46	ug/m ³
Trichloroethylene	0.14	0.14	ug/m ³
Trichlorofluoromethane (Freon 11)	0.57	0.57	ug/m ³
Vinyl acetate	0.36	0.36	ug/m ³
Vinyl bromide	0.44	0.44	ug/m ³
Vinyl Chloride	0.13	0.13	ug/m ³

AIR Sample Data

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

University Place 6

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: Indoor Ambient AirLaboratory ID: 24C1629-01File ID: TV023813.DSampled: 03/21/24 12:00Prepared: 04/03/24 12:00Analyzed: 04/04/24 01:46Solids: EPA TO15 PREPInitial/Final: 400 mL / 400 mLBatch: BD40407Sequence: S4D0428Calibration: SC40018Instrument: TO15 AIR3

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.814	0.56	U
540-84-1	2,2,4-Trimethylpentane	0.814	0.190	U
71-55-6	1,1,1-Trichloroethane	0.814	0.44	U
79-34-5	1,1,2,2-Tetrachloroethane	0.814	0.56	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.814	0.62	U
79-00-5	1,1,2-Trichloroethane	0.814	0.44	U
75-34-3	1,1-Dichloroethane	0.814	0.33	U
75-35-4	1,1-Dichloroethylene	0.814	0.081	U
120-82-1	1,2,4-Trichlorobenzene	0.814	0.60	U
95-63-6	1,2,4-Trimethylbenzene	0.814	0.40	U
106-93-4	1,2-Dibromoethane	0.814	0.63	U
95-50-1	1,2-Dichlorobenzene	0.814	0.49	U
107-06-2	1,2-Dichloroethane	0.814	0.33	U
78-87-5	1,2-Dichloropropane	0.814	0.38	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.814	0.57	U
108-67-8	1,3,5-Trimethylbenzene	0.814	0.40	U
106-99-0	1,3-Butadiene	0.814	0.54	U
541-73-1	1,3-Dichlorobenzene	0.814	0.49	U
142-28-9	1,3-Dichloropropane	0.814	0.38	U
106-46-7	1,4-Dichlorobenzene	0.814	0.49	U
123-91-1	1,4-Dioxane	0.814	0.59	U
78-93-3	2-Butanone	0.814	0.94	D
591-78-6	2-Hexanone	0.814	0.80	D
107-05-1	3-Chloropropene	0.814	1.3	U
108-10-1	4-Methyl-2-pentanone	0.814	0.33	U
67-64-1	Acetone	0.814	6.0	D
107-13-1	Acrylonitrile	0.814	0.18	U
71-43-2	Benzene	0.814	0.44	D
100-44-7	Benzyl chloride	0.814	0.42	U
75-27-4	Bromodichloromethane	0.814	0.55	U
75-25-2	Bromoform	0.814	0.84	U
74-83-9	Bromomethane	0.814	0.32	U
75-15-0	Carbon disulfide	0.814	0.25	U
56-23-5	Carbon tetrachloride	0.814	0.46	D
108-90-7	Chlorobenzene	0.814	0.37	U
75-00-3	Chloroethane	0.814	0.21	U
67-66-3	Chloroform	0.814	0.40	U
74-87-3	Chloromethane	0.814	0.97	D
156-59-2	cis-1,2-Dichloroethylene	0.814	0.081	U
10061-01-5	cis-1,3-Dichloropropylene	0.814	0.37	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

University Place 6

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersMatrix: Indoor Ambient AirLaboratory ID: 24C1629-01File ID: TV023813.DSampled: 03/21/24 12:00Prepared: 04/03/24 12:00Analyzed: 04/04/24 01:46Solids: Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mLBatch: BD40407Sequence: S4D0428Calibration: SC40018Instrument: TO15 AIR3

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
110-82-7	Cyclohexane	0.814	0.28	U
124-48-1	Dibromochloromethane	0.814	0.69	U
75-71-8	Dichlorodifluoromethane	0.814	2.5	D
141-78-6	Ethyl acetate	0.814	0.59	U
100-41-4	Ethyl Benzene	0.814	0.35	U
87-68-3	Hexachlorobutadiene	0.814	0.87	U
67-63-0	Isopropanol	0.814	0.98	D
80-62-6	Methyl Methacrylate	0.814	0.33	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.814	0.29	U
75-09-2	Methylene chloride	0.814	0.57	U
91-20-3	Naphthalene	0.814	0.85	U
142-82-5	n-Heptane	0.814	0.33	U
110-54-3	n-Hexane	0.814	0.29	U
95-47-6	o-Xylene	0.814	0.35	U
179601-23-1	p- & m- Xylenes	0.814	0.71	U
622-96-8	p-Ethyltoluene	0.814	0.40	U
115-07-1	Propylene	0.814	0.14	U
100-42-5	Styrene	0.814	0.35	U
127-18-4	Tetrachloroethylene	0.814	0.72	D
109-99-9	Tetrahydrofuran	0.814	0.48	U
108-88-3	Toluene	0.814	0.58	D
156-60-5	trans-1,2-Dichloroethylene	0.814	0.32	U
10061-02-6	trans-1,3-Dichloropropylene	0.814	0.37	U
79-01-6	Trichloroethylene	0.814	0.11	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.814	1.3	D
108-05-4	Vinyl acetate	0.814	0.29	U
593-60-2	Vinyl bromide	0.814	0.36	U
75-01-4	Vinyl Chloride	0.814	0.10	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	306083	12.179	312285	12.179	
Bromochloromethane	306087	12.179	320251	12.176	
ISTD: 1,4-Difluorobenzene	1184843	13.765	1390664	13.765	
ISTD: d5-Chlorobenzene	991751	19.05	1113630	19.05	

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023813.D
 Acq On : 04 Apr 2024 01:46 am
 Operator : YR
 Sample : 24C1629-01
 Misc : QBT03040124A .533X/750ML
 ALS Vial : 2 Sample Multiplier: 0.814
 InstName : T015_AIR3

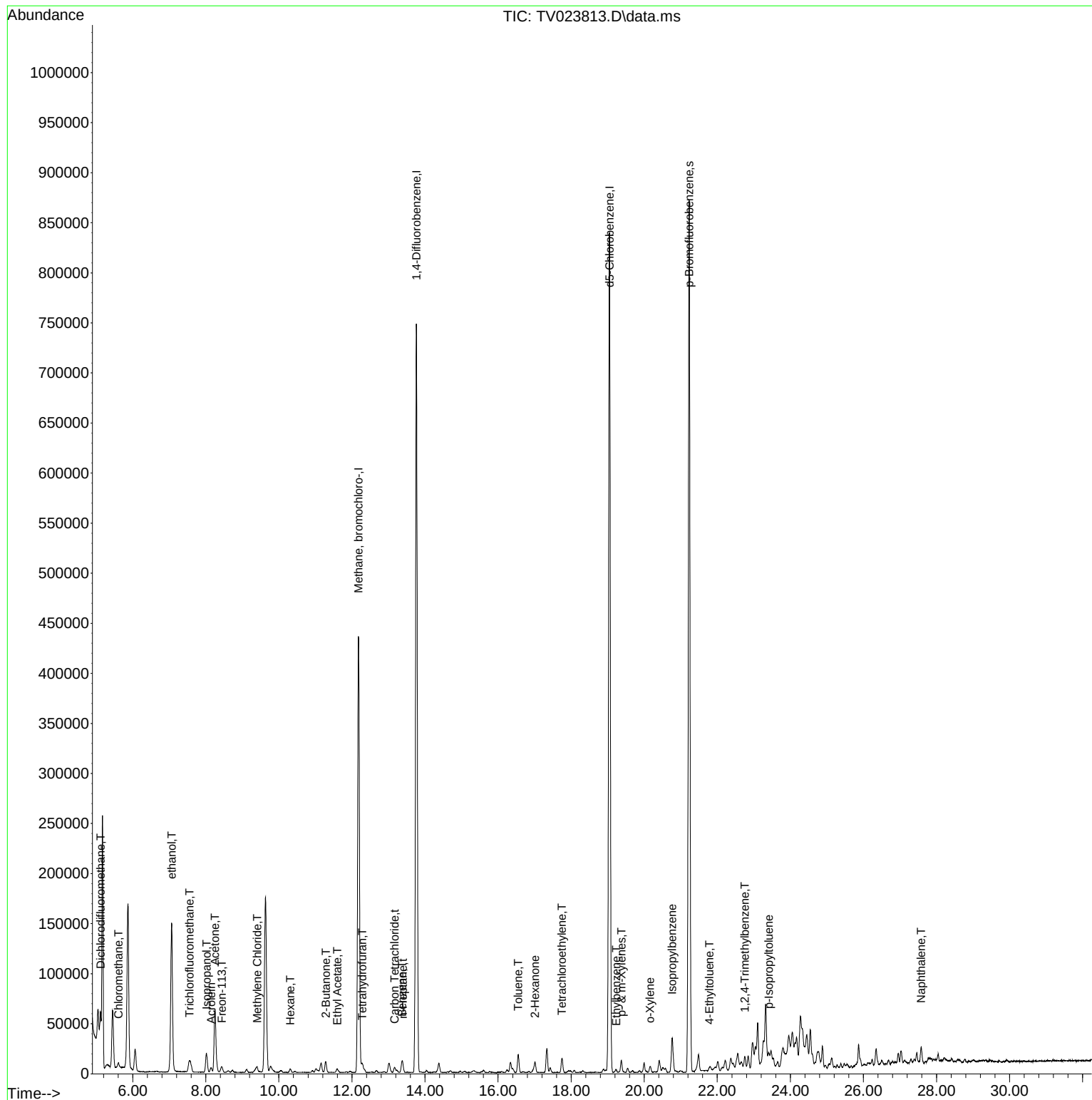
Quant Time: Apr 04 10:18:52 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

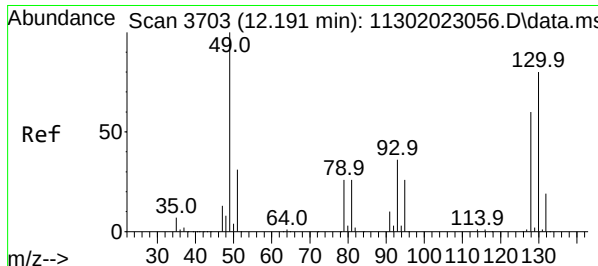
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Methane, bromochloro-	12.179	49	306083	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1184843	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	991751	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.230	95	644979	9.12	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.20%
Target Compounds						
						Qvalue
3) Dichlorodifluoromethane	5.119	85	42404	0.62	ppbv	99
5) Chloromethane	5.606	50	7324	0.58	ppbv	96
10) ethanol	7.064	45	153335	12.19	ppbv	88
12) Trichlorofluoromethane	7.548	101	18265	0.29	ppbv	99
13) Isopropanol	8.018	45	40758	0.49	ppbv	100
14) Acrolein	8.146	56	3350	0.28	ppbv	# 100
15) Acetone	8.250	43	130076	3.12	ppbv	# 74
16) Freon-113	8.437	101	5330	0.09	ppbv	97
19) Methylene Chloride	9.408	49	4455	0.14	ppbv	# 77
20) Acrylonitrile	9.486	53	1278	Below	Cal	# 100
24) Hexane	10.310	57	3124	0.07	ppbv	92
27) 2-Butanone	11.284	43	23874	0.39	ppbv	95
28) Ethyl Acetate	11.597	43	6492	0.10	ppbv	98
31) Tetrahydrofuran	12.284	42	2322	0.07	ppbv	81
34) Carbon Tetrachloride	13.166	117	5546	0.09	ppbv	98
36) Benzene	13.376	78	15035	0.17	ppbv	# 100
37) n-Heptane	13.392	43	3231	0.06	ppbv	# 75
46) Toluene	16.549	91	25747	0.19	ppbv	98
49) 2-Hexanone	17.010	43	16845	0.24	ppbv	# 75
51) Tetrachloroethylene	17.743	166	7939	0.13	ppbv	95
57) Ethylbenzene	19.230	91	5420	0.03	ppbv	99
58) p- & m-Xylenes	19.374	91	13479	0.11	ppbv	92
59) o-Xylene	20.155	91	5535	0.04	ppbv	98
63) Isopropylbenzene	20.763	105	4202	0.02	ppbv	# 89
66) 4-Ethyltoluene	21.776	105	6067	0.03	ppbv	# 88
69) 1,2,4-Trimethylbenzene	22.750	105	6629	0.04	ppbv	# 87
71) p-Isopropyltoluene	23.407	119	5420	0.03	ppbv	# 89
79) Naphthalene	27.581	128	20895	0.09	ppbv	98

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023813.D
Acq On : 04 Apr 2024 01:46 am
Operator : YR
Sample : 24C1629-01
Misc : QBT03040124A .533X/750ML
ALS Vial : 2 Sample Multiplier: 0.814
InstName : T015_AIR3

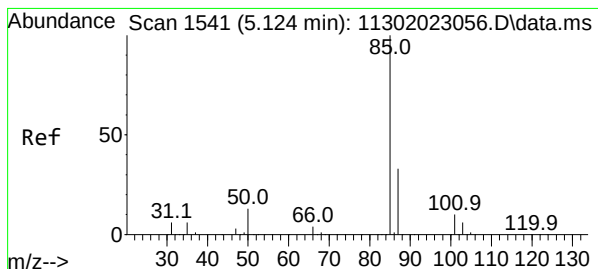
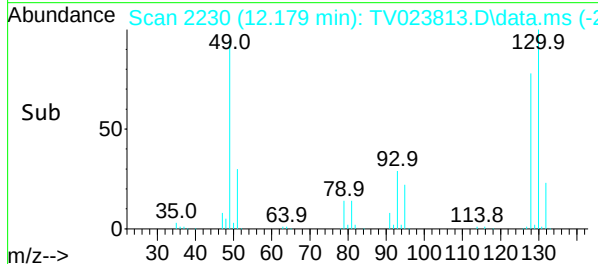
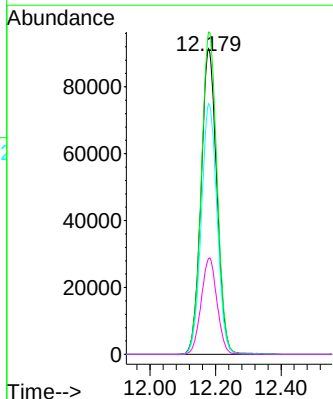
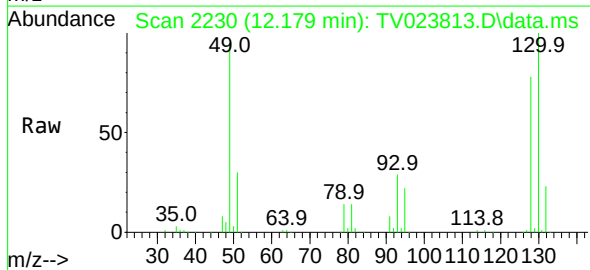
Quant Time: Apr 04 10:18:52 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration





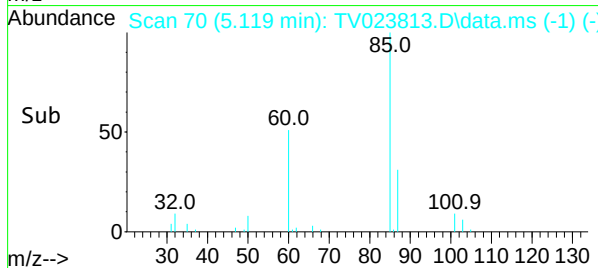
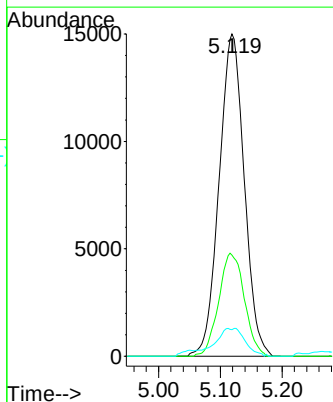
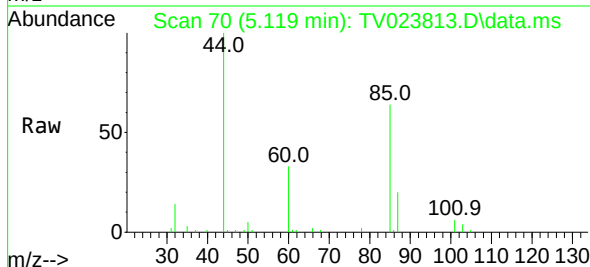
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.179 min Scan# 2230
Delta R.T. -0.003 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

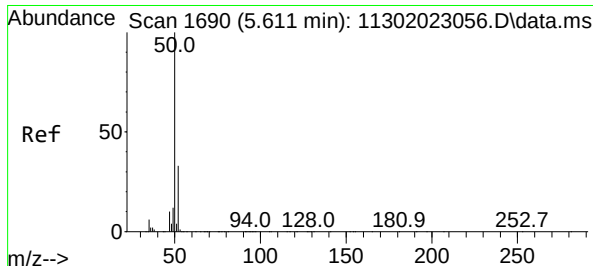
Tgt Ion:	49	Resp:	306083
Ion	Ratio	Lower	Upper
49	100		
130	104.8	44.5	92.3#
128	82.0	34.7	72.1#
51	31.7	21.5	44.6



#3
Dichlorodifluoromethane
Concen: 0.62 ppbv
RT: 5.119 min Scan# 70
Delta R.T. -0.006 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

Tgt Ion:	85	Resp:	42404
Ion	Ratio	Lower	Upper
85	100		
87	32.7	21.0	43.6
50	11.4	6.8	14.2

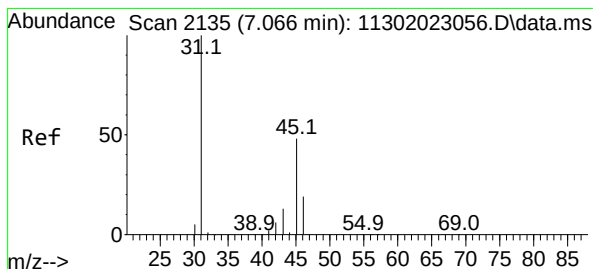
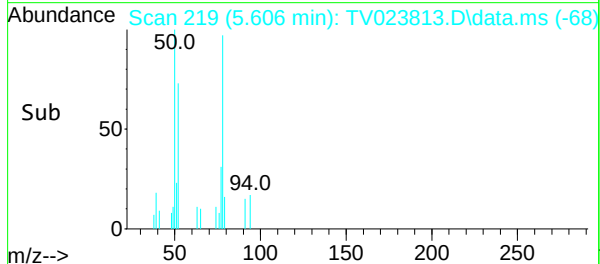
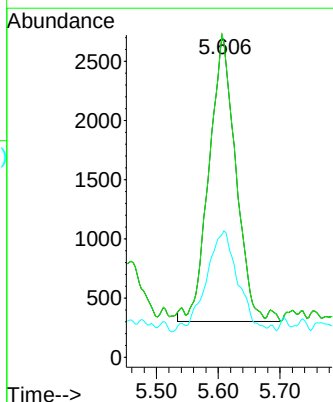
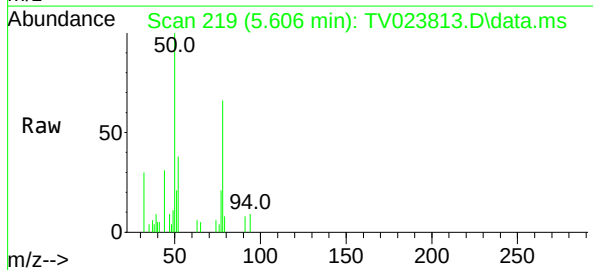




#5
Chloromethane
Concen: 0.58 ppbv
RT: 5.606 min Scan# 219
Delta R.T. -0.006 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

Tgt Ion: 50 Resp: 7324

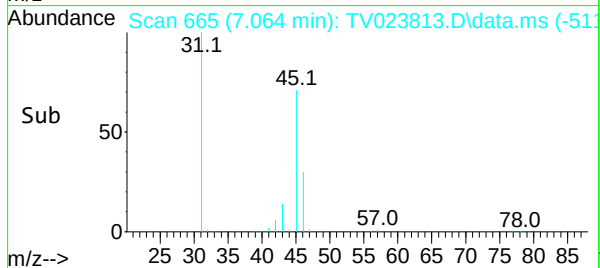
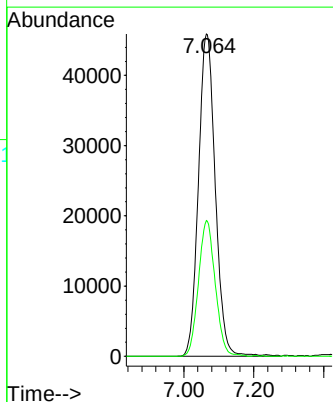
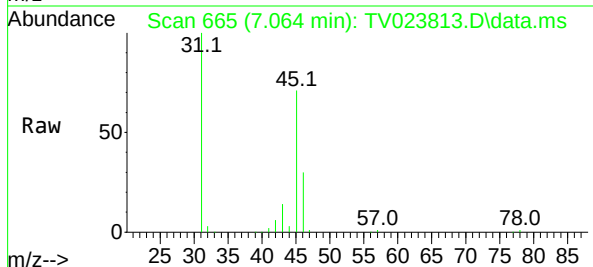
Ion	Ratio	Lower	Upper
50	100		
50	100.0	65.0	135.0
52	41.8	16.5	49.5

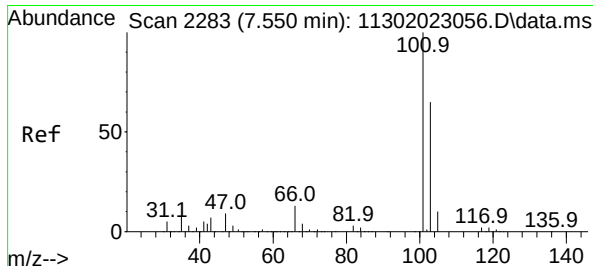


#10
ethanol
Concen: 12.19 ppbv
RT: 7.064 min Scan# 665
Delta R.T. 0.004 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

Tgt Ion: 45 Resp: 153335

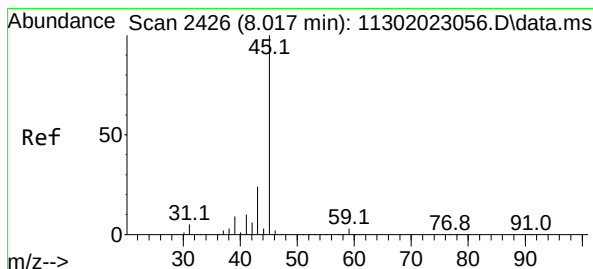
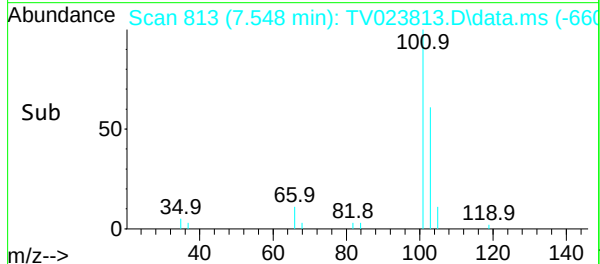
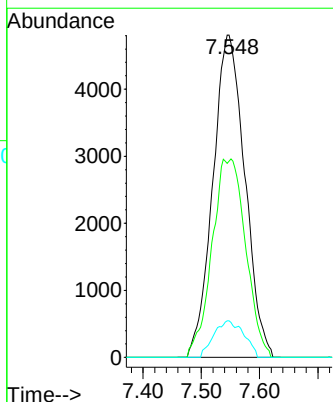
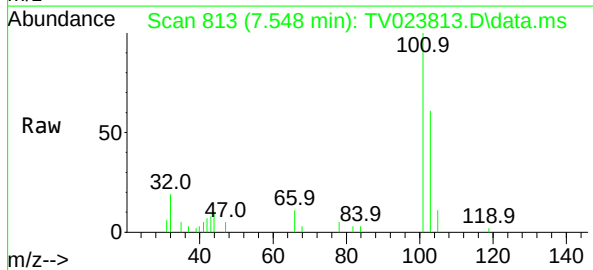
Ion	Ratio	Lower	Upper
45	100		
46	42.0	40.0	60.0





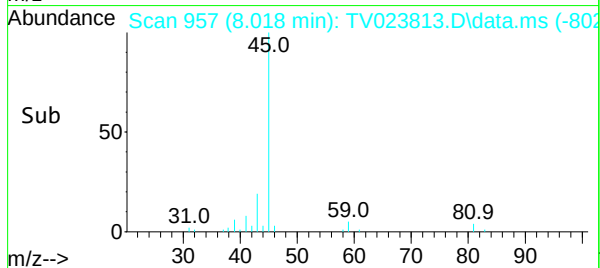
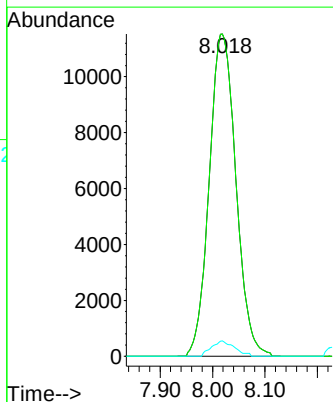
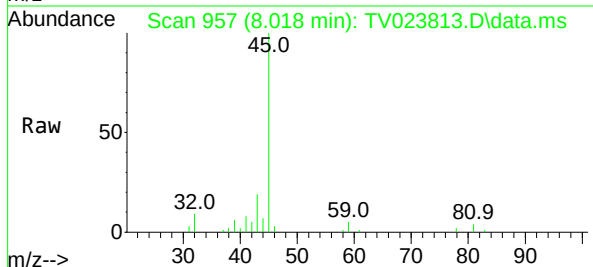
#12
Trichlorofluoromethane
Concen: 0.29 ppbv
RT: 7.548 min Scan# 813
Delta R.T. 0.001 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

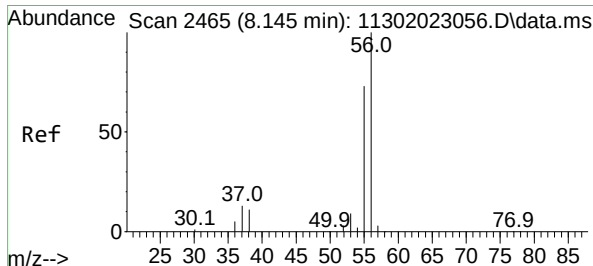
Tgt Ion:	101	Resp:	18265
Ion	Ratio	Lower	Upper
101	100		
103	64.9	42.4	88.0
66	10.7	7.9	16.5



#13
Isopropanol
Concen: 0.49 ppbv
RT: 8.018 min Scan# 957
Delta R.T. 0.007 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

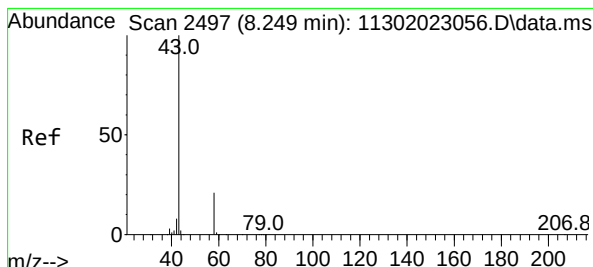
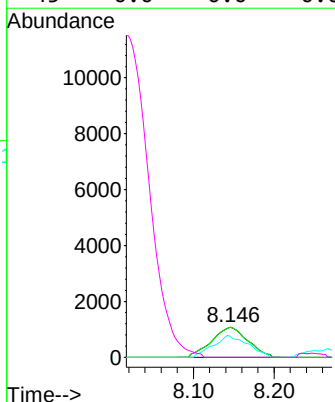
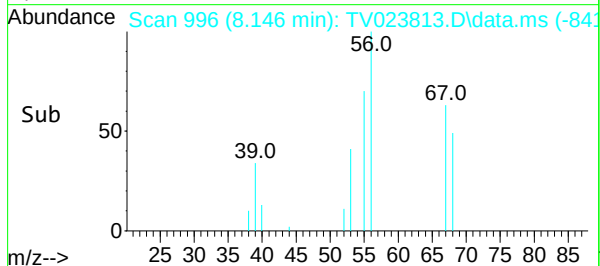
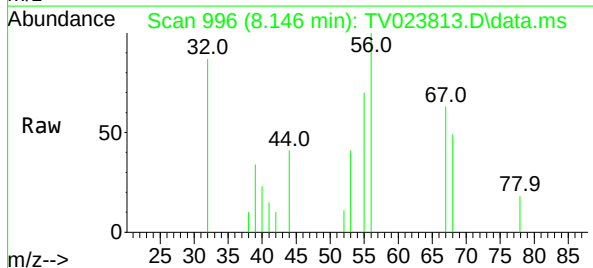
Tgt Ion:	45	Resp:	40758
Ion	Ratio	Lower	Upper
45	100		
45	100.0	65.0	135.0
59	4.1	0.0	8.4





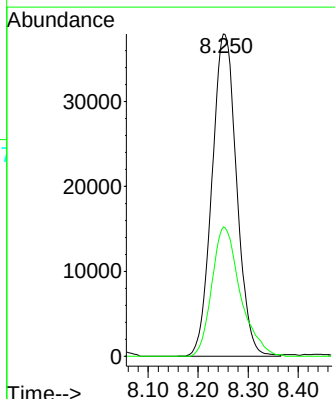
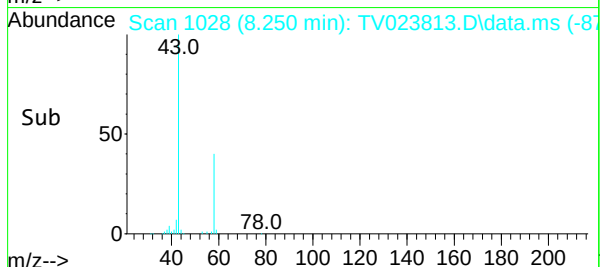
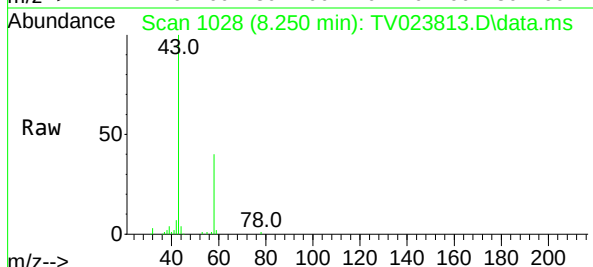
#14
Acrolein
Concen: 0.28 ppbv
RT: 8.146 min Scan# 996
Delta R.T. 0.008 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

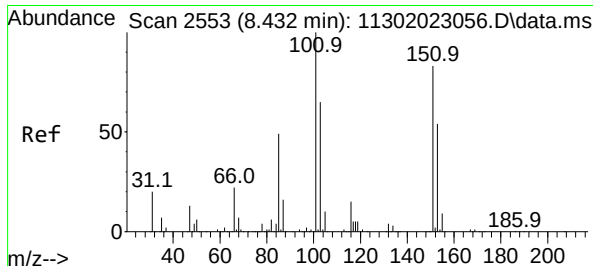
Tgt Ion:	56	Resp:	3350
Ion	Ratio	Lower	Upper
56	100		
56	100.0	80.0	120.0
55	69.9	0.0	0.0#
45	0.0	0.0	0.0



#15
Acetone
Concen: 3.12 ppbv
RT: 8.250 min Scan# 1028
Delta R.T. 0.004 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

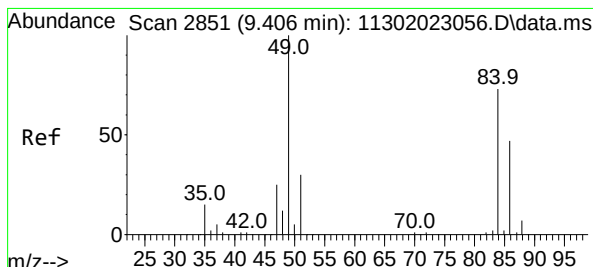
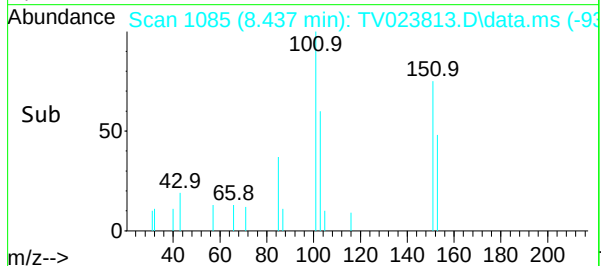
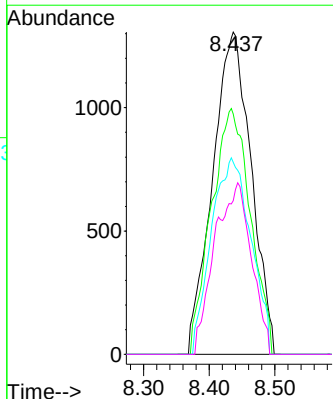
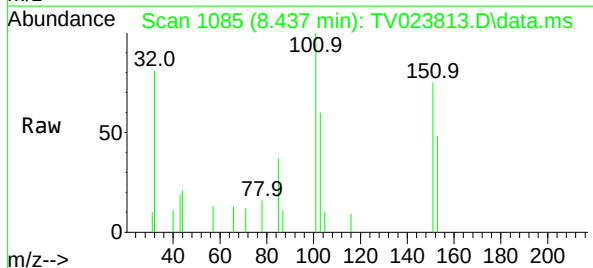
Tgt Ion:	43	Resp:	130076
Ion	Ratio	Lower	Upper
43	100		
58	46.2	20.7	42.9#





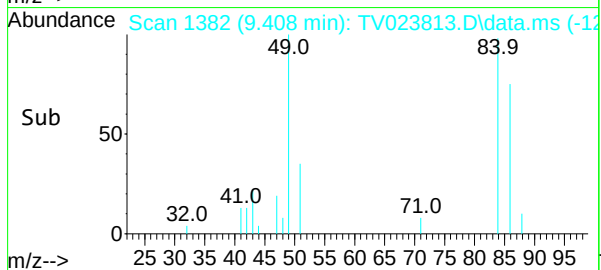
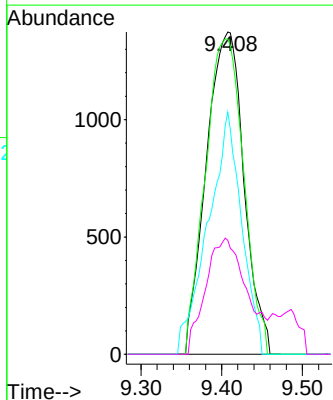
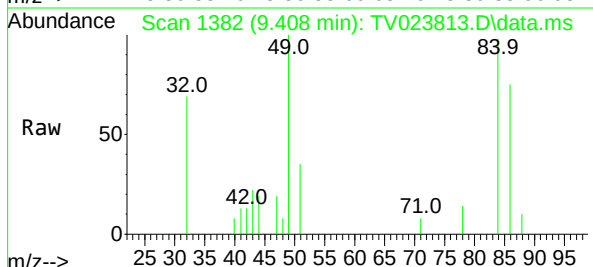
#16
Freon-113
Concen: 0.09 ppbv
RT: 8.437 min Scan# 1085
Delta R.T. 0.008 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

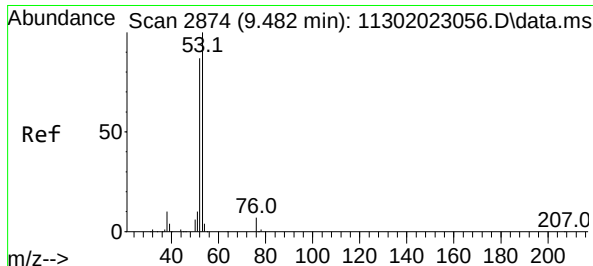
Tgt Ion:	101	Resp:	5330
Ion	Ratio	Lower	Upper
101	100		
151	77.5	48.6	100.8
103	62.6	42.0	87.2
153	50.8	31.0	64.4



#19
Methylene Chloride
Concen: 0.14 ppbv
RT: 9.408 min Scan# 1382
Delta R.T. 0.005 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

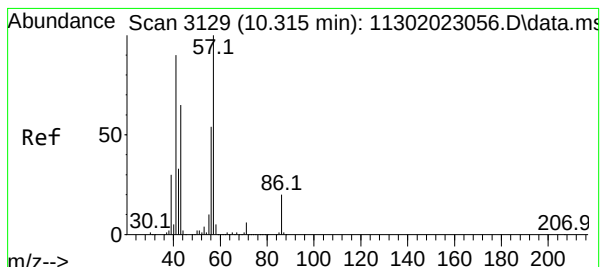
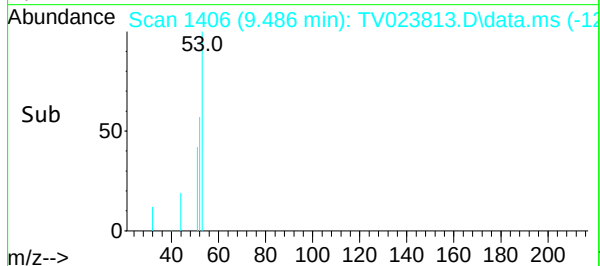
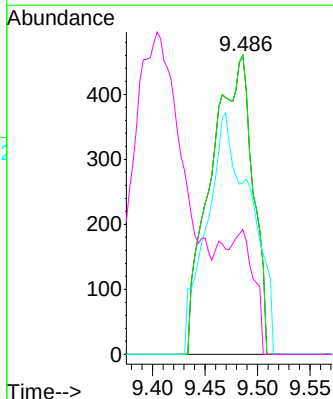
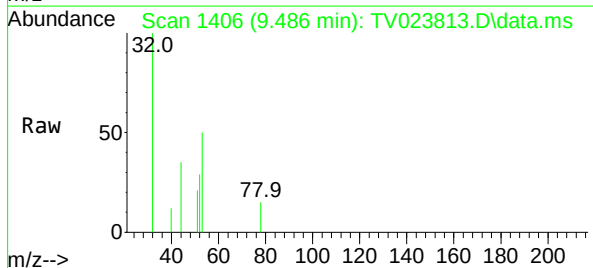
Tgt Ion:	49	Resp:	4455
Ion	Ratio	Lower	Upper
49	100		
84	99.3	50.1	104.0
86	66.9	32.2	66.8#
51	39.0	20.2	41.9





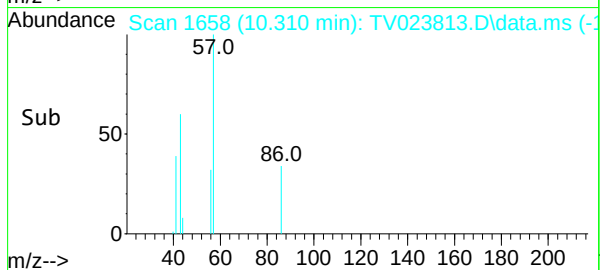
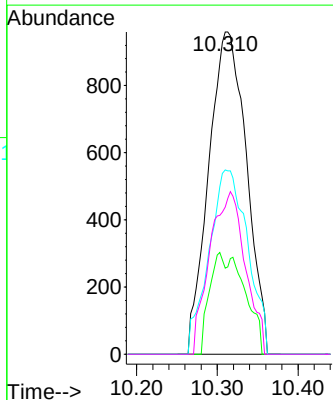
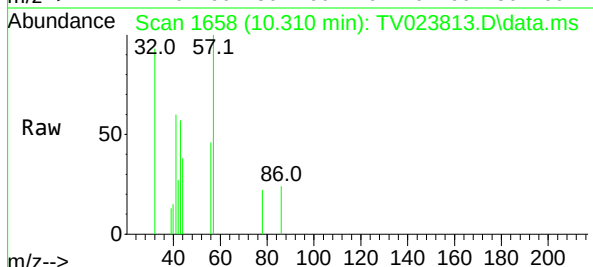
#20
Acrylonitrile
Concen: Below Cal
RT: 9.486 min Scan# 1406
Delta R.T. 0.014 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

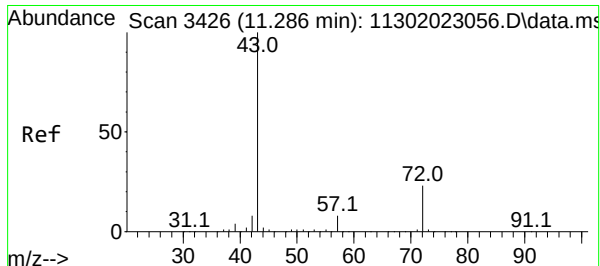
Tgt Ion:	53	Resp:	1278
Ion	Ratio	Lower	Upper
53	100		
53	100.0	80.0	120.0
52	0.0	0.0	0.0
51	0.0	0.0	0.0



#24
Hexane
Concen: 0.07 ppbv
RT: 10.310 min Scan# 1658
Delta R.T. 0.001 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

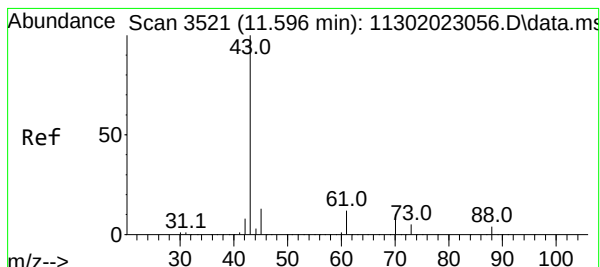
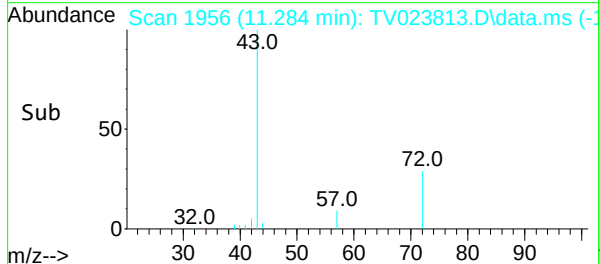
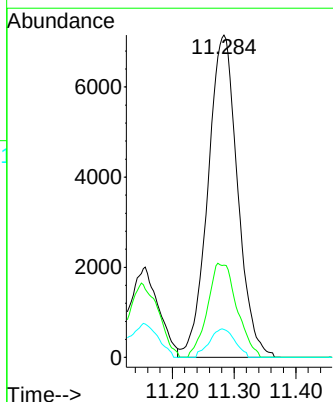
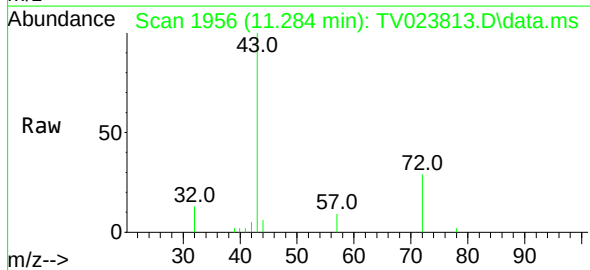
Tgt Ion:	57	Resp:	3124
Ion	Ratio	Lower	Upper
57	100		
42	29.1	22.2	46.0
43	58.6	42.9	89.1
56	47.8	33.8	70.2





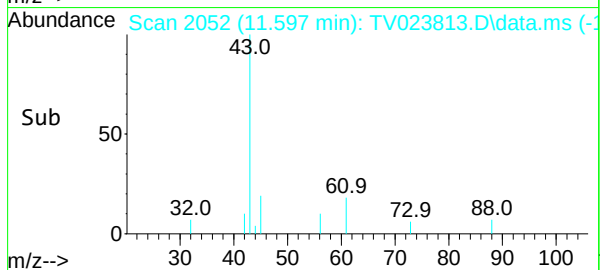
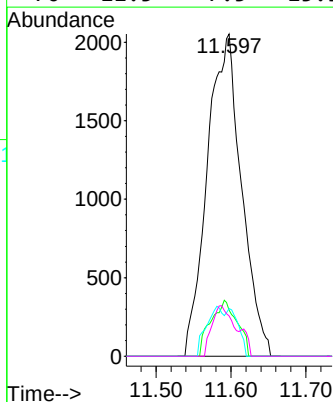
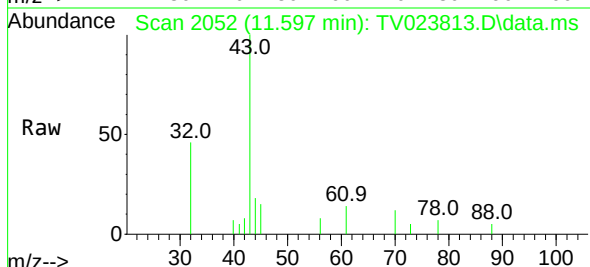
#27
2-Butanone
Concen: 0.39 ppbv
RT: 11.284 min Scan# 1956
Delta R.T. 0.008 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

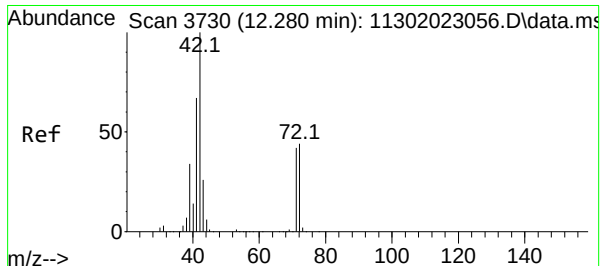
Tgt Ion:	43	Resp:	23874
Ion	Ratio	Lower	Upper
43	100		
72	28.9	16.4	34.2
57	7.6	5.0	10.4



#28
Ethyl Acetate
Concen: 0.10 ppbv
RT: 11.597 min Scan# 2052
Delta R.T. 0.010 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

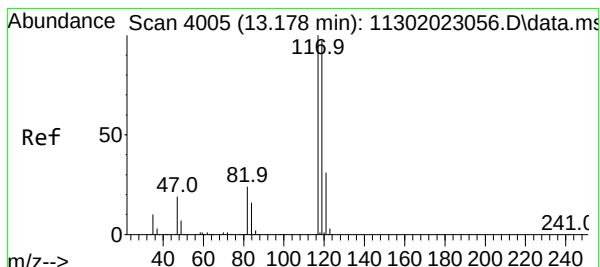
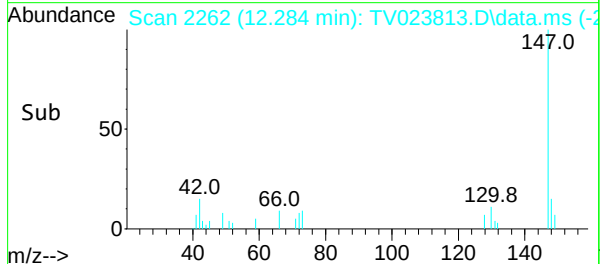
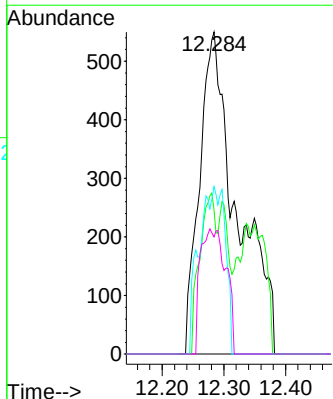
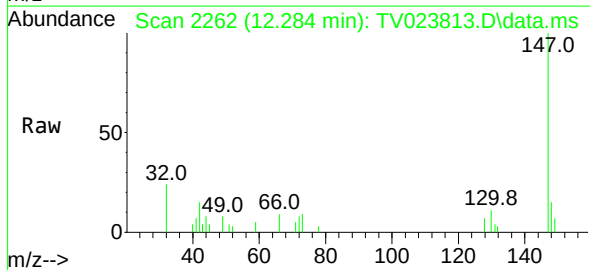
Tgt Ion:	43	Resp:	6492
Ion	Ratio	Lower	Upper
43	100		
61	13.5	9.2	19.2
45	13.3	9.4	19.6
70	11.5	7.5	15.5





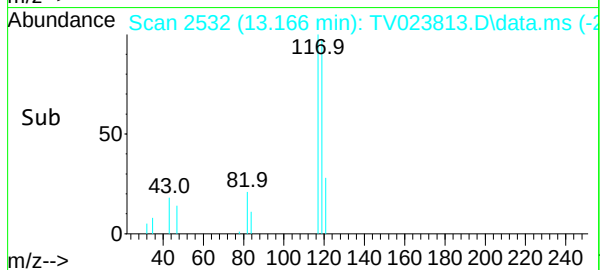
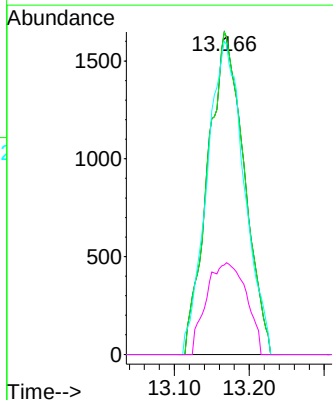
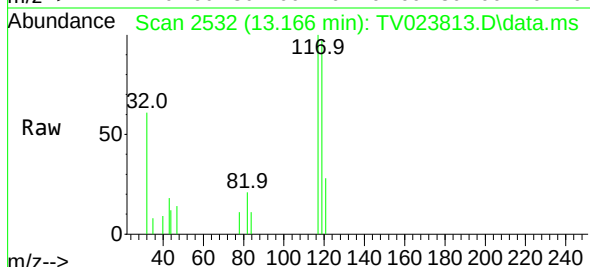
#31
Tetrahydrofuran
Concen: 0.07 ppbv
RT: 12.284 min Scan# 2262
Delta R.T. 0.011 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

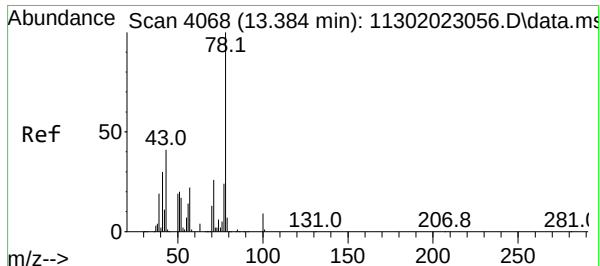
Tgt Ion:	42	Resp:	2322
Ion	Ratio	Lower	Upper
42	100		
41	34.9	34.5	71.7
72	36.5	27.4	56.8
71	26.4	25.8	53.6



#34
Carbon Tetrachloride
Concen: 0.09 ppbv
RT: 13.166 min Scan# 2532
Delta R.T. -0.006 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

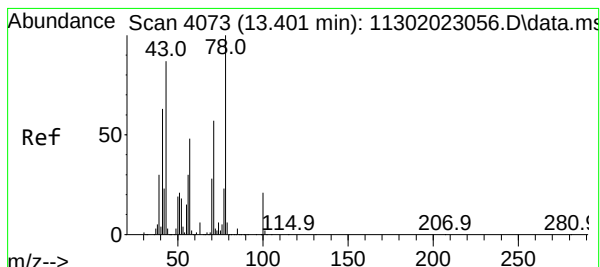
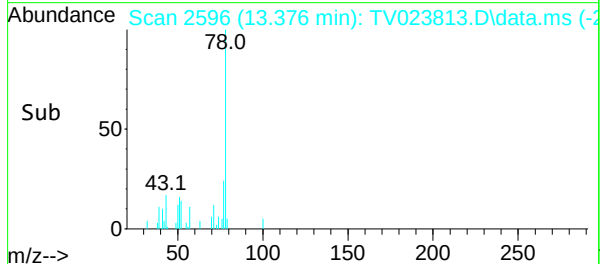
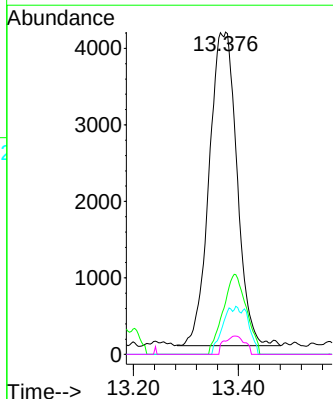
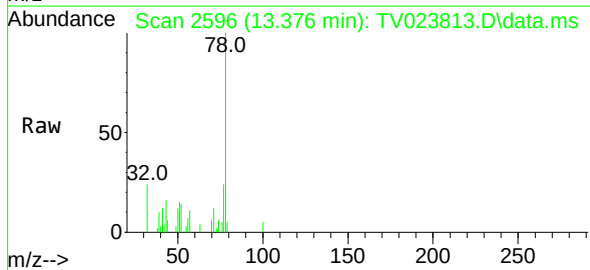
Tgt Ion:	117	Resp:	5546
Ion	Ratio	Lower	Upper
117	100		
119	100.0	80.0	120.0
121	31.1	21.5	39.9





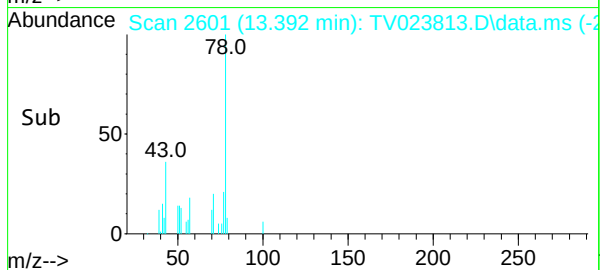
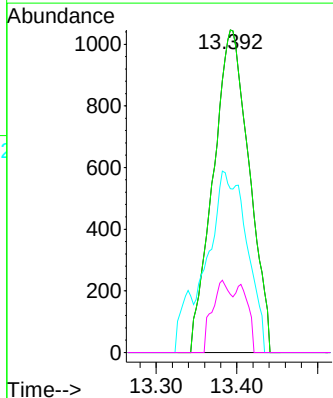
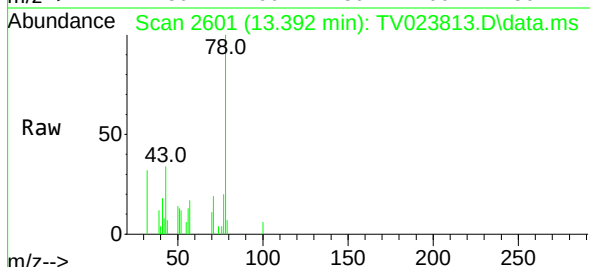
#36
Benzene
Concen: 0.17 ppbv
RT: 13.376 min Scan# 2596
Delta R.T. 0.005 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

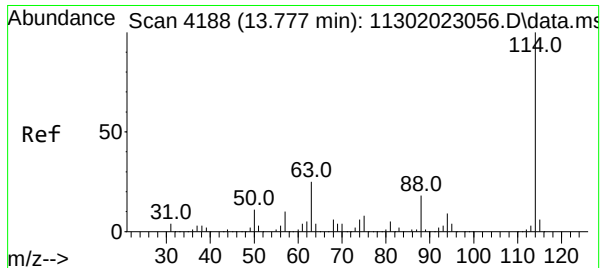
Tgt Ion:	78	Resp:	15035
Ion	Ratio	Lower	Upper
78	100		
43	21.5	0.0	0.0#
71	14.1	0.0	0.0#
42	4.3	0.0	0.0#



#37
n-Heptane
Concen: 0.06 ppbv
RT: 13.392 min Scan# 2601
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

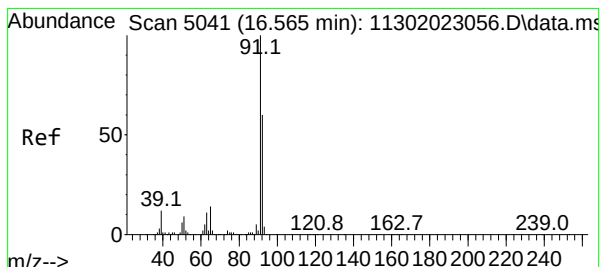
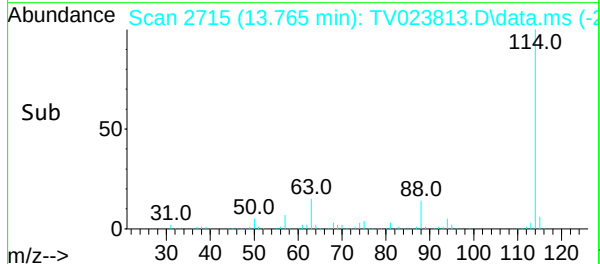
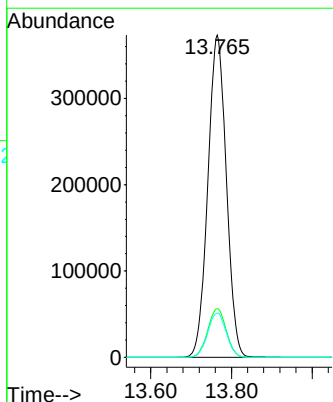
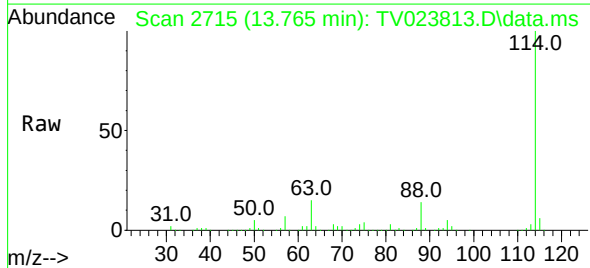
Tgt Ion:	43	Resp:	3231
Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	0.0	39.8	59.8#
100	0.0	12.6	18.8#





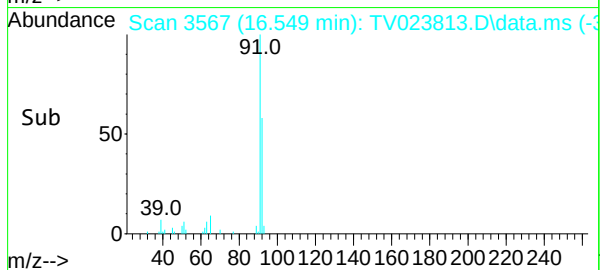
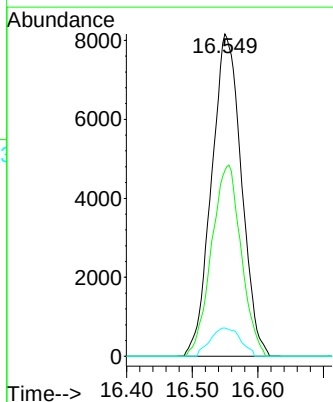
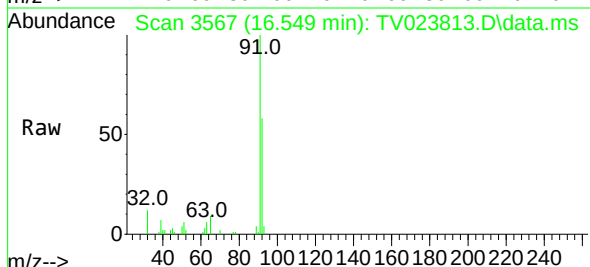
#38
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.765 min Scan# 2715
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

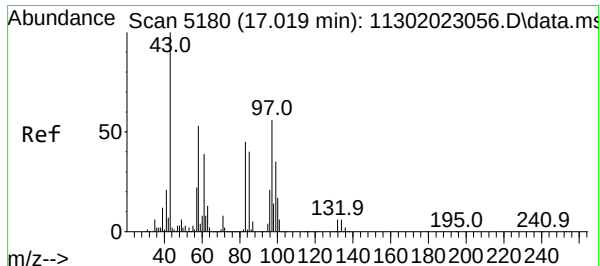
Tgt Ion:	114	Resp:	1184843
Ion	Ratio	Lower	Upper
114	100		
63	15.3	14.0	29.2
88	13.9	11.2	23.2



#46
Toluene
Concen: 0.19 ppbv
RT: 16.549 min Scan# 3567
Delta R.T. -0.006 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

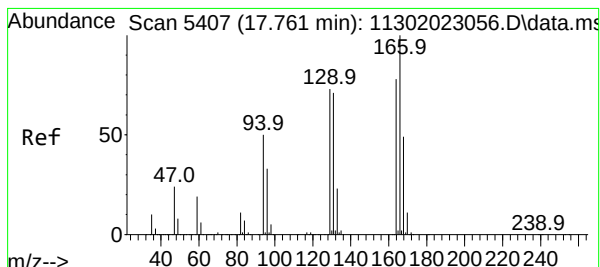
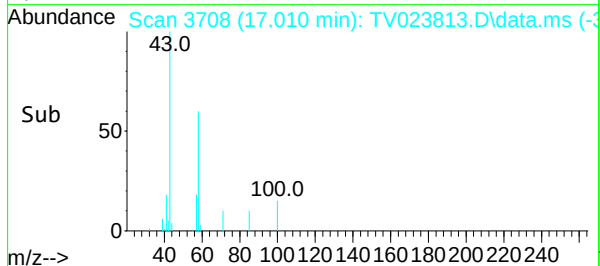
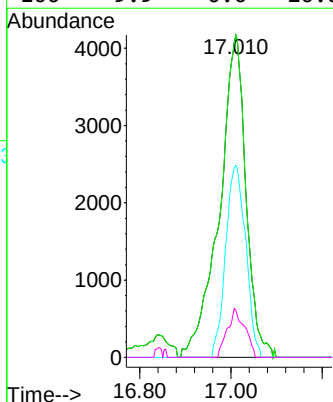
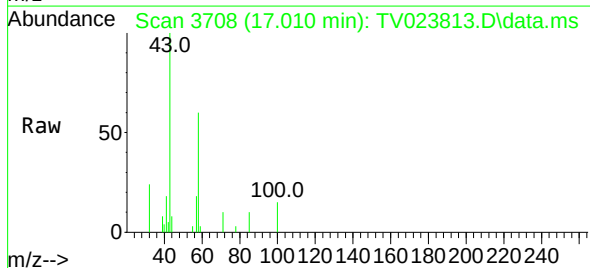
Tgt Ion:	91	Resp:	25747
Ion	Ratio	Lower	Upper
91	100		
92	59.1	39.0	81.0
65	8.9	7.7	16.1





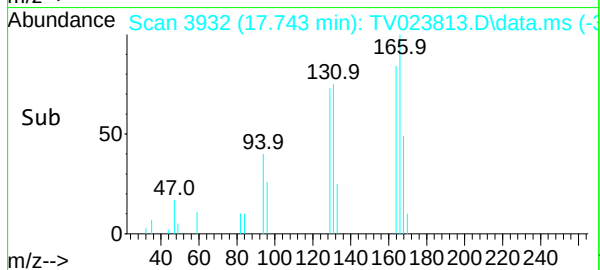
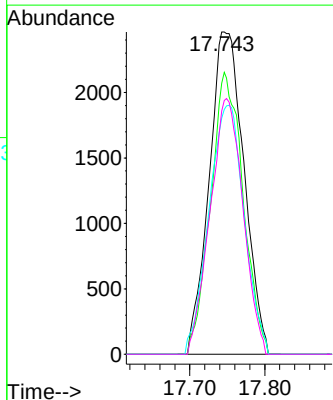
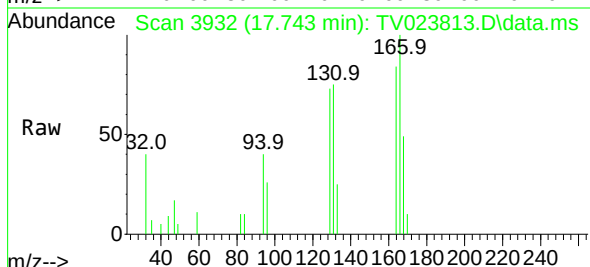
#49
2-Hexanone
Concen: 0.24 ppbv
RT: 17.010 min Scan# 3708
Delta R.T. 0.001 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

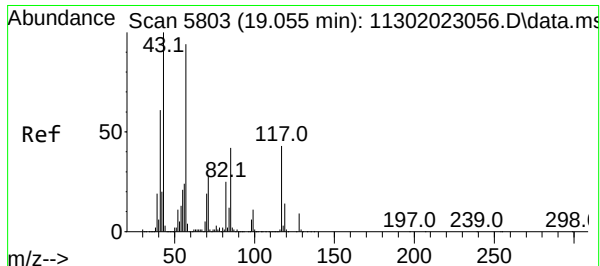
Tgt Ion:	43	Resp:	16845
Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
58	0.0	43.4	65.2#
100	9.9	0.0	20.8



#51
Tetrachloroethylene
Concen: 0.13 ppbv
RT: 17.743 min Scan# 3932
Delta R.T. -0.008 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

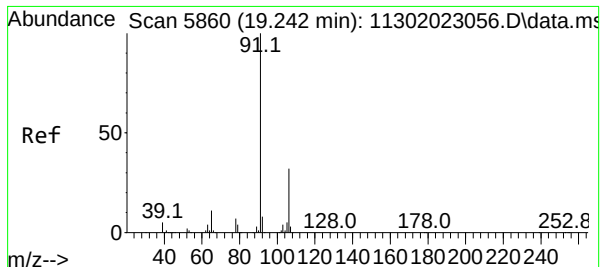
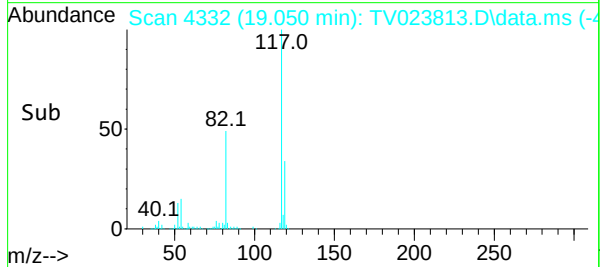
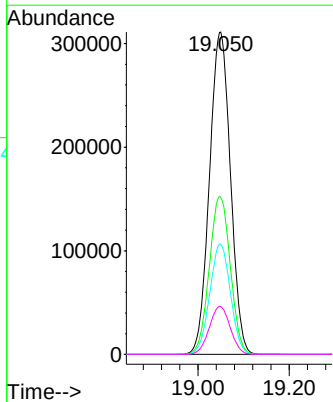
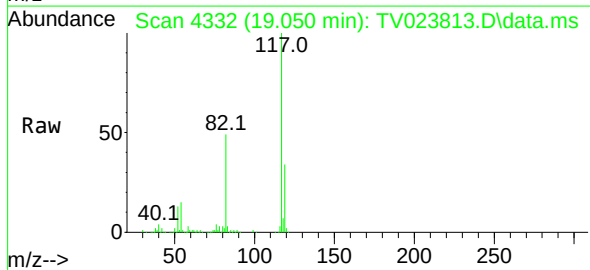
Tgt Ion:	166	Resp:	7939
Ion	Ratio	Lower	Upper
166	100		
164	81.6	51.4	106.8
129	78.3	47.0	97.6
131	75.0	46.5	96.5





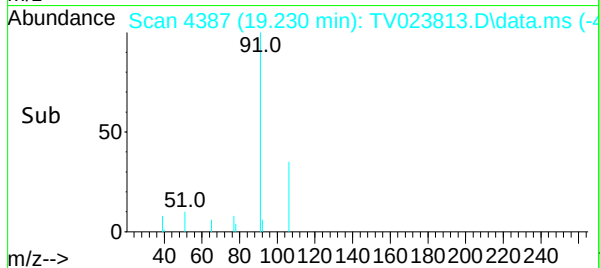
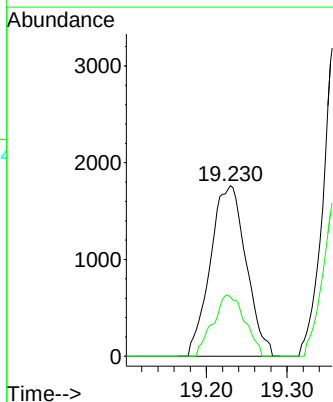
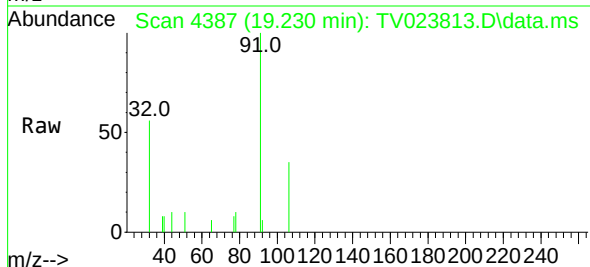
#54
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.050 min Scan# 4332
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

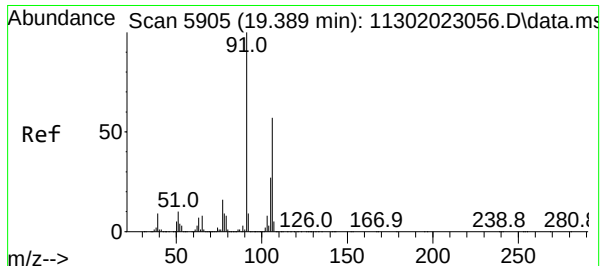
Tgt Ion:	117	Resp:	991751
Ion	Ratio	Lower	Upper
117	100		
82	49.1	38.7	80.5
119	33.8	20.3	42.3
54	15.0	14.6	30.2



#57
Ethylbenzene
Concen: 0.03 ppbv
RT: 19.230 min Scan# 4387
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

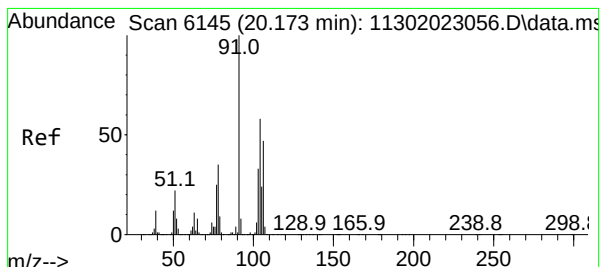
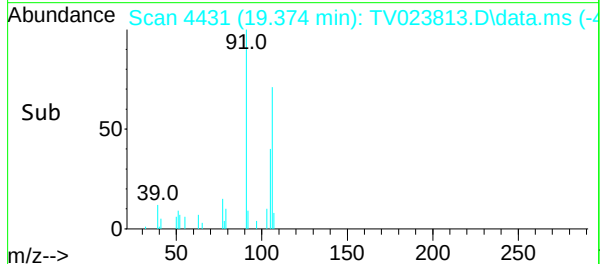
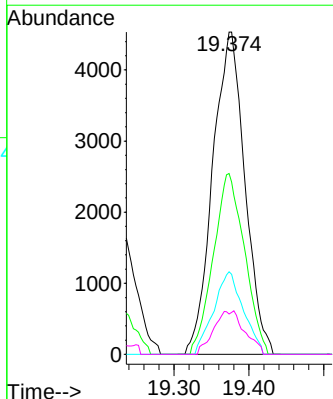
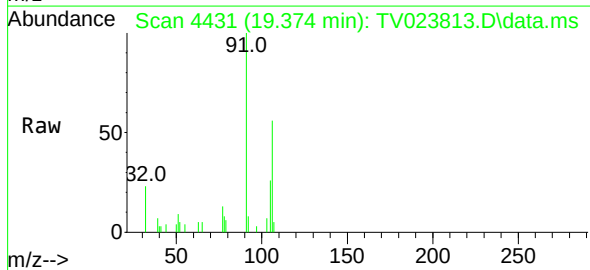
Tgt Ion:	91	Resp:	5420
Ion	Ratio	Lower	Upper
91	100		
106	32.1	20.3	42.3





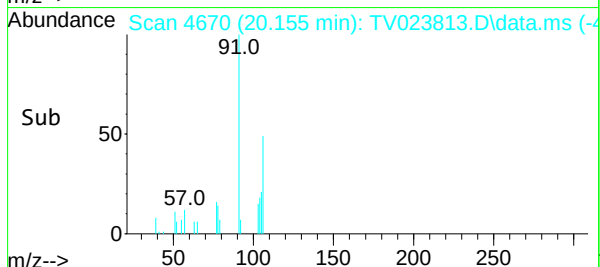
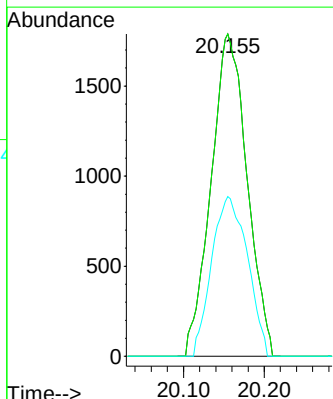
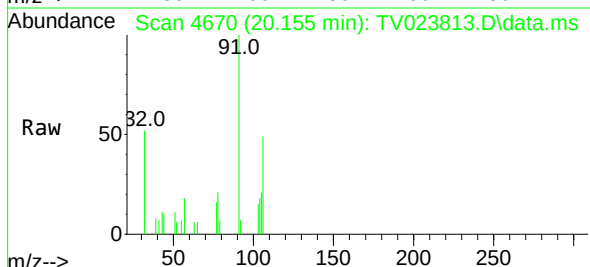
#58
p- & m-Xylenes
Concen: 0.11 ppbv
RT: 19.374 min Scan# 4431
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

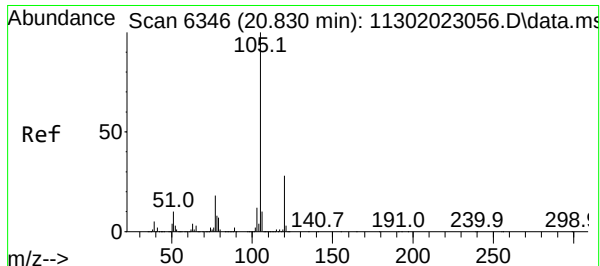
Tgt Ion:	91	Resp:	13479
Ion	Ratio	Lower	Upper
91	100		
106	54.6	31.0	64.4
105	23.6	13.4	27.8
77	13.1	8.6	18.0



#59
o-Xylene
Concen: 0.04 ppbv
RT: 20.155 min Scan# 4670
Delta R.T. -0.005 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

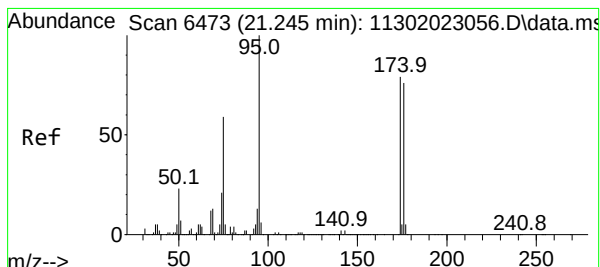
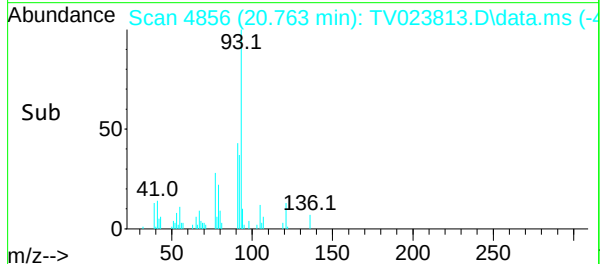
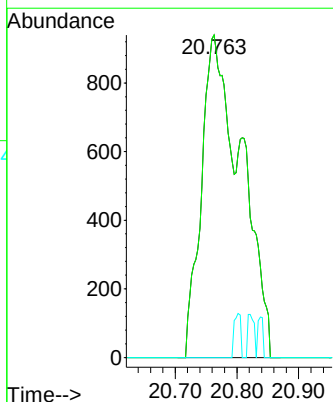
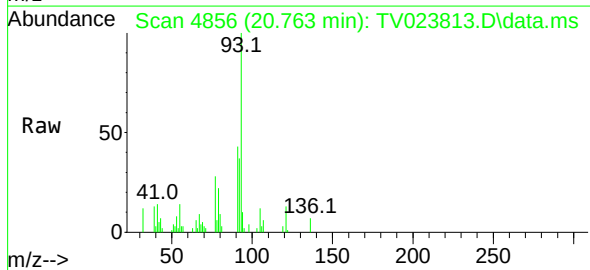
Tgt Ion:	91	Resp:	5535
Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	49.3	36.9	55.3





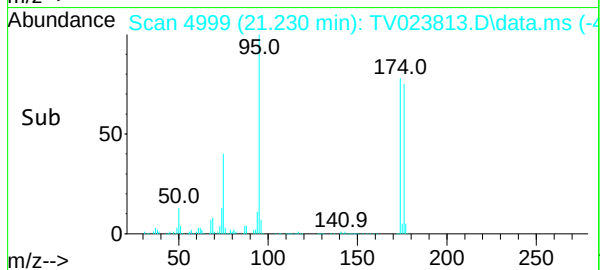
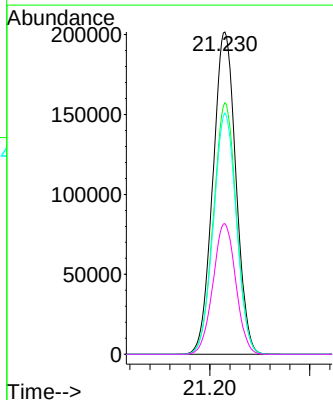
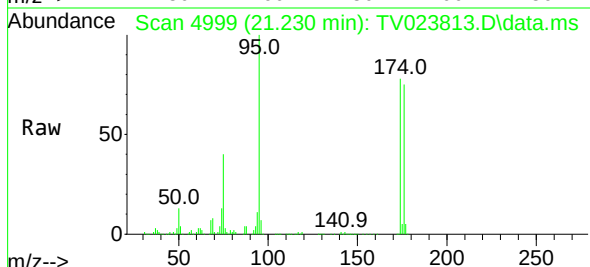
#63
Isopropylbenzene
Concen: 0.02 ppbv
RT: 20.763 min Scan# 4856
Delta R.T. -0.058 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

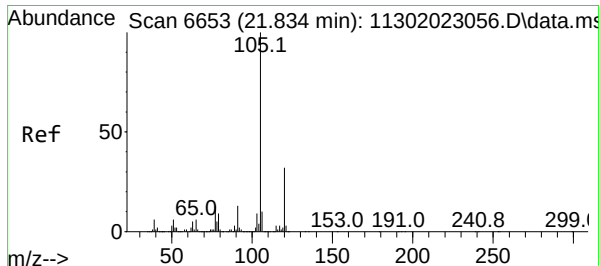
Tgt Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
120	0.0	13.1	39.1#



#65
p-Bromofluorobenzene
Concen: 9.12 ppbv
RT: 21.230 min Scan# 4999
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

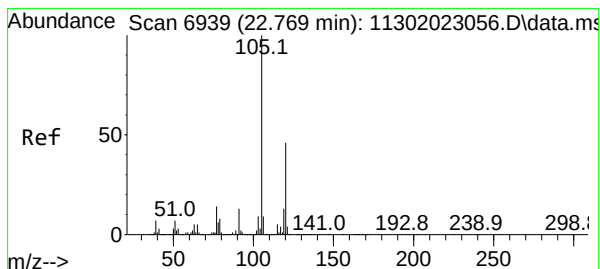
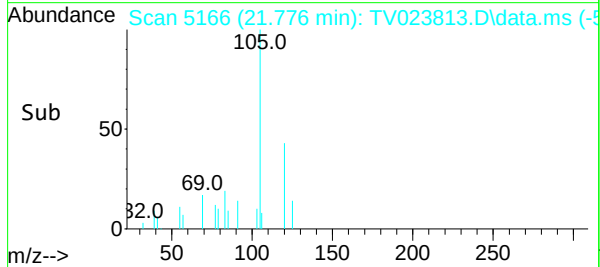
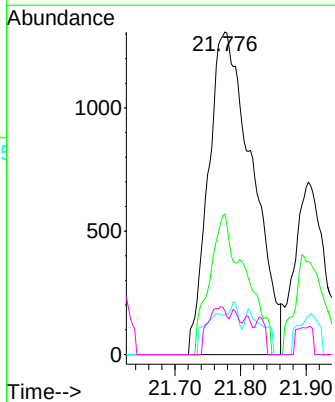
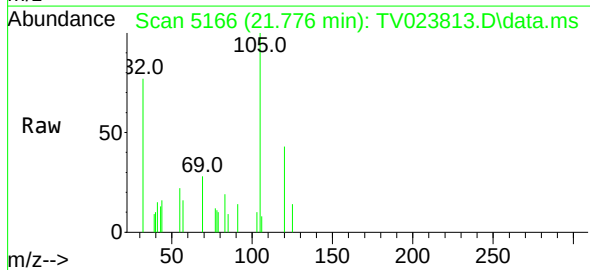
Tgt Ion	Ratio	Lower	Upper
95	100		
174	77.8	50.0	103.8
176	74.6	48.2	100.2
75	40.2	31.5	65.3





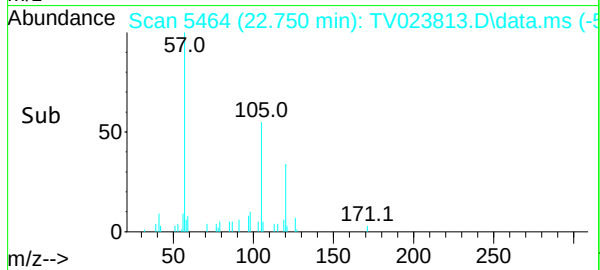
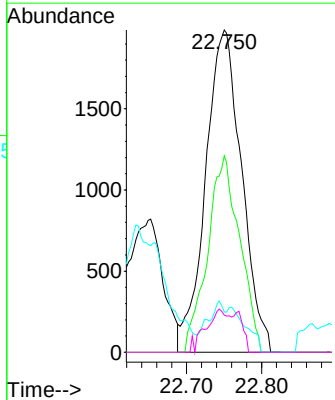
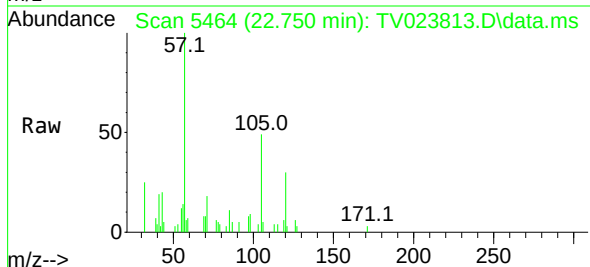
#66
4-Ethyltoluene
Concen: 0.03 ppbv
RT: 21.776 min Scan# 5166
Delta R.T. -0.045 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

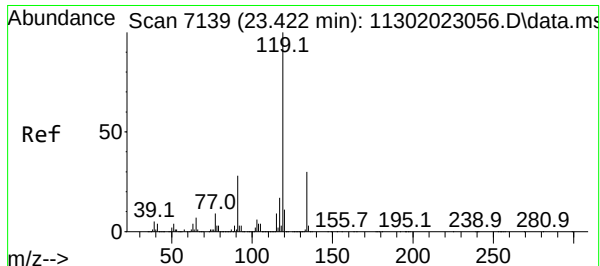
Tgt Ion:	105	Resp:	6067
Ion	Ratio	Lower	Upper
105	100		
120	36.1	17.2	35.6#
77	10.3	7.6	15.8
91	14.5	7.7	16.1



#69
1,2,4-Trimethylbenzene
Concen: 0.04 ppbv
RT: 22.750 min Scan# 5464
Delta R.T. -0.006 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

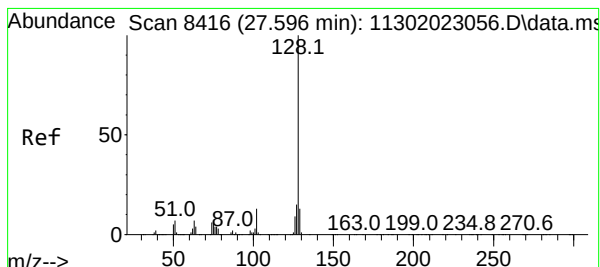
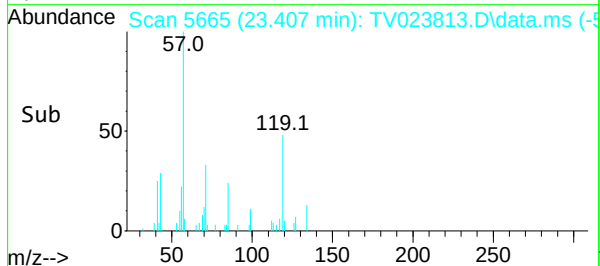
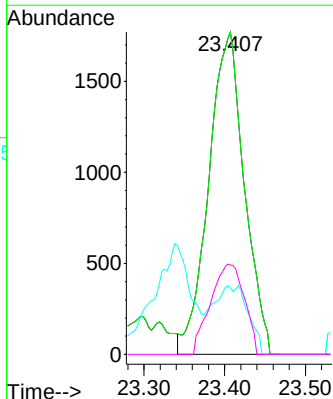
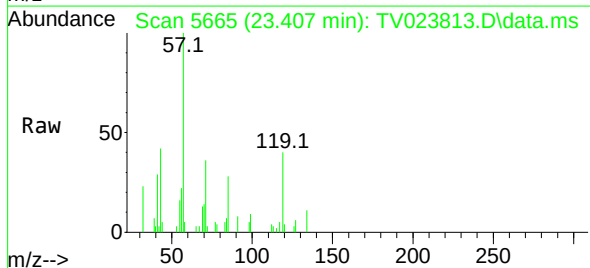
Tgt Ion:	105	Resp:	6629
Ion	Ratio	Lower	Upper
105	100		
120	54.4	29.0	60.2
77	14.7	8.2	17.0
119	12.3	0.0	0.0#





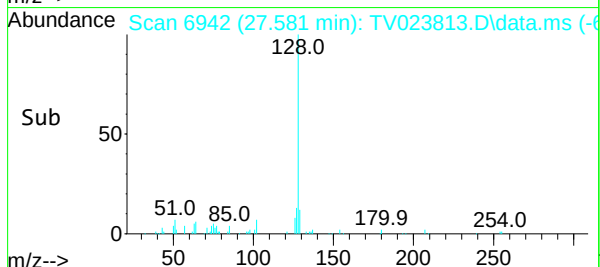
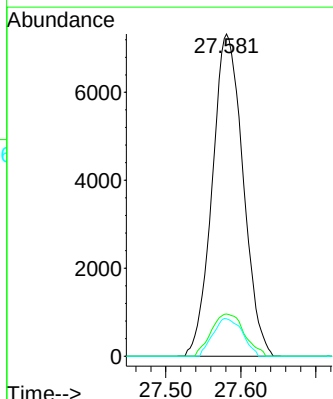
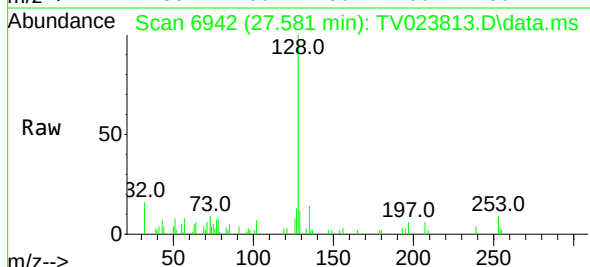
#71
p-Isopropyltoluene
Concen: 0.03 ppbv
RT: 23.407 min Scan# 5665
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

Tgt Ion:	119	Resp:	5420
Ion Ratio	Lower	Upper	
119	100		
119	100.0	80.0	120.0
91	22.0	0.0	0.0#
134	0.0	13.5	40.4#



#79
Naphthalene
Concen: 0.09 ppbv
RT: 27.581 min Scan# 6942
Delta R.T. -0.002 min
Lab File: TV023813.D
Acq: 04 Apr 2024 01:46 am

Tgt Ion:	128	Resp:	20895
Ion Ratio	Lower	Upper	
128	100		
127	14.2	8.1	16.9
129	11.2	7.3	15.1



FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	0.025		0.05		0.1	0.576152	0.2	0.6046079	0.5	0.5936837	3	0.6013415
1,1,1-Trichloroethane	0.025		0.05		0.1	1.852251	0.2	1.890123	0.5	1.836247	3	1.851086
1,1,2,2-Tetrachloroethane	0.025		0.05		0.1	1.096749	0.2	1.108053	0.5	1.111101	3	1.10173
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.025		0.05		0.1	1.953381	0.2	1.941234	0.5	1.890144	3	1.915294
1,1,2-Trichloroethane	0.025		0.05		0.1	0.4302547	0.2	0.4385269	0.5	0.4238595	3	0.417779
1,1-Dichloroethane	0.025		0.05		0.1	1.571503	0.2	1.508195	0.5	1.526433	3	1.499672
1,1-Dichloroethylene	0.025	1.122758	0.05	1.173448	0.1	1.268113	0.2	1.224822	0.5	1.251836	3	1.240341
1,2,4-Trichlorobenzene	0.025		0.05		0.1	0.5240313	0.2	0.5074566	0.5	0.6270541	3	0.7870155
1,2,4-Trimethylbenzene	0.025		0.05		0.1	1.516921	0.2	1.555912	0.5	1.568409	3	1.600054
1,2-Dibromoethane	0.025		0.05		0.1	0.6695802	0.2	0.6770509	0.5	0.6802623	3	0.6805381
1,2-Dichlorobenzene	0.025		0.05		0.1	0.9925077	0.2	1.028475	0.5	1.053794	3	1.092251
1,2-Dichloroethane	0.025		0.05		0.1	0.9869329	0.2	0.9537416	0.5	0.9977668	3	0.9730275
1,2-Dichloropropane	0.025		0.05		0.1	0.3606811	0.2	0.3639174	0.5	0.3527212	3	0.3482242
1,2-Dichlorotetrafluoroethane	0.025		0.05		0.1	1.805028	0.2	1.700992	0.5	1.720636	3	1.702848
1,3,5-Trimethylbenzene	0.025		0.05		0.1	1.491738	0.2	1.444129	0.5	1.48012	3	1.514413
1,3-Butadiene	0.025		0.05		0.1	0.7206314	0.2	0.7081087	0.5	0.6706463	3	0.6824557
1,3-Dichlorobenzene	0.025		0.05		0.1	1.020133	0.2	1.076191	0.5	1.101437	3	1.14776
1,3-Dichloropropane	0.025		0.05		0.1	0.5701987	0.2	0.5748168	0.5	0.5775924	3	0.5715053
1,4-Dichlorobenzene	0.025		0.05		0.1	1.083776	0.2	1.056326	0.5	1.098466	3	1.149663
1,4-Dioxane	0.025		0.05		0.1	0.2431095	0.2	0.232226	0.5	0.2269928	3	0.2114094
2-Butanone	0.025		0.05		0.1	2.688675	0.2	2.314859	0.5	2.170539	3	1.909588
2-Hexanone	0.025		0.05		0.1	0.7104746	0.2	0.694712	0.5	0.6765761	3	0.6543307
3-Chloropropene	0.025		0.05		0.1	1.246334	0.2	1.241535	0.5	1.220185	3	1.202043
4-Methyl-2-pentanone	0.025		0.05		0.1	0.7282664	0.2	0.7222698	0.5	0.711038	3	0.6973136
Acetone	0.025		0.05		0.1	6.995429	0.2	4.152901	0.5	2.573631	3	1.368087
Acrolein	0.025		0.05		0.1	0.4206917	0.2	0.4279707	0.5	0.4433326	3	0.3859511
Acrylonitrile	0.025		0.05		0.1	11.04149	0.2	5.776148	0.5	2.793215	3	1.175631
Benzene	0.025		0.05		0.1	3.465801	0.2	3.195493	0.5	3.088555	3	2.993417
Benzyl chloride	0.025		0.05		0.1	0.2389314	0.2	0.3058951	0.5	0.3341634	3	0.380589
Bromodichloromethane	0.025		0.05		0.1	0.6126864	0.2	0.6026746	0.5	0.6165229	3	0.6317116
Bromoform	0.025		0.05		0.1	0.5669947	0.2	0.5739688	0.5	0.6039597	3	0.7050537

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	0.025		0.05		0.1	0.9720545	0.2	0.9777874	0.5	0.9508697	3	0.9392049
Carbon disulfide	0.025		0.05		0.1	2.779239	0.2	2.629933	0.5	2.64913	3	2.663005
Carbon tetrachloride	0.025	1.737457	0.05	1.798854	0.1	1.92039	0.2	1.860578	0.5	1.900795	3	1.940843
Chlorobenzene	0.025		0.05		0.1	1.194199	0.2	1.134452	0.5	1.123414	3	1.152711
Chloroethane	0.025		0.05		0.1	0.4551923	0.2	0.4607505	0.5	0.4652351	3	0.472378
Chloroform	0.025		0.05		0.1	2.021735	0.2	1.866293	0.5	1.901825	3	1.888211
Chloromethane	0.025		0.05		0.1	0.5733569	0.2	0.4900798	0.5	0.4400258	3	0.3914173
cis-1,2-Dichloroethylene	0.025	1.04993	0.05	1.287983	0.1	1.143479	0.2	1.199159	0.5	1.133047	3	1.157061
cis-1,3-Dichloropropylene	0.025		0.05		0.1	0.5341505	0.2	0.5331634	0.5	0.5259061	3	0.5369267
Cyclohexane	0.025		0.05		0.1	1.509401	0.2	1.488894	0.5	1.507623	3	1.506241
Dibromochloromethane	0.025		0.05		0.1	0.6533817	0.2	0.6591899	0.5	0.6917584	3	0.7446929
Dichlorodifluoromethane	0.025		0.05		0.1	2.236933	0.2	2.220293	0.5	2.166717	3	2.21112
Ethanol	0.025		0.05		0.1	2.175694	0.2	1.38581	0.5	0.9276788	3	0.4678381
Ethyl acetate	0.025		0.05		0.1	2.327066	0.2	2.210804	0.5	2.254112	3	2.102758
Ethyl Benzene	0.025		0.05		0.1	1.786834	0.2	1.757741	0.5	1.742336	3	1.70893
Hexachlorobutadiene	0.025		0.05		0.1	0.6034716	0.2	0.5981134	0.5	0.626564	3	0.6577141
Isopropanol	0.025		0.05		0.1	7.95778	0.2	4.676838	0.5	2.79184	3	1.82321
Isopropylbenzene	0.025		0.05		0.1	1.944876	0.2	1.921596	0.5	1.937903	3	1.950652
Methyl Methacrylate	0.025		0.05		0.1	0.3605483	0.2	0.350455	0.5	0.3659279	3	0.3590528
Methyl tert-butyl ether (MTBE)	0.025		0.05		0.1	2.449543	0.2	2.397779	0.5	2.404681	3	2.407897
Methylene chloride	0.025		0.05		0.1	1.163102	0.2	1.111818	0.5	1.098819	3	1.026318
Naphthalene	0.025		0.05		0.1	1.872227	0.2	1.881941	0.5	2.125445	3	2.466145
n-Butylbenzene	0.025		0.05		0.1	1.609486	0.2	1.632434	0.5	1.807943	3	1.915434
n-Heptane	0.025		0.05		0.1	1.886536	0.2	1.824671	0.5	1.811295	3	1.78774
n-Hexane	0.025		0.05		0.1	1.514792	0.2	1.410826	0.5	1.445136	3	1.436821
n-Propylbenzene	0.025		0.05		0.1	2.332309	0.2	2.270775	0.5	2.314717	3	2.328016
o-Xylene	0.025		0.05		0.1	1.381773	0.2	1.334218	0.5	1.313559	3	1.287219
p- & m- Xylenes	0.05		0.1		0.2	1.328965	0.4	1.295403	1	1.304531	6	1.26222
p-Ethyltoluene	0.025		0.05		0.1	1.917403	0.2	1.915903	0.5	1.942344	3	1.979312
p-Isopropyltoluene	0.025		0.05		0.1	2.134128	0.2	2.057677	0.5	2.154404	3	2.218536
Propylene	0.025		0.05		0.1	0.7137312	0.2	0.6077205	0.5	0.556152	3	0.5227548

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15 AIR3Calibration Date: 02/20/24 18:46

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	0.025		0.05		0.1	2.386414	0.2	2.343668	0.5	2.420479	3	2.470685
Styrene	0.025		0.05		0.1	1.084539	0.2	1.027635	0.5	1.060915	3	1.088075
tert-Butylbenzene	0.025		0.05		0.1	1.882834	0.2	1.886869	0.5	1.912021	3	1.949443
Tetrachloroethylene	0.025		0.05		0.1	0.5506809	0.2	0.594144	0.5	0.5614023	3	0.5391556
Tetrahydrofuran	0.025		0.05		0.1	1.2707	0.2	1.228488	0.5	1.1793	3	1.128691
Toluene	0.025		0.05		0.1	1.393067	0.2	1.285357	0.5	1.236135	3	1.129775
trans-1,2-Dichloroethylene	0.025		0.05		0.1	1.154261	0.2	1.221911	0.5	1.218767	3	1.199638
trans-1,3-Dichloropropylene	0.025		0.05		0.1	0.470087	0.2	0.4652517	0.5	0.464169	3	0.4728268
Trichloroethylene	0.025	0.4805479	0.05	0.447019	0.1	0.4428019	0.2	0.4286967	0.5	0.4287391	3	0.4270506
Trichlorofluoromethane (Freon 11)	0.025		0.05		0.1	2.04718	0.2	2.04917	0.5	2.026197	3	2.041788
Vinyl acetate	0.025		0.05		0.1	2.456443	0.2	2.303752	0.5	2.376594	3	2.258527
Vinyl bromide	0.025		0.05		0.1	0.9821891	0.2	0.9523399	0.5	0.9576122	3	0.9617061
Vinyl Chloride	0.025	0.8496545	0.05	0.781434	0.1	0.8068829	0.2	0.7110201	0.5	0.7372557	3	0.7452429

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
1,1,1,2-Tetrachloroethane	10	0.5973055	20	0.6127698	30	0.6141253	50	0.6001625				
1,1,1-Trichloroethane	10	1.871022	20	1.957187	30	2.041684	50	2.032424				
1,1,2,2-Tetrachloroethane	10	1.056618	20	1.044893	30	1.011433	50	0.9690698				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10	1.859076	20	1.860769	30	1.879241	50	1.782494				
1,1,2-Trichloroethane	10	0.401481	20	0.3814627	30	0.3585555	50	0.2928072				
1,1-Dichloroethane	10	1.461434	20	1.460058	30	1.451791	50	1.407524				
1,1-Dichloroethylene	10	1.222758	20	1.231146	30	1.24882	50	1.221082				
1,2,4-Trichlorobenzene	10	0.8439156	20	0.8642414	30	0.8347759	50	0.8323616				
1,2,4-Trimethylbenzene	10	1.58591	20	1.623038	30	1.580645	50	1.556228				
1,2-Dibromoethane	10	0.6792407	20	0.6710599	30	0.6584888	50	0.5874804				
1,2-Dichlorobenzene	10	1.07994	20	1.088395	30	1.049252	50	1.027944				
1,2-Dichloroethane	10	0.9872569	20	1.024296	30	1.053561	50	1.051094				
1,2-Dichloropropane	10	0.3313955	20	0.3145925	30	0.2960557	50	0.2447779				
1,2-Dichlorotetrafluoroethane	10	1.664483	20	1.563639	30	1.491873	50	1.426589				
1,3,5-Trimethylbenzene	10	1.487041	20	1.52591	30	1.531096	50	1.555575				
1,3-Butadiene	10	0.6760148	20	0.6628038	30	0.6653061	50	0.6428477				
1,3-Dichlorobenzene	10	1.122922	20	1.136091	30	1.101582	50	1.082908				
1,3-Dichloropropane	10	0.560155	20	0.5385342	30	0.5389231	50	0.4889221				
1,4-Dichlorobenzene	10	1.133936	20	1.156491	30	1.113153	50	1.105301				
1,4-Dioxane	10	0.1958253	20	0.1920629	30	0.1918644	50	0.1133833				
2-Butanone	10	1.801642	20	1.781768	30	1.765599	50	1.646347				
2-Hexanone	10	0.611444	20	0.565922	30	0.5081922	50	0.4025269				
3-Chloropropene	10	1.163051	20	1.154072	30	1.158521	50	1.103454				
4-Methyl-2-pentanone	10	0.6610634	20	0.636997	30	0.6154278	50	0.5558045				
Acetone	10	1.194232	20	1.151915	30	1.156453	50	1.070223				
Acrolein	10	0.3726556	20	0.3679742	30	0.3770861	50	0.3634857				
Acrylonitrile	10	0.9016943	20	0.8434059	30	0.8372684	50	0.773379				
Benzene	10	2.868525	20	2.791389	30	2.691187	50	2.303773				
Benzyl chloride	10	0.3922515	20	0.4036249	30	0.4028141	50	0.3992913				
Bromodichloromethane	10	0.626319	20	0.6314869	30	0.636633	50	0.5942361				
Bromoform	10	0.7323594	20	0.7653316	30	0.7654597	50	0.7786737				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
Bromomethane	10	0.9295768	20	0.9272293	30	0.9380402	50	0.9227322				
Carbon disulfide	10	2.597896	20	2.59787	30	2.579091	50	2.492234				
Carbon tetrachloride	10	1.995802	20	2.099125	30	2.205997	50	2.163963				
Chlorobenzene	10	1.114619	20	1.117181	30	1.112519	50	1.075355				
Chloroethane	10	0.4616132	20	0.4554245	30	0.4624155	50	0.4441774				
Chloroform	10	1.849265	20	1.900428	30	1.943922	50	1.89132				
Chloromethane	10	0.3708688	20	0.3607461	30	0.3432566	50	0.311573				
cis-1,2-Dichloroethylene	10	1.134021	20	1.156937	30	1.129677	50	1.107158				
cis-1,3-Dichloropropylene	10	0.5343277	20	0.5370399	30	0.532078	50	0.4947778				
Cyclohexane	10	1.451811	20	1.438069	30	1.417811	50	1.334911				
Dibromochloromethane	10	0.7663339	20	0.7677832	30	0.7546843	50	0.6771689				
Dichlorodifluoromethane	10	2.256234	20	2.277331	30	2.322276	50	2.187169				
Ethanol	10	0.4032141	20	0.3852633	30	0.3874897	50	0.2698443				
Ethyl acetate	10	2.024549	20	1.992322	30	1.963906	50	1.858326				
Ethyl Benzene	10	1.659351	20	1.662152	30	1.662192	50	1.613431				
Hexachlorobutadiene	10	0.6115921	20	0.5609904	30	0.5273924	50	0.5581895				
Isopropanol	10	1.552641	20	1.4504	30	1.445794	50	1.25665				
Isopropylbenzene	10	1.914849	20	1.933124	30	1.882917	50	1.829969				
Methyl Methacrylate	10	0.3516899	20	0.3389853	30	0.3215955	50	0.2707877				
Methyl tert-butyl ether (MTBE)	10	2.356484	20	2.400987	30	2.432849	50	2.389935				
Methylene chloride	10	0.9863867	20	0.9770217	30	0.972122	50	0.9405209				
Naphthalene	10	2.52581	20	2.54736	30	2.489662	50	2.421635				
n-Butylbenzene	10	1.877689	20	1.846172	30	1.731214	50	1.679611				
n-Heptane	10	1.670577	20	1.561747	30	1.456548	50	1.200137				
n-Hexane	10	1.373568	20	1.359392	30	1.343905	50	1.259012				
n-Propylbenzene	10	2.258946	20	2.252803	30	2.220311	50	2.16714				
o-Xylene	10	1.267146	20	1.257693	30	1.209101	50	1.189347				
p- & m- Xylenes	20	1.219326	40	1.182022	60	1.108109	100	1.079308				
p-Ethyltoluene	10	1.938718	20	1.943723	30	1.904084	50	1.846884				
p-Isopropyltoluene	10	2.161577	20	2.159328	30	2.056498	50	2.033516				
Propylene	10	0.5094827	20	0.5016034	30	0.4793251	50	0.4468831				

FORM VI**INITIAL CALIBRATION DATA (Continued)****EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
sec-Butylbenzene	10	2.41365	20	2.396301	30	2.287555	50	2.198365				
Styrene	10	1.062636	20	1.04247	30	0.9885129	50	0.934457				
tert-Butylbenzene	10	1.905997	20	1.938898	30	1.874693	50	1.841602				
Tetrachloroethylene	10	0.5285999	20	0.5114385	30	0.4885852	50	0.4194185				
Tetrahydrofuran	10	1.08975	20	1.063321	30	1.054523	50	0.9802436				
Toluene	10	1.087934	20	1.066649	30	1.047868	50	0.9543997				
trans-1,2-Dichloroethylene	10	1.184358	20	1.206702	30	1.209965	50	1.169385				
trans-1,3-Dichloropropylene	10	0.4789598	20	0.4770646	30	0.4800157	50	0.4534165				
Trichloroethylene	10	0.4207091	20	0.4225256	30	0.4201873	50	0.3818923				
Trichlorofluoromethane (Freon 11)	10	2.049007	20	2.110872	30	2.17659	50	2.180017				
Vinyl acetate	10	2.2932	20	2.306768	30	2.333599	50	2.21797				
Vinyl bromide	10	0.9367556	20	0.9465766	30	0.9571859	50	0.9414541				
Vinyl Chloride	10	0.7395577	20	0.7004176	30	0.6952071	50	0.6799772				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1,2-Tetrachloroethane	0.6000185	1.993542	19.17163	7.695377E-03			30	
1,1,1-Trichloroethane	1.916503	4.337694	12.703	3.697241E-03			30	
1,1,2,2-Tetrachloroethane	1.062456	4.881724	20.989	1.326077E-02			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.885204	2.876321	8.429625	0.0485893			30	
1,1,2-Trichloroethane	0.3930908	12.33481	17.003	9.826319E-03			30	
1,1-Dichloroethane	1.485826	3.434622	10.6765	1.797653E-02			30	
1,1-Dichloroethylene	1.220512	3.492117	8.6517	4.445476E-02			30	
1,2,4-Trichlorobenzene	0.7276065	20.66162	27.18875	0.0133431			30	
1,2,4-Trimethylbenzene	1.57339	2.038193	22.75613	1.954837E-02			30	
1,2-Dibromoethane	0.6629627	4.735241	18.31775	1.247571E-02			30	
1,2-Dichlorobenzene	1.05157	3.295438	24.44812	1.580633E-02			30	
1,2-Dichloroethane	1.00346	3.60877	13.23438	2.661443E-02			30	
1,2-Dichloropropane	0.3265457	12.41187	14.63525	1.768971E-02			30	
1,2-Dichlorotetrafluoroethane	1.634511	7.84451	5.386125	5.599384E-02			30	
1,3,5-Trimethylbenzene	1.503753	2.32752	21.91188	1.333401E-02			30	
1,3-Butadiene	0.6786018	3.70574	5.973	6.077611E-02			30	
1,3-Dichlorobenzene	1.098628	3.662952	23.56887	1.113998E-02			30	
1,3-Dichloropropane	0.5525809	5.421404	17.4315	1.988974E-02			30	
1,4-Dichlorobenzene	1.112139	3.04057	23.75475	0.0115958			30	
1,4-Dioxane	0.2008592	20.09049	14.95425	3.161868E-02			30	
2-Butanone	2.009877	17.60961	11.28137	4.834869E-02			30	
2-Hexanone	0.6030223	17.57613	17.013	2.928644E-02			30	
3-Chloropropene	1.186149	4.186931	9.2495	1.317676E-02			30	
4-Methyl-2-pentanone	0.6660226	9.083185	15.54037	2.006865E-02			30	
Acetone	2.457859	86.42422	8.2485	4.904546E-02		0.9993407	0.99	
Acrolein	0.3948935	7.839521	8.139125	4.263159E-02			30	
Acrylonitrile	3.017779	121.7079	9.473125	3.265548E-02		0.9972797	0.99	
Benzene	2.924767	11.9751	13.36988	1.177266E-02			30	
Benzyl chloride	0.3571951	16.70851	23.90262	1.416266E-02			30	
Bromodichloromethane	0.6190338	2.448178	14.99787	6.087971E-03			30	
Bromoform	0.6864752	13.16238	20.73538	9.284415E-03			30	
Bromomethane	0.9446869	2.181207	6.7835	4.315734E-02			30	

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Carbon disulfide	2.62355	3.124245	9.53925	3.453424E-02			30	
Carbon tetrachloride	1.96238	7.848927	13.1694	0.0276849			30	
Chlorobenzene	1.128056	3.064061	19.12138	9.595891E-03			30	
Chloroethane	0.4596483	1.807238	6.95825	3.757052E-02			30	
Chloroform	1.907875	2.814279	11.9545	1.460149E-02			30	
Chloromethane	0.4101655	21.10291	5.614625	3.495386E-02			30	
cis-1,2-Dichloroethylene	1.149845	5.376837	11.6758	5.578688E-02			30	
cis-1,3-Dichloropropylene	0.5285463	2.664443	15.89087	2.567611E-02			30	
Cyclohexane	1.456845	4.149179	12.878	2.599313E-02			30	
Dibromochloromethane	0.7143742	6.849061	17.94338	2.004457E-02			30	
Dichlorodifluoromethane	2.234759	2.243717	5.124375	4.589437E-02			30	
Ethanol	0.800354	83.72248	7.0625	6.271534E-02		0.9944468	0.99	
Ethyl acetate	2.09173	7.693066	11.59	2.297504E-02			30	
Ethyl Benzene	1.699121	3.499451	19.2325	2.188883E-02			30	
Hexachlorobutadiene	0.5930034	7.079338	27.469	0.0179514			30	
Isopropanol	2.869394	81.87393	8.01575	5.191731E-02		0.9991877	0.99	
Isopropylbenzene	1.914486	2.100287	20.82175	7.494171E-03			30	
Methyl Methacrylate	0.3398803	9.192738	14.64762	2.281338E-02			30	
Methyl tert-butyl ether (MTBE)	2.405019	1.156728	9.810125	0.0731453			30	
Methylene chloride	1.034514	7.755685	9.401125	2.761378E-02			30	
Naphthalene	2.291278	12.54302	27.58512	5.682937E-03			30	
n-Butylbenzene	1.762498	6.571469	24.19625	4.529688E-03			30	
n-Heptane	1.649906	14.11155	13.39462	3.114265E-02			30	
n-Hexane	1.392931	5.538342	10.3105	1.578832E-02			30	
n-Propylbenzene	2.268127	2.510005	21.59875	8.263167E-03			30	
o-Xylene	1.280007	4.974725	20.1605	1.318574E-02			30	
p- & m- Xylenes	1.222485	7.585505	19.37825	2.959821E-03			30	
p-Ethyltoluene	1.923546	2.0089	21.82212	1.298748E-02			30	
p-Isopropyltoluene	2.121958	3.071386	23.41	2.143183E-02			30	
Propylene	0.5422066	15.59444	5.052625	7.184421E-02			30	
sec-Butylbenzene	2.36464	3.65441	23.14675	1.814662E-02			30	
Styrene	1.036155	5.038102	20.17975	1.960933E-02			30	

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersCalibration: SC40018Instrument: TO15_AIR3Calibration Date: 02/20/24 18:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
tert-Butylbenzene	1.899045	1.850917	22.68625	6.000708E-03			30	
Tetrachloroethylene	0.5241781	10.10279	17.75375	2.425212E-02			30	
Tetrahydrofuran	1.124377	8.627165	12.27762	5.065818E-02			30	
Toluene	1.150148	12.50154	16.55575	9.803585E-03			30	
trans-1,2-Dichloroethylene	1.195623	2.02356	10.01025	1.756676E-02			30	
trans-1,3-Dichloropropylene	0.4702239	1.918416	16.7055	3.094837E-02			30	
Trichloroethylene	0.4300169	5.787024	14.4069	1.761171E-02			30	
Trichlorofluoromethane (Freon 11)	2.085103	3.001679	7.547375	5.542382E-03			30	
Vinyl acetate	2.318357	3.149913	10.6195	5.17711E-03			30	
Vinyl bromide	0.9544774	1.475249	7.42025	2.679054E-02			30	
Vinyl Chloride	0.744665	7.22439	5.8928	5.988741E-02			30	

FORM VI

INITIAL CALIBRATION DATA
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002

Instrument: TO15 AIR3

Calibration Date: 03/29/24 20:48

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
2,2,4-Trimethylpentane	0.025	5.019327	0.05	5.207436	0.1	5.094882	0.2	5.029328	0.5	5.215306	3	5.238724

INITIAL CALIBRATION DATA (Continued)
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629

Client: Walden AssociatesProject: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002Instrument: TO15_AIR3

Calibration Date: 03/29/24 20:48

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF	ppbv	RF
2,2,4-Trimethylpentane	10	5.10168	20	4.915549	30	4.713876	50	3.717922				

INITIAL CALIBRATION DATA (Continued)
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002

Instrument: TO15_AIR3

Calibration Date: 03/29/24 20:48

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
2,2,4-Trimethylpentane	4.925403	9.190102	13.0303	2.221839E-02			30	

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023217.D
 Acq On : 20 Feb 2024 08:07 pm
 Operator : VH
 Sample : SEQ-CAL1
 Misc : QBT03022024A 0.025 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:26 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

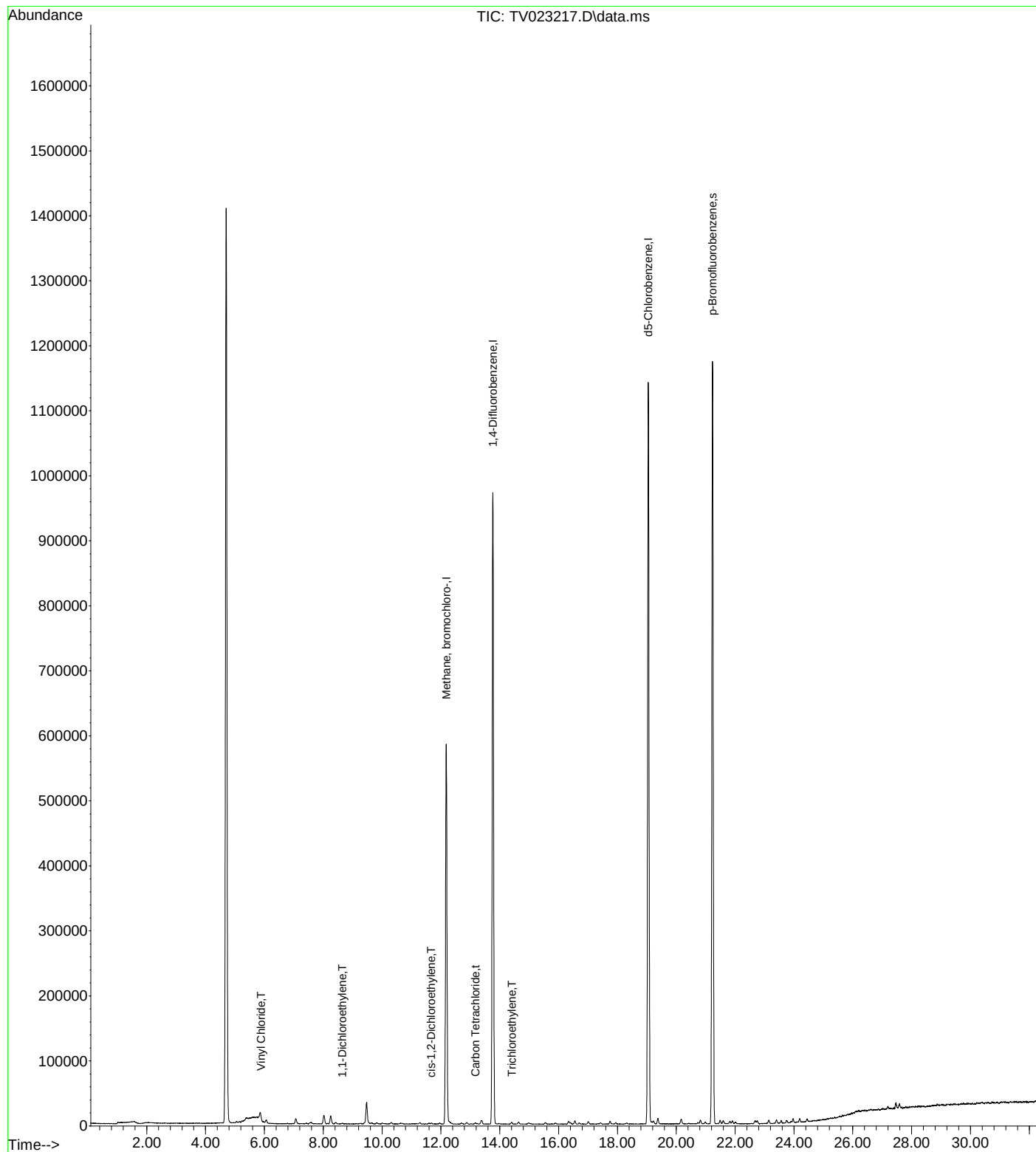
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.178	49	461364	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.764	114	1496625	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.049	117	1299804	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	848980	9.16	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.60%
Target Compounds						
					Qvalue	
6) Vinyl Chloride	5.886	62	980	0.03	ppbv #	42
17) 1,1-Dichloroethylene	8.645	61	1295	0.02	ppbv #	49
29) cis-1,2-Dichloroethylene	11.665	61	1211	0.02	ppbv #	63
34) Carbon Tetrachloride	13.169	117	2004	0.02	ppbv	95
39) Trichloroethylene	14.411	95	1798	0.03	ppbv	92

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023217.D
Acq On : 20 Feb 2024 08:07 pm
Operator : VH
Sample : SEQ-CAL1
Misc : QBT03022024A 0.025 PPBV
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Feb 21 13:02:26 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023218.D
 Acq On : 20 Feb 2024 08:48 pm
 Operator : VH
 Sample : SEQ-CAL2
 Misc : QBT03022024A 0.050 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:28 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

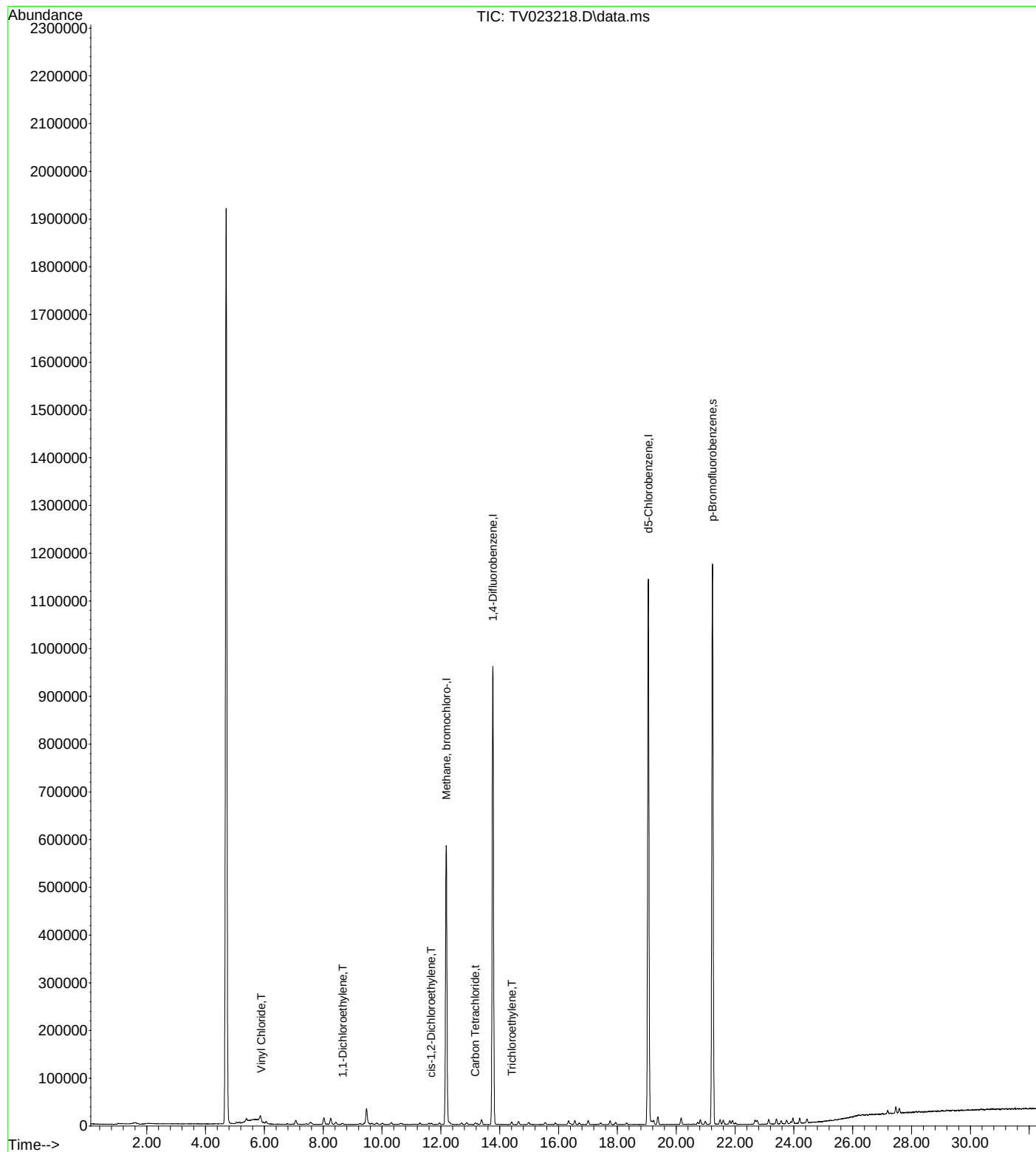
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	462739	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1495686	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1297065	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.229	95	852307	9.21	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.10%
Target Compounds						
					Qvalue	
6) Vinyl Chloride	5.893	62	1808	0.05	ppbv	99
17) 1,1-Dichloroethylene	8.658	61	2715	0.05	ppbv #	80
29) cis-1,2-Dichloroethylene	11.665	61	2980	0.06	ppbv	89
34) Carbon Tetrachloride	13.162	117	4162	0.05	ppbv	96
39) Trichloroethylene	14.407	95	3343	0.05	ppbv	90

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023218.D
Acq On : 20 Feb 2024 08:48 pm
Operator : VH
Sample : SEQ-CAL2
Misc : QBT03022024A 0.050 PPBV
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Feb 21 13:02:28 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023219.D
 Acq On : 20 Feb 2024 09:30 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03022024A 0.100 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:30 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	463760	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1506317	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1310418	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	861134	9.21	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.10%

Target Compounds						Qvalue
2) Propylene	5.056	42	3310	0.13	ppbv	89
3) Dichlorodifluoromethane	5.125	85	10374	0.10	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.383	85	8371	0.11	ppbv	94
5) Chloromethane	5.618	50	2659	0.14	ppbv	97
6) Vinyl Chloride	5.899	62	3742	0.11	ppbv	96
7) 1,3-Butadiene	5.965	54	3342	0.11	ppbv #	81
8) Bromomethane	6.788	94	4508	0.10	ppbv #	91
9) Chloroethane	6.955	64	2111	0.10	ppbv #	72
10) ethanol	7.069	45	10090	0.12	ppbv #	85
11) Vinyl Bromide	7.422	106	4555	0.10	ppbv	98
12) Trichlorofluoromethane	7.547	101	9494	0.10	ppbv	99
13) Isopropanol	8.021	45	36905	0.16	ppbv	100
14) Acrolein	8.141	56	1951	0.11	ppbv #	100
15) Acetone	8.256	43	32442	0.14	ppbv	88
16) Freon-113	8.436	101	9059	0.10	ppbv	98
17) 1,1-Dichloroethylene	8.648	61	5881	0.10	ppbv #	81
18) 3-Chloropropene	9.250	41	5780	0.11	ppbv #	97
19) Methylene Chloride	9.406	49	5394	0.11	ppbv #	1
20) Acrylonitrile	9.469	53	51206	0.18	ppbv #	100
21) Carbon disulfide	9.531	76	12889	0.11	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.825	73	11360	0.10	ppbv #	98
23) trans-1,2-Dichloroethy...	10.008	61	5353	0.10	ppbv #	77
24) Hexane	10.312	57	7025	0.11	ppbv	98
25) Vinyl Acetate	10.619	43	11392	0.11	ppbv	100
26) 1,1-Dichloroethane	10.675	63	7288	0.11	ppbv #	98
27) 2-Butanone	11.289	43	12469	0.13	ppbv	98
28) Ethyl Acetate	11.593	43	10792	0.11	ppbv	98
29) cis-1,2-Dichloroethylene	11.672	61	5303	0.10	ppbv	83
30) Chloroform	11.953	83	9376	0.11	ppbv	93
31) Tetrahydrofuran	12.280	42	5893	0.11	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	8590	0.10	ppbv	95
33) Cyclohexane	12.884	56	7000	0.10	ppbv	96
34) Carbon Tetrachloride	13.169	117	8906	0.10	ppbv #	58
35) 1,2-Dichloroethane	13.237	62	4577m	0.10	ppbv	
36) Benzene	13.365	78	16073	0.12	ppbv #	100
37) n-Heptane	13.388	43	8749	0.11	ppbv	98
39) Trichloroethylene	14.404	95	6670	0.10	ppbv	92
40) 1,2-Dichloropropane	14.636	63	5433	0.11	ppbv #	97
41) Methyl Methacrylate	14.646	69	5431	0.11	ppbv #	69
42) 1,4-Dioxane	14.963	88	3662	0.12	ppbv #	100
43) Bromodichloromethane	14.999	83	9229	0.10	ppbv	95
44) Methyl Isobutyl Ketone	15.538	43	10970	0.11	ppbv	96
45) cis-1,3-Dichloropropene	15.885	75	8046	0.10	ppbv	93
46) Toluene	16.552	91	20984	0.12	ppbv	99
47) trans-1,3-Dichloropropene	16.696	75	7081	0.10	ppbv	95
48) 1,1,2-Trichlorethane	17.006	97	6481	0.11	ppbv	91

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023219.D
 Acq On : 20 Feb 2024 09:30 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03022024A 0.100 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:30 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	10702	0.12	ppbv	99
50) 1,3-Dichloropropane	17.428	76	8589	0.10	ppbv #	98
51) Tetrachloroethylene	17.758	166	8295	0.11	ppbv	90
52) Dibromchloromethane	17.941	129	9842	0.09	ppbv	97
53) 1,2-Dibromoethane	18.317	107	10086	0.10	ppbv	98
55) Chlorobenzene	19.118	112	15649	0.11	ppbv #	99
56) 1,1,1,2-Tetrachloroethane	19.167	131	7550	0.10	ppbv #	91
57) Ethylbenzene	19.229	91	23415	0.11	ppbv	90
58) p- & m-Xylenes	19.379	91	34830	0.22	ppbv	89
59) o-Xylene	20.160	91	18107	0.11	ppbv	98
60) Styrene	20.177	104	14212	0.10	ppbv #	74
61) Bromoform	20.732	173	7430	0.08	ppbv	96
62) n-Propylbenzene	21.598	91	30563	0.10	ppbv	99
63) Isopropylbenzene	20.824	105	25486	0.10	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	14372	0.10	ppbv	96
66) 4-Ethyltoluene	21.821	105	25126	0.10	ppbv	91
67) 1,3,5-Trimethylbenzene	21.912	105	19548	0.10	ppbv	96
68) tert-Butylbenzene	22.680	119	24673	0.10	ppbv #	93
69) 1,2,4-Trimethylbenzene	22.752	105	19878	0.10	ppbv #	76
70) sec-Butylbenzene	23.148	105	31272	0.10	ppbv #	99
71) p-Isopropyltoluene	23.409	119	27966	0.10	ppbv #	89
72) 1,3-Dichlorobenzene	23.563	146	13368	0.09	ppbv	95
73) 1,4-Dichlorobenzene	23.746	146	14202	0.10	ppbv	96
74) Benzyl chloride	23.903	126	3131	0.07	ppbv #	1
75) n-Butylbenzene	24.194	91	21091	0.09	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	13006	0.09	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	6867	0.07	ppbv	93
78) Hexachlorobutadiene	27.469	225	7908	0.10	ppbv	86
79) Naphthalene	27.580	128	24534	0.08	ppbv	96

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023220.D
 Acq On : 20 Feb 2024 10:11 pm
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03022024A 0.200 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:32 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	463700	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1500478	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1308782	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	861046	9.22	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.20%

Target Compounds						Qvalue
2) Propylene	5.053	42	5636	0.22	ppbv	96
3) Dichlorodifluoromethane	5.128	85	20591	0.20	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.383	85	15775	0.21	ppbv	95
5) Chloromethane	5.615	50	4545	0.24	ppbv	99
6) Vinyl Chloride	5.889	62	6594	0.19	ppbv	99
7) 1,3-Butadiene	5.971	54	6567	0.21	ppbv	96
8) Bromomethane	6.779	94	9068	0.21	ppbv	96
9) Chloroethane	6.955	64	4273	0.20	ppbv #	76
10) ethanol	7.063	45	12852	0.26	ppbv	89
11) Vinyl Bromide	7.419	106	8832	0.20	ppbv	98
12) Trichlorofluoromethane	7.550	101	19004	0.20	ppbv	97
13) Isopropanol	8.021	45	43373	0.25	ppbv	100
14) Acrolein	8.142	56	3969	0.22	ppbv #	100
15) Acetone	8.249	43	38514	0.25	ppbv	88
16) Freon-113	8.423	101	18003	0.21	ppbv	99
17) 1,1-Dichloroethylene	8.648	61	11359	0.20	ppbv	84
18) 3-Chloropropene	9.246	41	11514	0.21	ppbv	95
19) Methylene Chloride	9.397	49	10311	0.21	ppbv	87
20) Acrylonitrile	9.472	53	53568	0.24	ppbv #	100
21) Carbon disulfide	9.537	76	24390	0.20	ppbv	100
22) Methyl-tert-Butyl Ethe...	9.815	73	22237	0.20	ppbv	97
23) trans-1,2-Dichloroethy...	10.008	61	11332	0.20	ppbv	84
24) Hexane	10.309	57	13084	0.20	ppbv	96
25) Vinyl Acetate	10.619	43	21365	0.20	ppbv	100
26) 1,1-Dichloroethane	10.678	63	13987	0.20	ppbv #	98
27) 2-Butanone	11.289	43	21468	0.23	ppbv	97
28) Ethyl Acetate	11.593	43	20503	0.21	ppbv	99
29) cis-1,2-Dichloroethylene	11.681	61	11121	0.21	ppbv	87
30) Chloroform	11.953	83	17308	0.20	ppbv	98
31) Tetrahydrofuran	12.289	42	11393	0.22	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	17529	0.20	ppbv	92
33) Cyclohexane	12.875	56	13808	0.20	ppbv	95
34) Carbon Tetrachloride	13.165	117	17255	0.19	ppbv #	89
35) 1,2-Dichloroethane	13.228	62	8845m	0.19	ppbv	
36) Benzene	13.371	78	29635	0.22	ppbv #	100
37) n-Heptane	13.394	43	16922	0.22	ppbv	99
39) Trichloroethylene	14.404	95	12865	0.20	ppbv	88
40) 1,2-Dichloropropane	14.636	63	10921	0.22	ppbv #	94
41) Methyl Methacrylate	14.649	69	10517	0.21	ppbv #	57
42) 1,4-Dioxane	14.957	88	6969	0.23	ppbv #	100
43) Bromodichloromethane	14.996	83	18086	0.19	ppbv	99
44) Methyl Isobutyl Ketone	15.545	43	21675	0.22	ppbv	97
45) cis-1,3-Dichloropropene	15.891	75	16000	0.20	ppbv	96
46) Toluene	16.555	91	38573	0.22	ppbv	98
47) trans-1,3-Dichloropropene	16.705	75	13962	0.20	ppbv	94
48) 1,1,2-Trichlorethane	17.000	97	13160	0.22	ppbv	90

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023220.D
 Acq On : 20 Feb 2024 10:11 pm
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03022024A 0.200 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:32 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.016	43	20848	0.23	ppbv	99
50) 1,3-Dichloropropane	17.431	76	17250	0.21	ppbv #	86
51) Tetrachloroethylene	17.751	166	17830	0.23	ppbv	97
52) Dibromochloromethane	17.941	129	19782	0.18	ppbv	97
53) 1,2-Dibromoethane	18.317	107	20318	0.20	ppbv	100
55) Chlorobenzene	19.118	112	29695	0.20	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	15826	0.20	ppbv	93
57) Ethylbenzene	19.232	91	46010	0.21	ppbv	93
58) p- & m-Xylenes	19.379	91	67816	0.42	ppbv	89
59) o-Xylene	20.160	91	34924	0.21	ppbv	97
60) Styrene	20.177	104	26899	0.20	ppbv #	74
61) Bromoform	20.736	173	15024	0.17	ppbv	98
62) n-Propylbenzene	21.599	91	59439	0.20	ppbv	98
63) Isopropylbenzene	20.821	105	50299	0.20	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	29004	0.21	ppbv	95
66) 4-Ethyltoluene	21.821	105	50150	0.20	ppbv	91
67) 1,3,5-Trimethylbenzene	21.912	105	37801	0.19	ppbv	96
68) tert-Butylbenzene	22.687	119	49390	0.20	ppbv #	92
69) 1,2,4-Trimethylbenzene	22.756	105	40727	0.20	ppbv #	77
70) sec-Butylbenzene	23.141	105	61347	0.20	ppbv #	99
71) p-Isopropyltoluene	23.409	119	53861	0.19	ppbv #	100
72) 1,3-Dichlorobenzene	23.566	146	28170	0.20	ppbv	94
73) 1,4-Dichlorobenzene	23.759	146	27650	0.19	ppbv	95
74) Benzyl chloride	23.903	126	8007	0.17	ppbv #	1
75) n-Butylbenzene	24.194	91	42730	0.19	ppbv #	89
76) 1,2-Dichlorobenzene	24.445	146	26921	0.20	ppbv	95
77) 1,2,4-Trichlorobenzene	27.188	180	13283	0.14	ppbv	94
78) Hexachlorobutadiene	27.472	225	15656	0.20	ppbv	93
79) Naphthalene	27.587	128	49261	0.16	ppbv	99

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


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Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023220.D
Acq On    : 20 Feb 2024 10:11 pm
Operator  : VH
Sample    : SEQ-CAL4
Misc      : QBT03022024A 0.200 PPBV
ALS Vial  : 2 Sample Multiplier: 1
InstName  : T015_AIR3
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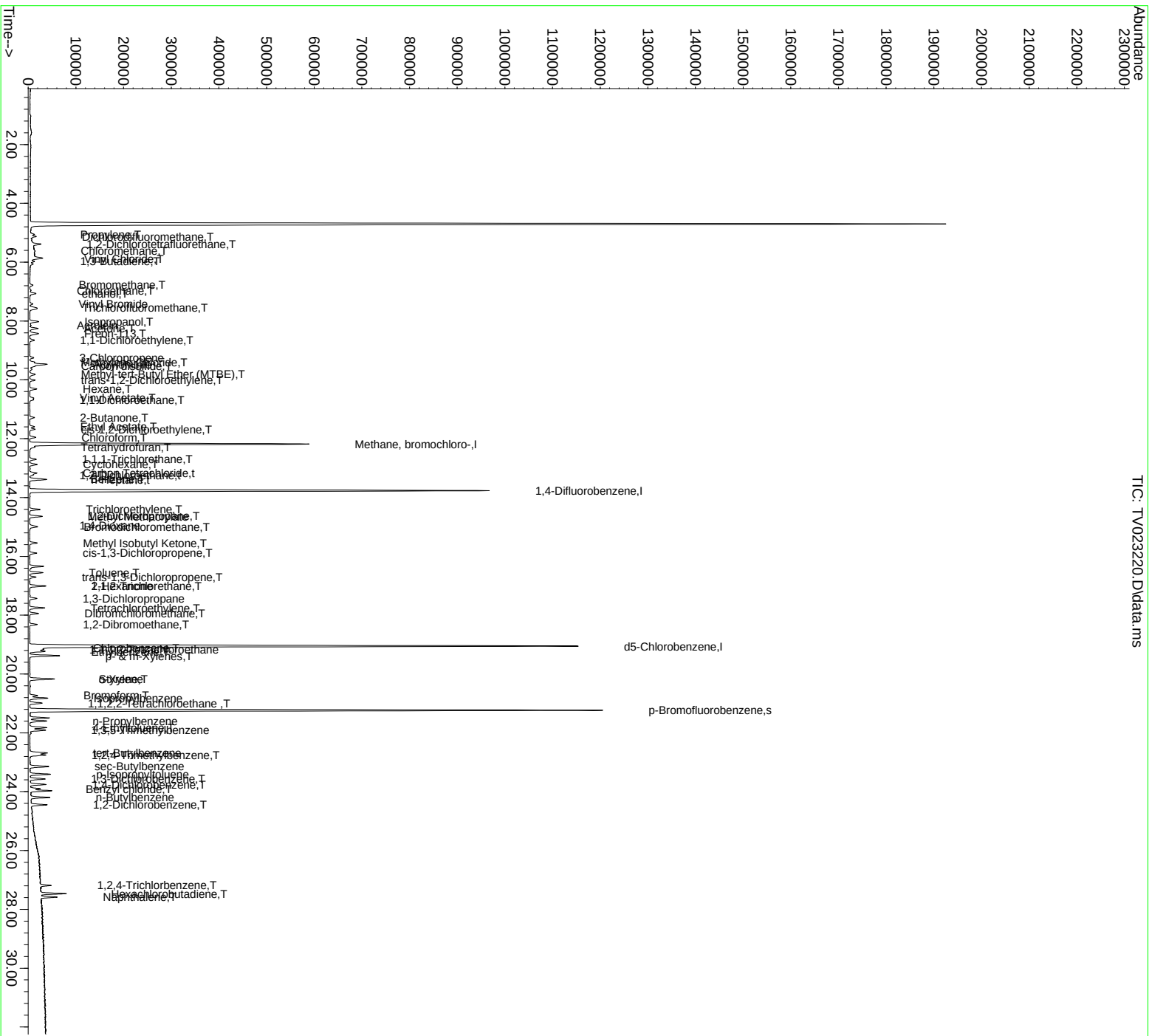
Quant Time: Feb 21 13:02:32 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

qlast update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023221.D
 Acq On : 20 Feb 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03022024A 0.500 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:34 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	465700	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.764	114	1508330	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1305948	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.233	95	868435	9.32	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.20%

Target Compounds						Qvalue
2) Propylene	5.059	42	12950	0.51	ppbv	97
3) Dichlorodifluoromethane	5.121	85	50452	0.48	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.393	85	40065	0.53	ppbv	95
5) Chloromethane	5.612	50	10246	0.54	ppbv #	86
6) Vinyl Chloride	5.893	62	17167	0.50	ppbv	100
7) 1,3-Butadiene	5.978	54	15616	0.49	ppbv	95
8) Bromomethane	6.782	94	22141	0.50	ppbv	99
9) Chloroethane	6.962	64	10833	0.51	ppbv	96
10) ethanol	7.056	45	21601	0.69	ppbv	86
11) Vinyl Bromide	7.423	106	22298	0.50	ppbv	98
12) Trichlorofluoromethane	7.547	101	47180	0.49	ppbv	99
13) Isopropanol	8.017	45	65008	0.53	ppbv	100
14) Acrolein	8.132	56	10323	0.56	ppbv #	100
15) Acetone	8.253	43	59927	0.63	ppbv	87
16) Freon-113	8.433	101	44012	0.50	ppbv	96
17) 1,1-Dichloroethylene	8.655	61	29149	0.51	ppbv	83
18) 3-Chloropropene	9.250	41	28412	0.51	ppbv	94
19) Methylene Chloride	9.403	49	25586	0.53	ppbv	93
20) Acrylonitrile	9.475	53	65040	0.53	ppbv #	100
21) Carbon disulfide	9.541	76	61685	0.50	ppbv	97
22) Methyl-tert-Butyl Ethe...	9.812	73	55993	0.50	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	28379	0.51	ppbv	85
24) Hexane	10.309	57	33650	0.52	ppbv	97
25) Vinyl Acetate	10.619	43	55339	0.51	ppbv	100
26) 1,1-Dichloroethane	10.672	63	35543	0.51	ppbv #	100
27) 2-Butanone	11.280	43	50541	0.54	ppbv	98
28) Ethyl Acetate	11.590	43	52487	0.54	ppbv	98
29) cis-1,2-Dichloroethylene	11.678	61	26383	0.49	ppbv	81
30) Chloroform	11.956	83	44284	0.50	ppbv	97
31) Tetrahydrofuran	12.280	42	27460	0.52	ppbv	98
32) 1,1,1-Trichlorethane	12.705	97	42757	0.48	ppbv	97
33) Cyclohexane	12.875	56	35105	0.52	ppbv	98
34) Carbon Tetrachloride	13.169	117	44260	0.48	ppbv	96
35) 1,2-Dichloroethane	13.234	62	23233m	0.49	ppbv	
36) Benzene	13.368	78	71917	0.53	ppbv #	100
37) n-Heptane	13.391	43	42176	0.55	ppbv #	98
39) Trichloroethylene	14.404	95	32334	0.50	ppbv	88
40) 1,2-Dichloropropane	14.633	63	26601	0.54	ppbv #	96
41) Methyl Methacrylate	14.646	69	27597	0.54	ppbv #	49
42) 1,4-Dioxane	14.954	88	17119	0.57	ppbv #	100
43) Bromodichloromethane	14.996	83	46496	0.50	ppbv	99
44) Methyl Isobutyl Ketone	15.539	43	53624	0.53	ppbv	97
45) cis-1,3-Dichloropropene	15.888	75	39662	0.50	ppbv	95
46) Toluene	16.555	91	93225	0.54	ppbv	97
47) trans-1,3-Dichloropropene	16.706	75	35006	0.49	ppbv	94
48) 1,1,2-Trichlorethane	17.003	97	31966	0.54	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023221.D
 Acq On : 20 Feb 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03022024A 0.500 PPBV
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:34 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.016	43	51025	0.56	ppbv	# 97
50) 1,3-Dichloropropane	17.428	76	43560	0.52	ppbv	# 99
51) Tetrachloroethylene	17.751	166	42339	0.54	ppbv	94
52) Dibromchloromethane	17.944	129	52170	0.48	ppbv	98
53) 1,2-Dibromoethane	18.314	107	51303	0.51	ppbv	100
55) Chlorobenzene	19.124	112	73356	0.50	ppbv	# 100
56) 1,1,1,2-Tetrachloroethane	19.173	131	38766	0.49	ppbv	93
57) Ethylbenzene	19.232	91	113770	0.51	ppbv	93
58) p- & m-Xylenes	19.376	91	170365	1.07	ppbv	90
59) o-Xylene	20.160	91	85772	0.51	ppbv	96
60) Styrene	20.177	104	69275	0.51	ppbv	# 74
61) Bromoform	20.736	173	39437	0.44	ppbv	99
62) n-Propylbenzene	21.599	91	151145	0.51	ppbv	98
63) Isopropylbenzene	20.821	105	126540	0.51	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	72552	0.52	ppbv	97
66) 4-Ethyltoluene	21.818	105	126830	0.50	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	96648	0.49	ppbv	94
68) tert-Butylbenzene	22.684	119	124850	0.50	ppbv	# 92
69) 1,2,4-Trimethylbenzene	22.753	105	102413	0.50	ppbv	# 76
70) sec-Butylbenzene	23.145	105	158051	0.51	ppbv	# 99
71) p-Isopropyltoluene	23.406	119	140677	0.51	ppbv	# 100
72) 1,3-Dichlorobenzene	23.566	146	71921	0.50	ppbv	96
73) 1,4-Dichlorobenzene	23.753	146	71727	0.49	ppbv	96
74) Benzyl chloride	23.903	126	21820	0.47	ppbv	# 1
75) n-Butylbenzene	24.197	91	118054	0.51	ppbv	# 89
76) 1,2-Dichlorobenzene	24.446	146	68810	0.50	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	40945	0.43	ppbv	96
78) Hexachlorobutadiene	27.466	225	40913	0.53	ppbv	93
79) Naphthalene	27.584	128	138786	0.46	ppbv	100

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

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Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023221.D
Acq On    : 20 Feb 2024 10:52 pm
Operator  : VH
Sample    : SEQ-CAL5
Misc      : QBT03022024A 0.500 PPBV
ALS Vial  : 2 Sample Multiplier: 1
InstName  : T015_AIR3
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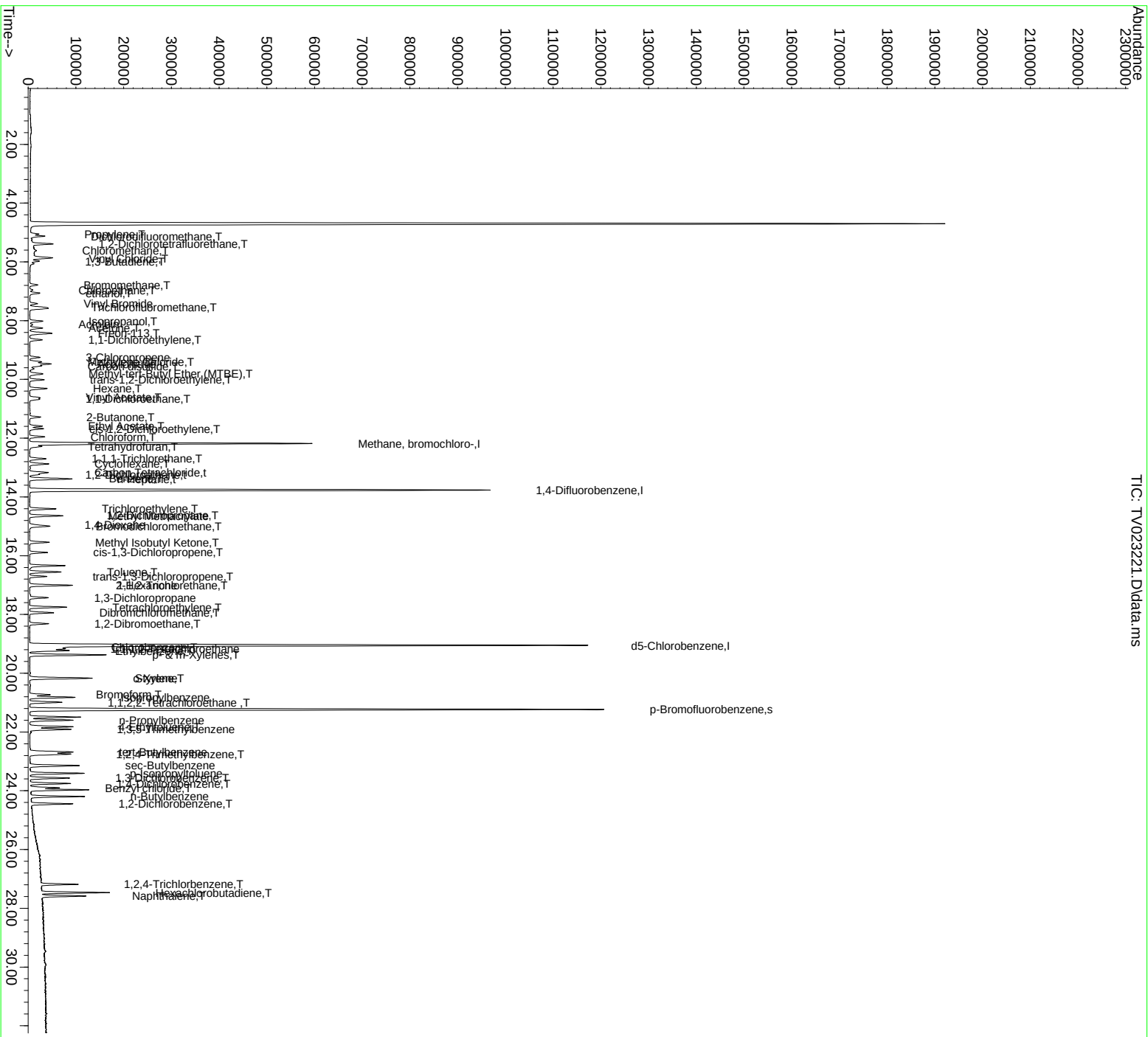
Quant Time: Feb 21 13:02:34 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Qlast Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023222.D
 Acq On : 20 Feb 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03022024A 3.000 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:36 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	471381	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1517892	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1315531	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	906611	9.66	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	96.60%

Target Compounds						Qvalue
2) Propylene	5.049	42	73925	2.89	ppbv	96
3) Dichlorodifluoromethane	5.121	85	312684	2.97	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	240807	3.13	ppbv	95
5) Chloromethane	5.615	50	55352	2.86	ppbv	100
6) Vinyl Chloride	5.893	62	105388	3.00	ppbv	100
7) 1,3-Butadiene	5.974	54	96509	3.02	ppbv	96
8) Bromomethane	6.785	94	132817	2.98	ppbv	99
9) Chloroethane	6.958	64	66801	3.08	ppbv	98
10) ethanol	7.060	45	66159	2.88	ppbv	87
11) Vinyl Bromide	7.422	106	135999	3.02	ppbv	99
12) Trichlorofluoromethane	7.547	101	288738	2.94	ppbv	98
13) Isopropanol	8.014	45	257828	3.11	ppbv	100
14) Acrolein	8.138	56	54579	2.93	ppbv #	100
15) Acetone	8.246	43	193467	3.00	ppbv	90
16) Freon-113	8.429	101	270850	3.05	ppbv	99
17) 1,1-Dichloroethylene	8.651	61	175402	3.05	ppbv	85
18) 3-Chloropropene	9.250	41	169986	3.04	ppbv	93
19) Methylene Chloride	9.400	49	145136	2.98	ppbv	95
20) Acrylonitrile	9.472	53	166251	3.07	ppbv #	100
21) Carbon disulfide	9.541	76	376587	3.05	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.809	73	340511	3.00	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	169646	3.01	ppbv	83
24) Hexane	10.309	57	203187	3.09	ppbv	98
25) Vinyl Acetate	10.619	43	319388	2.92	ppbv	100
26) 1,1-Dichloroethane	10.675	63	212075	3.03	ppbv #	99
27) 2-Butanone	11.276	43	270043	2.85	ppbv	99
28) Ethyl Acetate	11.590	43	297360	3.02	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	163625	3.02	ppbv	84
30) Chloroform	11.953	83	267020	2.97	ppbv	98
31) Tetrahydrofuran	12.280	42	159613	3.01	ppbv	97
32) 1,1,1-Trichlorethane	12.701	97	261770	2.90	ppbv	97
33) Cyclohexane	12.878	56	213004	3.10	ppbv	97
34) Carbon Tetrachloride	13.172	117	274463	2.97	ppbv #	58
35) 1,2-Dichloroethane	13.234	62	137600m	2.89	ppbv	
36) Benzene	13.371	78	423312	3.07	ppbv #	100
37) n-Heptane	13.394	43	252812	3.25	ppbv #	98
39) Trichloroethylene	14.404	95	194465	2.98	ppbv	88
40) 1,2-Dichloropropane	14.636	63	158570	3.20	ppbv #	98
41) Methyl Methacrylate	14.643	69	163501	3.17	ppbv #	79
42) 1,4-Dioxane	14.950	88	96269	3.16	ppbv #	100
43) Bromodichloromethane	14.996	83	287661	3.06	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	317534	3.14	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	244499	3.05	ppbv	96
46) Toluene	16.555	91	514463	2.95	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	215310	3.02	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	190243	3.19	ppbv	93

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023222.D
 Acq On : 20 Feb 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03022024A 3.000 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

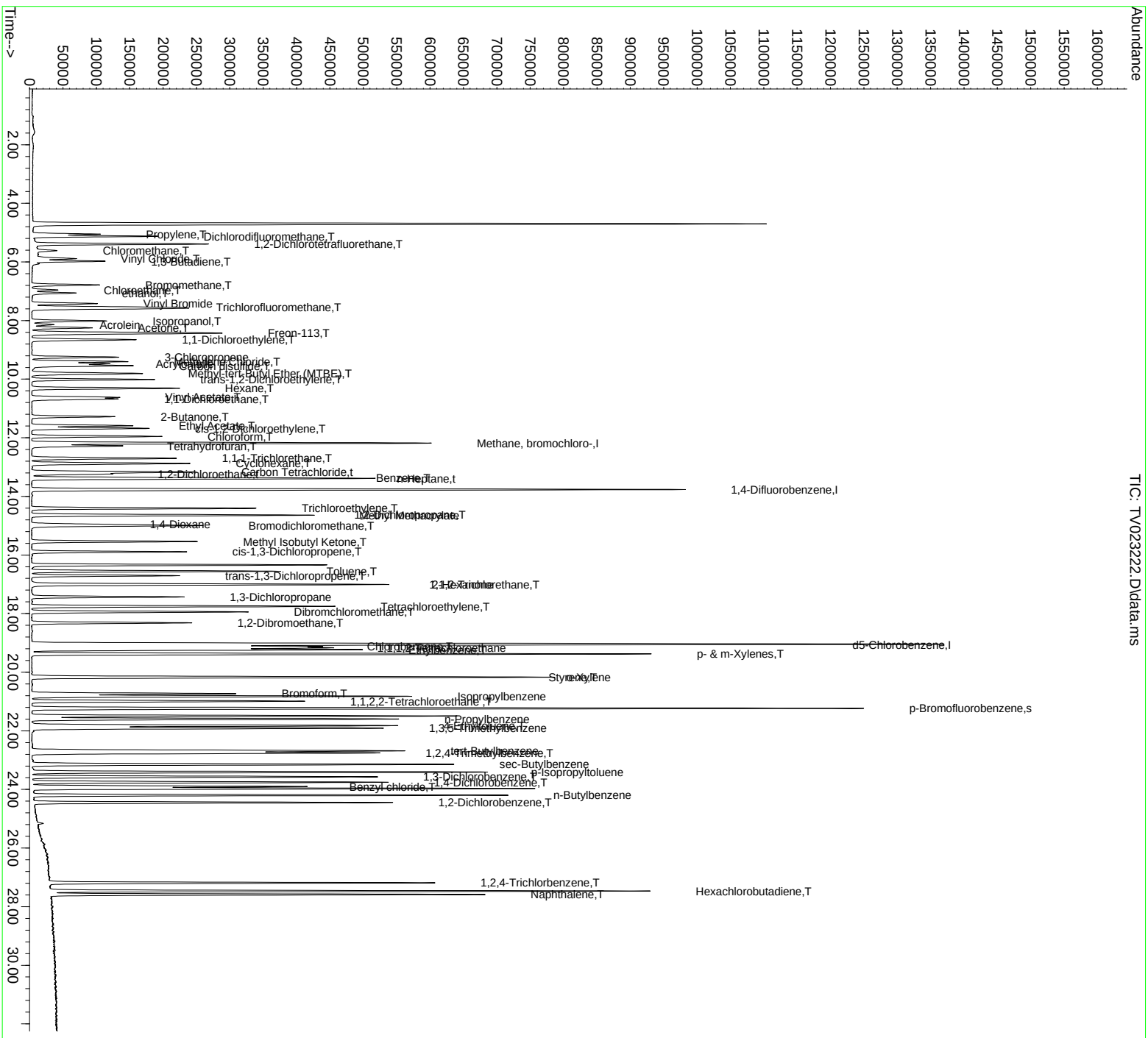
Quant Time: Feb 21 13:02:36 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	297961	3.26	ppbv	99
50) 1,3-Dichloropropane	17.431	76	260245	3.10	ppbv #	100
51) Tetrachloroethylene	17.751	166	245514	3.09	ppbv	96
52) Dibromchloromethane	17.941	129	339109	3.13	ppbv	98
53) 1,2-Dibromoethane	18.317	107	309895	3.08	ppbv	100
55) Chlorobenzene	19.121	112	454928	3.07	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	237325	3.01	ppbv	93
57) Ethylbenzene	19.229	91	674445	3.02	ppbv	91
58) p- & m-Xylenes	19.376	91	996294	6.20	ppbv	89
59) o-Xylene	20.160	91	508013	3.02	ppbv	96
60) Styrene	20.180	104	429419	3.15	ppbv #	100
61) Bromoform	20.732	173	278256	3.08	ppbv	99
62) n-Propylbenzene	21.595	91	918773	3.08	ppbv	98
63) Isopropylbenzene	20.821	105	769843	3.06	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	434808	3.11	ppbv	97
66) 4-Ethyltoluene	21.821	105	781154	3.09	ppbv	90
67) 1,3,5-Trimethylbenzene	21.909	105	597677	3.02	ppbv	94
68) tert-Butylbenzene	22.684	119	769366	3.08	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.752	105	631476	3.05	ppbv #	76
70) sec-Butylbenzene	23.145	105	975079	3.13	ppbv #	99
71) p-Isopropyltoluene	23.409	119	875566	3.14	ppbv #	89
72) 1,3-Dichlorobenzene	23.570	146	452974	3.13	ppbv	95
73) 1,4-Dichlorobenzene	23.753	146	453725	3.10	ppbv	96
74) Benzyl chloride	23.903	126	150203	3.20	ppbv #	1
75) n-Butylbenzene	24.194	91	755944	3.26	ppbv #	89
76) 1,2-Dichlorobenzene	24.446	146	431067	3.12	ppbv	96
77) 1,2,4-Trichlorobenzene	27.185	180	310603	3.24	ppbv	95
78) Hexachlorobutadiene	27.466	225	259573	3.33	ppbv	93
79) Naphthalene	27.583	128	973287	3.23	ppbv	99

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

```
Data Path      : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File     : TV022322.D
Acq On        : 20 Feb 2024  11:33 pm
Operator       : VH
Sample         : SEQ-CAL6
Misc          : QBT03022024A 3.000 PPBV
ALS Vial      : 3      Sample Multiplier: 1
InstName      : T015_AIR3
```

Quant Time: Feb 21 13:02:36 2024
Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
Quant Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023223.D
 Acq On : 21 Feb 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03022024A 10.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:38 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	475710	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1550178	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1348469	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	964997	10.03	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.30%

Target Compounds						Qvalue
2) Propylene	5.053	42	242366	9.40	ppbv	97
3) Dichlorodifluoromethane	5.125	85	1073313	10.10	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	791811	10.18	ppbv	92
5) Chloromethane	5.612	50	176426	9.04	ppbv #	86
6) Vinyl Chloride	5.893	62	351815	9.93	ppbv	99
7) 1,3-Butadiene	5.974	54	321587	9.96	ppbv	95
8) Bromomethane	6.785	94	442209	9.84	ppbv	99
9) Chloroethane	6.962	64	219594	10.04	ppbv	98
10) ethanol	7.060	45	191813	9.51	ppbv	87
11) Vinyl Bromide	7.419	106	445624	9.81	ppbv	99
12) Trichlorofluoromethane	7.547	101	974733	9.83	ppbv	99
13) Isopropanol	8.011	45	738607	9.74	ppbv	100
14) Acrolein	8.138	56	177276	9.44	ppbv #	100
15) Acetone	8.246	43	568108	9.72	ppbv	91
16) Freon-113	8.429	101	884381	9.86	ppbv	98
17) 1,1-Dichloroethylene	8.651	61	581678	10.02	ppbv	85
18) 3-Chloropropene	9.250	41	553275	9.81	ppbv	93
19) Methylene Chloride	9.403	49	469234	9.53	ppbv	93
20) Acrylonitrile	9.472	53	428945	9.74	ppbv #	100
21) Carbon disulfide	9.541	76	1235845	9.90	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	1121003	9.80	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	563411	9.91	ppbv	84
24) Hexane	10.309	57	653420	9.86	ppbv	98
25) Vinyl Acetate	10.619	43	1090898	9.89	ppbv #	100
26) 1,1-Dichloroethane	10.678	63	695219	9.84	ppbv #	99
27) 2-Butanone	11.276	43	857059	8.96	ppbv	98
28) Ethyl Acetate	11.587	43	963098	9.68	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	539465	9.86	ppbv	85
30) Chloroform	11.953	83	879714	9.69	ppbv	99
31) Tetrahydrofuran	12.273	42	518405	9.69	ppbv	97
32) 1,1,1-Trichlorethane	12.701	97	890064	9.76	ppbv	97
33) Cyclohexane	12.878	56	690641	9.97	ppbv	96
34) Carbon Tetrachloride	13.172	117	949423	10.17	ppbv	96
35) 1,2-Dichloroethane	13.234	62	469648m	9.77	ppbv	
36) Benzene	13.371	78	1364586	9.81	ppbv #	100
37) n-Heptane	13.394	43	794710	10.13	ppbv #	97
39) Trichloroethylene	14.408	95	652174	9.78	ppbv	89
40) 1,2-Dichloropropane	14.636	63	513722	10.15	ppbv #	99
41) Methyl Methacrylate	14.646	69	545182	10.35	ppbv #	79
42) 1,4-Dioxane	14.950	88	303564	9.75	ppbv #	100
43) Bromodichloromethane	14.996	83	970906	10.12	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	1024766	9.93	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	828303	10.11	ppbv	96
46) Toluene	16.555	91	1686491	9.46	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	742473	10.19	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	622367	10.21	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023223.D
 Acq On : 21 Feb 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03022024A 10.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:38 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	947847	10.14	ppbv	98
50) 1,3-Dichloropropane	17.431	76	868340	10.14	ppbv #	100
51) Tetrachloroethylene	17.751	166	819424	10.08	ppbv	94
52) Dibromchloromethane	17.944	129	1187954	10.73	ppbv	98
53) 1,2-Dibromoethane	18.317	107	1052944	10.25	ppbv	100
55) Chlorobenzene	19.121	112	1503029	9.88	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.170	131	805448	9.95	ppbv	94
57) Ethylbenzene	19.232	91	2237583	9.77	ppbv	92
58) p- & m-Xylenes	19.376	91	3288446	19.95	ppbv	90
59) o-Xylene	20.160	91	1708707	9.90	ppbv	96
60) Styrene	20.177	104	1432932	10.26	ppbv #	74
61) Bromoform	20.736	173	987564	10.67	ppbv	99
62) n-Propylbenzene	21.599	91	3046119	9.96	ppbv	98
63) Isopropylbenzene	20.821	105	2582115	10.00	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.987	83	1424816	9.95	ppbv	98
66) 4-Ethyltoluene	21.821	105	2614301	10.08	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	2005229	9.89	ppbv	94
68) tert-Butylbenzene	22.684	119	2570178	10.04	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.756	105	2138551	10.08	ppbv #	77
70) sec-Butylbenzene	23.148	105	3254732	10.21	ppbv #	93
71) p-Isopropyltoluene	23.409	119	2914819	10.19	ppbv #	89
72) 1,3-Dichlorobenzene	23.570	146	1514225	10.22	ppbv	96
73) 1,4-Dichlorobenzene	23.756	146	1529077	10.20	ppbv	97
74) Benzyl chloride	23.900	126	528939	10.98	ppbv #	1
75) n-Butylbenzene	24.197	91	2532005	10.65	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	1456266	10.27	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	1137994	11.60	ppbv	96
78) Hexachlorobutadiene	27.469	225	824713	10.31	ppbv #	92
79) Naphthalene	27.583	128	3405977	11.02	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023223.D
Acq On : 21 Feb 2024 12:14 am
Operator : VH
Sample : SEQ-CAL7
Misc : QBT03022024A 10.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

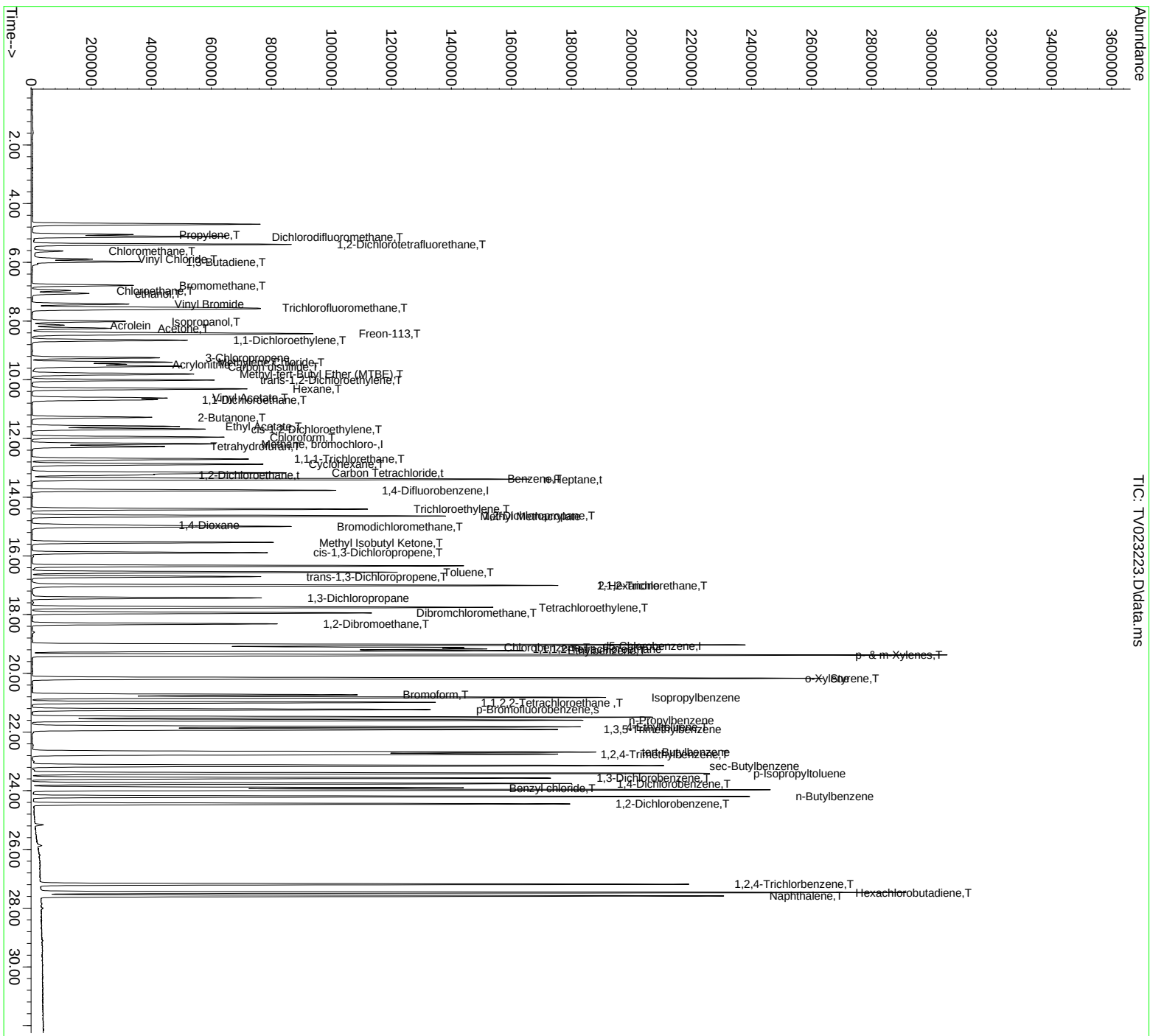
Quant Time: Feb 21 13:02:38 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023224.D
 Acq On : 21 Feb 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03022024A 20.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:40 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	488026	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1610480	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.056	117	1344917	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.232	95	1007177	10.50	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	105.00%

Target Compounds						Qvalue
2) Propylene	5.053	42	489591	18.50	ppbv	96
3) Dichlorodifluoromethane	5.125	85	2222793	20.38	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	1526193	19.13	ppbv	92
5) Chloromethane	5.615	50	352107	17.59	ppbv	100
6) Vinyl Chloride	5.893	62	683644	18.81	ppbv	99
7) 1,3-Butadiene	5.974	54	646931	19.53	ppbv	95
8) Bromomethane	6.782	94	905024	19.63	ppbv	99
9) Chloroethane	6.958	64	444518	19.82	ppbv	98
10) ethanol	7.060	45	376037	20.43	ppbv	88
11) Vinyl Bromide	7.419	106	923908	19.83	ppbv	99
12) Trichlorofluoromethane	7.547	101	2060321	20.25	ppbv	99
13) Isopropanol	8.011	45	1415666	19.38	ppbv	100
14) Acrolein	8.142	56	359162	18.64	ppbv #	100
15) Acetone	8.246	43	1124329	19.62	ppbv	91
16) Freon-113	8.429	101	1816207	19.74	ppbv	99
17) 1,1-Dichloroethylene	8.655	61	1201663	20.17	ppbv	86
18) 3-Chloropropene	9.250	41	1126434	19.46	ppbv	93
19) Methylene Chloride	9.400	49	953624	18.89	ppbv	92
20) Acrylonitrile	9.472	53	823208	19.64	ppbv #	100
21) Carbon disulfide	9.541	76	2535656	19.80	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	2343488	19.97	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	1177804	20.19	ppbv	84
24) Hexane	10.312	57	1326837	19.52	ppbv	97
25) Vinyl Acetate	10.619	43	2251526	19.90	ppbv #	99
26) 1,1-Dichloroethane	10.678	63	1425093	19.65	ppbv #	99
27) 2-Butanone	11.279	43	1739098	17.73	ppbv	97
28) Ethyl Acetate	11.587	43	1944610	19.05	ppbv	98
29) cis-1,2-Dichloroethylene	11.678	61	1129231	20.12	ppbv	86
30) Chloroform	11.956	83	1854917	19.92	ppbv	99
31) Tetrahydrofuran	12.273	42	1037857	18.91	ppbv	96
32) 1,1,1-Trichlorethane	12.705	97	1910316	20.42	ppbv	97
33) Cyclohexane	12.878	56	1403630	19.74	ppbv	95
34) Carbon Tetrachloride	13.172	117	2048855	21.39	ppbv	97
35) 1,2-Dichloroethane	13.234	62	999766m	20.27	ppbv	
36) Benzene	13.371	78	2724541	19.09	ppbv #	100
37) n-Heptane	13.394	43	1524346	18.93	ppbv #	75
39) Trichloroethylene	14.408	95	1360938	19.65	ppbv	90
40) 1,2-Dichloropropane	14.636	63	1013290	19.27	ppbv #	99
41) Methyl Methacrylate	14.646	69	1091858	19.95	ppbv #	79
42) 1,4-Dioxane	14.950	88	618627	19.12	ppbv #	100
43) Bromodichloromethane	14.999	83	2033994	20.40	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	2051742	19.13	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	1729784	20.32	ppbv	96
46) Toluene	16.558	91	3435635	18.55	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	1536606	20.29	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	1228676	19.41	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023224.D
 Acq On : 21 Feb 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03022024A 20.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:40 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.013	43	1822812	18.77	ppbv	# 74
50) 1,3-Dichloropropane	17.431	76	1734597	19.49	ppbv	# 86
51) Tetrachloroethylene	17.755	166	1647323	19.51	ppbv	93
52) Dibromchloromethane	17.944	129	2472999	21.50	ppbv	98
53) 1,2-Dibromoethane	18.320	107	2161457	20.24	ppbv	99
55) Chlorobenzene	19.124	112	3005032	19.81	ppbv	# 100
56) 1,1,1,2-Tetrachloroethane	19.173	131	1648249	20.43	ppbv	95
57) Ethylbenzene	19.232	91	4470912	19.56	ppbv	92
58) p- & m-Xylenes	19.379	91	6358888	38.68	ppbv	91
59) o-Xylene	20.160	91	3382985	19.65	ppbv	96
60) Styrene	20.180	104	2804071	20.12	ppbv	# 100
61) Bromoform	20.736	173	2058615	22.30	ppbv	99
62) n-Propylbenzene	21.599	91	6059667	19.86	ppbv	98
63) Isopropylbenzene	20.821	105	5199782	20.19	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	2810589	19.67	ppbv	99
66) 4-Ethyltoluene	21.824	105	5228293	20.21	ppbv	90
67) 1,3,5-Trimethylbenzene	21.912	105	4104445	20.29	ppbv	97
68) tert-Butylbenzene	22.687	119	5215313	20.42	ppbv	# 62
69) 1,2,4-Trimethylbenzene	22.759	105	4365703	20.63	ppbv	# 79
70) sec-Butylbenzene	23.148	105	6445651	20.27	ppbv	# 99
71) p-Isopropyltoluene	23.409	119	5808235	20.35	ppbv	# 100
72) 1,3-Dichlorobenzene	23.570	146	3055896	20.68	ppbv	97
73) 1,4-Dichlorobenzene	23.756	146	3110768	20.80	ppbv	97
74) Benzyl chloride	23.900	126	1085684	22.60	ppbv	# 1
75) n-Butylbenzene	24.197	91	4965896	20.95	ppbv	# 88
76) 1,2-Dichlorobenzene	24.449	146	2927602	20.70	ppbv	97
77) 1,2,4-Trichlorobenzene	27.188	180	2324666	23.76	ppbv	96
78) Hexachlorobutadiene	27.469	225	1508971	18.92	ppbv	# 89
79) Naphthalene	27.587	128	6851976	22.24	ppbv	100

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023224.D
Acq On : 21 Feb 2024 12:55 am
Operator : VH
Sample : SEQ-CAL8
Misc : QBT03022024A 20.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

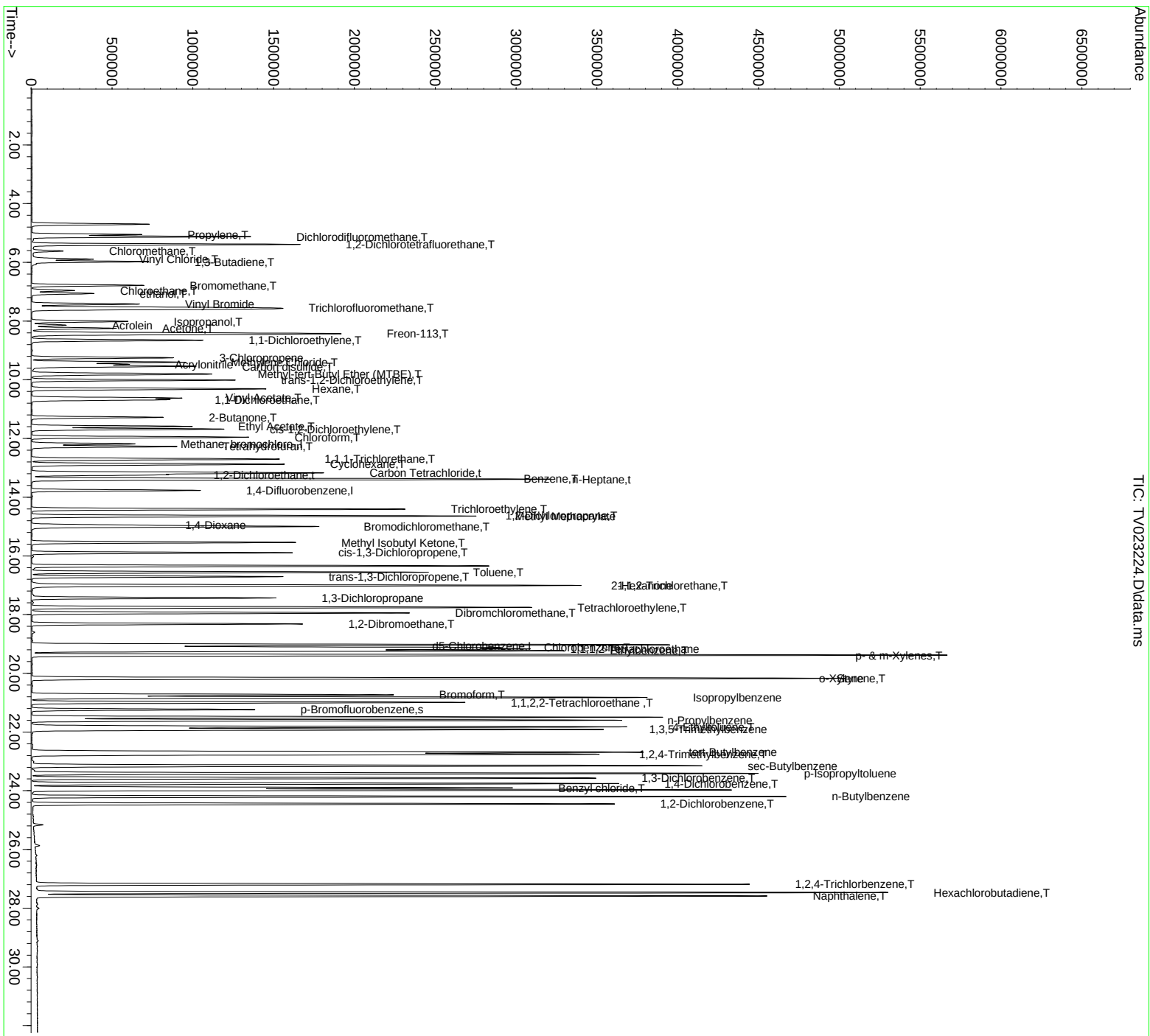
Quant Time: Feb 21 13:02:40 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023225.D
 Acq On : 21 Feb 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03022024A 30.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:42 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.185	49	485089	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1620917	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.056	117	1302389	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.236	95	1015904	10.94	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.40%

Target Compounds						Qvalue
2) Propylene	5.049	42	697546	26.52	ppbv	96
3) Dichlorodifluoromethane	5.125	85	3379532	31.17	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	2171074	27.38	ppbv	92
5) Chloromethane	5.615	50	499530	25.11	ppbv	100
6) Vinyl Chloride	5.893	62	1011712	28.01	ppbv	99
7) 1,3-Butadiene	5.974	54	968198	29.41	ppbv	96
8) Bromomethane	6.782	94	1365099	29.79	ppbv	99
9) Chloroethane	6.958	64	672938	30.18	ppbv	97
10) ethanol	7.063	45	563901	36.59	ppbv	88
11) Vinyl Bromide	7.419	106	1392961	30.09	ppbv	99
12) Trichlorofluoromethane	7.547	101	3167519	31.32	ppbv	99
13) Isopropanol	8.014	45	2104016	30.88	ppbv	100
14) Acrolein	8.138	56	548761	28.65	ppbv #	100
15) Acetone	8.246	43	1682948	30.60	ppbv	91
16) Freon-113	8.429	101	2734798	29.91	ppbv	99
17) 1,1-Dichloroethylene	8.651	61	1817367	30.70	ppbv	86
18) 3-Chloropropene	9.250	41	1685957	29.30	ppbv	93
19) Methylene Chloride	9.400	49	1414697	28.19	ppbv	91
20) Acrylonitrile	9.475	53	1218449	30.55	ppbv #	100
21) Carbon disulfide	9.541	76	3753266	29.49	ppbv	95
22) Methyl-tert-Butyl Ethe...	9.805	73	3540445	30.35	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	1760822	30.36	ppbv	84
24) Hexane	10.312	57	1955741	28.94	ppbv	97
25) Vinyl Acetate	10.619	43	3396010	30.20	ppbv #	98
26) 1,1-Dichloroethane	10.678	63	2112744	29.31	ppbv #	99
27) 2-Butanone	11.279	43	2569418	26.35	ppbv	96
28) Ethyl Acetate	11.590	43	2858007	28.17	ppbv	98
29) cis-1,2-Dichloroethylene	11.681	61	1643981	29.47	ppbv	84
30) Chloroform	11.956	83	2828925	30.57	ppbv	98
31) Tetrahydrofuran	12.273	42	1534612	28.14	ppbv	96
32) 1,1,1-Trichlorethane	12.705	97	2971195	31.96	ppbv	96
33) Cyclohexane	12.878	56	2063293	29.20	ppbv	94
34) Carbon Tetrachloride	13.172	117	3210315	33.72	ppbv	97
35) 1,2-Dichloroethane	13.237	62	1533212m	31.28	ppbv	
36) Benzene	13.371	78	3916396	27.60	ppbv #	100
37) n-Heptane	13.398	43	2119666	26.48	ppbv #	96
39) Trichloroethylene	14.408	95	2043266	29.31	ppbv	90
40) 1,2-Dichloropropane	14.636	63	1439645	27.20	ppbv #	99
41) Methyl Methacrylate	14.649	69	1563839	28.39	ppbv #	49
42) 1,4-Dioxane	14.950	88	932989	28.66	ppbv #	100
43) Bromodichloromethane	14.999	83	3095788	30.85	ppbv	99
44) Methyl Isobutyl Ketone	15.542	43	2992672	27.72	ppbv	98
45) cis-1,3-Dichloropropene	15.895	75	2587363	30.20	ppbv	96
46) Toluene	16.558	91	5095523	27.33	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	2334197	30.62	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	1743566	27.36	ppbv	95

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023225.D
 Acq On : 21 Feb 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03022024A 30.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:42 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.013	43	2471212	25.28	ppbv	98
50) 1,3-Dichloropropane	17.434	76	2620649	29.26	ppbv #	100
51) Tetrachloroethylene	17.755	166	2375868	27.96	ppbv	93
52) Dibromchloromethane	17.944	129	3669842	31.69	ppbv	99
53) 1,2-Dibromoethane	18.320	107	3202067	29.80	ppbv	100
55) Chlorobenzene	19.121	112	4346799	29.59	ppbv #	86
56) 1,1,1,2-Tetrachloroethane	19.173	131	2399490	30.71	ppbv	97
57) Ethylbenzene	19.235	91	6494462	29.35	ppbv	92
58) p- & m-Xylenes	19.379	91	8659133	54.39	ppbv	92
59) o-Xylene	20.160	91	4724161	28.34	ppbv	97
60) Styrene	20.183	104	3862285	28.62	ppbv #	100
61) Bromoform	20.736	173	2990779	33.45	ppbv	99
62) n-Propylbenzene	21.599	91	8675124	29.37	ppbv	98
63) Isopropylbenzene	20.821	105	7356871	29.51	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	3951836	28.56	ppbv	99
66) 4-Ethyltoluene	21.824	105	7439576	29.70	ppbv	90
67) 1,3,5-Trimethylbenzene	21.916	105	5982247	30.55	ppbv	98
68) tert-Butylbenzene	22.690	119	7324738	29.62	ppbv #	94
69) 1,2,4-Trimethylbenzene	22.759	105	6175844	30.14	ppbv #	79
70) sec-Butylbenzene	23.148	105	8937859	29.02	ppbv #	99
71) p-Isopropyltoluene	23.413	119	8035080	29.07	ppbv #	100
72) 1,3-Dichlorobenzene	23.570	146	4304063	30.08	ppbv	97
73) 1,4-Dichlorobenzene	23.756	146	4349275	30.03	ppbv	97
74) Benzyl chloride	23.903	126	1573862	33.83	ppbv #	1
75) n-Butylbenzene	24.197	91	6764142	29.47	ppbv #	83
76) 1,2-Dichlorobenzene	24.449	146	4099604	29.93	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	3261609	34.42	ppbv	96
78) Hexachlorobutadiene	27.469	225	2060610	26.68	ppbv #	87
79) Naphthalene	27.587	128	9727526	32.60	ppbv	100

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023225.D
Acq On : 21 Feb 2024 01:36 am
Operator : VH
Sample : SEQ-CAL9
Misc : QBTO3022024A 30.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : TO15_AIR3

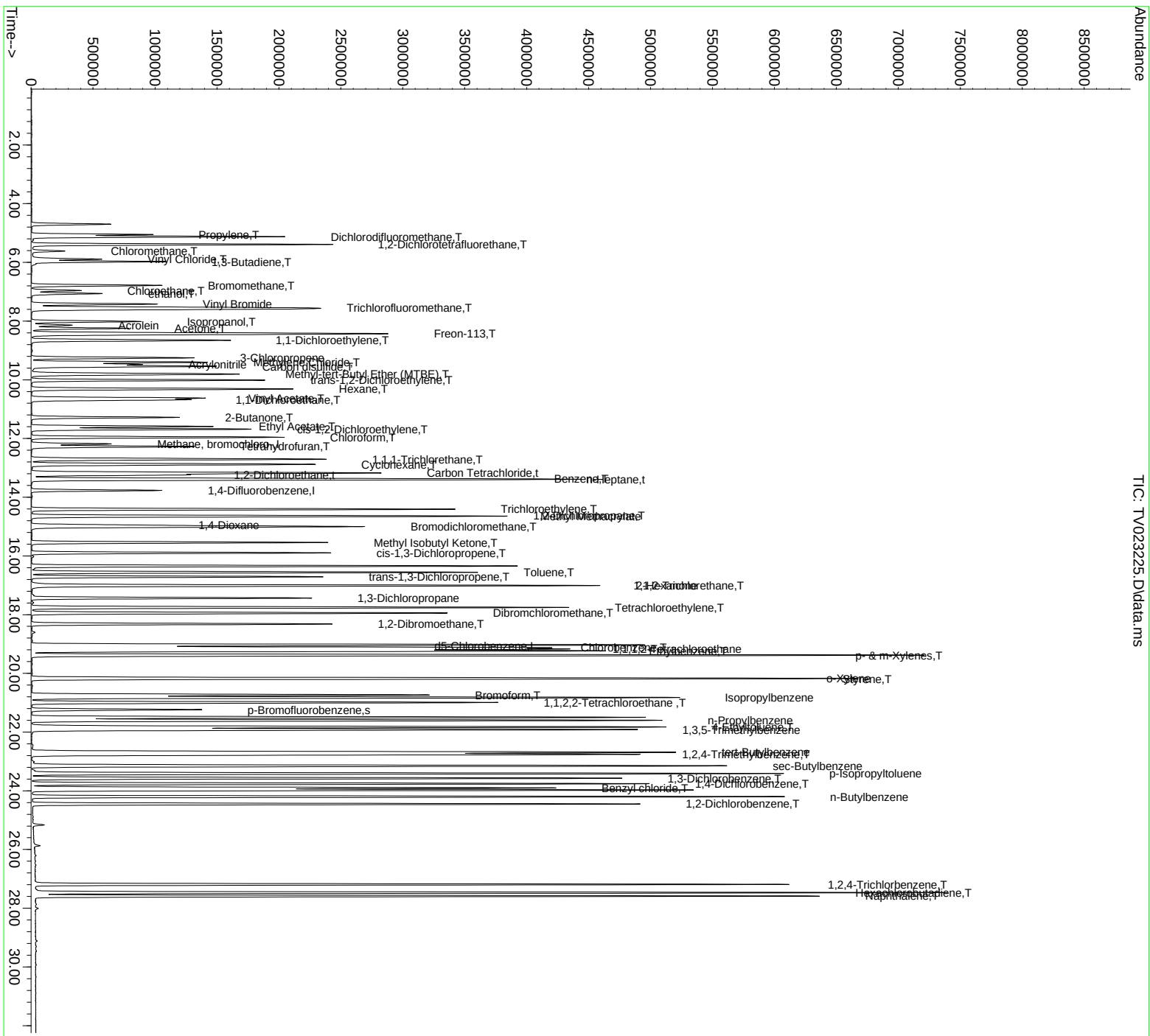
Quant Time: Feb 21 13:02:42 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : TO15 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023226.D
 Acq On : 21 Feb 2024 02:19 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03022024A 50.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:44 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.185	49	485646	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.770	114	1631804	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.062	117	1148224	10.00	ppbv	0.01

System Monitoring Compounds

65) p-Bromofluorobenzene	21.236	95	1042398	12.73	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	127.30%

Target Compounds						Qvalue
2) Propylene	5.049	42	1085135	41.21	ppbv	97
3) Dichlorodifluoromethane	5.125	85	5310950	48.94	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.386	85	3464086	43.64	ppbv	92
5) Chloromethane	5.615	50	756571	37.98	ppbv	100
6) Vinyl Chloride	5.896	62	1651141	45.66	ppbv	100
7) 1,3-Butadiene	5.974	54	1560982	47.37	ppbv	96
8) Bromomethane	6.785	94	2240606	48.84	ppbv	99
9) Chloroethane	6.958	64	1078565	48.32	ppbv	98
10) ethanol	7.069	45	655244	49.86	ppbv	87
11) Vinyl Bromide	7.419	106	2286067	49.32	ppbv	99
12) Trichlorofluoromethane	7.547	101	5293582	52.28	ppbv	99
13) Isopropanol	8.017	45	3051435	49.75	ppbv	100
14) Acrolein	8.142	56	882627	46.02	ppbv #	100
15) Acetone	8.246	43	2598748	49.84	ppbv	91
16) Freon-113	8.429	101	4328306	47.28	ppbv	98
17) 1,1-Dichloroethylene	8.655	61	2965069	50.02	ppbv	86
18) 3-Chloropropene	9.250	41	2679439	46.51	ppbv	94
19) Methylene Chloride	9.400	49	2283801	45.46	ppbv	90
20) Acrylonitrile	9.478	53	1877942	49.86	ppbv #	100
21) Carbon disulfide	9.541	76	6051717	47.50	ppbv	96
22) Methyl-tert-Butyl Ethe...	9.805	73	5803313	49.69	ppbv	98
23) trans-1,2-Dichloroethy...	10.011	61	2839536	48.90	ppbv	84
24) Hexane	10.312	57	3057170	45.19	ppbv	97
25) Vinyl Acetate	10.623	43	5385741	47.83	ppbv #	99
26) 1,1-Dichloroethane	10.678	63	3417793	47.37	ppbv #	99
27) 2-Butanone	11.283	43	3997710	40.96	ppbv	95
28) Ethyl Acetate	11.590	43	4512443	44.42	ppbv	98
29) cis-1,2-Dichloroethylene	11.682	61	2688434	48.14	ppbv	84
30) Chloroform	11.956	83	4592561	49.57	ppbv	99
31) Tetrahydrofuran	12.273	42	2380257	43.59	ppbv	95
32) 1,1,1-Trichlorethane	12.705	97	4935193	53.02	ppbv	96
33) Cyclohexane	12.878	56	3241472	45.82	ppbv	93
34) Carbon Tetrachloride	13.172	117	5254601	55.14	ppbv	97
35) 1,2-Dichloroethane	13.237	62	2552298m	52.01	ppbv	
36) Benzene	13.371	78	5594091	39.38	ppbv #	100
37) n-Heptane	13.404	43	2914209	36.37	ppbv #	96
39) Trichloroethylene	14.411	95	3115867	44.40	ppbv	90
40) 1,2-Dichloropropane	14.633	63	1997148	37.48	ppbv #	98
41) Methyl Methacrylate	14.656	69	2209362	39.84	ppbv #	48
42) 1,4-Dioxane	14.960	88	925097	28.22	ppbv #	100
43) Bromodichloromethane	15.002	83	4848384	48.00	ppbv	99
44) Methyl Isobutyl Ketone	15.545	43	4534820	41.73	ppbv	97
45) cis-1,3-Dichloropropene	15.895	75	4036902	46.81	ppbv	96
46) Toluene	16.558	91	7786966	41.49	ppbv	99
47) trans-1,3-Dichloropropene	16.709	75	3699434	48.21	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	2389020	37.24	ppbv	96

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023226.D
 Acq On : 21 Feb 2024 02:19 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03022024A 50.00 PPBV
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:44 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.019	43	3284225	33.38	ppbv	98
50) 1,3-Dichloropropane	17.438	76	3989125	44.24	ppbv #	86
51) Tetrachloroethylene	17.758	166	3422044	40.01	ppbv	92
52) Dibromchloromethane	17.948	129	5525035	47.40	ppbv	99
53) 1,2-Dibromoethane	18.320	107	4793264	44.31	ppbv	100
55) Chlorobenzene	19.124	112	6173743	47.66	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.177	131	3445605	50.01	ppbv	99
57) Ethylbenzene	19.239	91	9262901	47.48	ppbv	92
58) p- & m-Xylenes	19.382	91	12392870	88.29	ppbv	93
59) o-Xylene	20.164	91	6828182	46.46	ppbv	97
60) Styrene	20.187	104	5364830	45.09	ppbv #	100
61) Bromoform	20.739	173	4470459	56.72	ppbv	99
62) n-Propylbenzene	21.602	91	12441813	47.77	ppbv	98
63) Isopropylbenzene	20.824	105	10506065	47.79	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	5563546	45.61	ppbv	99
66) 4-Ethyltoluene	21.827	105	10603184	48.01	ppbv	91
67) 1,3,5-Trimethylbenzene	21.916	105	8930744	51.72	ppbv	98
68) tert-Butylbenzene	22.694	119	10572862	48.49	ppbv #	95
69) 1,2,4-Trimethylbenzene	22.762	105	8934493	49.45	ppbv #	80
70) sec-Butylbenzene	23.151	105	12621080	46.48	ppbv #	99
71) p-Isopropyltoluene	23.416	119	11674659	47.92	ppbv #	100
72) 1,3-Dichlorobenzene	23.576	146	6217105	49.28	ppbv	98
73) 1,4-Dichlorobenzene	23.759	146	6345666	49.69	ppbv	97
74) Benzyl chloride	23.906	126	2292379	55.89	ppbv #	1
75) n-Butylbenzene	24.200	91	9642849	47.65	ppbv #	88
76) 1,2-Dichlorobenzene	24.452	146	5901548	48.88	ppbv	97
77) 1,2,4-Trichlorobenzene	27.191	180	4778688	57.20	ppbv	94
78) Hexachlorobutadiene	27.472	225	3204633	47.06	ppbv #	86
79) Naphthalene	27.590	128	13902901	52.84	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023226.D
Acq On : 21 Feb 2024 02:19 am
Operator : VH
Sample : SEQ-CALA
Misc : Q8T03022024A 50.00 PPBV
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

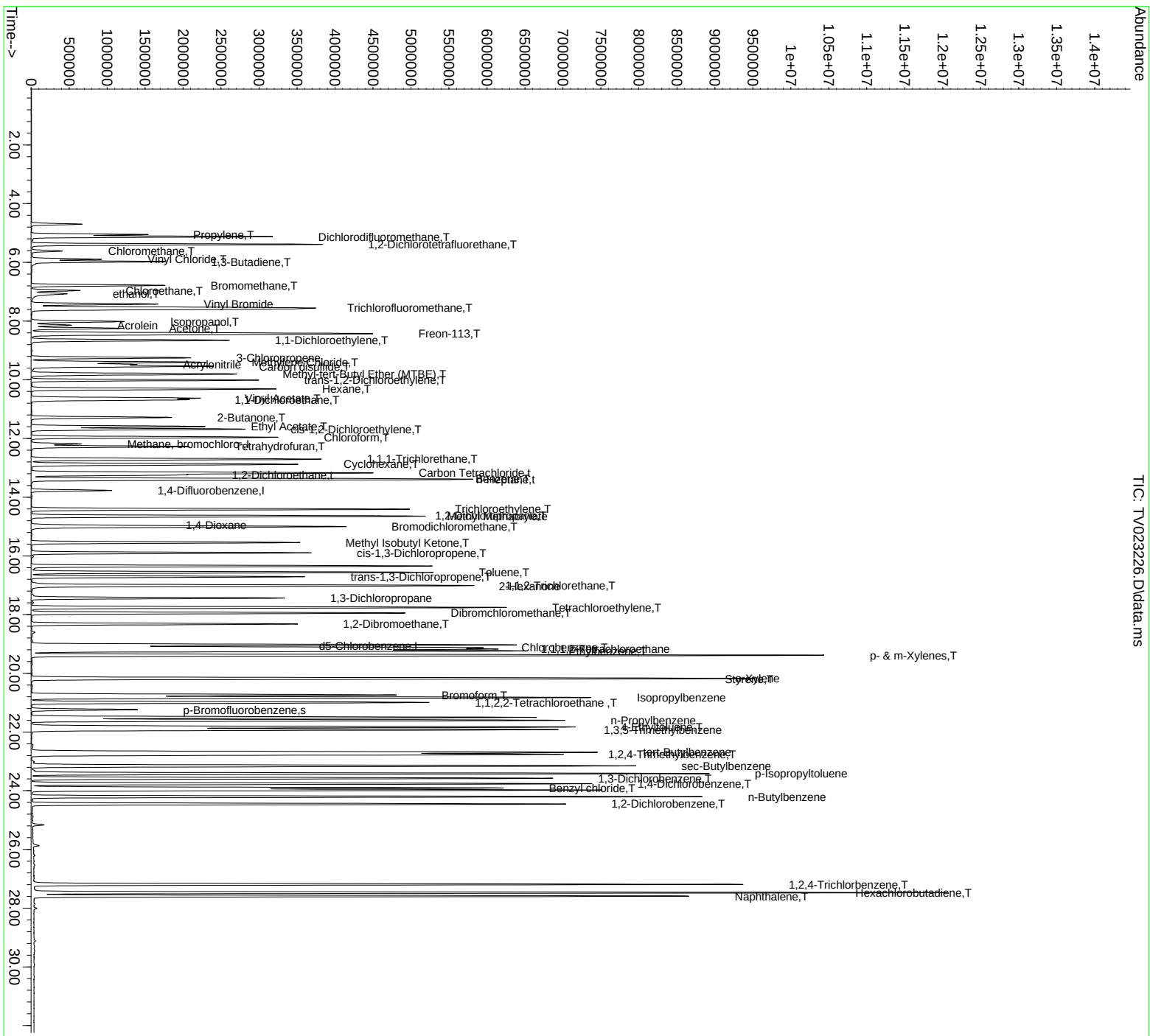
Quant Time: Feb 21 13:02:44 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023716.D
 Acq On : 29 Mar 2024 10:10 pm
 Operator : VH
 Sample : SEQ-CAL1
 Misc : QBT03032924A 0.025 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:25 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

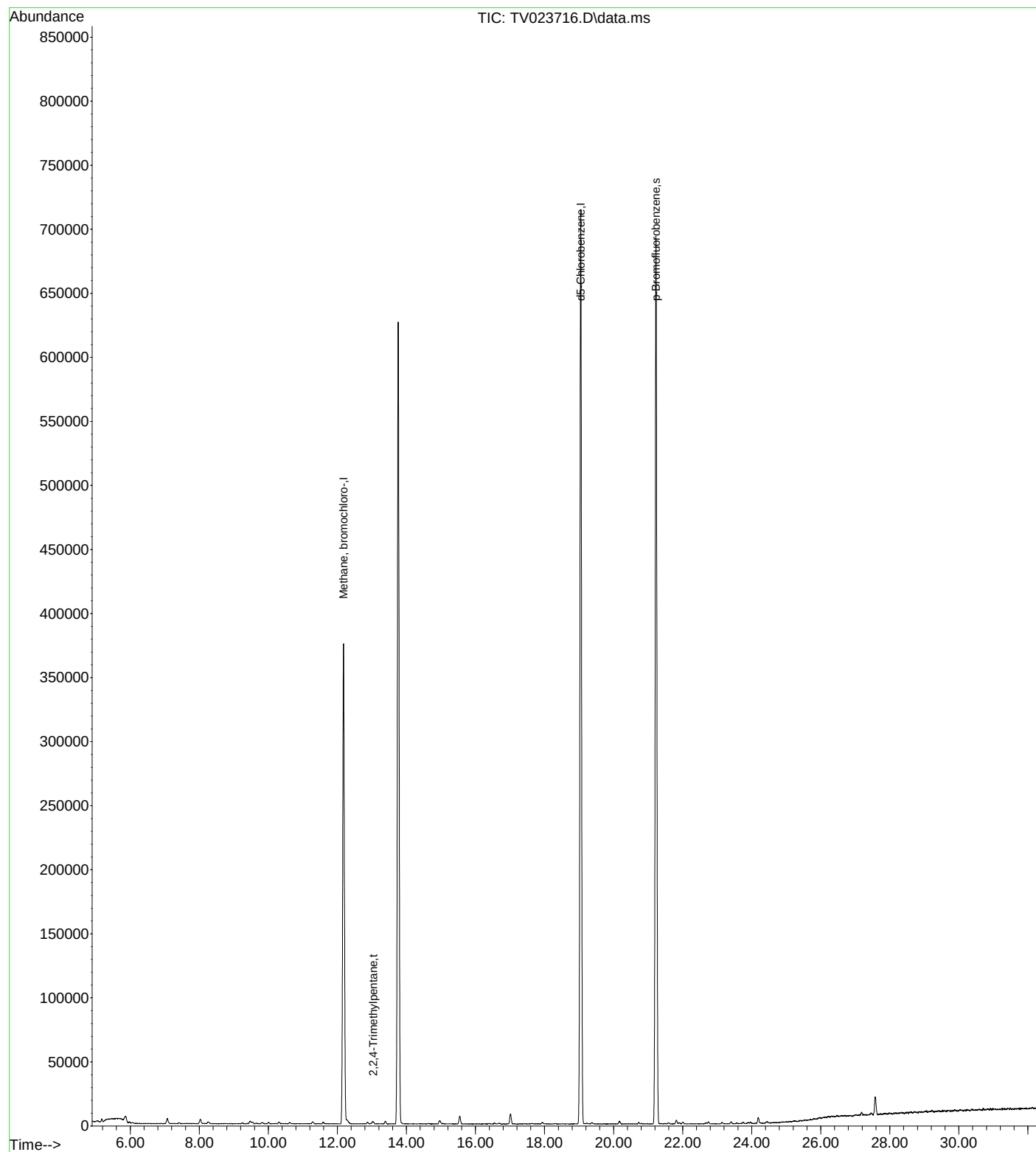
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	285616	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	837509	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	512732	9.87	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.70%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.036	57	3584	0.03	ppbv	Qvalue # 97

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023716.D
Acq On : 29 Mar 2024 10:10 pm
Operator : VH
Sample : SEQ-CAL1
Misc : QBT03032924A 0.025 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:25 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023717.D
 Acq On : 29 Mar 2024 10:52 pm
 Operator : VH
 Sample : SEQ-CAL2
 Misc : QBT03032924A 0.050 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:27 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

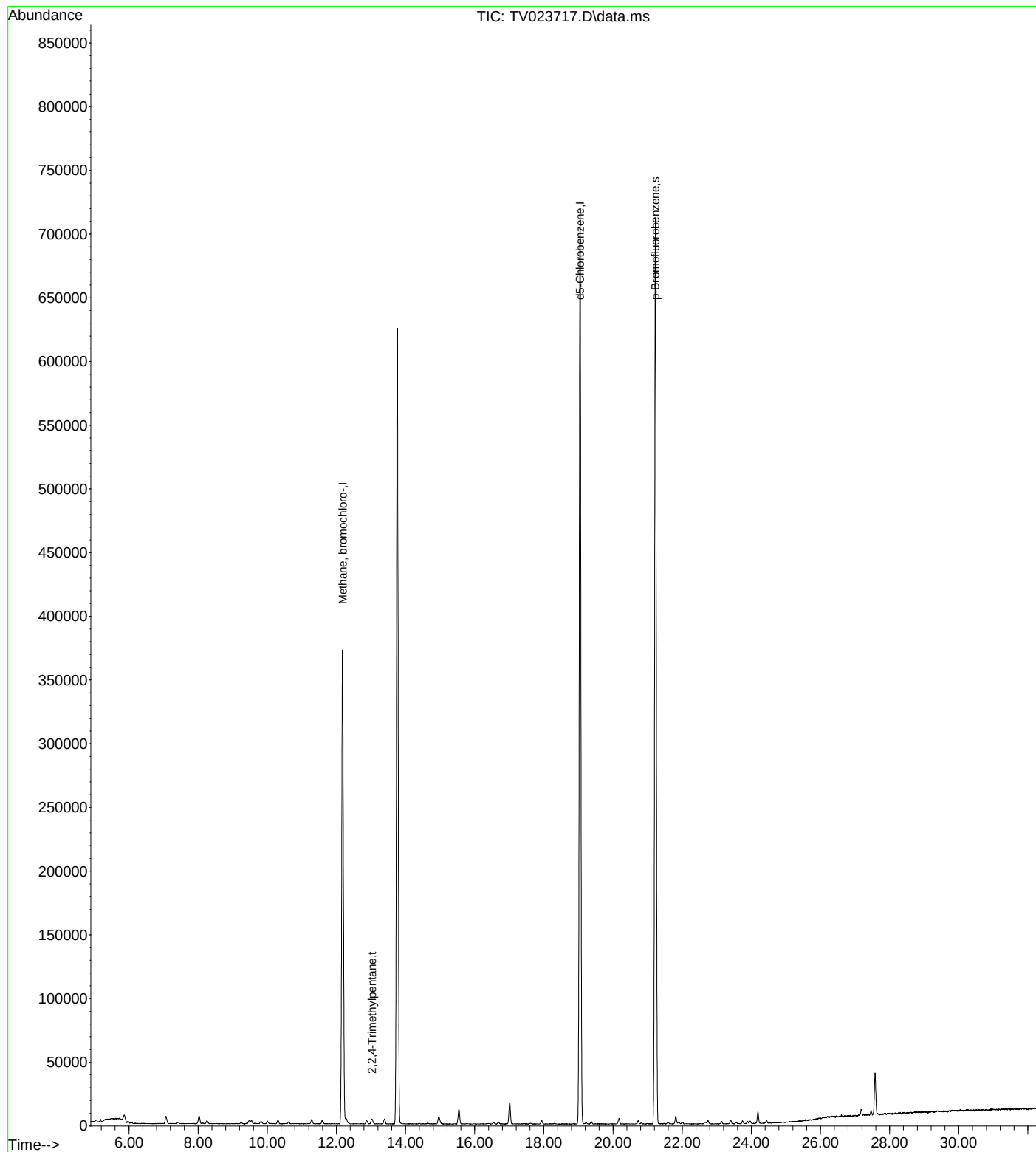
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	283172	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	843942	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	521255	9.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	7373	0.06	ppbv	Qvalue # 92

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023717.D
Acq On : 29 Mar 2024 10:52 pm
Operator : VH
Sample : SEQ-CAL2
Misc : QBT03032924A 0.050 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:27 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023718.D
 Acq On : 29 Mar 2024 11:33 pm
 Operator : VH
 Sample : SEQ-CAL3
 Misc : QBT03032924A 0.100 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:29 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

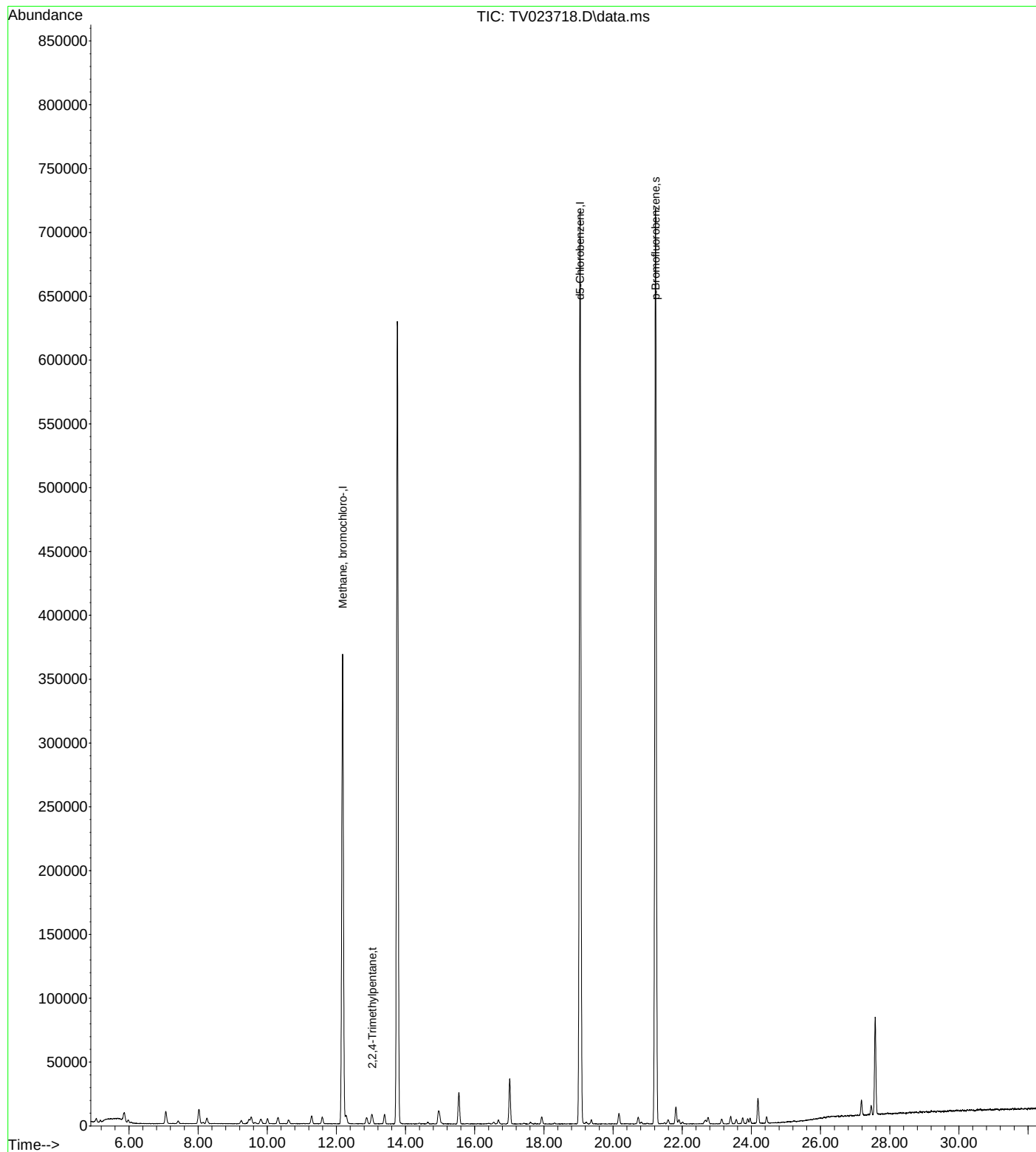
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	282087	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	836994	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	526571	10.15	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.50%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	14372	0.11	ppbv	Qvalue 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023718.D
Acq On : 29 Mar 2024 11:33 pm
Operator : VH
Sample : SEQ-CAL3
Misc : QBT03032924A 0.100 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:29 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023719.D
 Acq On : 30 Mar 2024 12:14 am
 Operator : VH
 Sample : SEQ-CAL4
 Misc : QBT03032924A 0.200 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:31 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

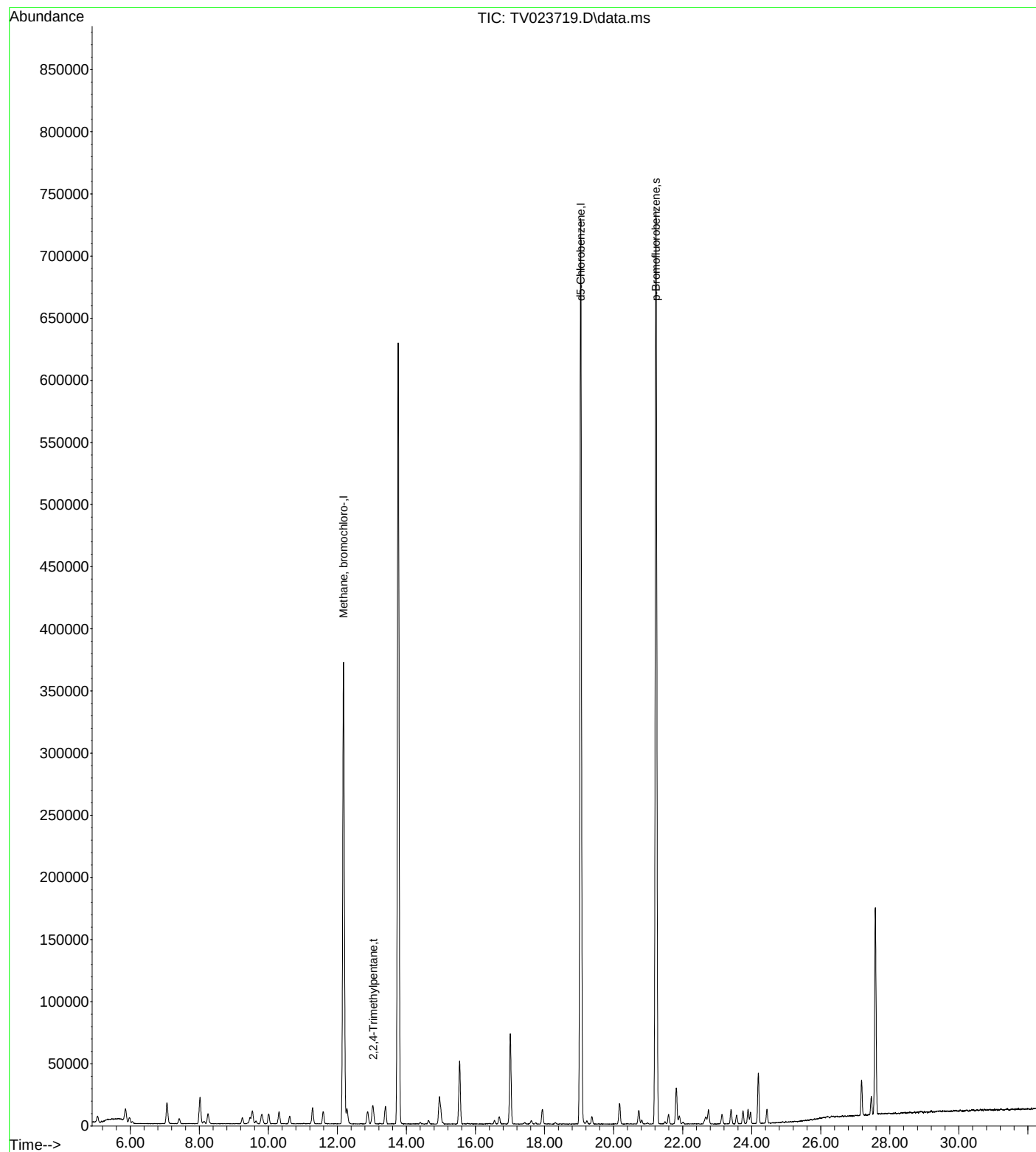
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	285396	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	853459	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	541180	10.23	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	102.30%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	28707	0.23	ppbv	Qvalue 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023719.D
Acq On : 30 Mar 2024 12:14 am
Operator : VH
Sample : SEQ-CAL4
Misc : QBT03032924A 0.200 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:31 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023720.D
 Acq On : 30 Mar 2024 12:55 am
 Operator : VH
 Sample : SEQ-CAL5
 Misc : QBT03032924A 0.500 PPBV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:33 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

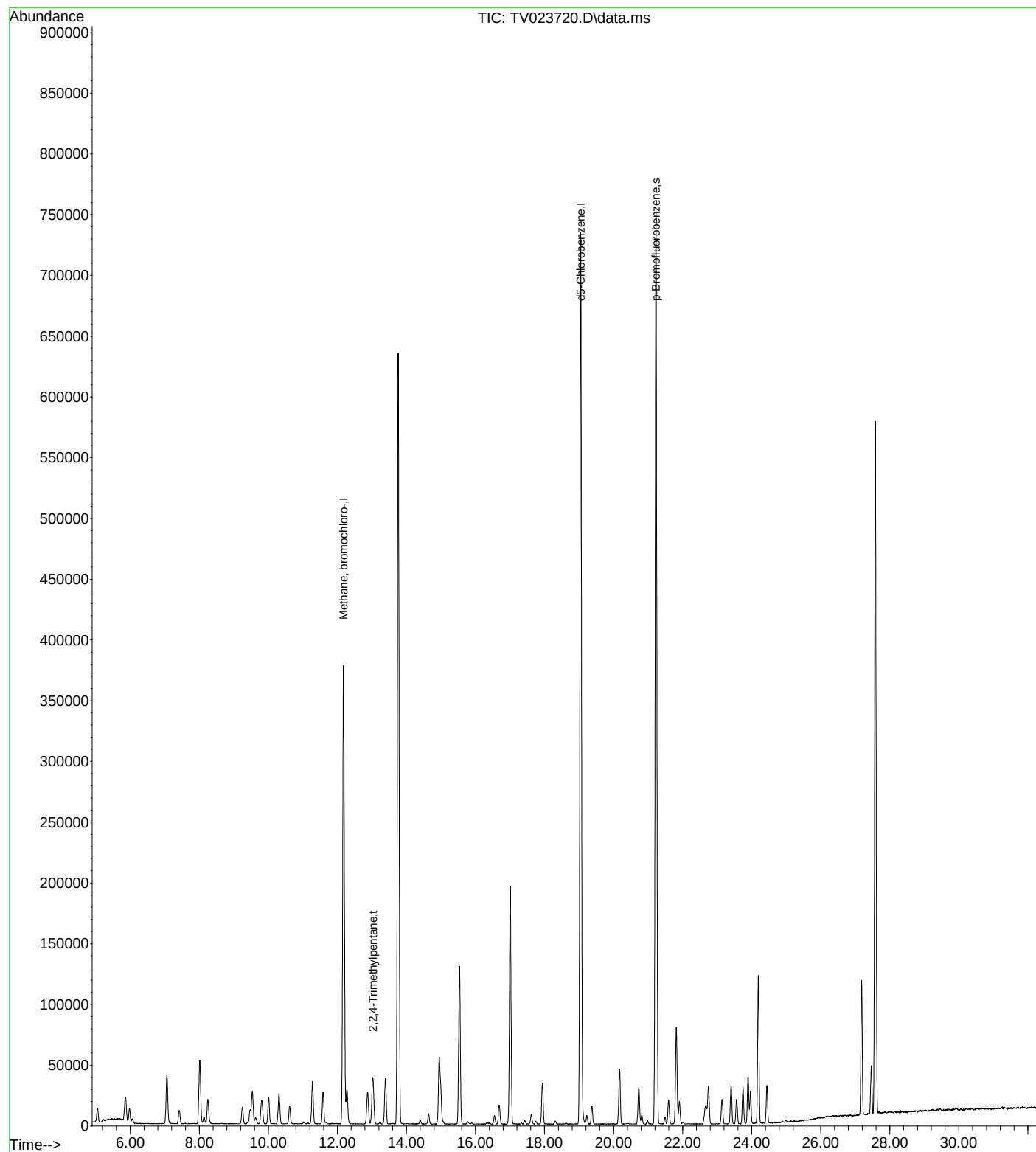
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	286081	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	859480	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	554046	10.40	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.00%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	74600	0.59	ppbv	Qvalue 99

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023720.D
Acq On : 30 Mar 2024 12:55 am
Operator : VH
Sample : SEQ-CAL5
Misc : QBT03032924A 0.500 PPBV
ALS Vial : 4 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:33 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023721.D
 Acq On : 30 Mar 2024 01:36 am
 Operator : VH
 Sample : SEQ-CAL6
 Misc : QBT03032924A 3.000 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:35 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

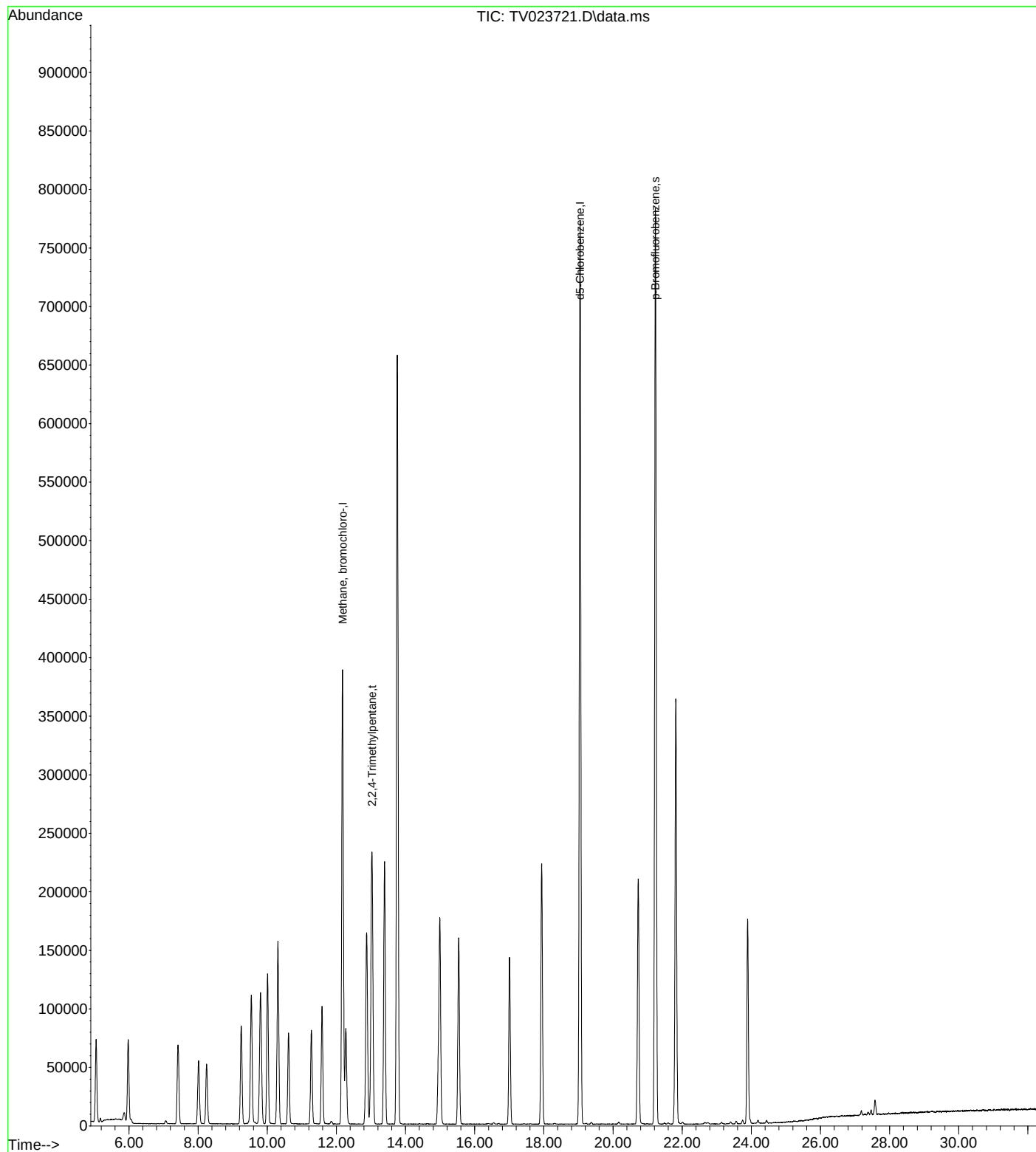
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	293952	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	895888	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	582511	10.49	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.90%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	461980	3.53	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023721.D
Acq On : 30 Mar 2024 01:36 am
Operator : VH
Sample : SEQ-CAL6
Misc : QBT03032924A 3.000 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:35 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023722.D
 Acq On : 30 Mar 2024 02:18 am
 Operator : VH
 Sample : SEQ-CAL7
 Misc : QBT03032924A 10.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:37 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

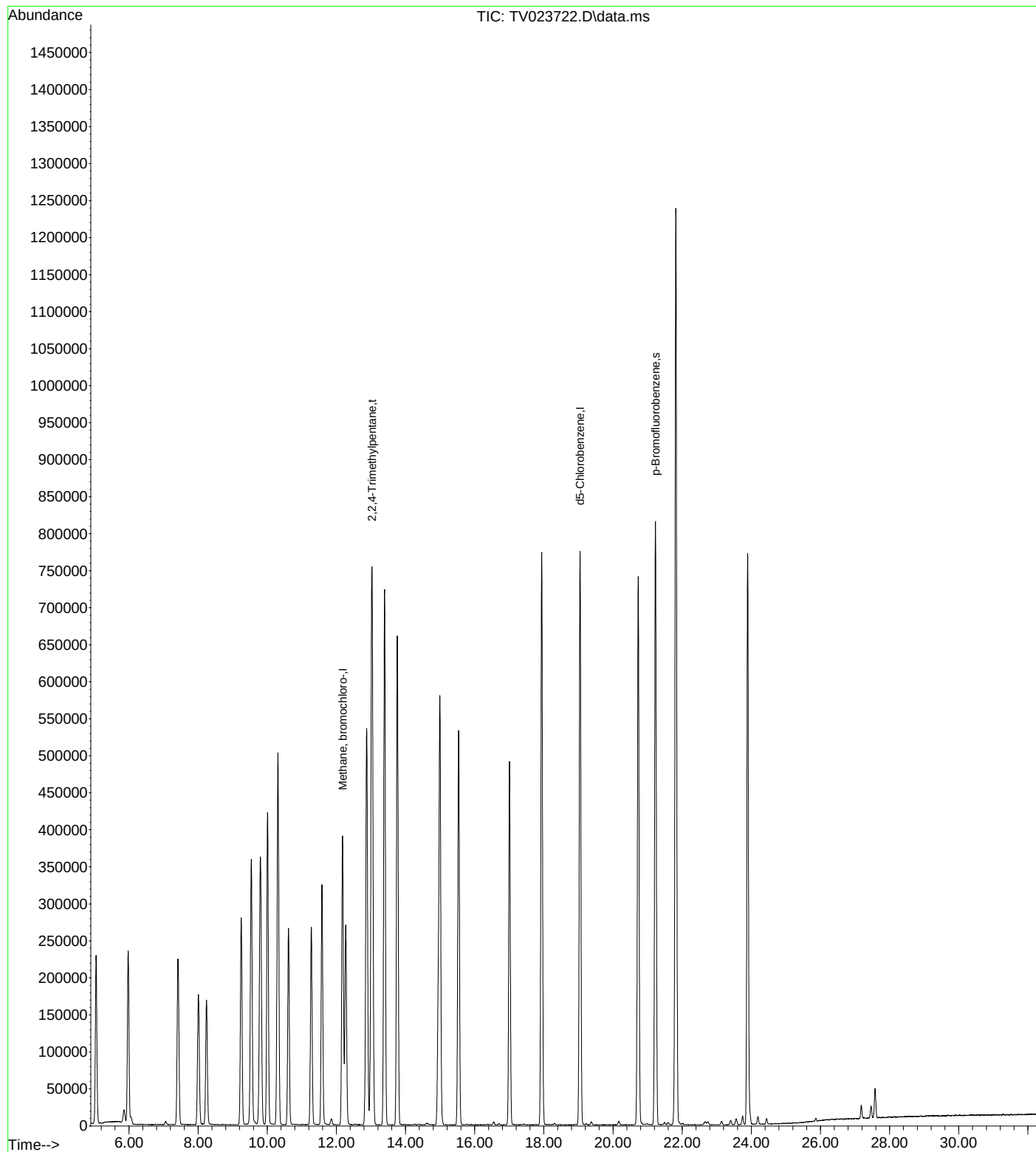
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	294857	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	915030	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	604296	10.65	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	106.50%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.026	57	1504266	11.45	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023722.D
Acq On : 30 Mar 2024 02:18 am
Operator : VH
Sample : SEQ-CAL7
Misc : QBT03032924A 10.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:37 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023723.D
 Acq On : 30 Mar 2024 02:59 am
 Operator : VH
 Sample : SEQ-CAL8
 Misc : QBT03032924A 20.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:39 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

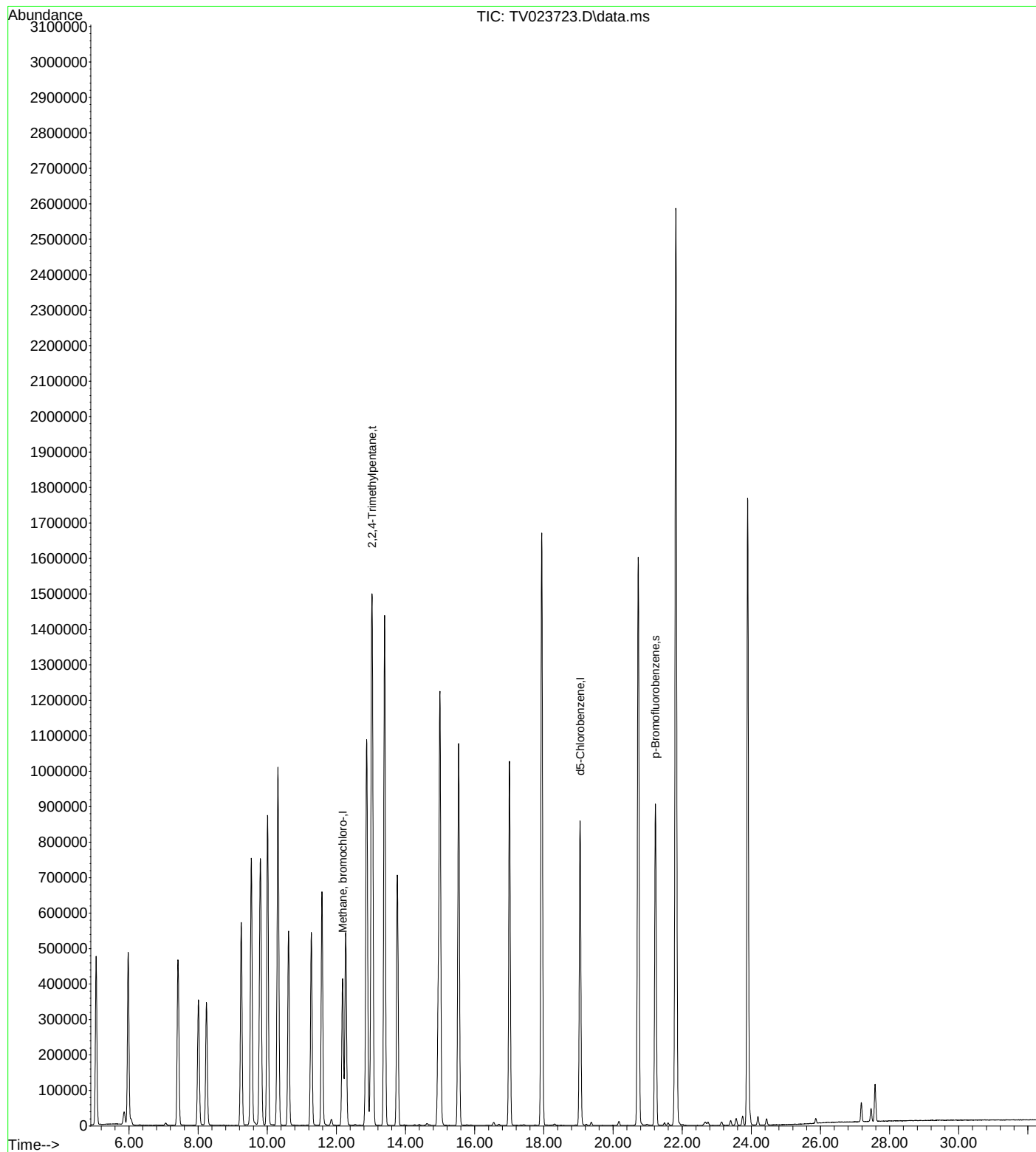
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	308350	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.050	117	1020288	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	680337	10.76	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	3031419	22.06	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023723.D
Acq On : 30 Mar 2024 02:59 am
Operator : VH
Sample : SEQ-CAL8
Misc : QBT03032924A 20.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:39 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023724.D
 Acq On : 30 Mar 2024 03:40 am
 Operator : VH
 Sample : SEQ-CAL9
 Misc : QBT03032924A 30.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:41 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

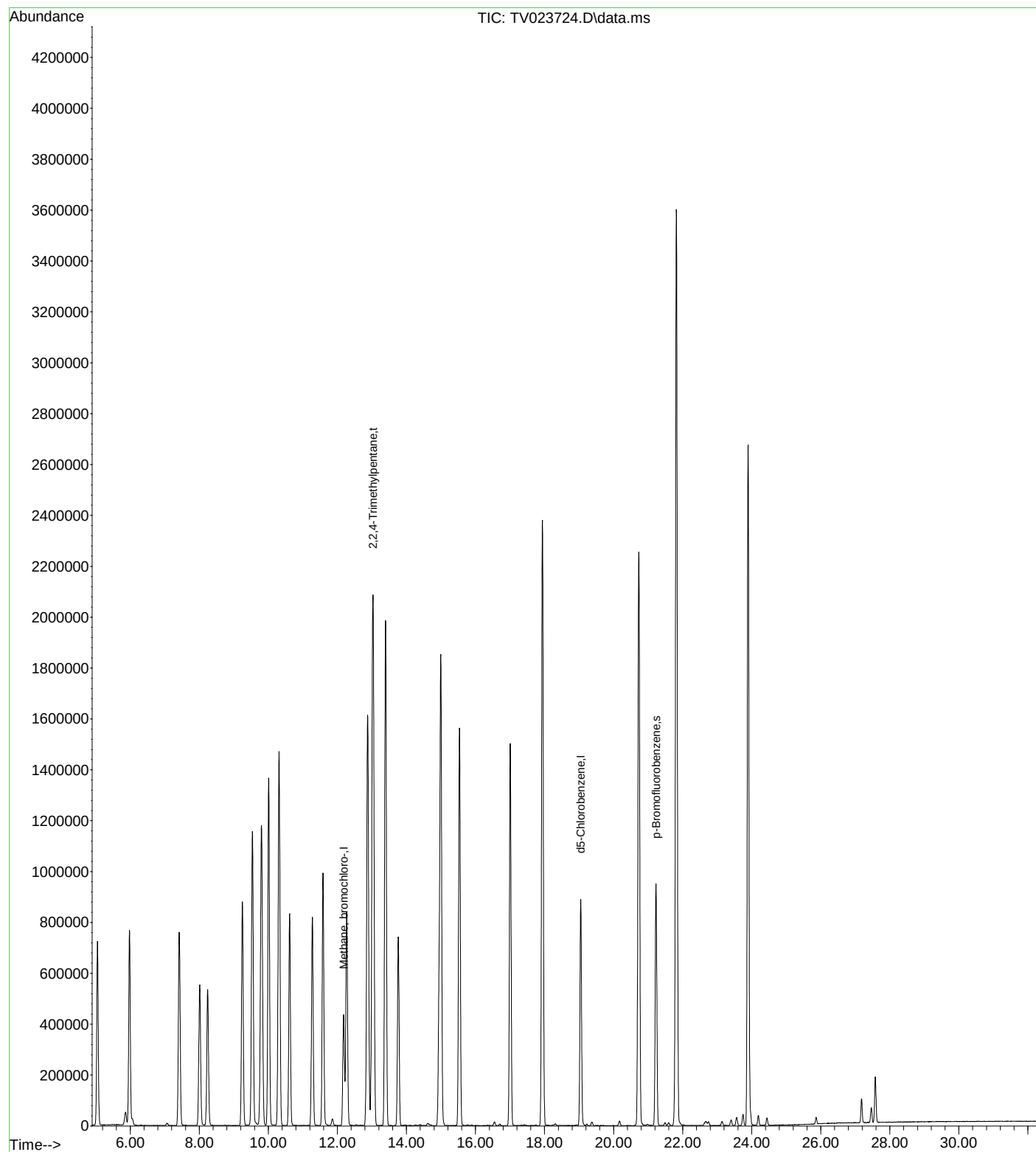
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	311846	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1066951	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	725099	10.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	4410010	31.73	ppbv	# 97

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023724.D
Acq On : 30 Mar 2024 03:40 am
Operator : VH
Sample : SEQ-CAL9
Misc : QBT03032924A 30.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:41 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023725.D
 Acq On : 30 Mar 2024 04:24 am
 Operator : VH
 Sample : SEQ-CALA
 Misc : QBT03032924A 50.00 PPBV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:33:43 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:32:50 2024
 Response via : Initial Calibration

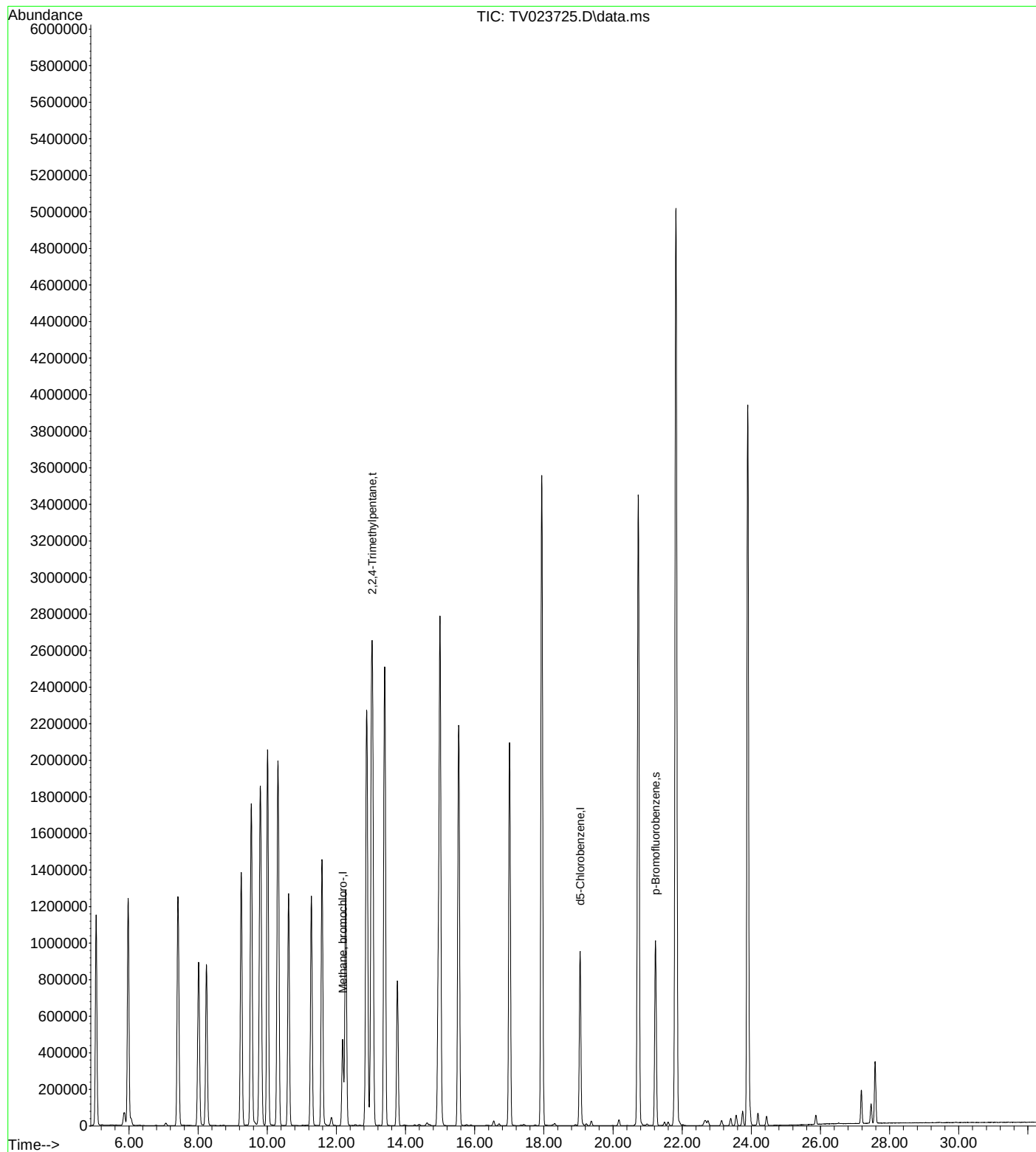
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	326416	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.050	117	1150388	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	777521	10.90	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.00%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.032	57	6067946	41.71	ppbv	# 96

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023725.D
Acq On : 30 Mar 2024 04:24 am
Operator : VH
Sample : SEQ-CALA
Misc : QBT03032924A 50.00 PPBV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:33:43 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:32:50 2024
Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
1,1,1,2-Tetrachloroethane	10.0	9.27	-7.3	30.00
1,1,1-Trichloroethane	10.0	9.33	-6.7	30.00
1,1,2,2-Tetrachloroethane	10.0	8.95	-10.5	30.00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	9.36	-6.4	30.00
1,1,2-Trichloroethane	10.0	9.25	-7.5	30.00
1,1-Dichloroethane	10.0	9.72	-2.8	30.00
1,1-Dichloroethylene	10.0	9.62	-3.8	30.00
1,2,4-Trichlorobenzene	10.0	9.89	-1.1	30.00
1,2,4-Trimethylbenzene	10.0	9.28	-7.2	30.00
1,2-Dibromoethane	10.0	9.54	-4.6	30.00
1,2-Dichlorobenzene	10.0	9.39	-6.1	30.00
1,2-Dichloroethane	10.0	9.52	-4.8	30.00
1,2-Dichloropropane	10.0	9.38	-6.2	30.00
1,2-Dichlorotetrafluoroethane	10.0	9.03	-9.7	30.00
1,3,5-Trimethylbenzene	10.0	9.10	-9.0	30.00
1,3-Butadiene	10.0	9.13	-8.7	30.00
1,3-Dichlorobenzene	10.0	9.35	-6.5	30.00
1,3-Dichloropropane	10.0	9.46	-5.4	30.00
1,4-Dichlorobenzene	10.0	9.53	-4.7	30.00
1,4-Dioxane	10.0	9.99	-0.1	30.00
2-Butanone	10.0	8.64	-13.6	30.00
2-Hexanone	10.0	9.87	-1.3	30.00
3-Chloropropene	10.0	9.15	-8.5	30.00
4-Methyl-2-pentanone	10.0	9.61	-3.9	30.00
Acetone	10.0	9.16	-8.4	30.00
Acrylonitrile	10.0	8.62	-13.8	30.00
Benzene	10.0	9.39	-6.1	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Benzyl chloride	10.0	10.2	1.9	30.00
Bromodichloromethane	10.0	9.37	-6.3	30.00
Bromoform	10.0	10.1	0.6	30.00
Bromomethane	10.0	9.17	-8.3	30.00
Carbon disulfide	10.0	9.87	-1.3	30.00
Carbon tetrachloride	10.0	9.89	-1.1	30.00
Chlorobenzene	10.0	9.28	-7.2	30.00
Chloroethane	10.0	9.26	-7.4	30.00
Chloroform	10.0	9.38	-6.2	30.00
Chloromethane	10.0	8.48	-15.2	30.00
cis-1,2-Dichloroethylene	10.0	9.26	-7.4	30.00
cis-1,3-Dichloropropylene	10.0	9.43	-5.7	30.00
Cyclohexane	10.0	9.49	-5.1	30.00
Dibromochloromethane	10.0	10.1	0.7	30.00
Dichlorodifluoromethane	10.0	9.35	-6.5	30.00
Ethyl acetate	10.0	9.21	-7.9	30.00
Ethyl Benzene	10.0	9.14	-8.6	30.00
Hexachlorobutadiene	10.0	9.20	-8.0	30.00
Isopropanol	10.0	10.1	0.7	30.00
Methyl Methacrylate	10.0	9.88	-1.2	30.00
Methyl tert-butyl ether (MTBE)	10.0	9.46	-5.4	30.00
Methylene chloride	10.0	8.97	-10.3	30.00
Naphthalene	10.0	9.00	-10.0	30.00
n-Heptane	10.0	9.62	-3.8	30.00
n-Hexane	10.0	9.45	-5.5	30.00
o-Xylene	10.0	9.14	-8.6	30.00
p- & m- Xylenes	20.0	18.7	-6.6	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SC40018

Laboratory ID: S4C0663-SCV1

Sequence: S4C0663

Standard ID: S24C044

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
p-Ethyltoluene	10.0	9.31	-6.9	30.00
Propylene	10.0	8.58	-14.2	30.00
Styrene	10.0	9.55	-4.5	30.00
Tetrachloroethylene	10.0	9.45	-5.5	30.00
Tetrahydrofuran	10.0	9.30	-7.0	30.00
Toluene	10.0	8.93	-10.7	30.00
trans-1,2-Dichloroethylene	10.0	9.55	-4.5	30.00
trans-1,3-Dichloropropylene	10.0	9.35	-6.5	30.00
Trichloroethylene	10.0	9.12	-8.8	30.00
Trichlorofluoromethane (Freon 11)	10.0	9.32	-6.8	30.00
Vinyl acetate	10.0	9.74	-2.6	30.00
Vinyl bromide	10.0	9.05	-9.5	30.00
Vinyl Chloride	10.0	8.69	-13.1	30.00

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023228.D
 Acq On : 21 Feb 2024 03:42 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03022024A SCV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:46 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.182	49	486880	10.00	ppbv	0.00
38) 1,4-Difluorobenzene	13.767	114	1622626	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.052	117	1402699	10.00	ppbv	0.00

System Monitoring Compounds						
65) p-Bromofluorobenzene	21.232	95	995901	9.96	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.60%

Target Compounds						Qvalue
2) Propylene	5.049	42	226587	8.58	ppbv	96
3) Dichlorodifluoromethane	5.125	85	1017095	9.35	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.389	85	718618	9.03	ppbv	92
5) Chloromethane	5.615	50	169310	8.48	ppbv	100
6) Vinyl Chloride	5.893	62	315151	8.69	ppbv	99
7) 1,3-Butadiene	5.978	54	301792	9.13	ppbv	95
8) Bromomethane	6.785	94	421925	9.17	ppbv	99
9) Chloroethane	6.962	64	207173	9.26	ppbv	98
10) ethanol	7.063	45	186783	8.99	ppbv	87
11) Vinyl Bromide	7.422	106	420638	9.05	ppbv	99
12) Trichlorofluoromethane	7.550	101	946567	9.32	ppbv	99
13) Isopropanol	8.011	45	779278	10.07	ppbv	100
14) Acrolein	8.141	56	178087	9.26	ppbv #	100
15) Acetone	8.249	43	550086	9.16	ppbv	90
16) Freon-113	8.429	101	859288	9.36	ppbv	98
17) 1,1-Dichloroethylene	8.655	61	571646	9.62	ppbv	85
18) 3-Chloropropene	9.250	41	528600	9.15	ppbv	93
19) Methylene Chloride	9.403	49	451965	8.97	ppbv	92
20) Acrylonitrile	9.475	53	394598	8.62	ppbv #	100
21) Carbon disulfide	9.540	76	1261218	9.87	ppbv	94
22) Methyl-tert-Butyl Ethe...	9.808	73	1107266	9.46	ppbv	97
23) trans-1,2-Dichloroethy...	10.011	61	555859	9.55	ppbv	83
24) Hexane	10.312	57	640581	9.45	ppbv	97
25) Vinyl Acetate	10.619	43	1099719	9.74	ppbv #	98
26) 1,1-Dichloroethane	10.678	63	703282	9.72	ppbv #	99
27) 2-Butanone	11.279	43	845199	8.64	ppbv	97
28) Ethyl Acetate	11.587	43	938125	9.21	ppbv	99
29) cis-1,2-Dichloroethylene	11.678	61	518359	9.26	ppbv	83
30) Chloroform	11.956	83	871642	9.38	ppbv	99
31) Tetrahydrofuran	12.273	42	508973	9.30	ppbv	96
32) 1,1,1-Trichlorethane	12.701	97	870936	9.33	ppbv	96
33) Cyclohexane	12.878	56	672780	9.49	ppbv	96
34) Carbon Tetrachloride	13.172	117	944599	9.89	ppbv	97
35) 1,2-Dichloroethane	13.234	62	468598m	9.52	ppbv	
36) Benzene	13.371	78	1336794	9.39	ppbv #	100
37) n-Heptane	13.394	43	772634	9.62	ppbv #	97
39) Trichloroethylene	14.407	95	636630	9.12	ppbv	89
40) 1,2-Dichloropropane	14.636	63	497070	9.38	ppbv #	98
41) Methyl Methacrylate	14.646	69	544751	9.88	ppbv #	50
42) 1,4-Dioxane	14.947	88	325728	9.99	ppbv #	100
43) Bromodichloromethane	14.999	83	940744	9.37	ppbv	99
44) Methyl Isobutyl Ketone	15.538	43	1038653	9.61	ppbv	98
45) cis-1,3-Dichloropropene	15.891	75	808583	9.43	ppbv	95
46) Toluene	16.555	91	1665715	8.93	ppbv	99
47) trans-1,3-Dichloropropene	16.705	75	713609	9.35	ppbv	95
48) 1,1,2-Trichlorethane	17.003	97	590270	9.25	ppbv	94

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023228.D
 Acq On : 21 Feb 2024 03:42 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03022024A SCV
 ALS Vial : 4 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Feb 21 13:02:46 2024
 Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.009	43	965517	9.87	ppbv	98
50) 1,3-Dichloropropane	17.431	76	847922	9.46	ppbv #	100
51) Tetrachloroethylene	17.755	166	803833	9.45	ppbv	95
52) Dibromchloromethane	17.944	129	1167116	10.07	ppbv	98
53) 1,2-Dibromoethane	18.317	107	1026214	9.54	ppbv	100
55) Chlorobenzene	19.121	112	1467779	9.28	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.173	131	779836	9.27	ppbv	94
57) Ethylbenzene	19.232	91	2177654	9.14	ppbv	92
58) p- & m-Xylenes	19.379	91	3202952	18.68	ppbv	90
59) o-Xylene	20.160	91	1640457	9.14	ppbv	96
60) Styrene	20.177	104	1388595	9.55	ppbv #	74
61) Bromoform	20.732	173	968989	10.06	ppbv	99
62) n-Propylbenzene	21.598	91	2922524	9.19	ppbv	98
63) Isopropylbenzene	20.821	105	2477949	9.23	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.991	83	1334063	8.95	ppbv	98
66) 4-Ethyltoluene	21.824	105	2512522	9.31	ppbv	91
67) 1,3,5-Trimethylbenzene	21.909	105	1919058	9.10	ppbv	94
68) tert-Butylbenzene	22.684	119	2454641	9.21	ppbv #	91
69) 1,2,4-Trimethylbenzene	22.756	105	2048082	9.28	ppbv #	77
70) sec-Butylbenzene	23.145	105	3133215	9.45	ppbv #	99
71) p-Isopropyltoluene	23.409	119	2808894	9.44	ppbv #	89
72) 1,3-Dichlorobenzene	23.569	146	1440836	9.35	ppbv	96
73) 1,4-Dichlorobenzene	23.756	146	1487108	9.53	ppbv	97
74) Benzyl chloride	23.900	126	510646	10.19	ppbv #	1
75) n-Butylbenzene	24.197	91	2375748	9.61	ppbv #	88
76) 1,2-Dichlorobenzene	24.449	146	1385252	9.39	ppbv	96
77) 1,2,4-Trichlorobenzene	27.188	180	1009399	9.89	ppbv	95
78) Hexachlorobutadiene	27.469	225	765267	9.20	ppbv #	92
79) Naphthalene	27.587	128	2891406	9.00	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
Data File : TV023228.D
Acq On : 21 Feb 2024 03:42 am
Operator : VH
Sample : SEQ-SCV1
Misc : QBTO3022024A SCV
ALS Vial : 4 Sample Multiplier: 1
InstName : TO15_AIR3

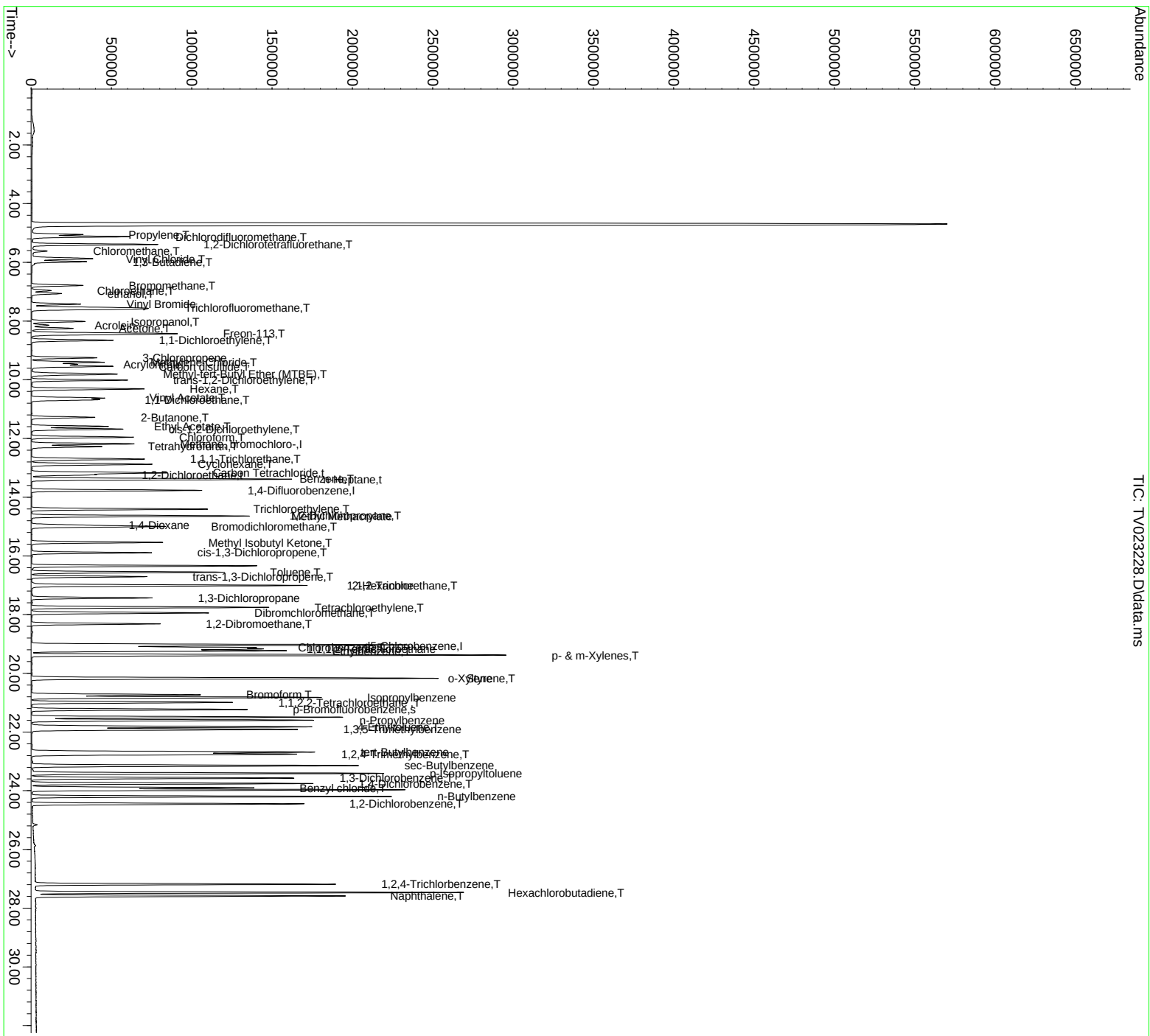
Quant Time: Feb 21 13:02:46 2024

Quant Method : D:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : TO15 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford

SDG: 24C1629

Client: Walden Associates

Project: IMPL 0115.6 Imperial Cleaners

Calibration: SE40002

Laboratory ID: S4E0224-SCV1

Sequence: S4E0224

Standard ID: S24D377

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
2,2,4-Trimethylpentane	10.0	10.3	3.2	30.00

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
 Data File : TV023727.D
 Acq On : 30 Mar 2024 05:47 am
 Operator : VH
 Sample : SEQ-SCV1
 Misc : QBT03032924A ICV
 ALS Vial : 6 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 01 10:50:05 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

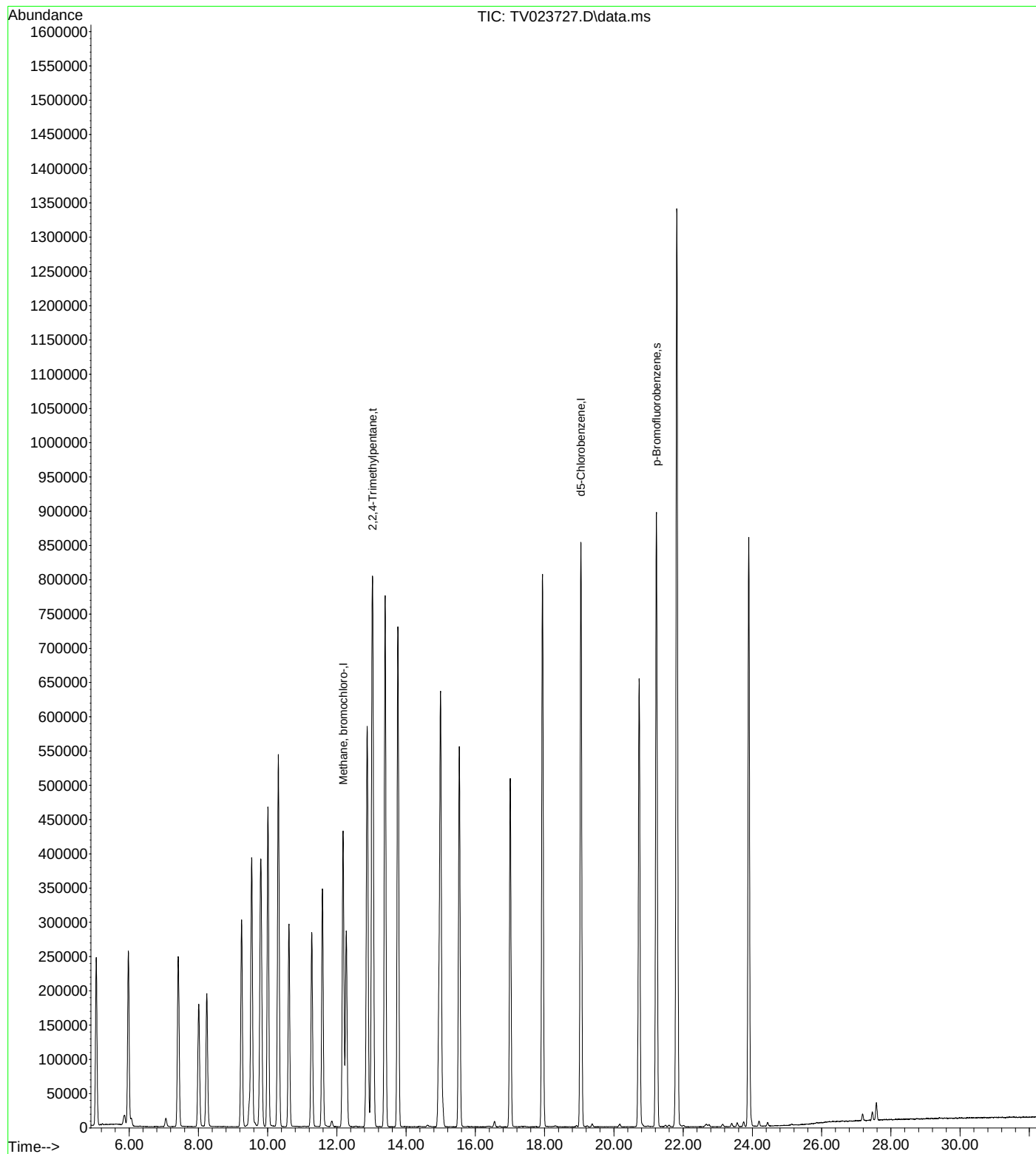
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	318034	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.046	117	1014763	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	680157	10.36	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	103.60%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	1617209	10.32	ppbv	Qvalue # 98

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

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023727.D
Acq On : 30 Mar 2024 05:47 am
Operator : VH
Sample : SEQ-SCV1
Misc : QBT03032924A ICV
ALS Vial : 6 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 01 10:50:05 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,1,2-Tetrachloroethane	A	10.0	9.74	0.6000185	0.5842955		-2.6	30
1,1,1-Trichloroethane	A	10.0	12.7	1.916503	2.429601		26.8	30
1,1,2,2-Tetrachloroethane	A	10.0	8.64	1.062456	0.9184621		-13.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	10.0	12.3	1.885204	2.323976		23.3	30
1,1,2-Trichloroethane	A	10.0	8.52	0.3930908	0.33483		-14.8	30
1,1-Dichloroethane	A	10.0	11.0	1.485826	1.642003		10.5	30
1,1-Dichloroethylene	A	10.0	11.3	1.220512	1.378523		12.9	30
1,2,4-Trichlorobenzene	A	10.0	11.2	0.7276065	0.8151199		12.0	30
1,2,4-Trimethylbenzene	A	10.0	9.44	1.57339	1.485054		-5.6	30
1,2-Dibromoethane	A	10.0	8.78	0.6629627	0.5819019		-12.2	30
1,2-Dichlorobenzene	A	10.0	9.86	1.05157	1.03662		-1.4	30
1,2-Dichloroethane	A	10.0	11.8	1.00346	1.19136		18.7	30
1,2-Dichloropropane	A	10.0	7.32	0.3265457	0.2391297		-26.8	30
1,2-Dichlorotetrafluoroethane	A	10.0	11.4	1.634511	1.860586		13.8	30
1,3,5-Trimethylbenzene	A	10.0	9.78	1.503753	1.470161		-2.2	30
1,3-Butadiene	A	10.0	10.1	0.6786018	0.6848007		0.9	30
1,3-Dichlorobenzene	A	10.0	9.81	1.098628	1.077264		-1.9	30
1,3-Dichloropropane	A	10.0	8.45	0.5525809	0.4668051		-15.5	30
1,4-Dichlorobenzene	A	10.0	9.75	1.112139	1.083978		-2.5	30
1,4-Dioxane	A	10.0	8.54	0.2008592	0.1716137		-14.6	30
2-Butanone	A	10.0	7.99	2.009877	1.606789		-20.1	30
2-Hexanone	A	10.0	6.14	0.6030223	0.3699758		-38.6	30 *
3-Chloropropene	A	10.0	8.52	1.186149	1.010548		-14.8	30
4-Methyl-2-pentanone	A	10.0	6.37	0.6660226	0.424055		-36.3	30 *
Acetone	A	10.0	9.36	2.457859	1.152988		-6.4	30
Acrylonitrile	A	10.0	7.40	3.017779	0.7114879		-26.0	30
Benzene	A	10.0	10.7	2.924767	3.118779		6.6	30
Benzyl chloride	A	10.0	10.2	0.3571951	0.3638444		1.9	30
Bromodichloromethane	A	10.0	8.94	0.6190338	0.5531171		-10.6	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Bromoform	A	10.0	10.8	0.6864752	0.741882		8.1	30
Bromomethane	A	10.0	11.9	0.9446869	1.120342		18.6	30
Carbon disulfide	A	10.0	11.5	2.62355	3.021003		15.1	30
Carbon tetrachloride	A	10.0	13.5	1.96238	2.645238		34.8	30 *
Chlorobenzene	A	10.0	9.24	1.128056	1.041785		-7.6	30
Chloroethane	A	10.0	10.8	0.4596483	0.4984357		8.4	30
Chloroform	A	10.0	12.0	1.907875	2.28092		19.6	30
Chloromethane	A	10.0	9.25	0.4101655	0.3792946		-7.5	30
cis-1,2-Dichloroethylene	A	10.0	11.0	1.149845	1.260656		9.6	30
cis-1,3-Dichloropropylene	A	10.0	8.51	0.5285463	0.4497672		-14.9	30
Cyclohexane	A	10.0	10.0	1.456845	1.457915		0.07	30
Dibromochloromethane	A	10.0	9.70	0.7143742	0.6931113		-3.0	30
Dichlorodifluoromethane	A	10.0	12.4	2.234759	2.779704		24.4	30
Ethyl acetate	A	10.0	8.66	2.09173	1.810442		-13.4	30
Ethyl Benzene	A	10.0	8.91	1.699121	1.513943		-10.9	30
Hexachlorobutadiene	A	10.0	10.1	0.5930034	0.6008998		1.3	30
Isopropanol	A	10.0	9.07	2.869394	1.453871		-9.3	30
Methyl Methacrylate	A	10.0	7.87	0.3398803	0.2673996		-21.3	30
Methyl tert-butyl ether (MTBE)	A	10.0	11.8	2.405019	2.844985		18.3	30
Methylene chloride	A	10.0	9.09	1.034514	0.9403141		-9.1	30
Naphthalene	A	10.0	10.5	2.291278	2.414307		5.4	30
n-Heptane	A	10.0	8.19	1.649906	1.351435		-18.1	30
n-Hexane	A	10.0	10.0	1.392931	1.395994		0.2	30
o-Xylene	A	10.0	8.85	1.280007	1.133385		-11.5	30
p- & m- Xylenes	A	20.0	17.6	1.222485	1.073979		-12.1	30
p-Ethyltoluene	A	10.0	9.25	1.923546	1.779175		-7.5	30
Propylene	A	10.0	8.62	0.5422066	0.4673103		-13.8	30
Styrene	A	10.0	9.11	1.036155	0.9439616		-8.9	30
Tetrachloroethylene	A	10.0	9.10	0.5241781	0.4770059		-9.0	30

FORM VII**CONTINUING CALIBRATION CHECK****EPA TO-15**Laboratory: York Analytical Laboratories, Inc. - StratfordSDG: 24C1629Client: Walden AssociatesProject: IMPL 0115.6 Imperial CleanersInstrument ID: TO15_AIR3Calibration: SC40018Lab File ID: TV023795.DCalibration Date: 02/20/24 18:46Sequence: S4D0428Injection Date: 04/03/24Lab Sample ID: S4D0428-CCV1Injection Time: 13:16

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrahydrofuran	A	10.0	8.22	1.124377	0.9245881		-17.8	30
Toluene	A	10.0	8.17	1.150148	0.9395965		-18.3	30
trans-1,2-Dichloroethylene	A	10.0	10.9	1.195623	1.305836		9.2	30
trans-1,3-Dichloropropylene	A	10.0	8.76	0.4702239	0.4120729		-12.4	30
Trichloroethylene	A	10.0	8.47	0.4300169	0.3643238		-15.3	30
Trichlorofluoromethane (Freon 11)	A	10.0	13.0	2.085103	2.703665		29.7	30
Vinyl acetate	A	10.0	8.86	2.318357	2.053278		-11.4	30
Vinyl bromide	A	10.0	12.3	0.9544774	1.172394		22.8	30
Vinyl Chloride	A	10.0	12.1	0.744665	0.9012409		21.0	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023795.D
 Acq On : 03 Apr 2024 01:16 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A CCV
 ALS Vial : 111 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 03 14:16:36 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.179	49	312285	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1390664	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	1113630	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.230	95	804674	10.13	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.30%

Target Compounds						Qvalue
2) Propylene	5.054	42	145934	8.62	ppbv	95
3) Dichlorodifluoromethane	5.125	85	868060	12.44	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.387	85	581033	11.38	ppbv	87
5) Chloromethane	5.616	50	118448	9.25	ppbv	100
6) Vinyl Chloride	5.890	62	281444	12.10	ppbv	99
7) 1,3-Butadiene	5.975	54	213853	10.09	ppbv	95
8) Bromomethane	6.783	94	349866	11.86	ppbv	99
9) Chloroethane	6.959	64	155654	10.84	ppbv	96
10) ethanol	7.057	45	91756	6.66	ppbv	89
11) Vinyl Bromide	7.420	106	366121	12.28	ppbv	99
12) Trichlorofluoromethane	7.544	101	844314	12.97	ppbv	99
13) Isopropanol	8.008	45	454022	9.07	ppbv	100
14) Acrolein	8.136	56	127457	10.34	ppbv	# 100
15) Acetone	8.244	43	360061	9.36	ppbv	85
16) Freon-113	8.427	101	725743	12.33	ppbv	96
17) 1,1-Dichloroethylene	8.652	61	430492	11.29	ppbv	# 80
18) 3-Chloropropene	9.247	41	315579	8.52	ppbv	88
19) Methylene Chloride	9.401	49	293646	9.09	ppbv	# 75
20) Acrylonitrile	9.470	53	222187	7.40	ppbv	# 100
21) Carbon disulfide	9.538	76	943414	11.51	ppbv	91
22) Methyl-tert-Butyl Ethe...	9.803	73	888446	11.83	ppbv	94
23) trans-1,2-Dichloroethy...	10.009	61	407793	10.92	ppbv	# 76
24) Hexane	10.310	57	435948	10.02	ppbv	90
25) Vinyl Acetate	10.614	43	641208	8.86	ppbv	# 99
26) 1,1-Dichloroethane	10.672	63	512773	11.05	ppbv	# 98
27) 2-Butanone	11.274	43	501776	7.99	ppbv	# 85
28) Ethyl Acetate	11.584	43	565374	8.66	ppbv	95
29) cis-1,2-Dichloroethylene	11.676	61	393684	10.96	ppbv	# 76
30) Chloroform	11.950	83	712297	11.96	ppbv	97
31) Tetrahydrofuran	12.267	42	288735	8.22	ppbv	# 85
32) 1,1,1-Trichlorethane	12.699	97	758728	12.68	ppbv	94
33) Cyclohexane	12.875	56	455285	10.01	ppbv	85
34) Carbon Tetrachloride	13.166	117	826068	13.48	ppbv	97
35) 1,2-Dichloroethane	13.232	62	372044m	11.79	ppbv	
36) Benzene	13.366	78	973948	10.66	ppbv	# 100
37) n-Heptane	13.395	43	422033	8.19	ppbv	# 91
39) Trichloroethylene	14.405	95	506652	8.47	ppbv	86
40) 1,2-Dichloropropane	14.631	63	332549	7.32	ppbv	# 99
41) Methyl Methacrylate	14.644	69	371863	7.87	ppbv	# 77
42) 1,4-Dioxane	14.944	88	238657	8.54	ppbv	# 100
43) Bromodichloromethane	14.993	83	769200	8.94	ppbv	97
44) Methyl Isobutyl Ketone	15.536	43	589718	6.37	ppbv	90
45) cis-1,3-Dichloropropene	15.889	75	625475	8.51	ppbv	94
46) Toluene	16.553	91	1306663	8.17	ppbv	99
47) trans-1,3-Dichloropropene	16.703	75	573055	8.76	ppbv	93
48) 1,1,2-Trichlorethane	17.000	97	465636	8.52	ppbv	91

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023795.D
 Acq On : 03 Apr 2024 01:16 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A CCV
 ALS Vial : 111 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 03 14:16:36 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.007	43	514512	6.14	ppbv #	94
50) 1,3-Dichloropropane	17.429	76	649169	8.45	ppbv #	100
51) Tetrachloroethylene	17.749	166	663355	9.10	ppbv	95
52) Dibromchloromethane	17.939	129	963885	9.70	ppbv	97
53) 1,2-Dibromoethane	18.314	107	809230	8.78	ppbv	100
55) Chlorobenzene	19.119	112	1160163	9.24	ppbv #	86
56) 1,1,1,2-Tetrachloroethane	19.168	131	650689	9.74	ppbv	96
57) Ethylbenzene	19.230	91	1685972	8.91	ppbv	91
58) p- & m-Xylenes	19.373	91	2392031	17.57	ppbv	90
59) o-Xylene	20.155	91	1262171	8.85	ppbv	96
60) Styrene	20.178	104	1051224	9.11	ppbv #	74
61) Bromoform	20.730	173	826182	10.81	ppbv	99
62) n-Propylbenzene	21.593	91	2307934	9.14	ppbv	98
63) Isopropylbenzene	20.818	105	1984549	9.31	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.985	83	1022827	8.64	ppbv	99
66) 4-Ethyltoluene	21.818	105	1981343	9.25	ppbv	89
67) 1,3,5-Trimethylbenzene	21.907	105	1637215	9.78	ppbv	97
68) tert-Butylbenzene	22.681	119	1992590	9.42	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.750	105	1653801	9.44	ppbv #	77
70) sec-Butylbenzene	23.142	105	2461228	9.35	ppbv #	99
71) p-Isopropyltoluene	23.404	119	2256725	9.55	ppbv #	100
72) 1,3-Dichlorobenzene	23.564	146	1199674	9.81	ppbv	95
73) 1,4-Dichlorobenzene	23.750	146	1207150	9.75	ppbv	95
74) Benzyl chloride	23.897	126	405188	10.19	ppbv #	1
75) n-Butylbenzene	24.191	91	1869701	9.53	ppbv #	88
76) 1,2-Dichlorobenzene	24.443	146	1154411	9.86	ppbv	96
77) 1,2,4-Trichlorobenzene	27.186	180	907742	11.20	ppbv	95
78) Hexachlorobutadiene	27.467	225	669180	10.13	ppbv #	92
79) Naphthalene	27.581	128	2688645	10.54	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023795.D
Acq On : 03 Apr 2024 01:16 pm
Operator : YR
Sample : SEQ-CCV1
Misc : QBTO3040224A CCV
ALS Vial : 111 Sample Multiplier: 1
InstName : T015_AIR3

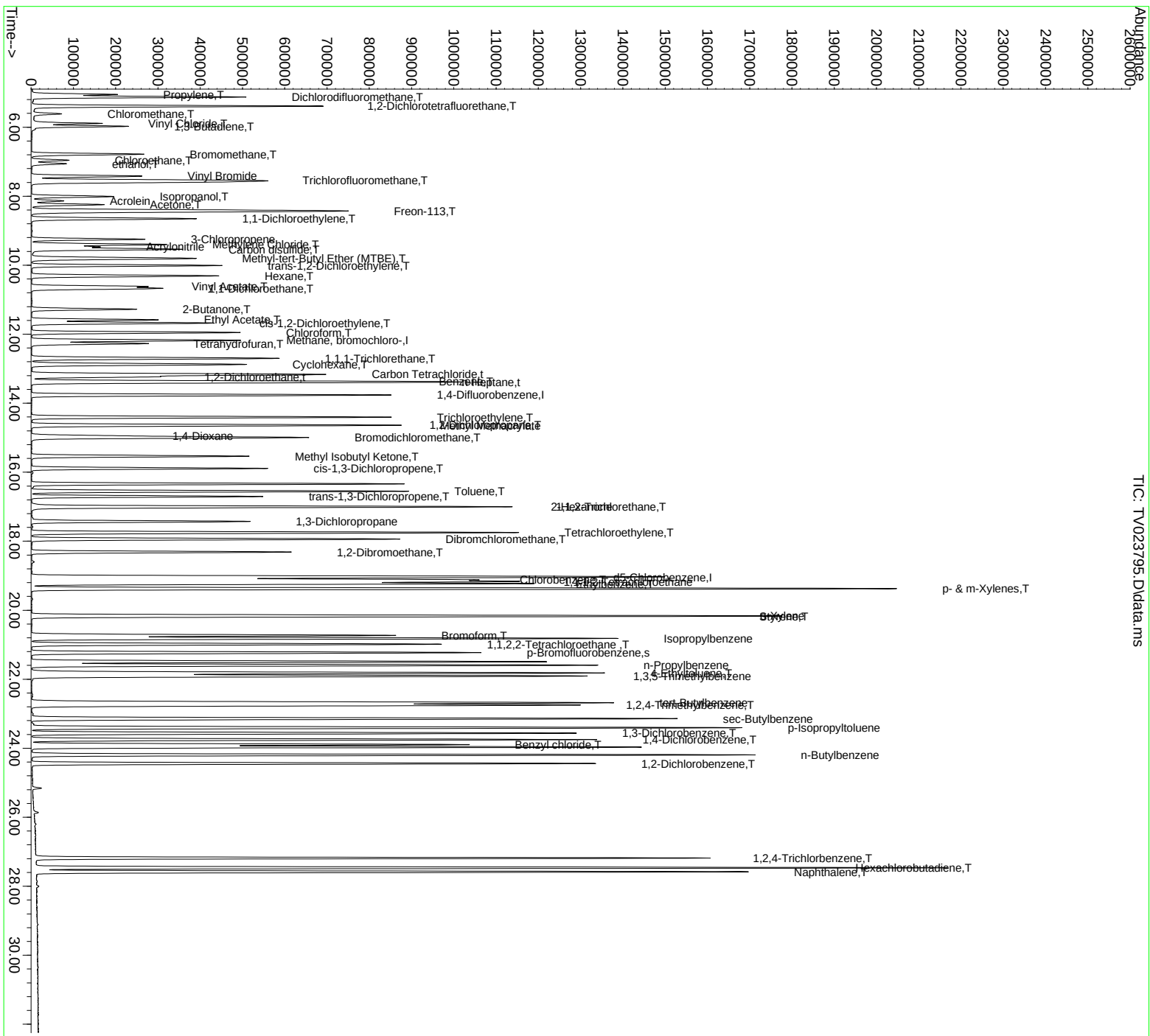
Quant Time: Apr 03 14:16:36 2024

Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M

Quant Title : T015 VOC Analysis

Quant Update : Wed Feb 21 13:01:26 2024

Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1629
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Instrument ID: TO15_AIR3 Calibration: SE40002
Lab File ID: TV023796.D Calibration Date: 03/29/24 20:48
Sequence: S4D0429 Injection Date: 04/03/24
Lab Sample ID: S4D0429-CCV1 Injection Time: 13:57

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2,2,4-Trimethylpentane	A	10.0	9.19	4.925403	4.526278		-8.1	30

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023796.D
 Acq On : 03 Apr 2024 01:57 pm
 Operator : YR
 Sample : SEQ-CCV1
 Misc : QBT03040224A ISOCTANE CCV
 ALS Vial : 5 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:14:48 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

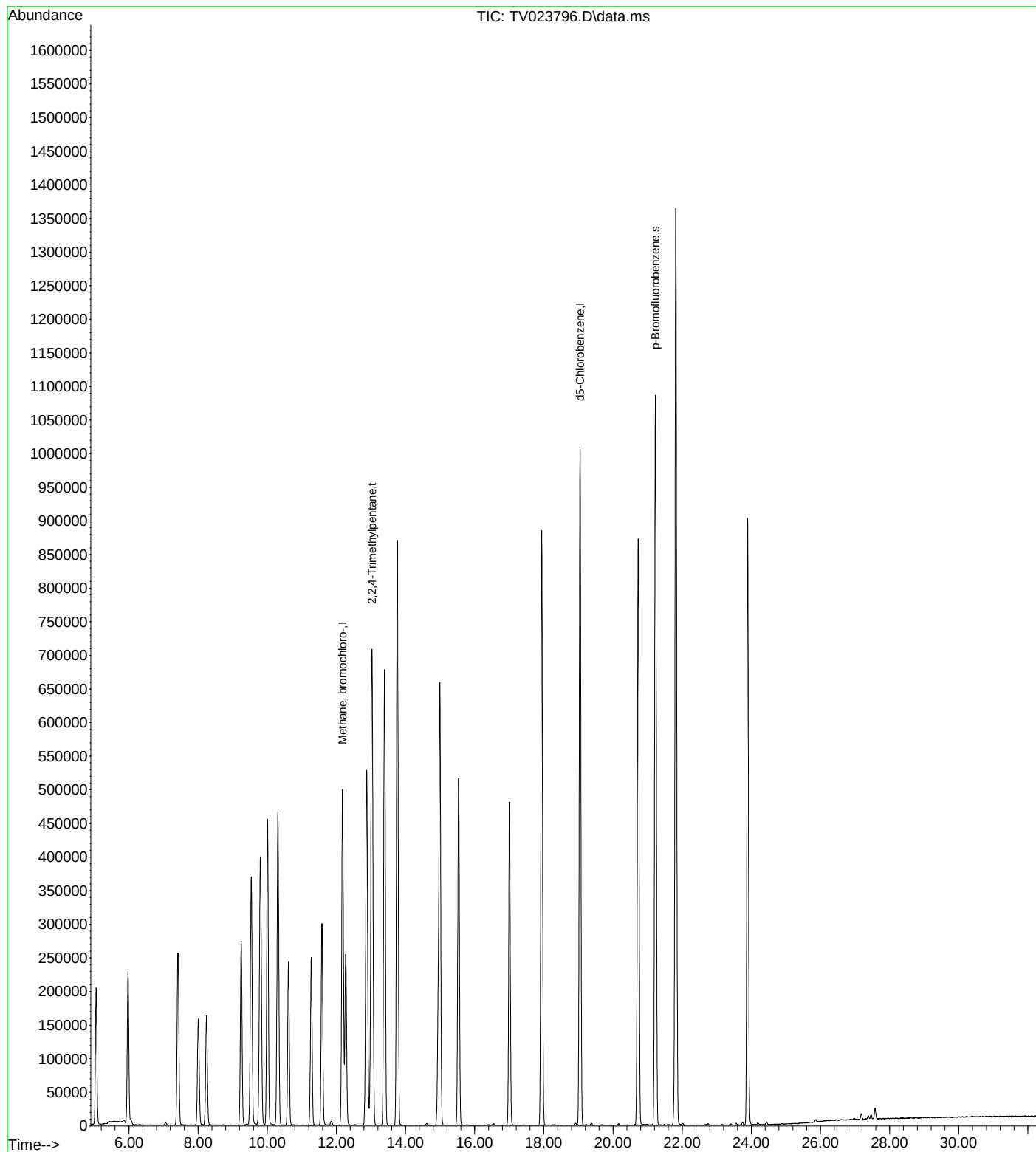
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	320251	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1229612	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	821486	10.32	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	103.20%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.029	57	1449545	9.19	ppbv	# 96

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023796.D
Acq On : 03 Apr 2024 01:57 pm
Operator : YR
Sample : SEQ-CCV1
Misc : QBT03040224A ISOCTANE CCV
ALS Vial : 5 Sample Multiplier: 1
InstName : T015_AIR3

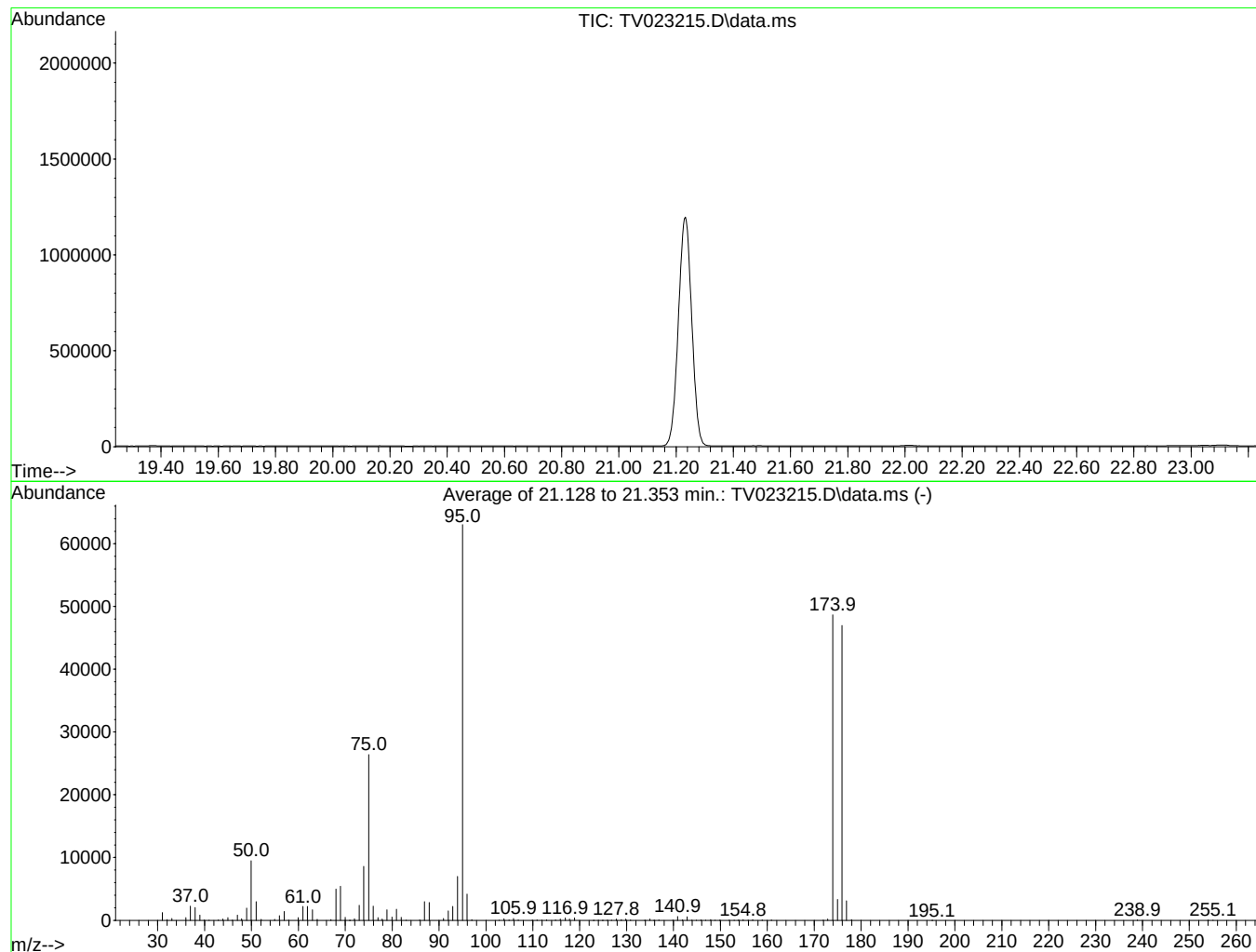
Quant Time: Apr 04 00:14:48 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



Data Path : C:\MassHunter\GCMS\1\data\022024-ICAL\
 Data File : TV023215.D
 Acq On : 20 Feb 2024 06:46 pm
 Operator : VH
 Sample : SEQ-TUN1
 Misc : QBT03022024A TUNE
 ALS Vial : 1 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteint.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Title : T015 VOC Analysis
 Last Update : Wed Feb 21 13:01:26 2024



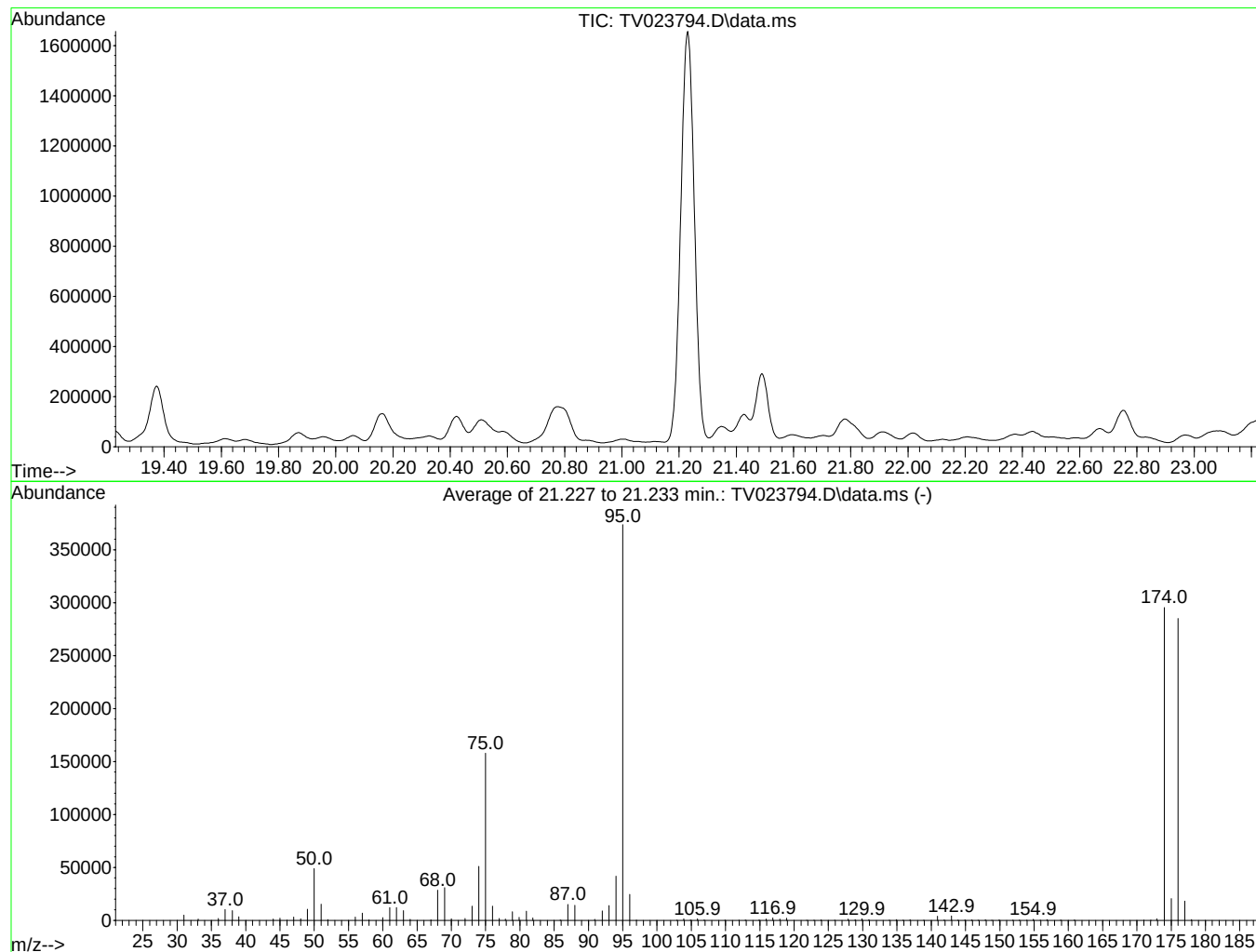
AutoFind: Averaged scan 6436 to 6505; Bkg corrected with scan 6435

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.1	9495	PASS
75	95	30	66	41.9	26391	PASS
95	95	100	100	100.0	63044	PASS
96	95	5	9	6.6	4156	PASS
173	174	0.00	2	0.4	216	PASS
174	95	50	120	77.2	48680	PASS
175	174	4	9	6.8	3319	PASS
176	174	93	101	96.5	46960	PASS
177	176	5	9	6.6	3111	PASS

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023794.D
 Acq On : 03 Apr 2024 12:36 pm
 Operator : YR
 Sample : SEQ-TUN1
 Misc : QBT03040224A TUNE
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteint.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Title : T015 VOC Analysis
 Last Update : Wed Feb 21 13:01:26 2024



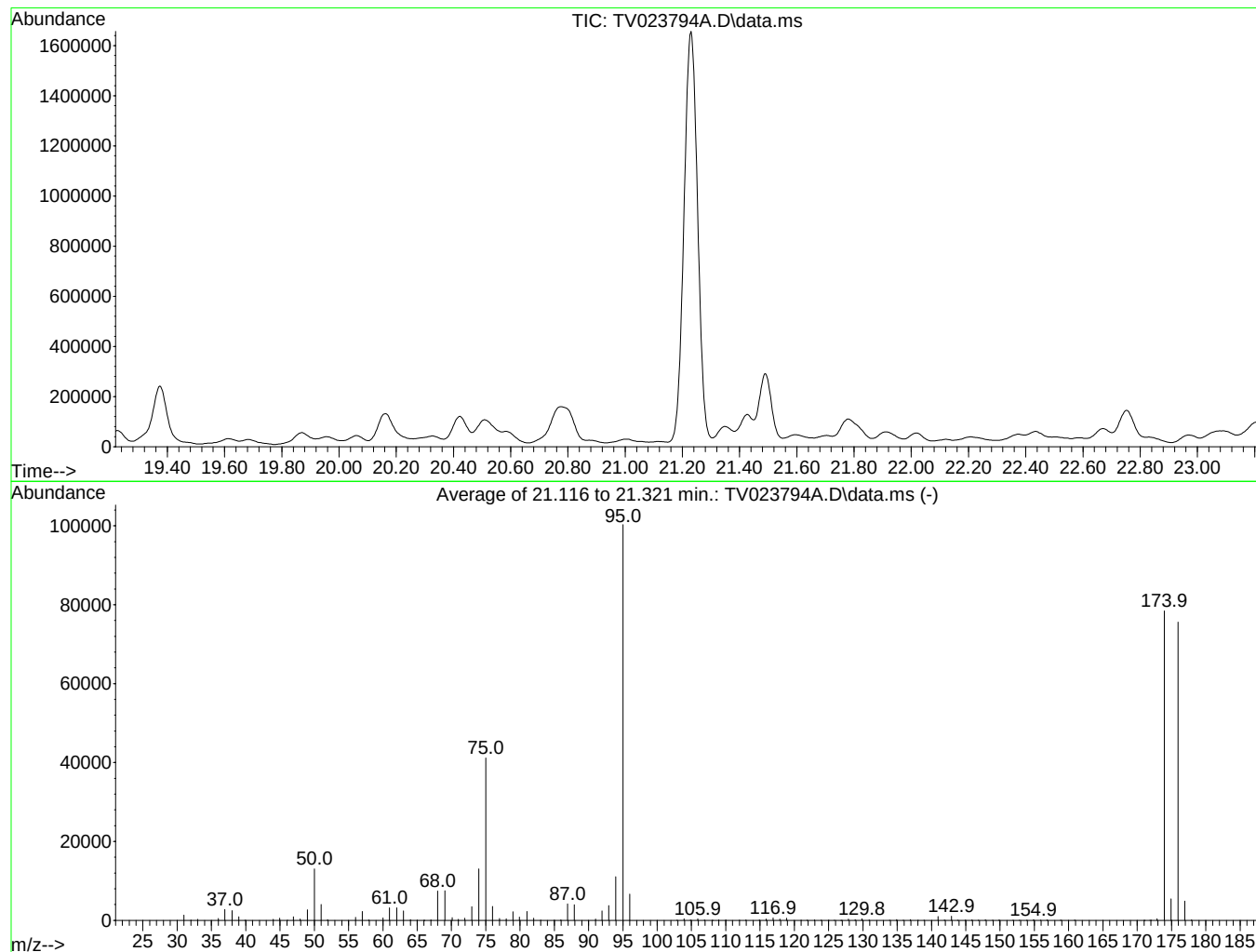
AutoFind: Scans 4998, 4999, 5000; Background Corrected with Scan 4956

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.0	48741	PASS
75	95	30	66	42.3	157888	PASS
95	95	100	100	100.0	373670	PASS
96	95	5	9	6.6	24623	PASS
173	174	0.00	2	0.5	1524	PASS
174	95	50	120	79.0	295296	PASS
175	174	4	9	6.9	20421	PASS
176	174	93	101	96.5	285035	PASS
177	176	5	9	6.4	18152	PASS

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023794A.D
 Acq On : 03 Apr 2024 12:36 pm
 Operator : YR
 Sample : SEQ-TUN1
 Misc : QBT03040224A TUNE
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Integration File: rteintnew.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Title : T015 VOC Analysis
 Last Update : Mon Apr 01 10:48:02 2024



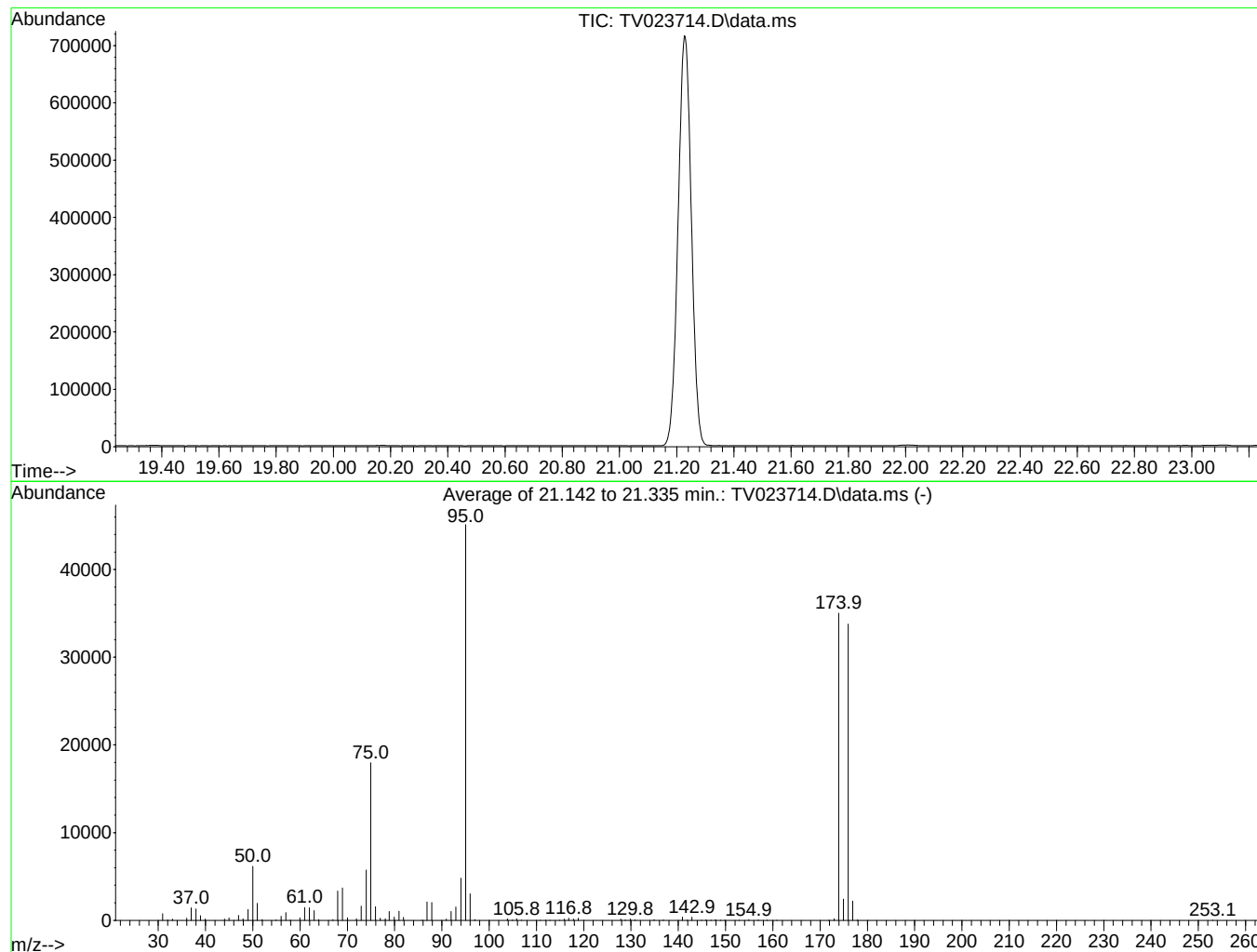
AutoFind: Averaged scan 4964 to 5027; Bkg corrected with scan 4963

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.0	13023	PASS
75	95	30	66	41.0	41156	PASS
95	95	100	100	100.0	100306	PASS
96	95	5	9	6.6	6621	PASS
173	174	0.00	2	0.5	385	PASS
174	95	50	120	78.2	78470	PASS
175	174	4	9	6.9	5425	PASS
176	174	93	101	96.3	75573	PASS
177	176	5	9	6.5	4903	PASS

Data Path : C:\MassHunter\GCMS\1\data\032924_ISO_ICAL\
Data File : TV023714.D
Acq On : 29 Mar 2024 08:48 pm
Operator : VH
Sample : SEQ-TUN1
Misc : QBT03032924A TUNE
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

Integration File: rteintnew.p

Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Title : T015 VOC Analysis
Last Update : Mon Apr 01 10:48:02 2024



AutoFind: Averaged scan 4972 to 5031; Bkg corrected with scan 4971

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.6	6155	PASS
75	95	30	66	39.8	17975	PASS
95	95	100	100	100.0	45120	PASS
96	95	5	9	6.7	3030	PASS
173	174	0.00	2	0.5	165	PASS
174	95	50	120	77.6	35034	PASS
175	174	4	9	6.9	2402	PASS
176	174	93	101	96.5	33793	PASS
177	176	5	9	6.5	2181	PASS

METHOD BLANK RAW DATA

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1629
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	0.69	U
71-55-6	1,1,1-Trichloroethane	0.55	U
79-34-5	1,1,2,2-Tetrachloroethane	0.69	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.77	U
79-00-5	1,1,2-Trichloroethane	0.55	U
75-34-3	1,1-Dichloroethane	0.40	U
75-35-4	1,1-Dichloroethylene	0.099	U
120-82-1	1,2,4-Trichlorobenzene	0.74	U
95-63-6	1,2,4-Trimethylbenzene	0.49	U
106-93-4	1,2-Dibromoethane	0.77	U
95-50-1	1,2-Dichlorobenzene	0.60	U
107-06-2	1,2-Dichloroethane	0.40	U
78-87-5	1,2-Dichloropropane	0.46	U
76-14-2	1,2-Dichlorotetrafluoroethane	0.70	U
108-67-8	1,3,5-Trimethylbenzene	0.49	U
106-99-0	1,3-Butadiene	0.66	U
541-73-1	1,3-Dichlorobenzene	0.60	U
142-28-9	1,3-Dichloropropane	0.46	U
106-46-7	1,4-Dichlorobenzene	0.60	U
123-91-1	1,4-Dioxane	0.72	U
78-93-3	2-Butanone	0.29	U
591-78-6	2-Hexanone	0.82	U
107-05-1	3-Chloropropene	1.6	U
108-10-1	4-Methyl-2-pentanone	0.41	U
67-64-1	Acetone	0.48	U
107-13-1	Acrylonitrile	0.22	U
71-43-2	Benzene	0.32	U
100-44-7	Benzyl chloride	0.52	U
75-27-4	Bromodichloromethane	0.67	U
75-25-2	Bromoform	1.0	U

FORM I**METHOD BLANK DATA SHEET
EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. - Stratford SDG: 24C1629
Client: Walden Associates Project: IMPL 0115.6 Imperial Cleaners
Matrix: Air Laboratory ID: BD40407-BLK1 File ID: TV023799.D
Prepared: 04/03/24 12:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 04/03/24 16:01 Instrument: TO15_AIR3
Batch: BD40407 Sequence: S4D0428 Calibration: SC40018

CAS NO.	COMPOUND	CONC. (ug/m ³)	Q
74-83-9	Bromomethane	0.39	U
75-15-0	Carbon disulfide	0.31	U
56-23-5	Carbon tetrachloride	0.16	U
108-90-7	Chlorobenzene	0.46	U
75-00-3	Chloroethane	0.26	U
67-66-3	Chloroform	0.49	U
74-87-3	Chloromethane	0.21	U
156-59-2	cis-1,2-Dichloroethylene	0.099	U
10061-01-5	cis-1,3-Dichloropropylene	0.45	U
110-82-7	Cyclohexane	0.34	U
124-48-1	Dibromochloromethane	0.85	U
75-71-8	Dichlorodifluoromethane	0.49	U
141-78-6	Ethyl acetate	0.72	U
100-41-4	Ethyl Benzene	0.43	U
87-68-3	Hexachlorobutadiene	1.1	U
67-63-0	Isopropanol	0.49	U
80-62-6	Methyl Methacrylate	0.41	U
1634-04-4	Methyl tert-butyl ether (MTBE)	0.36	U
75-09-2	Methylene chloride	0.69	U
91-20-3	Naphthalene	1.0	U
142-82-5	n-Heptane	0.41	U
110-54-3	n-Hexane	0.35	U
95-47-6	o-Xylene	0.43	U
179601-23-1	p- & m- Xylenes	0.87	U
622-96-8	p-Ethyltoluene	0.49	U
115-07-1	Propylene	0.17	U
100-42-5	Styrene	0.43	U
127-18-4	Tetrachloroethylene	0.68	U
109-99-9	Tetrahydrofuran	0.59	U
108-88-3	Toluene	0.38	U

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:York Analytical Laboratories, Inc. - StratfordSDG:24C1629

Client:Walden AssociatesProject:IMPL 0115.6 Imperial Cleaners

Matrix:AirLaboratory ID:BD40407-BLK1File ID:TV023799.D

Prepared:04/03/24 12:00Preparation:EPA TO15 PREPInitial/Final:400 mL / 400 mL

Analyzed:04/03/24 16:01Instrument:TO15_AIR3

Batch:BD40407Sequence:S4D0428Calibration:SC40018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
156-60-5	trans-1,2-Dichloroethylene	0.40	U
10061-02-6	trans-1,3-Dichloropropylene	0.45	U
79-01-6	Trichloroethylene	0.13	U
75-69-4	Trichlorofluoromethane (Freon 11)	0.56	U
108-05-4	Vinyl acetate	0.35	U
593-60-2	Vinyl bromide	0.44	U
75-01-4	Vinyl Chloride	0.13	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	307883	12.176	312285	12.179	
ISTD: 1,4-Difluorobenzene	1102029	13.761	1390664	13.765	
ISTD: d5-Chlorobenzene	883047	19.05	1113630	19.05	

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023799.D
 Acq On : 03 Apr 2024 04:01 pm
 Operator : YR
 Sample : BD40407-BLK1
 Misc : QBT03040224A BLANK
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:12:22 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

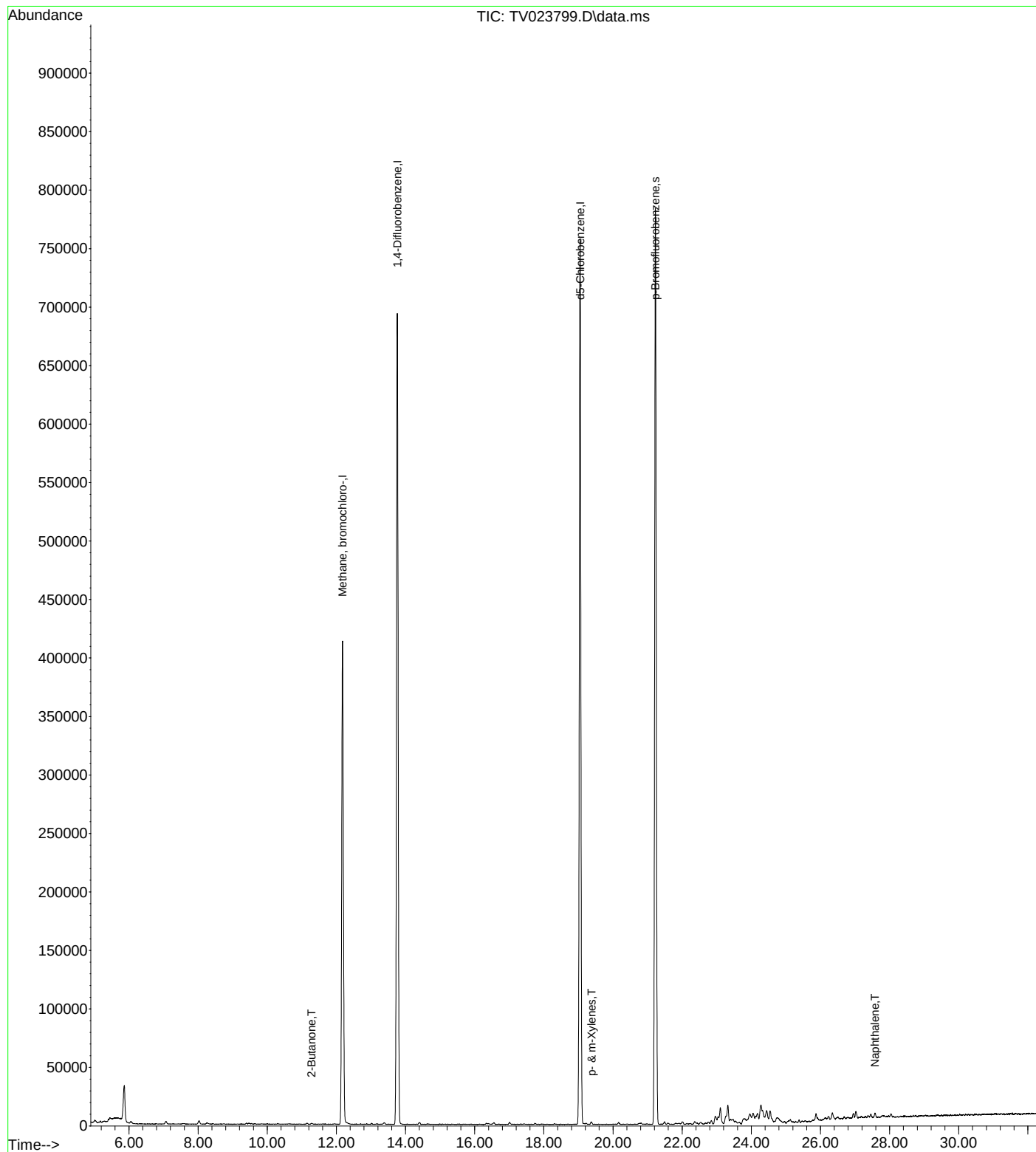
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

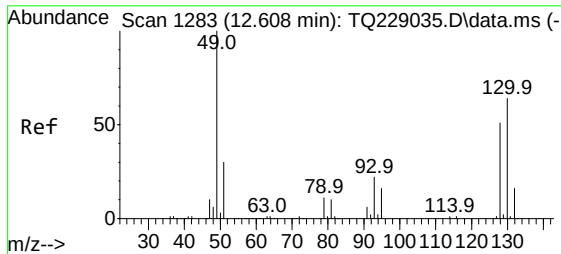
Internal Standards						
1) Methane, bromochloro-	12.176	49	307883	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.761	114	1102029	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	883047	10.00	ppbv	0.00
System Monitoring Compounds						
65) p-Bromofluorobenzene	21.227	95	572374	9.09	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	90.90%
Target Compounds						
						Qvalue
10) ethanol	7.074	45	2345	Below Cal	#	85
13) Isopropanol	8.025	45	6900	Below Cal	#	99
15) Acetone	8.254	43	2591	Below Cal	#	42
20) Acrylonitrile	9.476	53	1111	Below Cal	#	100
27) 2-Butanone	11.280	43	1820	0.03 ppbv	#	56
58) p- & m-Xylenes	19.377	91	3015	0.03 ppbv	#	80
79) Naphthalene	27.578	128	5341	0.03 ppbv	#	86

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023799.D
Acq On : 03 Apr 2024 04:01 pm
Operator : YR
Sample : BD40407-BLK1
Misc : QBT03040224A BLANK
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

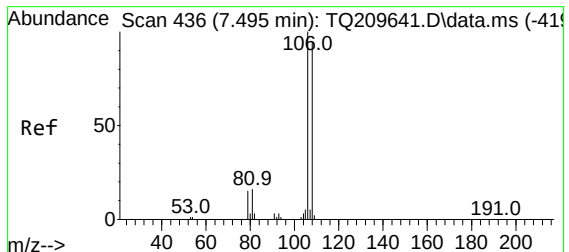
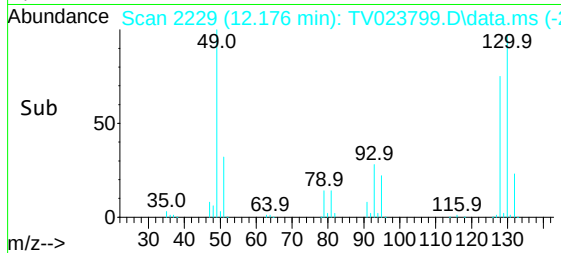
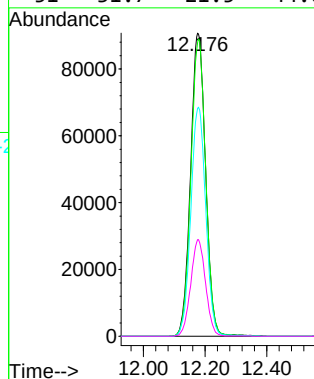
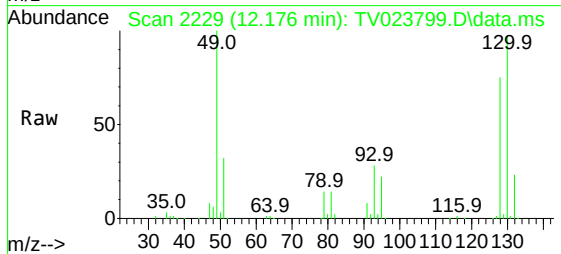
Quant Time: Apr 04 00:12:22 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration





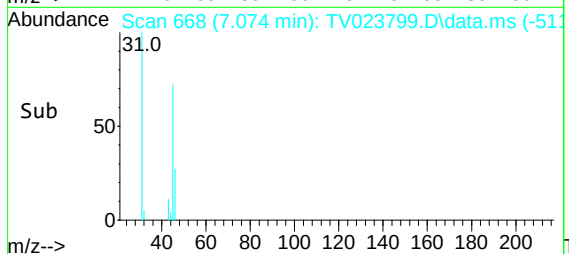
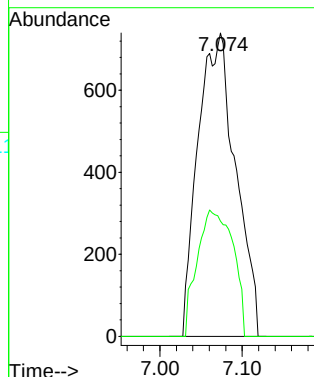
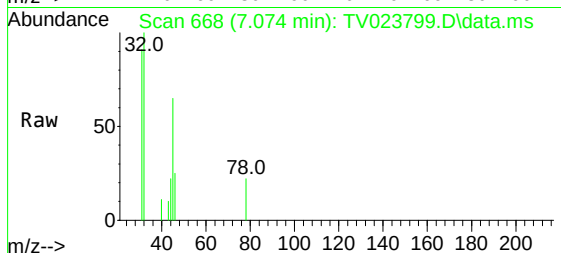
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.176 min Scan# 2229
Delta R.T. -0.006 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

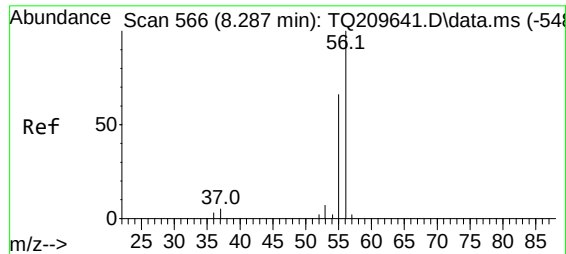
Tgt Ion:	49	Resp:	307883
Ion Ratio	Lower	Upper	
49	100		
130	97.1	44.5	92.3#
128	75.6	34.7	72.1#
51	31.7	21.5	44.6



#10
ethanol
Concen: Below Cal
RT: 7.074 min Scan# 668
Delta R.T. 0.014 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

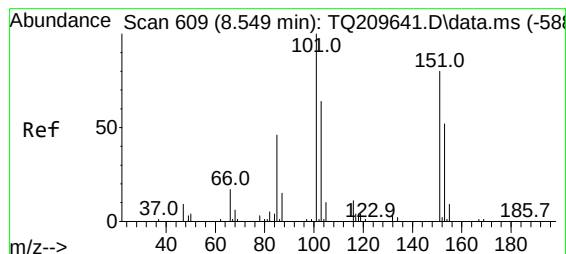
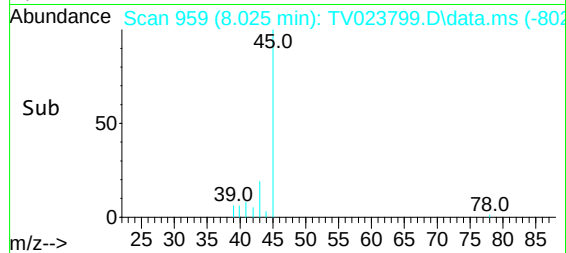
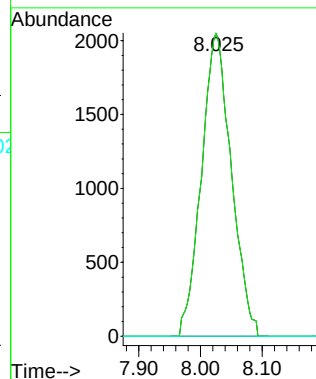
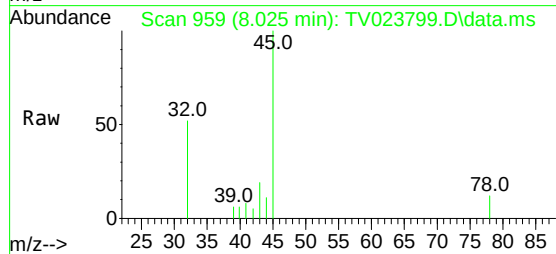
Tgt Ion:	45	Resp:	2345
Ion Ratio	Lower	Upper	
45	100		
46	39.7	40.0	60.0#





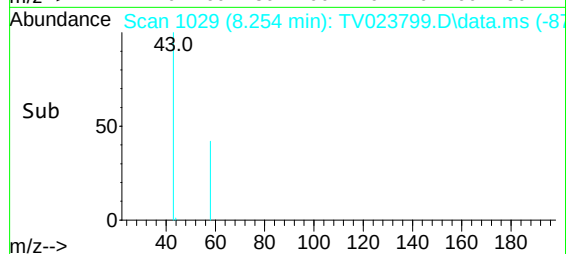
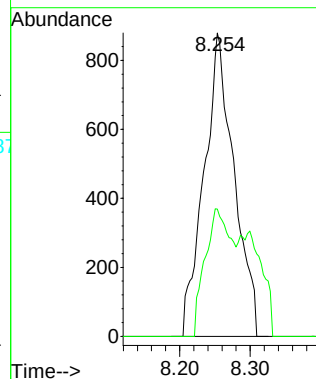
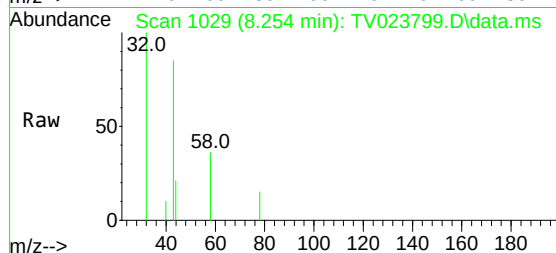
#13
Isopropanol
Concen: Below Cal
RT: 8.025 min Scan# 959
Delta R.T. 0.014 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

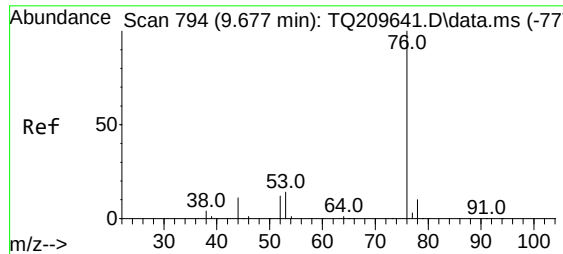
Tgt Ion:	45	Resp:	6900
Ion Ratio	Lower	Upper	
45	100		
45	100.0	65.0	135.0
59	0.0	0.0	8.4



#15
Acetone
Concen: Below Cal
RT: 8.254 min Scan# 1029
Delta R.T. 0.008 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

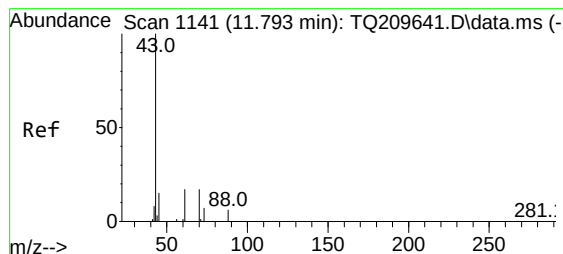
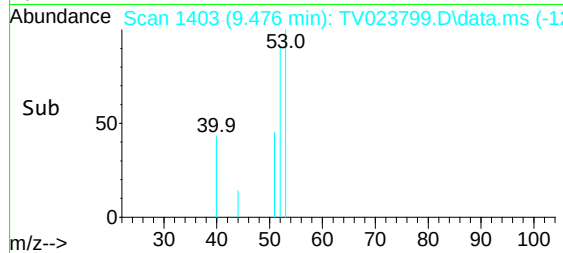
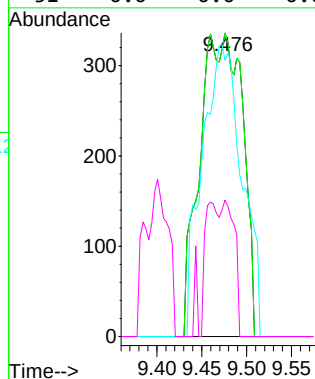
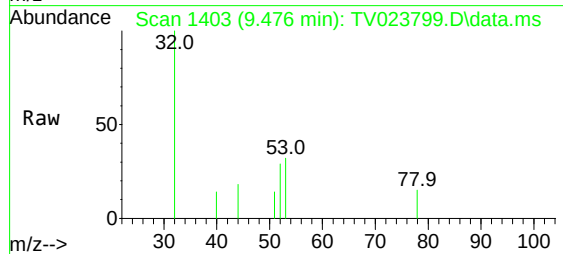
Tgt Ion:	43	Resp:	2591
Ion Ratio	Lower	Upper	
43	100		
58	64.2	20.7	42.9#





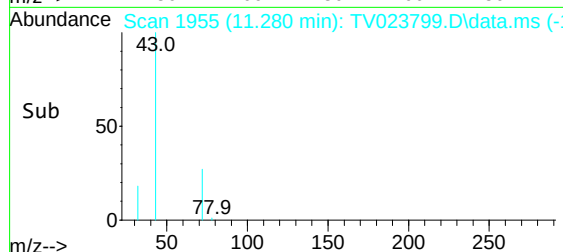
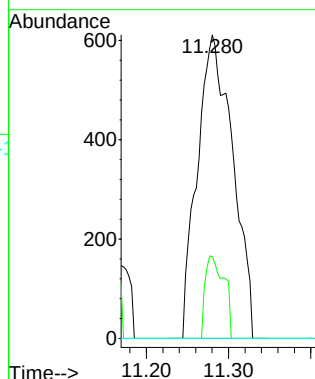
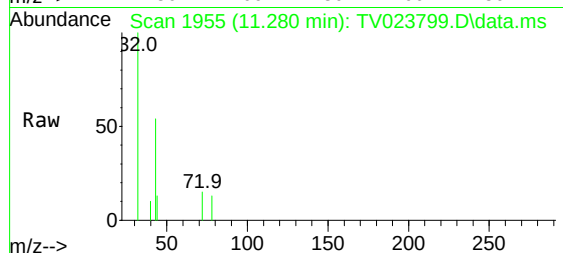
#20
Acrylonitrile
Concen: Below Cal
RT: 9.476 min Scan# 1403
Delta R.T. 0.004 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

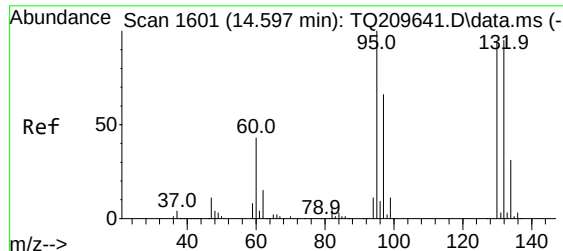
Tgt Ion: 53	Resp: 1111
Ion Ratio	Lower Upper
53	100
53	100.0 80.0 120.0
52	90.0 0.0 0.0#
51	0.0 0.0 0.0



#27
2-Butanone
Concen: 0.03 ppbv
RT: 11.280 min Scan# 1955
Delta R.T. 0.004 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

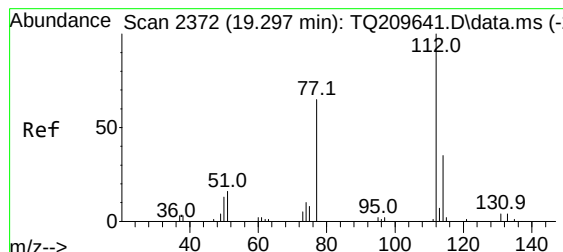
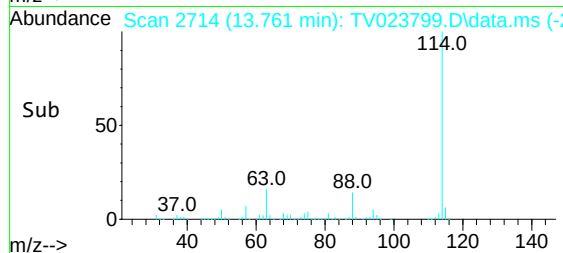
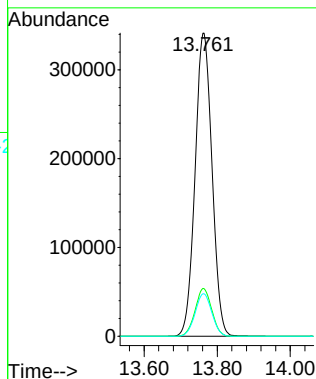
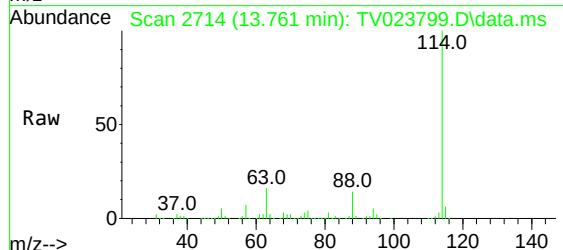
Tgt Ion: 43	Resp: 1820
Ion Ratio	Lower Upper
43	100
72	0.0 16.4 34.2#
57	0.0 5.0 10.4#





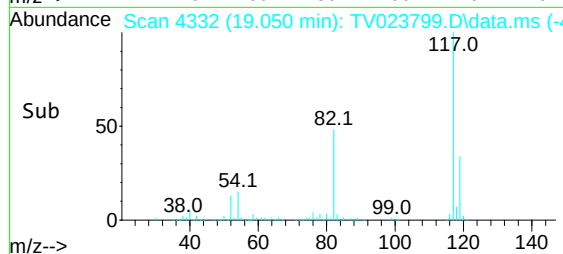
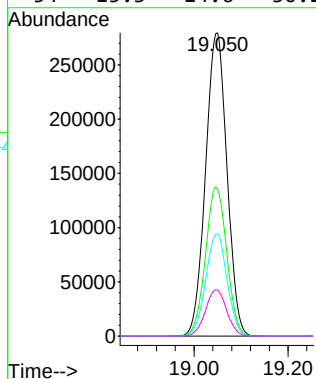
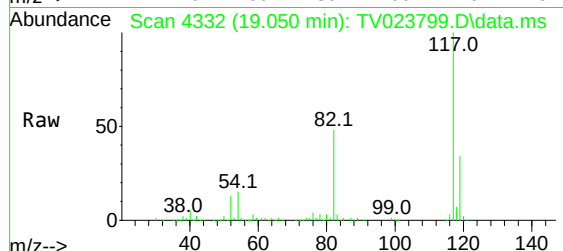
#38
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.761 min Scan# 2714
Delta R.T. -0.006 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

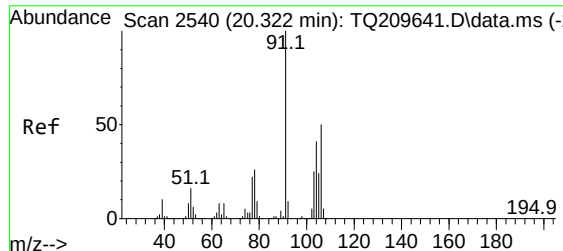
Tgt Ion:114 Resp: 1102029
Ion Ratio Lower Upper
114 100
63 15.5 14.0 29.2
88 13.9 11.2 23.2



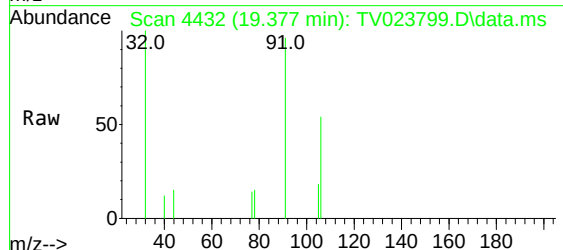
#54
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.050 min Scan# 4332
Delta R.T. -0.002 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

Tgt Ion:117 Resp: 883047
Ion Ratio Lower Upper
117 100
82 48.9 38.7 80.5
119 33.7 20.3 42.3
54 15.3 14.6 30.2

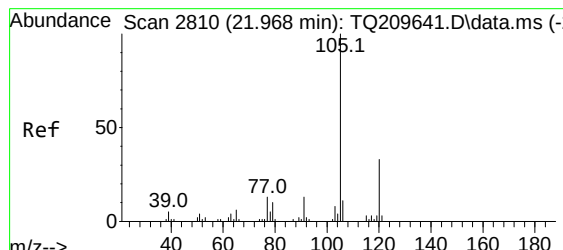
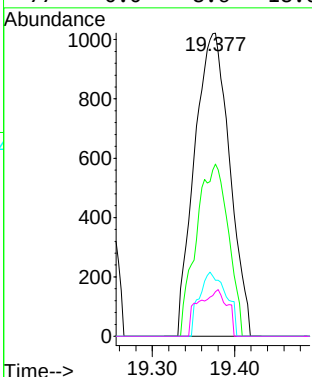
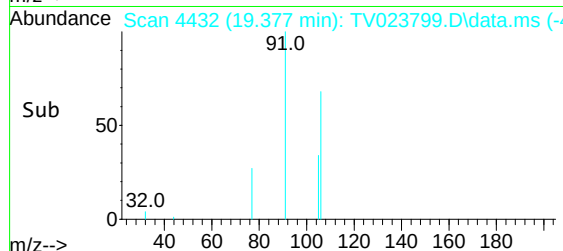




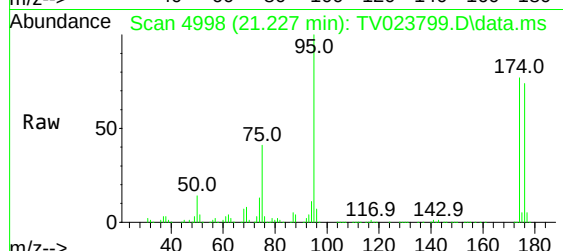
#58
p- & m-Xylenes
Concen: 0.03 ppbv
RT: 19.377 min Scan# 4432
Delta R.T. 0.001 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm



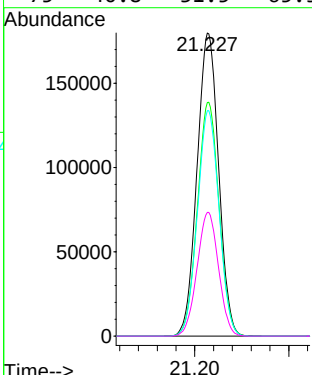
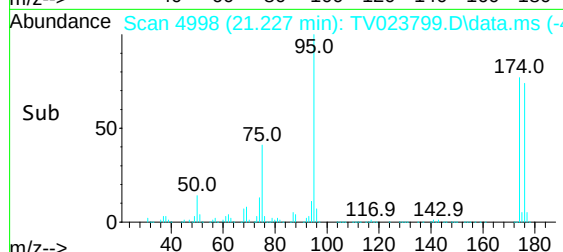
Tgt Ion:	91	Resp:	3015
Ion	Ratio	Lower	Upper
91	100		
106	52.0	31.0	64.4
105	0.0	13.4	27.8#
77	0.0	8.6	18.0#

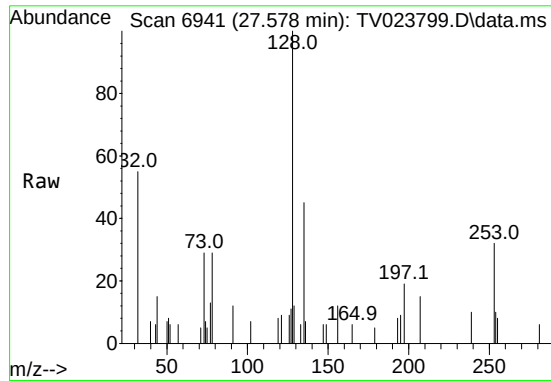


#65
p-Bromofluorobenzene
Concen: 9.09 ppbv
RT: 21.227 min Scan# 4998
Delta R.T. -0.005 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm



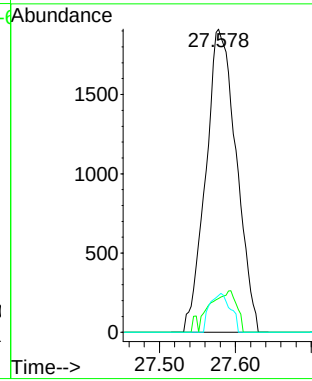
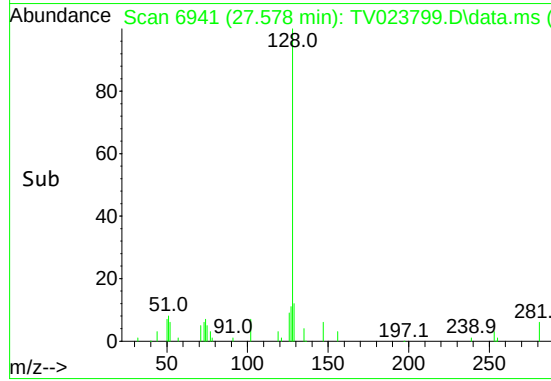
Tgt Ion:	95	Resp:	572374
Ion	Ratio	Lower	Upper
95	100		
174	77.6	50.0	103.8
176	74.7	48.2	100.2
75	40.8	31.5	65.3





#79
Naphthalene
Concen: 0.03 ppbv
RT: 27.578 min Scan# 6941
Delta R.T. -0.005 min
Lab File: TV023799.D
Acq: 03 Apr 2024 04:01 pm

Tgt Ion	Ratio	Resp	Lower	Upper
128	100			
127	12.5	8.1	16.9	
129	0.0	7.3	15.1	



METHOD BLANK RAW DATA

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:	<u>York Analytical Laboratories, Inc. - Stratford</u>	SDG:	<u>24C1629</u>		
Client:	<u>Walden Associates</u>	Project:	<u>IMPL 0115.6 Imperial Cleaners</u>		
Matrix:	<u>Air</u>	Laboratory ID:	<u>BD40409-BLK1</u>	File ID:	<u>TV023800.D</u>
Prepared:	<u>04/03/24 12:00</u>	Preparation:	<u>EPA TO15 PREP</u>	Initial/Final:	<u>400 mL / 400 mL</u>
Analyzed:	<u>04/03/24 16:42</u>	Instrument:	<u>TO15_AIR3</u>		
Batch:	<u>BD40409</u>	Sequence:	<u>S4D0429</u>	Calibration:	<u>SE40002</u>

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
540-84-1	2,2,4-Trimethylpentane	0.234	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	289517	12.176	320251	12.176	

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023800.D
 Acq On : 03 Apr 2024 04:42 pm
 Operator : YR
 Sample : BD40409-BLK1
 Misc : QBT03040224A BLANK
 ALS Vial : 3 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 14:35:41 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	289517	10.00	ppbv	0.00
3) d5-Chlorobenzene	19.047	117	818385	10.00	ppbv	0.00

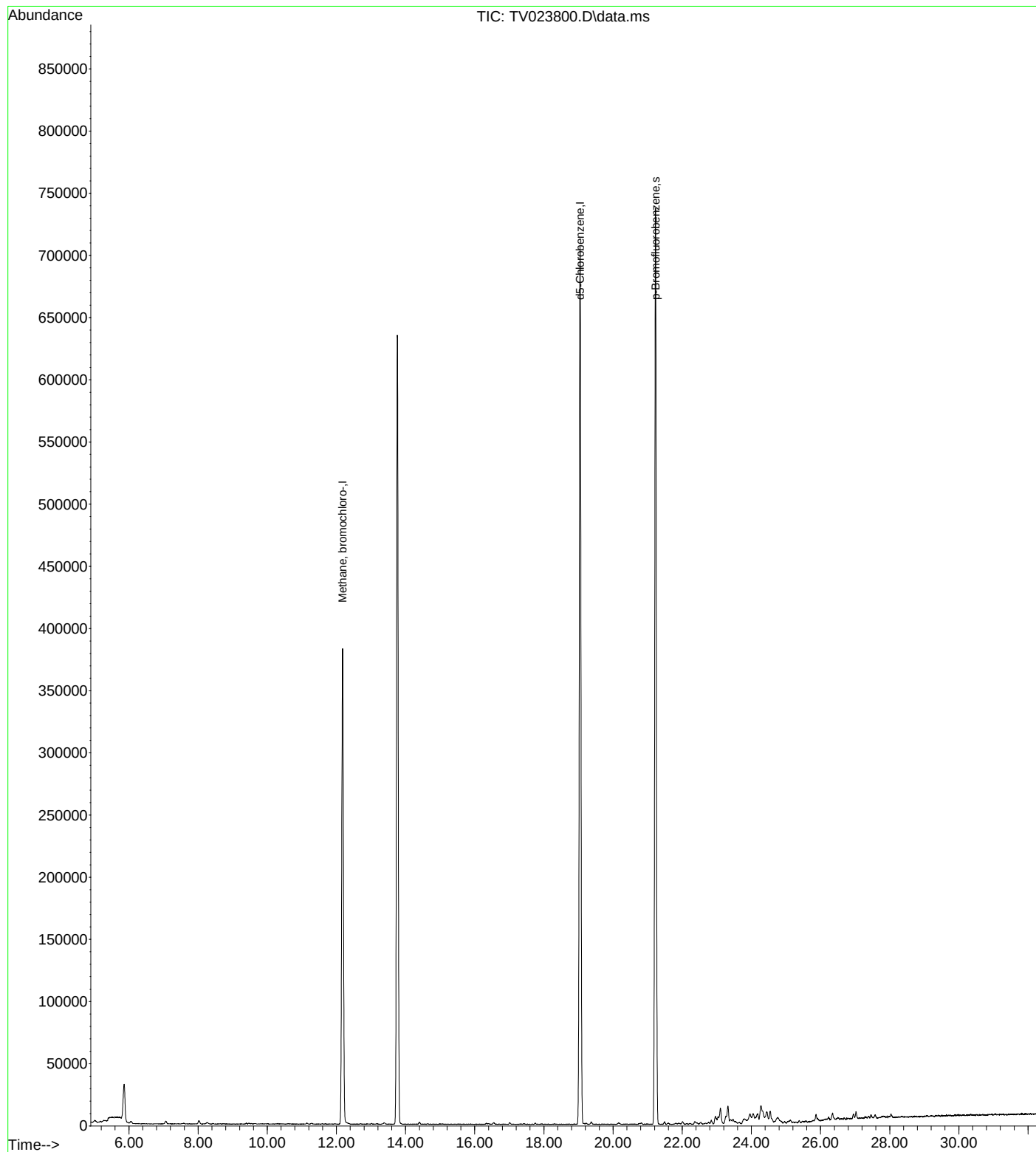
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.227	95	526242	9.94	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.40%

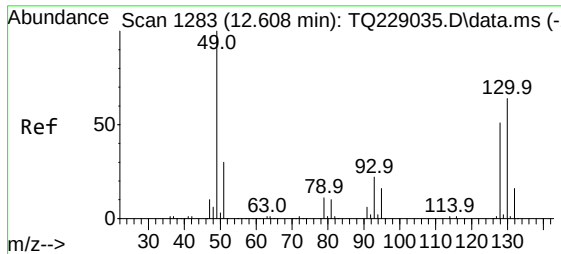
Target Compounds	Qvalue

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023800.D
Acq On : 03 Apr 2024 04:42 pm
Operator : YR
Sample : BD40409-BLK1
Misc : QBT03040224A BLANK
ALS Vial : 3 Sample Multiplier: 1
InstName : T015_AIR3

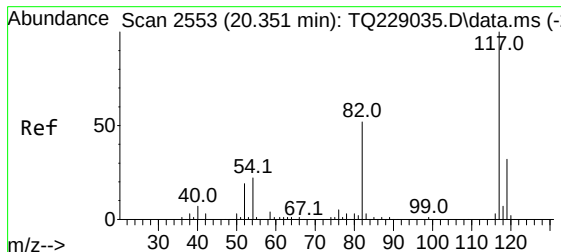
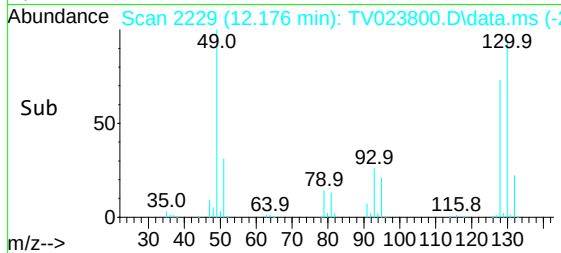
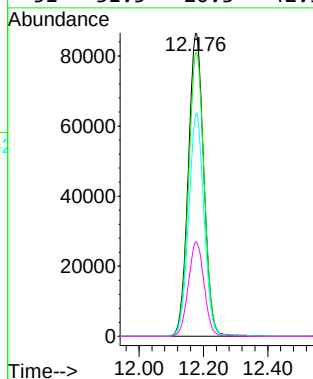
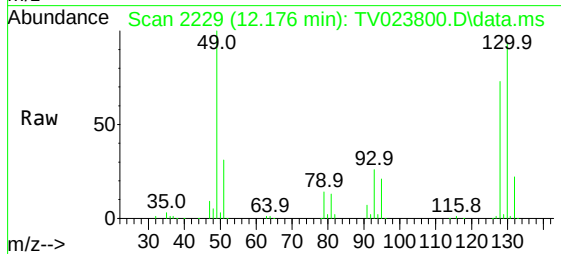
Quant Time: Apr 04 14:35:41 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration





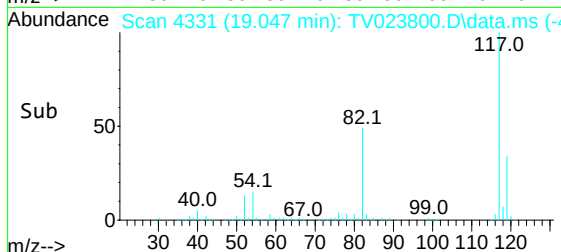
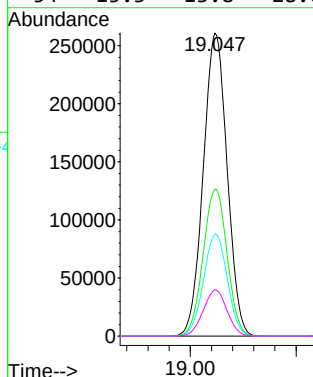
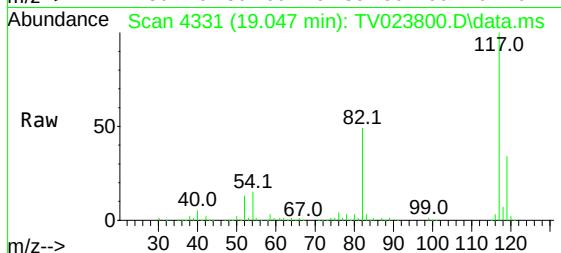
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 12.176 min Scan# 2229
Delta R.T. -0.003 min
Lab File: TV023800.D
Acq: 03 Apr 2024 04:42 pm

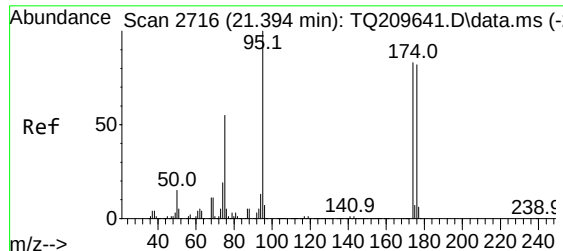
Tgt Ion:	49	Resp:	289517
Ion Ratio	Lower	Upper	
49	100		
130	94.3	48.1	99.9
128	73.0	38.3	79.5
51	31.5	20.3	42.3



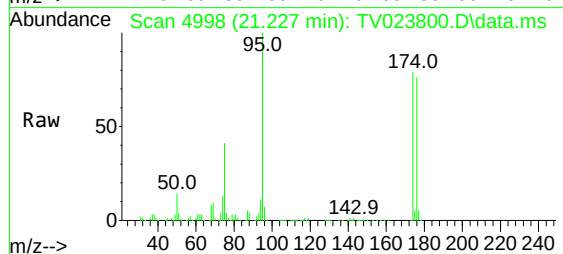
#3
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 19.047 min Scan# 4331
Delta R.T. -0.000 min
Lab File: TV023800.D
Acq: 03 Apr 2024 04:42 pm

Tgt Ion:	117	Resp:	818385
Ion Ratio	Lower	Upper	
117	100		
82	48.8	37.1	77.1
119	33.7	22.1	45.9
54	15.3	13.8	28.6

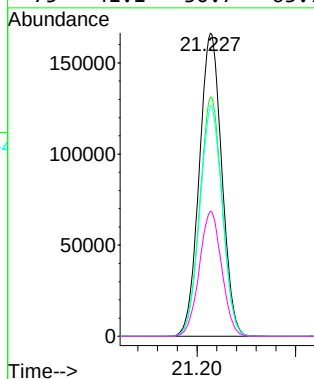
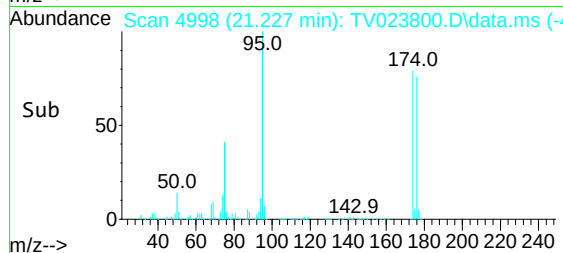




#4
 p-Bromofluorobenzene
 Concen: 9.94 ppbv
 RT: 21.227 min Scan# 4998
 Delta R.T. -0.003 min
 Lab File: TV023800.D
 Acq: 03 Apr 2024 04:42 pm



Tgt Ion:	95	Resp:	526242
Ion	Ratio	Lower	Upper
95	100		
174	79.0	53.2	110.6
176	76.0	51.6	107.2
75	41.1	30.7	63.7



LCS RAW DATA

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023797.D
 Acq On : 03 Apr 2024 02:38 pm
 Operator : YR
 Sample : BD40407-BS1
 Misc : QBT03040224A LCS
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:12:04 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	327568	10.00	ppbv	# 0.00
38) 1,4-Difluorobenzene	13.765	114	1322339	10.00	ppbv	0.00
54) d5-Chlorobenzene	19.050	117	1085556	10.00	ppbv	0.00

System Monitoring Compounds

65) p-Bromofluorobenzene	21.227	95	797007	10.29	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	102.90%

Target Compounds						Qvalue
2) Propylene	5.050	42	156341	8.80	ppbv	# 87
3) Dichlorodifluoromethane	5.126	85	804454	10.99	ppbv	99
4) 1,2-Dichlorotetrafluor...	5.390	85	531972	9.94	ppbv	88
5) Chloromethane	5.613	50	113006	8.41	ppbv	100
6) Vinyl Chloride	5.884	62	231108	9.47	ppbv	99
7) 1,3-Butadiene	5.972	54	208801	9.39	ppbv	95
8) Bromomethane	6.783	94	335254	10.83	ppbv	99
9) Chloroethane	6.956	64	154790	10.28	ppbv	96
10) ethanol	7.057	45	112375	7.92	ppbv	87
11) Vinyl Bromide	7.420	106	337725	10.80	ppbv	99
12) Trichlorofluoromethane	7.544	101	747410	10.94	ppbv	99
13) Isopropanol	8.005	45	507133	9.71	ppbv	100
14) Acrolein	8.136	56	127821	9.88	ppbv	# 100
15) Acetone	8.244	43	352575	8.69	ppbv	84
16) Freon-113	8.427	101	686407	11.12	ppbv	97
17) 1,1-Dichloroethylene	8.652	61	416314	10.41	ppbv	# 79
18) 3-Chloropropene	9.247	41	326637	8.41	ppbv	87
19) Methylene Chloride	9.398	49	302774	8.93	ppbv	80
20) Acrylonitrile	9.470	53	235991	7.51	ppbv	# 100
21) Carbon disulfide	9.538	76	967724	11.26	ppbv	90
22) Methyl-tert-Butyl Ethe...	9.803	73	832508	10.57	ppbv	95
23) trans-1,2-Dichloroethy...	10.009	61	400973	10.24	ppbv	# 77
24) Hexane	10.310	57	445729	9.77	ppbv	92
25) Vinyl Acetate	10.614	43	683468	9.00	ppbv	# 99
26) 1,1-Dichloroethane	10.672	63	515785	10.60	ppbv	# 99
27) 2-Butanone	11.274	43	540152	8.20	ppbv	90
28) Ethyl Acetate	11.584	43	599874	8.75	ppbv	96
29) cis-1,2-Dichloroethylene	11.676	61	383185	10.17	ppbv	# 78
30) Chloroform	11.950	83	666688	10.67	ppbv	97
31) Tetrahydrofuran	12.271	42	316413	8.59	ppbv	88
32) 1,1,1-Trichlorethane	12.699	97	668156	10.64	ppbv	95
33) Cyclohexane	12.875	56	464547	9.73	ppbv	89
34) Carbon Tetrachloride	13.166	117	730742	11.37	ppbv	97
35) 1,2-Dichloroethane	13.232	62	338904m	10.24	ppbv	
36) Benzene	13.369	78	971535	10.14	ppbv	# 100
37) n-Heptane	13.392	43	451021	8.35	ppbv	# 93
39) Trichloroethylene	14.405	95	482663	8.49	ppbv	87
40) 1,2-Dichloropropane	14.634	63	340993	7.90	ppbv	# 98
41) Methyl Methacrylate	14.644	69	381170	8.48	ppbv	# 78
42) 1,4-Dioxane	14.945	88	251577	9.47	ppbv	# 100
43) Bromodichloromethane	14.994	83	706859	8.64	ppbv	98
44) Methyl Isobutyl Ketone	15.536	43	643830	7.31	ppbv	94
45) cis-1,3-Dichloropropene	15.889	75	593866	8.50	ppbv	94
46) Toluene	16.553	91	1269411	8.35	ppbv	99
47) trans-1,3-Dichloropropene	16.703	75	529679	8.52	ppbv	# 93
48) 1,1,2-Trichlorethane	17.000	97	440811	8.48	ppbv	92

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023797.D
 Acq On : 03 Apr 2024 02:38 pm
 Operator : YR
 Sample : BD40407-BS1
 Misc : QBT03040224A LCS
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR3

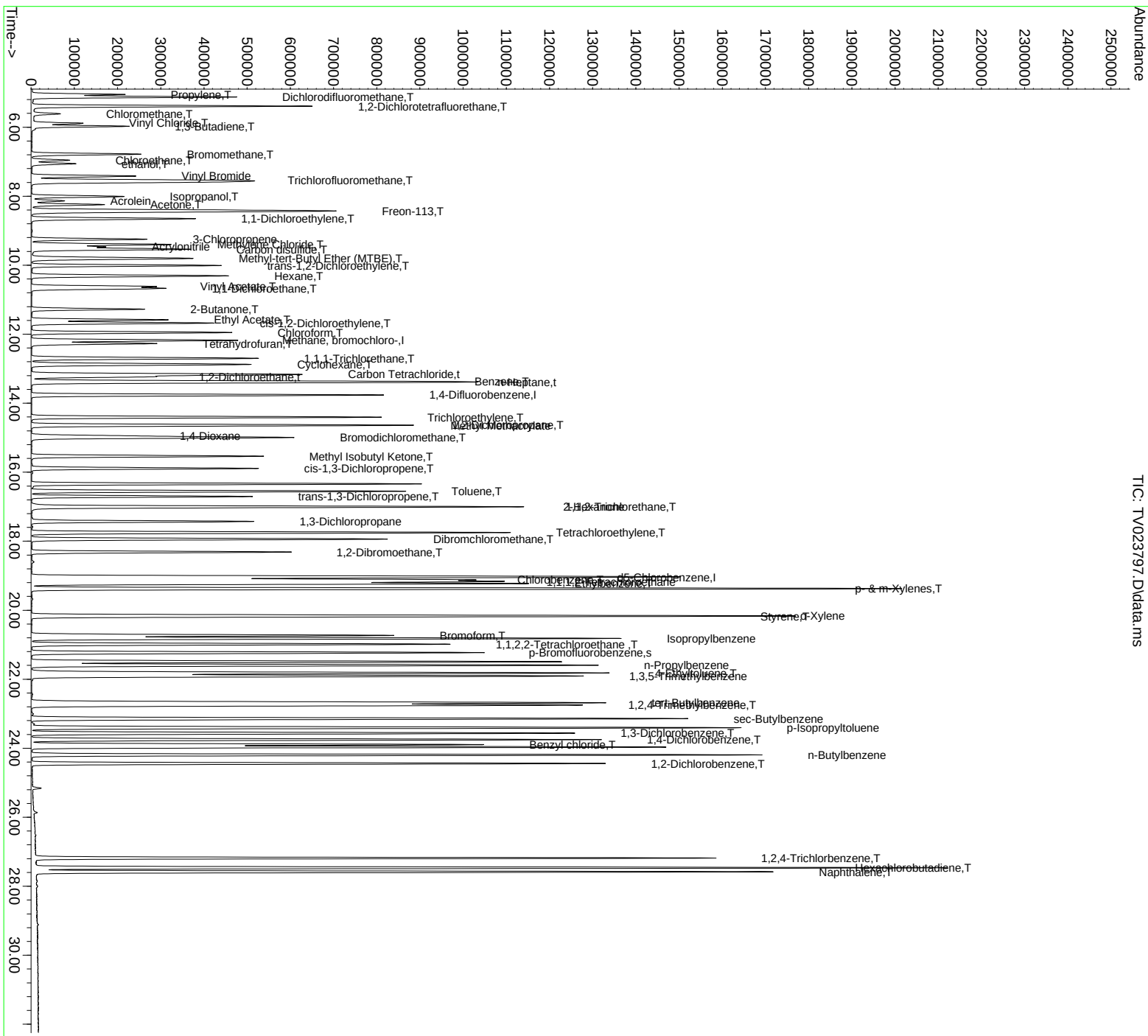
Quant Time: Apr 04 00:12:04 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Feb 21 13:01:26 2024
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 2-Hexanone	17.007	43	566209	7.10	ppbv	95
50) 1,3-Dichloropropane	17.429	76	640055	8.76	ppbv #	86
51) Tetrachloroethylene	17.749	166	630376	9.09	ppbv	96
52) Dibromchloromethane	17.939	129	912001	9.65	ppbv	97
53) 1,2-Dibromoethane	18.311	107	786672	8.97	ppbv	100
55) Chlorobenzene	19.119	112	1123359	9.17	ppbv #	100
56) 1,1,1,2-Tetrachloroethane	19.168	131	602411	9.25	ppbv	95
57) Ethylbenzene	19.226	91	1626746	8.82	ppbv	91
58) p- & m-Xylenes	19.374	91	2305533	17.37	ppbv	89
59) o-Xylene	20.158	91	1216533	8.76	ppbv	96
60) Styrene	20.178	104	1034785	9.20	ppbv #	74
61) Bromoform	20.730	173	800033	10.74	ppbv	98
62) n-Propylbenzene	21.596	91	2253076	9.15	ppbv	98
63) Isopropylbenzene	20.818	105	1931535	9.29	ppbv	98
64) 1,1,2,2-Tetrachloroeth...	20.985	83	1035120	8.97	ppbv	98
66) 4-Ethyltoluene	21.818	105	1926293	9.23	ppbv	89
67) 1,3,5-Trimethylbenzene	21.907	105	1572197	9.63	ppbv	96
68) tert-Butylbenzene	22.681	119	1932797	9.38	ppbv #	62
69) 1,2,4-Trimethylbenzene	22.750	105	1614907	9.45	ppbv #	76
70) sec-Butylbenzene	23.142	105	2434253	9.48	ppbv #	99
71) p-Isopropyltoluene	23.404	119	2201463	9.56	ppbv #	100
72) 1,3-Dichlorobenzene	23.564	146	1171313	9.82	ppbv	95
73) 1,4-Dichlorobenzene	23.750	146	1191792	9.87	ppbv	95
74) Benzyl chloride	23.894	126	410374	10.58	ppbv #	1
75) n-Butylbenzene	24.191	91	1842835	9.63	ppbv #	88
76) 1,2-Dichlorobenzene	24.443	146	1148723	10.06	ppbv	95
77) 1,2,4-Trichlorobenzene	27.186	180	888804	11.25	ppbv	95
78) Hexachlorobutadiene	27.463	225	658803	10.23	ppbv #	92
79) Naphthalene	27.581	128	2674335	10.75	ppbv	99

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023797.D
Acq On : 03 Apr 2024 02:38 pm
Operator : YR
Sample : BD40407-BS1
Misc : Q8T03040224A LCS
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 04 00:12:04 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-001.M
Quant Title : T015 VOC Analysis
Quant Update : Wed Feb 21 13:01:26 2024
Response via : Initial Calibration



LCS RAW DATA

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\MassHunter\GCMS\1\data\040324\
 Data File : TV023798.D
 Acq On : 03 Apr 2024 03:20 pm
 Operator : YR
 Sample : BD40409-BS1
 Misc : QBT03040224A ISOCTANE LCS
 ALS Vial : 6 Sample Multiplier: 1
 InstName : T015_AIR3

Quant Time: Apr 04 00:15:06 2024
 Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
 Quant Title : T015 VOC Analysis
 QLast Update : Mon Apr 01 10:48:02 2024
 Response via : Initial Calibration

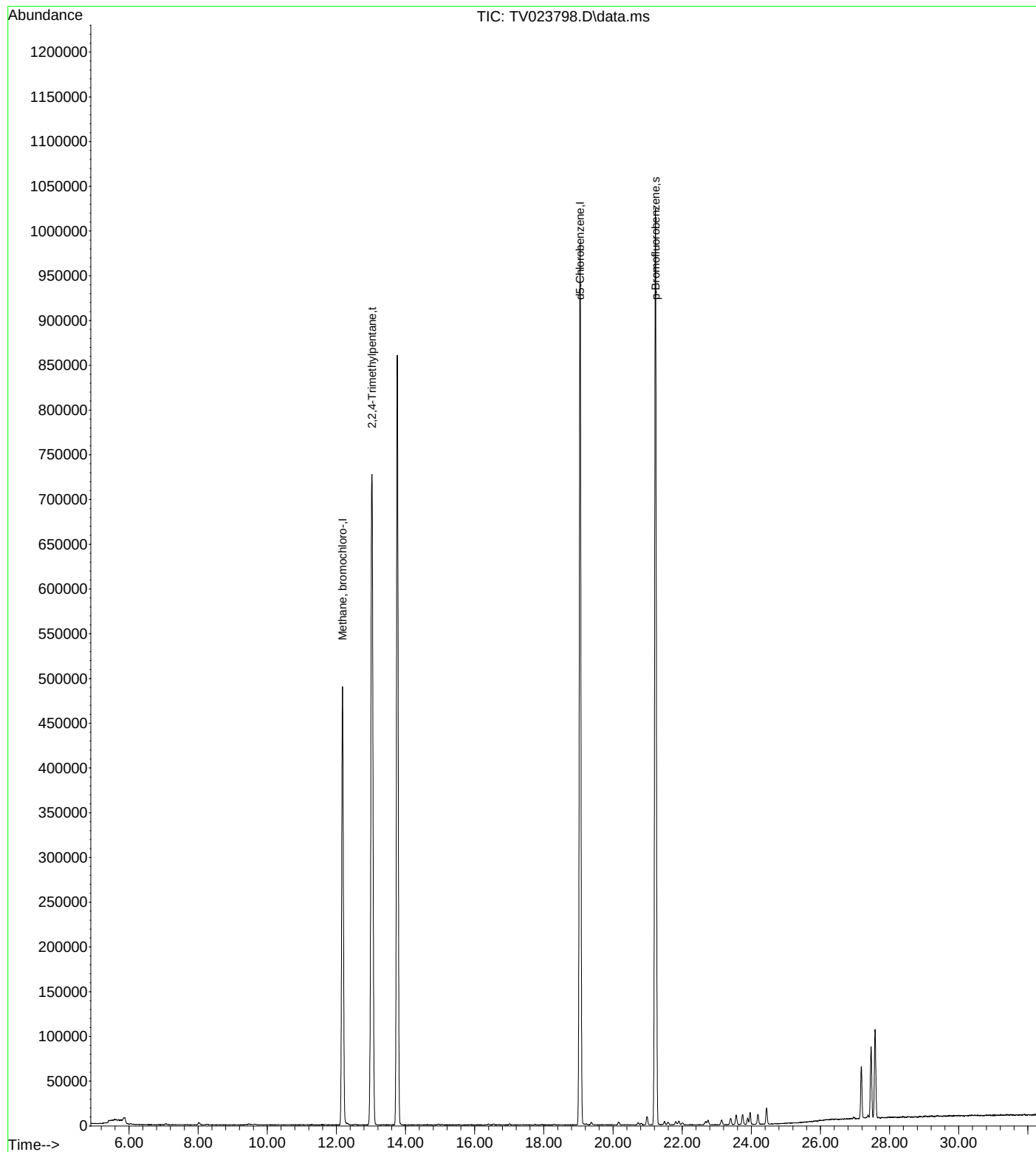
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	12.176	49	327367	10.00	ppbv	# 0.00
3) d5-Chlorobenzene	19.047	117	1194980	10.00	ppbv	0.00
System Monitoring Compounds						
4) p-Bromofluorobenzene	21.230	95	775536	10.03	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.30%
Target Compounds						
2) 2,2,4-Trimethylpentane	13.026	57	1503294	9.32	ppbv	# Qvalue 96

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

Data Path : C:\MassHunter\GCMS\1\data\040324\
Data File : TV023798.D
Acq On : 03 Apr 2024 03:20 pm
Operator : YR
Sample : BD40409-BS1
Misc : QBT03040224A ISOCTANE LCS
ALS Vial : 6 Sample Multiplier: 1
InstName : T015_AIR3

Quant Time: Apr 04 00:15:06 2024
Quant Method : C:\MassHunter\GCMS\1\methods\AIR-3-224TMP001.M
Quant Title : T015 VOC Analysis
QLast Update : Mon Apr 01 10:48:02 2024
Response via : Initial Calibration



BENCHSHEETS

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR : BD40407

Preparation Date: 04/03/2024 12:00

York Analytical Laboratories, Inc. - Stratford

Printed: 4/5/2024 5:41:23AM

Matrix: Air

Preparation: EPA TO15 PREP

Lab Number	Analysis	Canister Vacuum (in. Hg) upon receipt	Final Canister Press. (psig) for Analysis	Qualifier	LCS No. &Source ID for Duplicate	Comments
24C1497-01 A	Volatile Organics, EPA TO15 Full List	-5.44	+5.30			
24C1497-02 A	Volatile Organics, EPA TO15 Full List	-2.41	+4.87			
24C1497-02RE1 A	Volatile Organics, EPA TO15 Full List	-2.41	+4.87			Added 4/4/2024 by YR
24C1497-03 A	Volatile Organics, EPA TO15 Full List	-3.36	+5.53			
24C1612-01 A	VOA, TO15 MASTER	-4.95	+5.11			
24C1612-02 A	VOA, TO15 MASTER	-5.41	+5.35			
24C1612-03 A	VOA, TO15 MASTER	-4.61	+5.56			
24C1613-01 A	Volatile Organics, EPA TO15 Full List	-7.51	+6.36			
24C1613-02 A	Volatile Organics, EPA TO15 Full List	-1.67	+5.05			
24C1613-03 A	Volatile Organics, EPA TO15 Full List	-8.23	+4.51			
24C1627-01 A	Volatile Organics, EPA TO15 Full List	-4.60	+4.96			
24C1629-01 A	Volatile Organics, EPA TO15 Full List	-3.52	+5.12			
24C1639-01RE1 A	Volatile Organics, EPA TO15 Full List	-7.82	+5.24			From BD40169 by YR on 04
24C1639-06 A	Volatile Organics, EPA TO15 Full List	-7.93	+5.07			
24C1639-06 A	VOA, TO15 MASTER	-7.93	+5.07			Added for BatchQC in: BD4
24C1639-07 A	Volatile Organics, EPA TO15 Full List	-10.20	+6.46			From BD40169 by YR on 04
24C1962-01 A	Volatile Organics, EPA TO15 Full List	-5.26	+5.06			
24C1962-02 A	Volatile Organics, EPA TO15 Full List	-3.69	+5.42			
24C1962-03 A	Volatile Organics, EPA TO15 Full List	-6.44	+5.36			
24C1962-04 A	Volatile Organics, EPA TO15 Full List	-6.87	+5.01			
24C1962-05 A	Volatile Organics, EPA TO15 Full List	-5.71	+4.38			
24C1962-06 A	Volatile Organics, EPA TO15 Full List	-3.97	+5.57			
BD40407-BLK1	QC	NA	NA			
BD40407-BS1	QC	NA	NA		S24D006	
BD40407-DUP1	QC	-7.93	+5.07		24C1639-06	

From BA41406 on 1/24/2024 by VH

Preparations Performed by YR

Date: 04/03/2024 12:00

BENCHSHEETS

SDG: 24C1629
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR :

BD40409

Preparation Date: 04/03/2024 12:00

York Analytical Laboratories, Inc. - Stratford

Printed: 4/5/2024 5:41:35AM

Matrix: Air

Preparation: EPA TO15 PREP

Lab Number	Analysis	Canister Vacuum (in. Hg) upon receipt	Final Canister Press. (psig) for Analysis	Qualifier	LCS No. &Source ID for Duplicate	Comments
24C1497-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.44	+5.30			From BD40407 by YR on 04
24C1497-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-2.41	+4.87			From BD40407 by YR on 04
24C1497-02RE1 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-2.41	+4.87			From BD40407 by YR on 04
24C1497-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.36	+5.53			From BD40407 by YR on 04
24C1612-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.95	+5.11			From BD40407 by YR on 04
24C1612-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.41	+5.35			From BD40407 by YR on 04
24C1612-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.61	+5.56			From BD40407 by YR on 04
24C1613-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.51	+6.36			From BD40407 by YR on 04
24C1613-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-1.67	+5.05			From BD40407 by YR on 04
24C1613-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-8.23	+4.51			From BD40407 by YR on 04
24C1627-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-4.60	+4.96			From BD40407 by YR on 04
24C1629-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.52	+5.12			From BD40407 by YR on 04
24C1639-01RE1 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.82	+5.24			From BD40407 by YR on 04
24C1639-06 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-7.93	+5.07			From BD40407 by YR on 04
24C1639-07 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-10.02	+4.46			From BD40407 by YR on 04
24C1962-01 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.26	+5.06			From BD40407 by YR on 04
24C1962-02 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.69	+5.42			From BD40407 by YR on 04
24C1962-03 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-6.44	+5.36			From BD40407 by YR on 04
24C1962-04 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-6.87	+5.01			From BD40407 by YR on 04
24C1962-05 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-5.71	+4.38			From BD40407 by YR on 04
24C1962-06 A	VOA, TO15 Isooctane (2,2,4-TMP) Add On	-3.97	+5.57			From BD40407 by VH on 04
BD40409-BLK1	QC	NA	NA			
BD40409-BS1	QC	NA	NA		S24D006	
BD40409-DUP1	QC	-7.93	+5.07		24C1639-06	

From BD40407 on 04/04/2024 by YR

Preparations Performed by YR

Date: 04/03/2024 12:00

Page 1 of 1

Data Usability Summary Report

Former Imperial Cleaners Site
BCP Site # C130225

Indoor Air Quality Sampling
6 University Place
Lake Success, NY 11020

This Data Usability Summary Report (DUSR) has been prepared to validate the results of the indoor air sampling conducted at 6 University Place, Lake Success, NY on March 20-21, 2024 in accordance with the *Generic Interim Remedial Measure Work Plan (IRM Work Plan*, Walden, March 4, 2022) approved by the New York State Department of Environmental Conservation (NYSDEC).

This DUSR has been prepared in accordance with NYSDEC Draft DER-10 Appendix 2B – Guidance for Data Deliverables and the Development of Data Usability Summary Reports. The DUSR provides a thorough evaluation of analytical data without using the services of an independent third-party data validator. The primary objective of the DUSR is to determine whether or not the data presented meets project specific criteria for data quality and use.

The analytical data was evaluated by Mr. Lawrence Zeman (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume (see Attachment A). The indoor air sample collected for laboratory analysis was submitted to York Analytical Laboratories, Inc. (York Labs) of Stratford, CT, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #10854), and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (USEPA) Method TO-15 with the analytical detection limits set forth in the NYSDOH soil vapor intrusion (SVI) guidance document *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (2006, including updates). The DUSR process consisted of evaluating the analytical data package produced by York Labs and answering the following questions.

1. Were there any components of the sampling protocol which deviated from established sampling procedures?

The indoor air sample was collected in a laboratory-provided, individually certified 6-liter Summa[®] canister equipped with a flow regulator. The regulator was calibrated by the

laboratory for a sampling period of 24 hours; this sampling duration was chosen in accordance with the established sampling procedures in the NYSDEC-approved *IRM Work Plan*.

2. Is the data package complete as defined under the requirements for the NYSDEC ASP Category B or USEPA CLP deliverables?

The sampling and analytical program outlined in the *IRM Work Plan* was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. The analytical laboratory (York Labs) included method blanks, duplicates and batch QA/QC samples as part of their standard QA/QC program. Additionally, the sample was handled in compliance with the holding time allowances, meeting the NYSDEC ASP Category B and USEPA CLP deliverables criteria requirements.

3. Have all holding times been met?

Times of sample receipt, extraction, and analysis have been inspected to determine whether the holding time specifications have been met. The indoor air sample was analyzed within the specified holding times.

4. Do all QC data (blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls, and sample data) fall within the protocol-required limits and specifications?

All of the primary sample and QC data were reviewed. Laboratory duplicate sample analyses demonstrated a reasonable level of accuracy in the analytical results. The evaluation of the QA/QC data indicated that all of the QA/QC data met the protocol-required criteria and all laboratory control sample recovery values were within required limits with a few exceptions.

In summary, although analytes from the QA/QC sample data did not meet all required laboratory criteria, the reliability of the laboratory results should not be affected.

5. Have all the data been generated using established and agreed upon analytical protocols?

Laboratory analytical protocols have been developed by the USEPA and are published in *USEPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15* (Second Edition, January 1999). The review of the laboratory

deliverables indicated that the analytical data for this project were generated following these standard protocols.

6. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?

An evaluation of the raw data confirmed the accuracy of the results provided in the data summary sheets and the quality control verification forms included in the analytical data package prepared by the laboratory.

7. Have the correct data qualifiers been used?

The laboratory provided a list of qualifiers used in their data reporting. QC failures such as potential sample contamination by laboratory solvents or estimation of sample result values due to analyte concentrations detected above calibration ranges were checked back to the reported data to determine whether the qualifiers were properly used. The evaluation indicated that the laboratory flagged the data using the correct data qualifiers when necessary. The data qualifiers comply with the NYSDEC Analytical Services Protocol (ASP) 95 revised guidelines.

8. Have the minimum reporting limits been met?

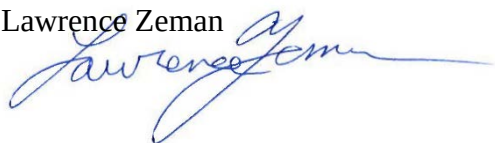
The laboratory's USEPA Method TO-15 analysis of the indoor air sample collected on March 20-21, 2024 achieved the minimum detection limits as required to evaluate the data based on the NYSDOH SVI Guidance and current decision matrix minimum reporting levels.

Summary

In summary, analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No significant QC exceedances were identified and it was determined that none of the data should be rejected. Therefore, there is no need for resampling or reanalysis based on the evaluation presented herein.

Prepared by:

Lawrence Zeman



Attachment A

Resume of Environmental Professional



Lawrence F. Zeman

Project Scientist III

Mr. Zeman has over 30 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in diverse areas that include regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses, and engineering/technical reporting.

EDUCATION

B.A. in Biology, Minor in Chemistry, Queens College

LICENSES/ CERTIFICATIONS

OSHA 40-hour HAZWOPER

OSHA 10-hour Construction Safety

New York State ELAP
Laboratory Director

New York State ELAP
Laboratory Microbiology
Director

SELECTED RELEVANT EXPERIENCE

- Performs sample collection of various sample types at industrial facilities and construction and remediation project sites
- Conducts soil sample collection, field activities oversight, and continuous air monitoring for Community Air Monitoring Programs (CAMP) in accordance with DER-10. Past projects include:
 - Elmhurst Tank Park and Playground, Queens, NY (2009–2011)
 - Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009–2011), as an Independent Environmental Monitor (IEM) on-site technician
 - Harlem River Greenway, Bronx, NY (2011–2012)
 - Beach Channel H.S. Athletic Fields (2016)
 - P.S. 63M William McKinley School, Manhattan, NY (2016)
 - P.S. 131 Abigail Adams Public School, Queens, NY (2017)
 - Forest Hills High School, Queens, NY (2017)
- Develops and implements new testing protocols and test procedures
- Conducts instrumentation repair and maintenance
- Conducts correlation studies of various analytic procedures
- Verifies laboratory Quality Assurance and Quality Control procedures and data
- Prepares and submits Data Usability Summary Reports (DUSR)
- Prepares and submits facility annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor, and opacity testing for DSNY permit renewal
- Provides environmental services to ensure compliance for NYSDEC Title V Air Facility Permits. Completes monthly, semi-annual, and annual compliance reports
- Provides environmental services to ensure compliance for NYCDEP Facility Air Permits
- Conducts field inspections and on-site audits
- Performs field measurements and recordings of noise and vibration
- Prepares engineering and technical reports
- Prepares New York City Community Right-to-Know Law and SARA reports for industrial facilities