
PERIODIC REVIEW REPORT (PRR)
(Reporting Period 2/28/2021 to 2/28/2024)

for

365 BOND STREET
Brooklyn, New York

Block 458, Lot 1
NYSDEC Site No. C224174

Prepared For:

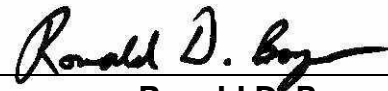
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TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION.....	1
1.1 General	1
1.2 Site Summary	1
1.3 Effectiveness of the Remedial Program	2
1.4 Compliance.....	2
1.5 Recommendations.....	2
2.0 SITE OVERVIEW	3
2.1 Site Location	3
2.2 Remedial Summary	3
3.0 IC/EC PLAN COMPLIANCE REPORT	4
3.1 IC/EC Components	4
3.2 Goal Status and Corrective Measures.....	4
3.3 Conclusions and Recommendations	4
4.0 MONITORING PLAN COMPLIANCE REPORT	5
4.1 Monitoring Plan Components	5
4.2 Summary of Monitoring Completed	5
4.2.1 Periodic Vapor Mitigation System Monitoring and Soil Vapor Sampling	5
4.2.2 Annual Composite Cover System Inspection.....	5
4.2.3 Annual Site-Wide Inspection	6
4.3 Comparisons with Remedial Objectives	6
4.4 Monitoring Deficiencies.....	7
4.5 Conclusions and Recommendations	7
5.0 O&M PLAN COMPLIANCE REPORT.....	7
5.1 O&M Plan Components.....	7
5.2 Completed O&M Activities	7
5.2.1 Site Composite Cover System Maintenance.....	7
5.2.2 Passive SMDS Construction and Maintenance	8

TABLE OF CONTENTS

5.3	O&M Deficiencies.....	8
5.4	Conclusions and Recommendations	8
6.0	OVERALL CONCLUSIONS AND RECOMMENDATIONS.....	8
6.1	SMP Compliance.....	8
6.2	Remedy Performance Evaluation	8
	6.2.1 Composite Cover System	8
	6.2.2 Passive SMDS.....	8
	6.2.3 IC Components	9
6.3	Future Submittals	9
7.0	CERTIFICATION OF IC/ECS	9
7.1	IC/EC Certification Form.....	9
7.2	IC/EC Certification	10

TABLE OF CONTENTS

LIST OF TABLES

Table 1	Comprehensive Soil Vapor Analytical Results
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LIST OF FIGURES

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Current Cover System Map
Figure 4	As-Built SMDS Layout
Figure 5A	V2 Analytical Trend Chart
Figure 5B	V3 Analytical Trend Chart
Figure 5C	V5 Analytical Trend Chart

APPENDICES

Appendix A	Environmental Easement
Appendix B	Soil Vapor Monitoring Reports
Appendix C	Site Inspection Forms and Photographic Documentation
Appendix D	ICEC Certification Form

1.0 INTRODUCTION

1.1 General

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this Periodic Review Report for the 2021 to 2024 reporting period in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP), dated September 2015. A periodic review of all institutional controls and engineering controls (IC/EC), and monitoring results is required to fulfill the November 2015 Certificate of Completion for the site, which acknowledges that the applicable remediation requirements set forth in the New York State Environmental Conservation Law (ECL) have been achieved to the satisfaction of the NYSDEC Commissioner, pursuant to the 5 June 2013 Brownfield Cleanup Agreement (BCA) Index No. C224174-05-13 (NYSDEC Brownfield Cleanup Program [BCP] Site No. C224174). As stated in an email from the NYSDEC dated 16 December 2019, the reporting period was changed from annually to a three-year period starting on 1 April 2018. Site remediation was performed in accordance with the February 2014 Interim Remedial Measures Work Plan (IRMWP), April 2014 AOC-4 Excavation Work Plan (EWP), May 2014 Comprehensive Supplemental Remedial Measures Plan (CSRMP), March 2015 Remedial Action Work Plan (RAWP), and March 2015 NYSDEC Decision Document.

1.2 Site Summary

The site is located in Brooklyn, County of Kings, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. A map showing the site location and boundaries of this 2.066-acre site is provided as Figure 1. The site has an industrial and manufacturing history which dates back over 100 years and included operation as an oil terminal with large above ground storage tanks, a building materials warehouse, a lumber company, paper products warehouse, an electric wire and cable company, a warehouse, a dry cleaner, a garage and an automotive repair shop with two 550-gallon underground gasoline tanks. The former buildings were demolished and the site was redeveloped with a multi-family residential building that was completed in April 2016.

Numerous subsurface investigations were conducted throughout the site between 2004 and 2014 and these investigations were documented in a Remedial Investigation Report (RIR) and Supplemental Remedial Investigation (SRI) Analytical Results Package Letter Report submitted to the United States

Environmental Protection Agency [USEPA] and NYSDEC) in 2014. Based on the results of the investigations:

- One hotspot area (Area of Concern [AOC]-4) was identified as soil impacted by residual petroleum contamination including the presence of light non-aqueous phase liquid (LNAPL) and characterized by the presence of petroleum related compounds benzene, toluene, ethylbenzene and xylenes (collectively referred to as BTEX);
- Eight additional areas (Supplemental AOC-4, AOC-7, B-3, B-4, EPA-3, EPA-4, LSB-18, and LSB-19) were identified as soil impacted by LNAPL and anomalously high concentrations of semi-volatile organic compounds (SVOCs);
- Soil vapor was impacted by petroleum-related volatile organic compounds (VOCs) and/or chlorinated VOCs (CVOCs) at locations throughout the site.

As discussed in Section 2.2, remediation was completed in 2014 and a Certification of Completion for the site was issued in October 2015. Site management has been conducted since completion of the remedial activities in July 2015. See Section 2.2 for further information on the remedial program.

1.3 Effectiveness of the Remedial Program

The remedial actions at the Site were implemented to remove gross contamination within the identified AOCs and eliminate potential human exposure with any remaining residual impacts present in soil, groundwater, and soil vapor via the Institutional Controls/Engineering Controls (IC/ECs). The IC/ECs for the 2021 to 2024 reporting period continue to meet the remedial objectives for the site.

1.4 Compliance

All IC/ECs have remained fully in place at the site for the 2021 to 2024 reporting period and remain effective.

1.5 Recommendations

No changes to the SMP are recommended at this time.

2.0 SITE OVERVIEW

2.1 Site Location

The site is located in Brooklyn, County of Kings, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. Lot 1 is an approximately 2.066-acre parcel bounded by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west.

2.2 Remedial Summary

Implementation of the remedial activities commenced in February 2014, and remedial activities were completed in July 2015. The components of the selected remedy included:

- Excavation and offsite disposal of grossly-contaminated soil associated with AOC-4, Supplemental AOC-4, B-3, B-4, EPA-3, EPA-4, LSB-18, and LSB-19);
- Excavation and offsite disposal of grossly-contaminated soils encountered during site redevelopment activities outside of originally-specified AOCs (AOC-7);
- Excavation and offsite disposal of excess contaminated soils which were not suitable for onsite reuse that were generated or encountered during re-grading and foundation construction activities;
- Decommissioning of seven underground storage tanks (USTs) discovered during excavation associated with the site redevelopment;
- Construction of ECs including a composite cover system, a steel sheet pile bulkhead wall, and a sub-membrane piping network for a passive SMDS beneath the at sidewalk-grade level portion of the new building;
- Recording an environmental easement (provided in Appendix A) with ICs; and,
- Development of an SMP for implementation of the IC/ECs.

With the exception of the installation of above-grade components of the SMD system and the waterfront esplanade portion of the composite cover system, remedial activities were completed as of July 2015. NYSDEC issued a Certificate of Completion on 6 November 2015. The waterfront esplanade construction was completed in 2016 and superstructure construction of the building was completed in 2017 and included installation of the above-slab components of

the SMD system. The New York City Department of Buildings (NYCDOB) issued a Certificate of Occupancy for floors 1 to 12 effective 2 February 2021.

The IC/ECs continue to be implemented at the site.

3.0 IC/EC PLAN COMPLIANCE REPORT

IC/ECs are required to protect human health and the environment from remaining contaminated soil, groundwater, and soil vapor beneath the site. The Engineering and Institutional Control Plan included in the SMP describes the procedures for the implementation and management of the IC/ECs.

3.1 IC/EC Components

A summary of the IC/ECs implemented at the site per the RAWP, FER, CCR, and SMP are as follows:

- Maintenance of a composite cover system to prevent human exposure to residual contaminated soils remaining under the site;
- Installation of a passive SMDS to prevent vapor migration into the building;
- Periodic soil vapor sampling;
- An environmental easement with ICs to prevent future exposure to any contamination remaining at the site (a copy of the environmental easement is provided in Appendix A); and,
- A SMP for implementation of the IC/ECs.

Refer to Figures 3 and 4 as well as the as-built drawings provided in the FER, CCR, and SMP for the locations of the ECs.

3.2 Goal Status and Corrective Measures

No deviations of the IC/ECs have been observed during the 2021 to 2024 reporting period. It should be noted that the annual soil vapor sampling and inspections for the 2021 to 2022 reporting period were performed after the heating season.

3.3 Conclusions and Recommendations

No changes to the SMP are recommended at this time.

4.0 MONITORING PLAN COMPLIANCE REPORT

4.1 Monitoring Plan Components

The components of the Monitoring Plan are as follows:

- Periodic vapor mitigation system monitoring;
- Periodic sub-slab air monitoring;
- An annual composite cover system inspection; and,
- An annual site-wide inspection.

4.2 Summary of Monitoring Completed

4.2.1 Periodic Vapor Mitigation System Monitoring and Soil Vapor Sampling

Inspection of all system components and field screening of the soil vapor was conducted during the Year 6, 7, and 8 monitoring and sampling events. System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sub-slab soil vapor sample port (V2, V3 and V5). Soil vapor samples were also collected from the three sample ports during each of the sampling events.

All samples were analyzed for VOCs via the EPA TO-15 Method by York Analytical Laboratories (a NYSDOH Environmental Laboratory Approval Program [ELAP]-accredited laboratory) of Stratford, Connecticut. Soil Vapor Monitoring Reports were prepared documenting the concentrations of contaminants of concern in the soil vapor and are included as Appendix B. The sub-membrane soil vapor concentrations were detected below the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices A through F thresholds requiring further mitigation, if evaluated as part of a soil vapor intrusion investigation. Based on these findings, continued operation of the passive SMDS is sufficient to mitigate any potential impacts to the building indoor air quality. A comprehensive soil vapor analytical results table detailing analytical data from 2016 to 2023 is provided as Table 1. Trend charts for each sample port from 2016 to 2023 are provided as Figures 5A, 5B, and 5C.

4.2.2 Annual Composite Cover System Inspection

An annual visual inspection of the site composite cover system including the permanent waterfront esplanade was completed on 20 June 2022, 2 March 2023, and 5 December 2023. For the permanent esplanade, inspections are conducted to confirm that the

composite cover system has not been breached and that the demarcation layer has not been exposed. Conditions of the onsite subgrade parking area slab, foundation walls, first floor concrete slab, outdoor paving/sidewalks, and landscaped areas were inspected for quality and integrity.

No damages and/or breaches beyond hairline/surficial cracks to the composite cover system including the subgrade parking area slab, foundation walls, outdoor paving/sidewalks or the esplanade area were identified during the annual inspection events. In addition, the visual inspections of the landscaped areas of the esplanade revealed that the demarcation layer had not been exposed in any area and appeared to be in good condition.

The detailed composite cover system inspection reports are included in Appendix C.

4.2.3 Annual Site-Wide Inspection

An annual site-wide inspection was conducted on 20 June 2022, 2 March 2023, and 5 December 2023 per the requirements of the SMP. No deviations or discrepancies were observed. The completed site-wide inspection forms are included in Appendix C.

4.3 Comparisons with Remedial Objectives

Remedial action objectives (RAOs) were identified in the RAWP for the protection and public health and the environmental. Soil RAOs are being addressed via the presence of the composite cover system including the building slab and foundation walls and permanent esplanade. RAOs for soil vapor are being addressed via the presence of a vapor barrier beneath the building slab and on the exterior of the foundation walls and will continue to be addressed via a passive SMDS. RAOs for groundwater were addressed by the excavation of contamination sources during the remedial action and continue to be addressed via ICs preventing use of groundwater as a source for potable water.

As described in Section 4.2.2 above, no damages and/or breaches to the composite cover system were observed.

As described in the Year 6 through 8 Soil Vapor Monitoring Reports (included in Appendix B), the vacuum being produced by the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. During the soil vapor screening and sampling events completed during the 2021 to 2024

reporting period, a vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations were detected below the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices A through F thresholds requiring further mitigation, if evaluated as part of a soil vapor intrusion investigation. Based on these findings, continued operation of the passive SMDS is sufficient to mitigate any potential impacts to the building indoor air quality.

4.4 Monitoring Deficiencies

Monitoring activities for the 2021 to 2024 reporting period otherwise fully complied with the SMP Monitoring Plan and NYSDEC's requests. Soil vapor sampling activities are described in the Soil Vapor Monitoring Reports included as Appendix B.

4.5 Conclusions and Recommendations

No changes to the SMP are recommended at this time.

5.0 O&M PLAN COMPLIANCE REPORT

5.1 O&M Plan Components

The components of the O&M Plan are as follows:

- Site composite cover system maintenance; and,
- Soil vapor mitigation system monitoring and equipment maintenance.

5.2 Completed O&M Activities

5.2.1 Site Composite Cover System Maintenance

Per the SMP, if cracking and/or other damage is observed over greater than 25 percent of the paved areas, the area will be repaved with asphalt or concrete to restore a thickness of at least four inches. The Year 6 through 8 visual inspections of the subgrade parking area, first floor slabs, foundation walls, and outdoor paving/sidewalks revealed no areas where greater than 25 percent of the surface is cracked or damaged.

For the permanent esplanade landscaped areas, the Year 6 through 8 visual inspections revealed that the cover has not been breached and that the demarcation layer has not been exposed.

No additional maintenance activities are required at this time.

5.2.2 Passive SMDS Construction and Maintenance

The portions of the SMDS that were accessible for inspection during the Year 6 through 8 events (i.e., the soil vapor sample ports and roof-top discharge stacks) appeared to be in good condition. Access to the V1 riser was not provided in June 2022 due to the tenant not providing access to this portion of the building.

5.3 O&M Deficiencies

The site composite system and passive SMDS were observed to be in good condition between Year 6 and Year 8.

5.4 Conclusions and Recommendations

No changes to the SMP are recommended at this time.

6.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

6.1 SMP Compliance

Each component of the SMP, including the IC/EC Plan, Monitoring Plan, and O&M Plan, was in compliance for the 2021 to 2024 reporting period.

6.2 Remedy Performance Evaluation

6.2.1 Composite Cover System

Conditions of the onsite building foundations, sidewalks and permanent esplanade landscaped areas were inspected for quality and integrity. The site-wide composite cover system was confirmed to be intact and continues to be effective in protecting public health and the environment.

6.2.2 Passive SMDS

As discussed in Section 4.3, a vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations were detected below the NYSDOH October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices A through F thresholds requiring further mitigation, if evaluated as part of a soil vapor intrusion investigation. Based on these findings, continued operation and maintenance of the passive SMDS was deemed sufficient in order to mitigate any potential impacts to the building interior indoor air quality and system expansion as an active SMDS is not required at this time.

6.2.3 IC Components

All ICs were maintained during the 2021 to 2024 reporting period, and the environmental easement on the site remains in place.

6.3 Future Submittals

SMDS inspection will continue for Year 9 between December 2024 and March 2025, and annually thereafter during the heating season in accordance with the SMP unless otherwise required by NYSDEC. Soil vapor sampling will occur once every three years corresponding to the 2026 to 2027 heating season.

Inspections/monitoring of the composite cover system will continue on an annual basis.

At the direction of NYSDEC, passive SMDS may be activated. If activation of the SMDS is implemented, operation and maintenance procedures will be provided in a revised SMP.

Following approval of this PRR by NYSDEC and NYSDOH, it is recommended that a revised SMP will be submitted to NYSDEC to document the decrease in soil vapor sampling frequency from annual to three years following approval of this PRR by NYSDEC and NYSDOH. Forms and other information generated during regular monitoring events and inspections will be submitted at the time of the 2024 to 2027 Periodic Review Report, as specified in the Reporting Plan of the NYSDEC-approved SMP.

7.0 CERTIFICATION OF IC/ECS

7.1 IC/EC Certification Form

The completed IC/EC Certification Form is presented in Appendix D.

7.2 IC/EC Certification

I, Ronald D. Boyer, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program for the 365 Bond Street site (NYSDEC Site No. C224174).

I certify that the ICs/ECs are in place and effective and are performing as designed.

I certify that nothing has occurred that would impair the ability of the controls to protect the public health and environment and that nothing has occurred that would constitute a violation or failure to comply with any operation and maintenance plan for such controls.

I certify that all use restrictions, institutional controls, engineering controls, and all operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded. A Site Management Plan has been submitted by the applicant for the continual and proper operation, maintenance, and monitoring of all engineering controls employed at the site, including the proper maintenance of all remaining vapor monitoring points, and that such plan has been approved by the Department.

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



085831-1

New York State Professional Engineer No.

8/08/2024

Date

A handwritten signature of Ronald D. Boyer in black ink.

Signature

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

TABLES

Table 1
2021-2024 PRR
Comprehensive Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	V2_365										
		Sample Name	0762-V2_20160520	0763-DUP-1_20160520	0778-V2_072016	794-V2-20161020	816-V2	861_V2	866-V2	873_V2	878_V2	V2_030223	V2_120523
		Sample Date	05/20/2016	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022	03/02/2023	12/05/2023
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	ug/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	NA	<1.05 U	<1.26 U	<1.1 U	<1 U	<1 UJ
1,1,1-Trichloroethane	71-55-6	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	<0.82 UJ
1,1,2,2-Tetrachloroethane	79-34-5	ua/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	<1.37 U	<1.05 U	<1.26 U	<1.1 U	<1 U	<1 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.53 U	<1.17 U	<1.41 U	<1.3 U	<1.1 U	<1.2 UJ
1,1,2-Trichloroethane	79-00-5	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	<0.82 UJ
1,1-Dichloroethane	75-34-3	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.746 U	<0.67 U	<0.6 U	<0.61 UJ
1,1-Dichloroethene	75-35-4	ug/m3	<0.84 U	<1 U	<0.45 U	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.365 U	<0.16 U	<0.15 U	<0.15 UJ
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<1.6 U	<1.9 U	<0.84 U	<0.74 U	<14 U	<1.48 U	<1.13 U	<1.37 U	<1.2 UJ	<1.1 U	<1.1 UJ
1,2,4-Trimethylbenzene	95-63-6	ug/m3	6.9 J	2.4 J	2.4 D	<0.49 U	<9.5 U	<0.983 U	6.46 D	5.07 D	17 D	1.8 D	2.9 J
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ua/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.54 U	<1.17 U	<1.42 U	<1.3 U	<1.1 U	<1.2 UJ
1,2-Dichlorobenzene	95-50-1	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,2-Dichloroethane	107-06-2	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.745 U	<0.67 U	<0.6 U	<0.61 UJ
1,2-Dichloropropane	78-87-5	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.924 U	<0.707 U	<0.851 U	<0.77 U	<0.69 U	<0.7 UJ
1,2-Dichlorotetrafluoroethane	76-14-2	ua/m3	<1.5 U	<1.8 U	<0.79 U	<0.7 U	<13 U	<1.4 U	<1.07 U	<1.29 U	<1.2 U	<1 U	<1.1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/m3	2.1 D	<1.3 U	0.61 D	<0.49 U	<9.5 U	<0.983 U	1.95 D	1.36 D	4.3 D	<0.73 U	0.89 J
1,3-Butadiene	106-99-0	ug/m3	<1.4 U	<1.7 U	<0.75 U	<0.66 U	<13 U	<0.442 U	<1.01 U	<1.22 U	<1.1 U	<0.98 U	<1 UJ
1,3-Dichlorobenzene	541-73-1	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,3-Dichloropropane	142-28-9	ua/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	NA	<0.707 U	<0.851 U	<0.77 U	<0.69 U	<0.7 UJ
1,4-Dichlorobenzene	106-46-7	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 UJ	<14 U	<0.721 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	<1.1 UJ
2,2,4-Trimethylpentane	540-84-1	ug/m3	NA	NA	NA	NA	NA	<0.934 U	NA	NA	NA	NA	NA
2-Hexanone (MBK)	591-78-6	ua/m3	<1.7 U	<2.1 U	<0.93 UJ	<0.82 U	<16 U	<0.82 U	<4.64 U	<1.51 U	<1.4 UJ	<1.2 U	<1.2 UJ
4-Ethyltoluene	622-96-8	ug/m3	6.4 J	2 J	1.8 D	<0.49 U	<9.5 U	<0.983 U	5.86 J	4.35 D	14 D	1.6 D	2.4 J
Acetone	67-64-1	ua/m3	48 D	58 D	14 D	2.4	280 D	19.7	6.28 D	2.63 D	4 D	4.1 D	3 J
Acrylonitrile	107-13-1	ug/m3	<0.46 U	<0.56 U	<0.25 U	<0.22 U	<4.2 U	NA	<0.332 U	<0.4 U	<0.36 U	<0.32 U	<0.98 UJ
Allyl Chloride (3-Chloropropene)	107-05-1	ua/m3	<3.3 U	<4 U	<1.8 U	<1.6 U	<30 U	<0.626 U	<2.39 U	<2.88 U	<2.6 U	<2.3 U	<2.4 UJ
Benzene	71-43-2	ug/m3	9.4 D	6.4 D	0.98 D	<0.32 U	<6.1 U	1.08	2.78 D	2.94 D	2.9 D	2.1 D	2.9 J
Benzyl Chloride	100-44-7	ug/m3	<1.1 U	<1.3 U	<0.59 U	<0.52 UJ	<10 U	<1.04 U	<0.792 U	<0.954 U	<0.86 U	<0.77 U	<0.78 UJ
Bromodichloromethane	75-27-4	ug/m3	<1.4 U	<1.7 U	<0.76 U	<0.67 U	<13 U	<1.34 U	<1.02 U	<1.23 U	<1.1 U	<0.99 U	<1 UJ
Bromoethene	593-60-2	ug/m3	<0.92 U	<1.1 U	<0.5 U	<0.44 U	<8.4 U	<0.874 U	<0.669 U	<0.806 U	<0.73 U	<0.65 U	<0.66 UJ
Bromoform	75-25-2	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1 U	<20 U	<2.07 U	<1.58 UJ	<1.9 U	<1.7 U	<1.5 U	<1.6 UJ
Bromomethane	74-83-9	ua/m3	<0.82 U	<1 U	<0.44 U	<0.39 U	<7.5 U	<0.777 U	<0.594 U	<0.715 U	<0.64 U	<0.58 U	<0.58 UJ
Carbon Disulfide	75-15-0	ug/m3	<0.66 U	<0.8 U	0.53 D	<0.31 U	49 D	<0.623 U	0.476 D	0.574 D	0.72 D	0.79 D	<0.47 UJ
Carbon Tetrachloride	56-23-5	ua/m3	<0.33 U	<0.4 U	<0.18 U	<0.16 U	<3 U	<1.26 U	0.481 D	0.348 D	0.31 D	<0.23 U	0.47 J
Chlorobenzene	108-90-7	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.921 U	<0.704 U	<0.848 U	<0.76 U	<0.68 U	<0.69 UJ
Chloroethane	75-00-3	ua/m3	<0.56 U	<0.68 U	<0.3 U	<0.26 U	<5.1 U	<0.528 U	<0.403 U	<0.486 U	<0.44 U	<0.39 U	<0.4 UJ
Chloroform	67-66-3	ug/m3	<1 U	<1.3 U	<0.55 U	0.73	<9.4 U	<0.977 U	<0.747 U	<0.899 U	1.5 D	1.7 D	3.4 J
Chloromethane	74-87-3	ug/m3	2 D	2 D	5.6 D	0.41	7.2 D	1.9	3.54 D	1.07 D	2.3 D	2.1 D	1.4 J
Cis-1,2-Dichloroethene	156-59-2	ug/m3	<0.84 U	<1 U	0.81 D	<0.4 U	<7.6 U	<0.793 U	0.606 D	0.584 D	0.86 D	0.47 D	1.2 J
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U	<0.67 U	<0.68 UJ
Cyclohexane	110-82-7	ug/m3	1.8 D	1.6 D	0.47 D	<0.34 U	<6.6 U	<0.688 U	<0.526 U	0.697 D	1.3 D	<0.51 U	0.57 J
Dibromochloromethane	124-48-1	ug/m3	<1.8 U	<2.2 U	<0.97 U	<0.85 U	<16 U	<1.7 U	<1.3 U	<1.57 U	<1.4 U	<1.3 U	<1.3 UJ
Dichlorodifluoromethane	75-71-8	ug/m3	2.7 D	2.8 D	1.1 D	<0.49 U	<9.5 U	2.11	2.12 J	2.19 D	3 D	3.2 D	2.8 J
Ethanol	64-17-5	ug/m3	NA	NA	NA	NA	NA	11.9	NA	NA	NA	NA	NA
Ethyl Acetate	141-78-6	ug/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 U	<14 U	<1.8 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	<1.1 UJ
Ethylbenzene	100-41-4	ug/m3	6.3 J	3 J	2.5 D	<0.43 U	<8.4 U	<0.869 U	3.59 D	2.88 D	7.7 D	2.6 D	2.5 J
Hexachlorobutadiene	87-68-3	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1.1 U	<21 U	<2.13 U	<1.63 U	<1.96 U	<1.8 UJ	<1.6 UJ	<1.6 UJ
Isopropanol	67-63-0	ug/m3	<1 U	<1.3 U	<0.56 U	<0.49 U	54 D	2.56	1.13 D	2.35 D	<0.82 U	3.2 D	0.96 J
M,P-Xylene	179601-23-1	ug/m3	24 J	12 J	10 D	<0.87 U	<17 U	2.78	14.3 D	10.9 D	30 D	5.2 D	7.9 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	7.1 D	6.7 D	3.9 D	0.38	81 D	2.75	2.34 D	0.815 D	1.4 D	0.96 D	0.71 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	<2.05 U	2.57 D	2.04 D	0.75 J	1 D	1.5 J
Methyl Methacrylate	80-62-6	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	NA	<0.626 U	2.19 D	<0.68 U	<0.61 U	<0.62 UJ
Methylene Chloride	75-09-2	ug/m3	5.4 J	30 J	<0.79 U	<0.69 U	<13 U	<1.74 U	1.91 D	28.5 D	<1.2 U	1.4 J	<1 UJ
n-Heptane	142-82-5	ug/m3	3.9 D	3 D	1.1 D	<0.41 U	<7.9 U	<0.82 U	1.32 D	1.28 D	2.4 D	0.61 D	1.4 J
n-Hexane	110-54-3	ug/m3	18 J	55 J	1.7 D	<0.35 U	<6.8 U	<0.705 U	1.08 D	2.14 D	3.3 D	1.4 D	1.6 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/m3	8.9 J	4.6 J	2.8 D	<0.43 U	<8.4 U	0.999	5.05 D	4.24 D	13 D	2 D	2.8 J
Propylene	115-07-1	ua/m3	7.7 D	6.6 D	<0.2 U	<0.17 U	<3.3 U	NA	<0.263 U	<0.317 U	1.2 D	<0.26 U	<0.26 UJ

Analyte	CAS Number	V3_365																		
		0764-V3_20160520	0779-V3_072016	0780-DUP-1_072016	795-V3-20161020	796-DUP-1-20161020	817-V3	818-DUP-1	862_V3	863_DUP-1	867-V3	868-DUP-1	874_V3	875_DUP-1	879_V3	880_DUP-1	V3_030223	DUP030223	V3_120523	DUP01_120523
		05/20/2016	07/20/2016	07/20/2016	10/20/2016	10/20/2016	04/20/2017	04/20/2017	02/13/2018	02/13/2018	02/27/2019	02/27/2019	04/08/2021	04/08/2021	06/20/2022	06/20/2022	03/02/2023	03/02/2023	12/05/2023	12/05/2023
		SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	NA	NA	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,1,1-Trichloroethane	71-55-6	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U	<0.85 U	
1,1,2,2-Tetrachloroethane	79-34-5	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	<1.37 U	<1.37 U	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	<1.6 U	<0.8 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.53 U	<1.53 U	<1.15 U	<1.15 U	<1.37 U	<1.26 U	<1.2 U	<1.2 U	<1.2 U	<1.3 U	<1.2 U	
1,1,2-Trichloroethane	79-00-5	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U	<0.85 U	
1,1-Dichloroethane	75-34-3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.61 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U	<0.63 U	
1,1-Dichloroethene	75-35-4	<0.83 U	<0.42 U	<0.45 U	<0.4 U	<0.4 U	<7.1 U	<7.8 U	<0.793 U	<0.793 U	<0.597 U	<0.595 U	<0.356 U	<0.326 U	<0.16 U	<0.16 U	<0.15 U	<0.16 U	<0.14 U	
1,2,4-Trichlorobenzene	120-82-1	<1.5 U	<0.78 U	<0.85 U	<0.74 U	<0.74 U	<13 U	<15 U	<1.48 U	<1.48 U	<1.12 U	<1.11 U	<1.33 U	<1.22 U	<1.2 UJ	<1.2 UJ	<1.1 UJ	<1.2 UJ	<1.2 U	
1,2,4-Trimethylbenzene	95-63-6	2.8 D	5.6 D	4.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.44 D	4.57 D	4.14 D	3.71 D	6.1 D	6.4 D	2.6 D	2.7 D	3.1 D	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	<1.6 U	<0.88 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.54 U	<1.54 U	<1.16 U	<1.38 U	<1.26 U	<1.15 U	<1.2 U	<1.2 U	<1.3 U	<1.2 U	<1.1 U	
1,2-Dichlorobenzene	95-50-1	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,2-Dichloroethane	107-06-2	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.607 U	<0.609 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U	<0.63 U	<0.59 UJ	
1,2-Dichloropropane	78-87-5	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	<0.924 U	<0.924 U	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U	<0.72 U	
1,2-Dichlorotetrafluoroethane	76-14-2	<1.5 U	<0.73 U	<0.8 U	<0.7 U	<0.7 U	<12 U	<14 U	<1.4 U	<1.4 U	<1.05 U	<1.05 U	<1.25 U	<1.15 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1 UJ	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	<1 U	0.72 D	0.96 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	1.33 D	1.33 D	1.15 D	1.05 D	1.7 D	1.8 D	0.83 D	0.97 D	0.84 D	
1,3-Butadiene	106-99-0	<1.4 U	<0.7 U	<0.76 U	<0.66 U	<0.66 U	<12 U	<13 U	0.515	0.518	<1 U	<0.996 U	<1.19 U	<1.09 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,3-Dichlorobenzene	541-73-1	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,3-Dichloropropane	142-28-9	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	NA	NA	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U	<0.72 U	
1,4-Dichlorobenzene	106-46-7	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,4-Dioxane (P-Dioxane)	123-91-1	<1.5 U	<0.76 U	<0.82 U	<0.72 UJ	<0.72 UJ	<13 U	<14 UJ	<0.721 U	<0.721 U	<1.09 U	<1.08 U	<1.29 U	<1.18 U	<1.1 U	<1.1 U	<1.2 U	<1.1 U	<1 UJ	
2,2,4-Trimethylpentane	540-84-1	NA	NA	NA	NA	NA	NA	NA	2.41	2.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Hexanone (MBK)	591-78-6	<1.7 U	1.3 J	1.2 J	<0.82 U	<0.82 U	<15 U	<16 U	<0.82 U	<0.82 U	<4.01 U	<4.06 U	<1.47 U	<1.35 U	<1.3 UJ	<1.3 UJ	<1.3 U	<1.3 U	<1.3 U	
4-Ethyltoluene	622-96-8	2 D	2.4 D	2.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.29 J	3.7 D	3.23 D	5.7 D	5.9 D	2.1 D	2 D	2.4 D	2.3 J	
Acetone	67-64-1	61 D	47 D	42 D	1.9	1.1	200 J	340 J	20.3	20.8	4.97 D	4.92 D	7.46 J	4.41 J	8.2 D	8 D	10 D	7.5 D	7.3 D	
Acrylonitrile	107-13-1	<0.45 U	<0.23 U	<0.25 U	<0.22 U	<0.22 U	<3.9 U	<4.3 U	NA	NA	<0.327 U	<0.326 U	<0.389 U	<0.356 U	<0.34 U	<0.33 U	<0.36 U	<1 U	<0.94 UJ	
Allyl Chloride (3-Chloropropene)	107-05-1	<3.3 U	<1.6 U	<1.8 U	<1.6 U	<1.6 U	<28 U	<31 U	<0.626 U	<0.626 U	<2.36 U	<2.35 U	<2.81 U	<2.57 U	<2.5 U	<2.5 U	<2.4 U	<2.6 U	<2.4 U	
Benzene	71-43-2	4.1 D	4.4 D	4.5 D	0.45	0.32	9.1 D	6.9 D	2.82	2.74	7.94 D	8.29 D	5.33 D	4.98 D	4 D	4.1 D	7 D	6.9 D	6.7 D	
Benzyl Chloride	100-44-7	<1.1 U	<0.54 U	<0.59 U	<0.52 UJ	<0.52 UJ	<9.3 U	<10 U	<1.04 U	<1.04 U	<0.777 U	<0.82 U	<0.929 U	<0.85 U	<0.82 U	<0.79 U	<0.85 U	<0.82 U	<0.75 UJ	
Bromodichloromethane	75-27-4	<1.4 U	<0.7 U	<0.77 U	<0.67 U	<0.67 U	<12 U	<13 U	<1.34 U	<1.34 U	<1.01 U	<1 U	<1.2 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	<0.97 UJ	
Bromoethene	593-60-2	<0.91 U	<0.46 U	<0.5 U	<0.44 U	<0.44 U	<7.8 U	<8.6 U	<0.874 U	<0.874 U	<0.659 U	<0.656 U	<0.785 U	<0.718 U	<0.69 U	<0.69 U	<0.67 U	<0.68 U	<0.63 UJ	
Bromoform	75-25-2	<2.2 U	<1.1 U	<1.2 U	<1 U	<1 U	<18 U	<20 U	<2.07 U	<2.07 U	<1.56 UJ	<1.55 UJ	<1.85 U	<1.7 U	<1.6 U	<1.6 U	<1.6 U	<1.7 U	<1.6 U	
Bromomethane	74-83-9	<0.81 U	<0.41 U	<0.44 U	<0.39 U	<0.39 U	<6.9 U	<7.6 U	<0.777 U	<0.777 U	<0.585 U	<0.582 U	<0.697 U	<0.638 U	<0.62 U	<0.61 U	<0.59 U	<0.64 U	<0.6 U	
Carbon Disulfide	75-15-0	0.65 D	0.88 D	0.82 D	<0.31 U	<0.31 U	<5.6 U	55 D	<0.623 U	<0.623 U	<0.469 U	<0.467 U	0.559 D	0.511 D	1					

Table 1
2021-2024 PRR
Comprehensive Soil Vapor Sample Analytical Results

Page 4 of 4

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

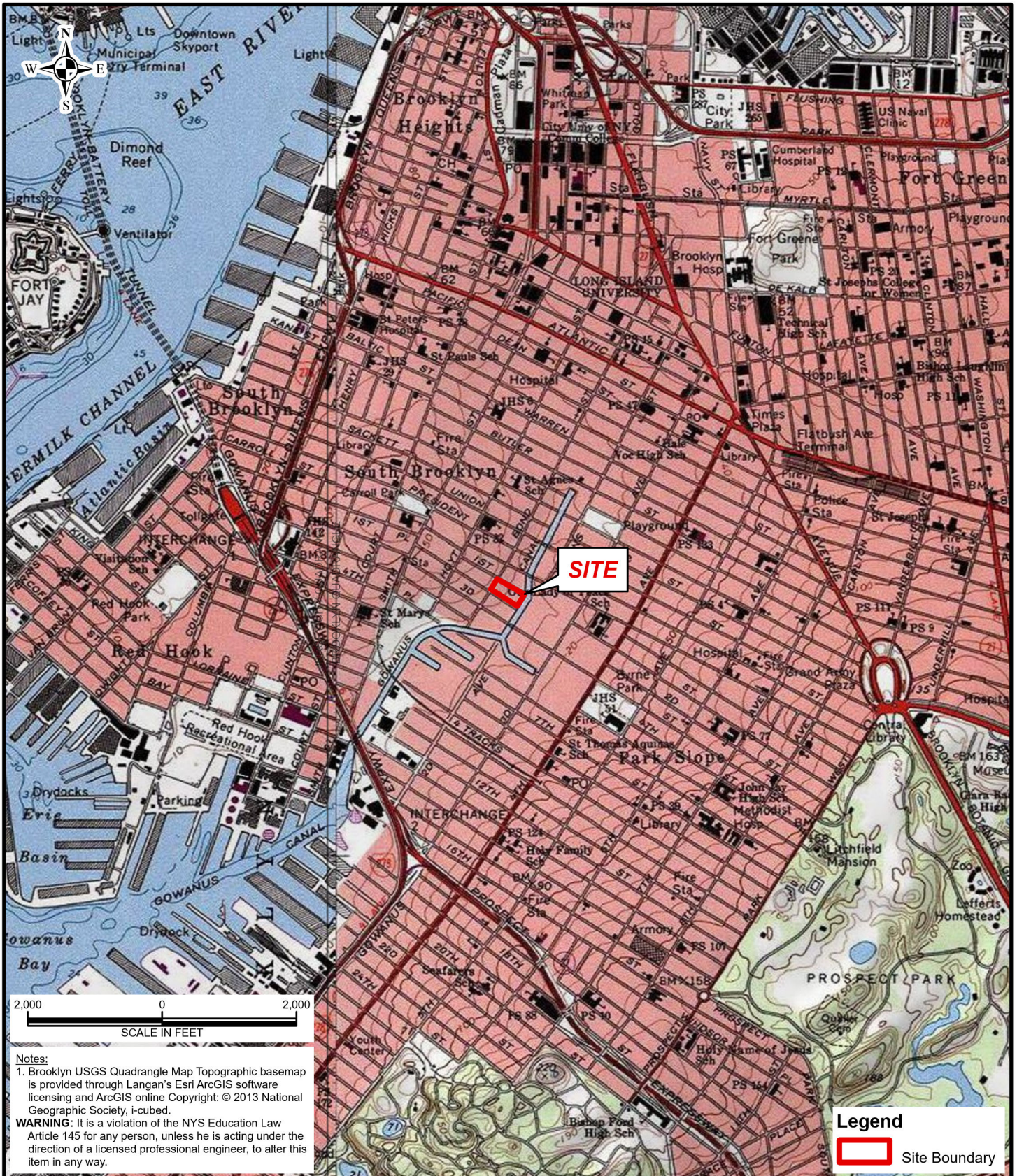
Notes:

SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Qualifiers:

D - The concentration reported is a result of a diluted sample.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

FIGURES



LANGAN

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**365 BOND STREET
DEVELOPMENT**

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Figure Title

**SITE
LOCATION
MAP**

Project No.

100287503

Date

3/28/2024

Scale

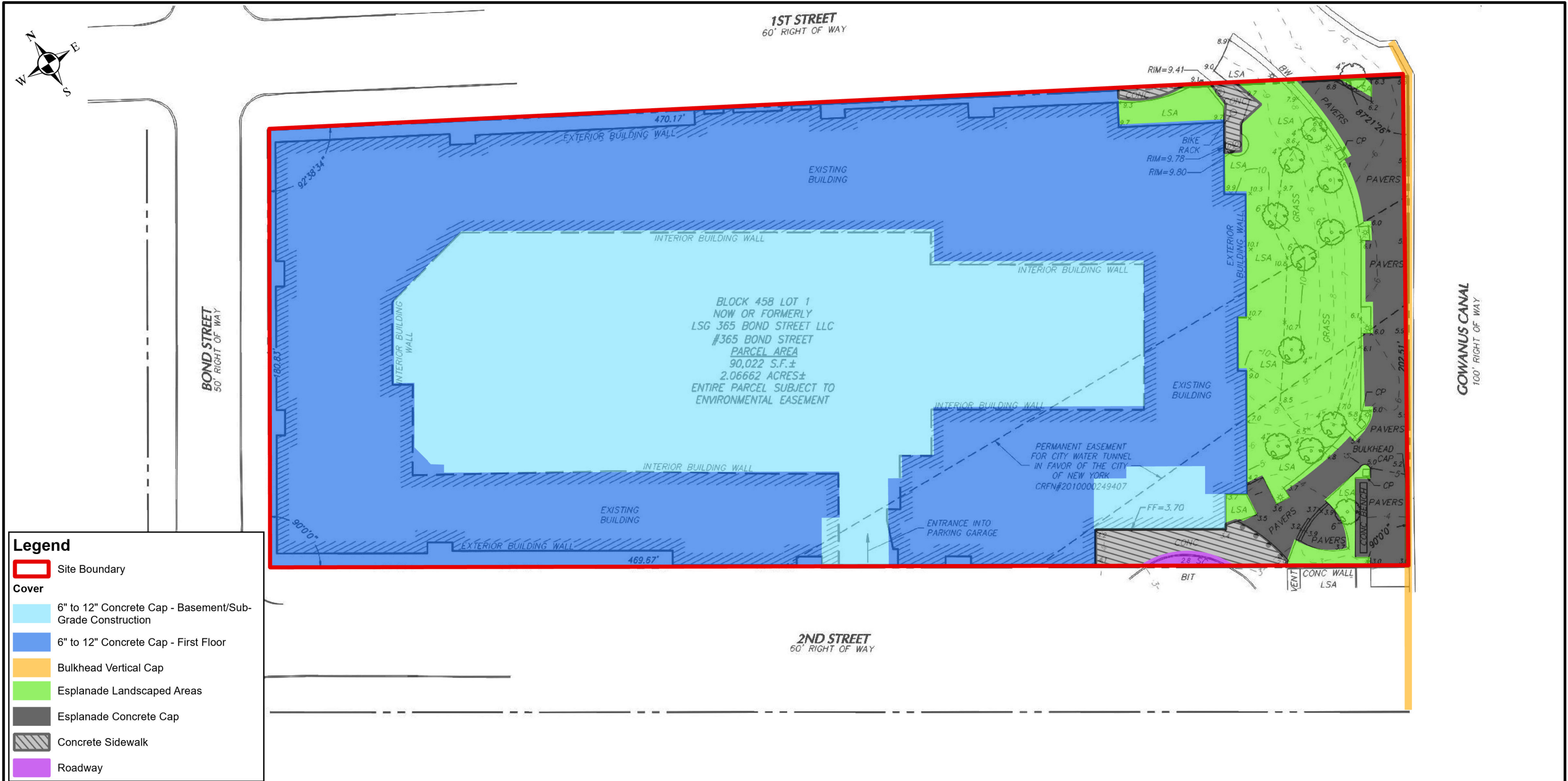
1"=2,000'

Drawn By

SH

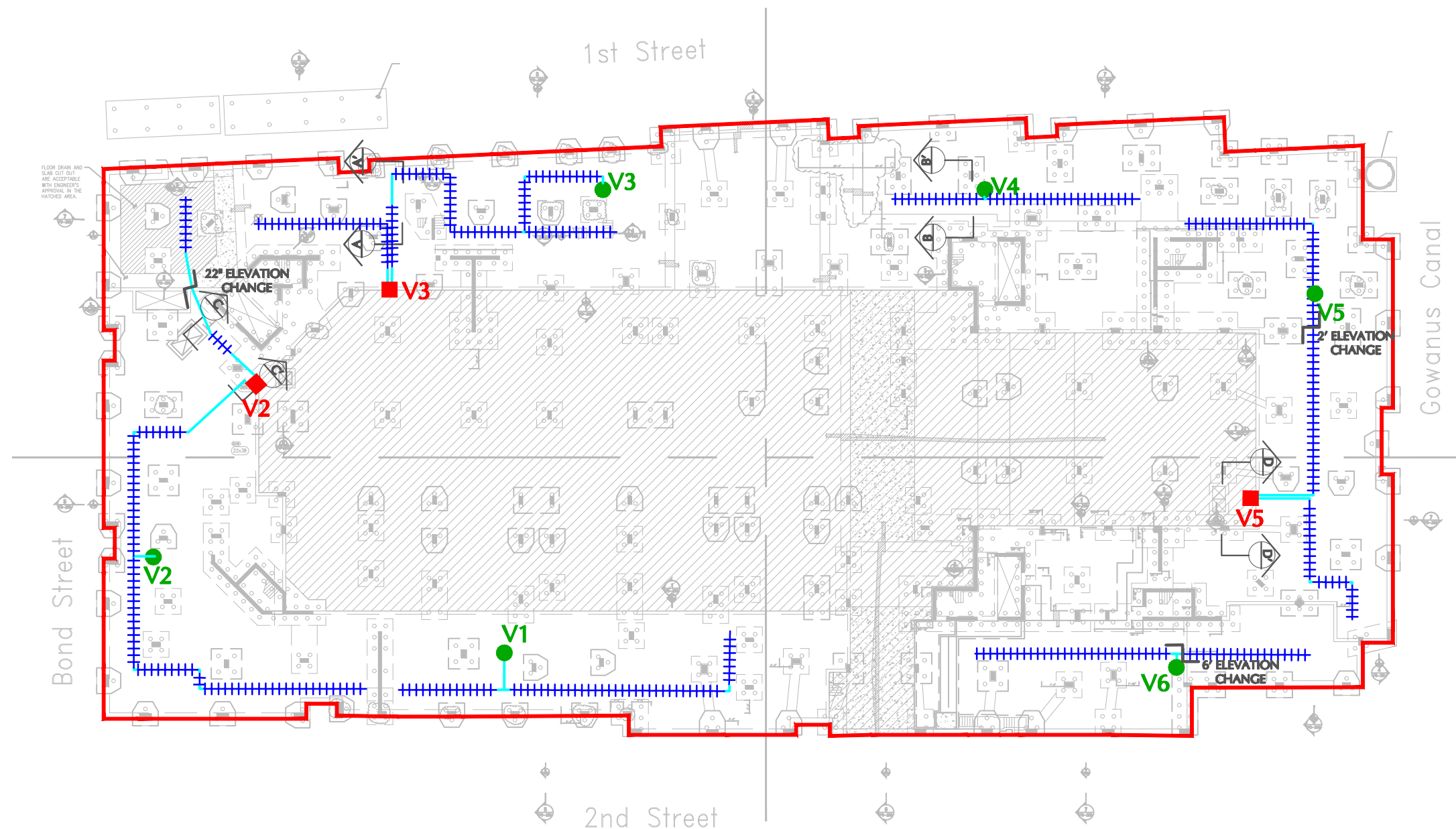
Figure

1



- Notes:
1. 6" to 12" Concrete Cap – Basement is comprised of the 6" to 12" concrete slab underlain by Grace Vapor Barrier System.
 2. 6" to 12" Concrete Cap – First Floor is comprised of the 6" to 12" concrete slab underlain by Stego 15-mil Vapor Barrier.
 3. Bulkhead Vertical Cap is comprised of AZ38-700N double sheets, AZ19-700 double sheets, and manufactured sand material supplied by Tilcon New York, Inc.
 4. Esplanade Landscaped Areas are comprised of at least 2 feet of clean fill topsoil underlain by a demarcation layer.
 5. Esplanade Pavement is comprised of the approximate 12" concrete pavement and asphaltic block pavers.
 6. Esplanade features were constructed during the 2016 PRR Reporting Period. These layers from "L-100.00 - SITE PLAN," by GHWA, dated 28 April 2014.
 7. Site survey basemap from "AS-BUILT SURVEY" by Langan, dated 24 April 2018.

LANGAN 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com Langan Engineering & Environmental Services, Inc. Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan International LLC Collectively known as Langan NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400	Project	365 BOND STREET DEVELOPMENT BLOCK No. 458, LOT No. 1 BROOKLYN KINGS COUNTYNEW YORK	Drawing Title	Project No. 100287501		Figure 3
			Date 9/22/2015			
			Scale 1"=40'			
			Drawn By PDT			
			Last Revised 3/28/2024			



- LEGEND:**
- BUILDING EXTERIOR
 - SUBGRADE PARKING AREA
 - INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
 - INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
 - INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
 - INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

- NOTES:**
- ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
 - THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
 - FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
 - SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan	Project 365 BOND STREET DEVELOPMENT 365 BOND STREET BROOKLYN NEW YORK	Drawing Title SMDS MANIFOLD LAYOUT	Project No. 100287501	Drawing No. 4
			Date MARCH 20, 2019	
			Scale AS SHOWN	
			Drawn By JR	
			Submission Date APRIL 21, 2021	

Figure 5A
2021-2024 PRR
V2 Analytical Trend Chart

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

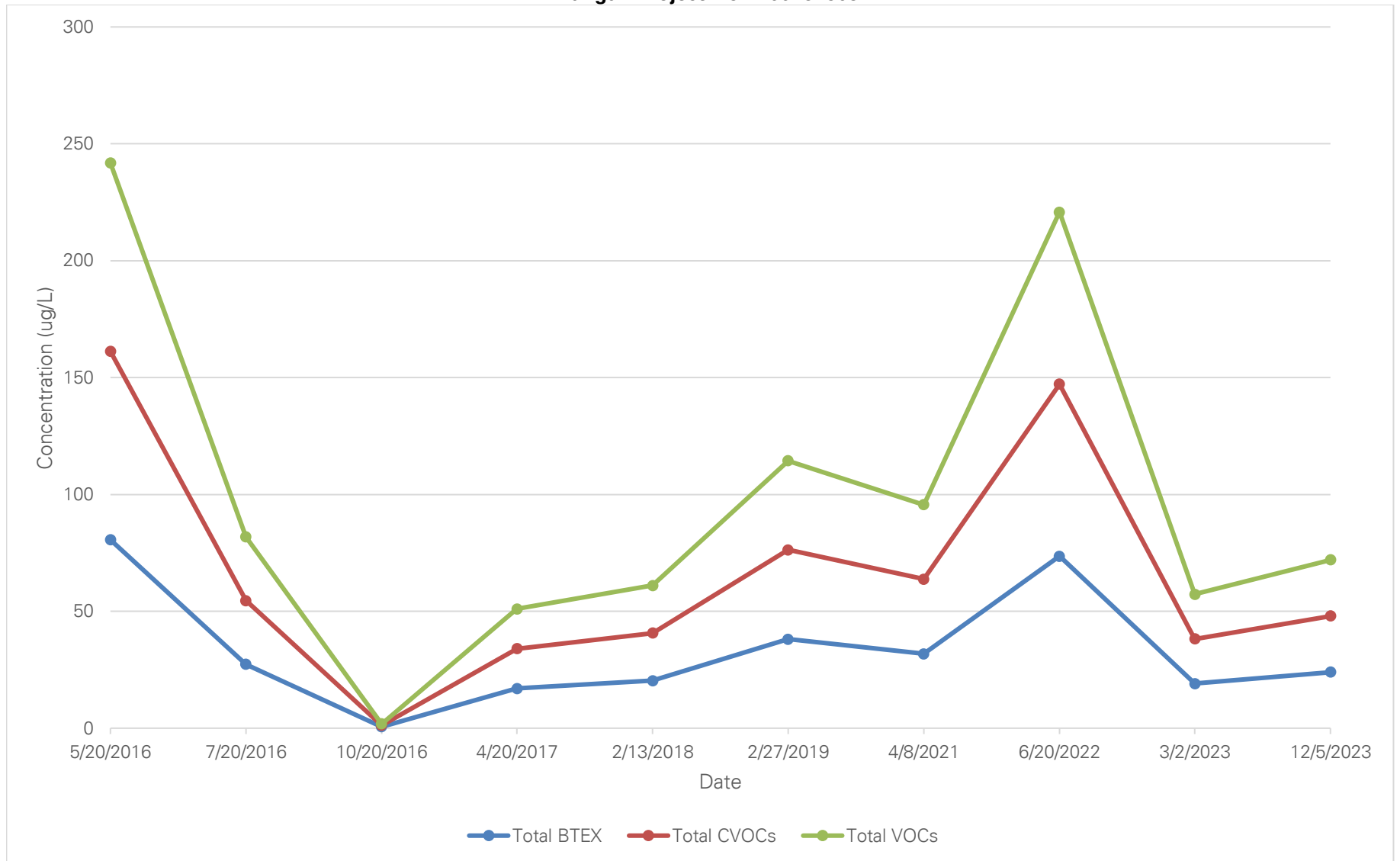


Figure 5B
2021-2024 PRR
V3 Analytical Trend Chart

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

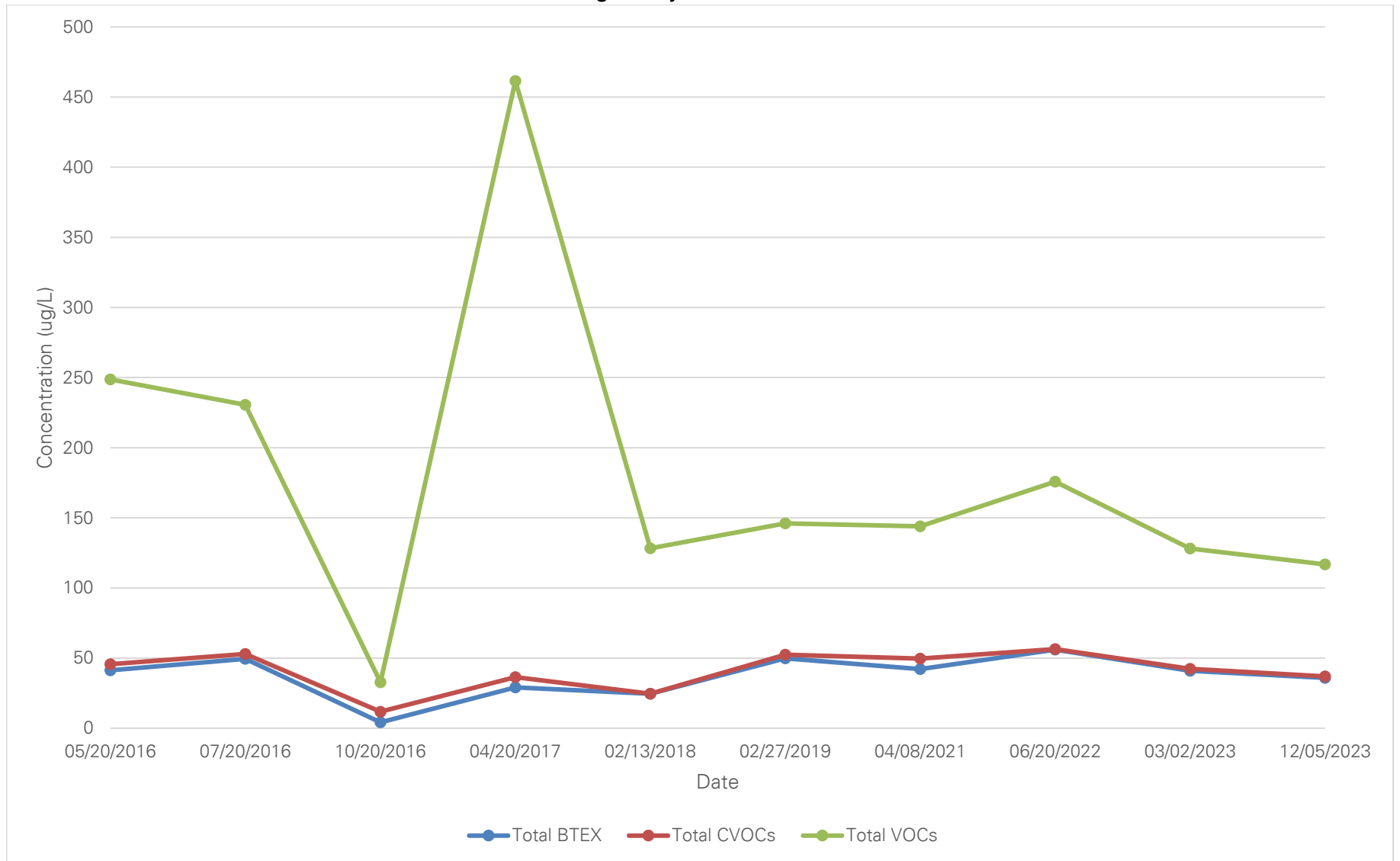
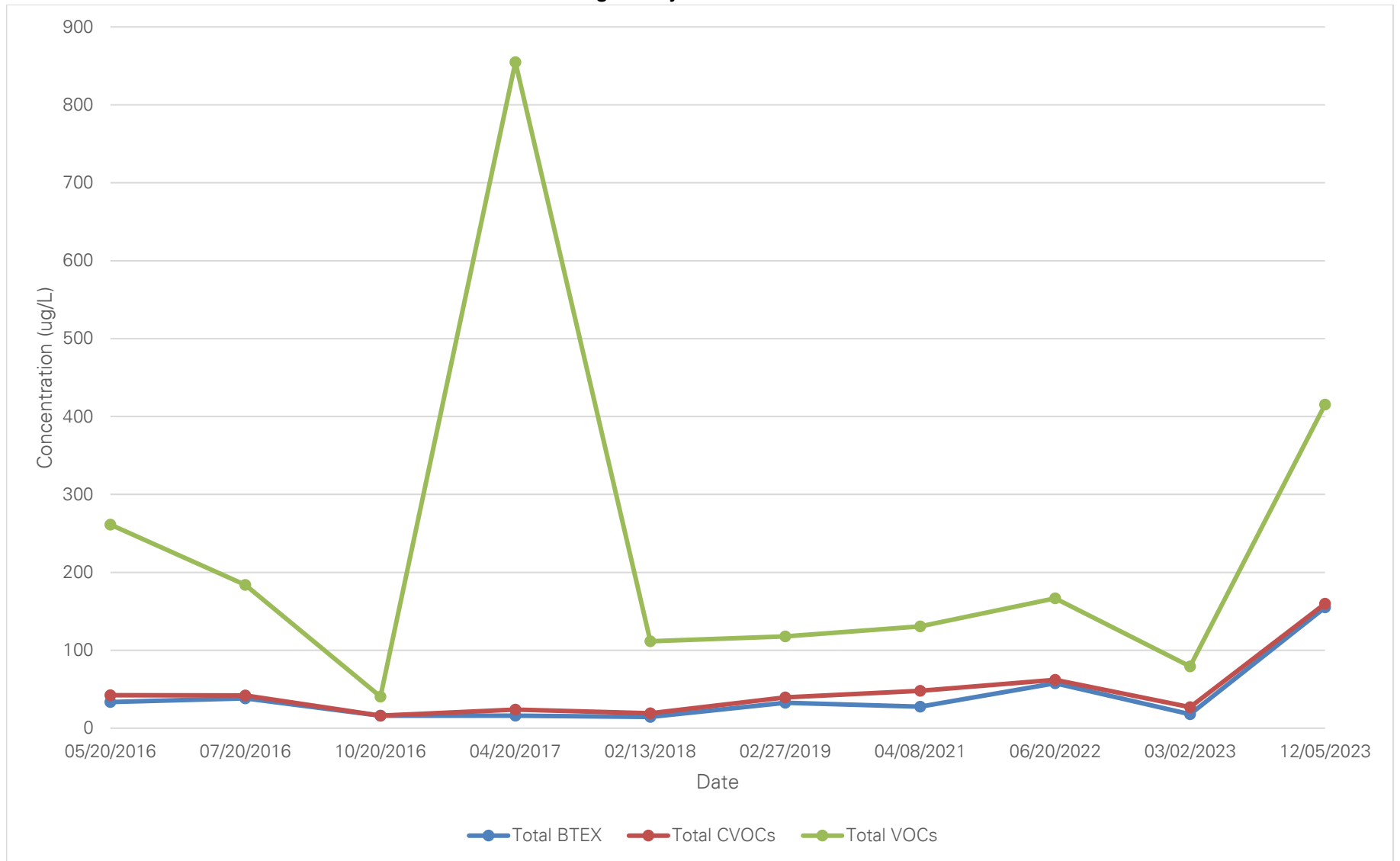


Figure 5C
2021-2024 PRR
V5 Analytical Trend Chart

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503



APPENDIX A

Environmental Easement

WRITTEN DESCRIPTION OF BLOCK
458 LOT 1 AND THE EASEMENT
PERIMETER:

BEGINNING AT THE INTERSECTION OF THE NORTHERLY SIDE OF 2ND STREET AND
THE EASTERLY SIDE OF BOND STREET;

THENCE EASTERLY ALONG THE NORTHERLY SIDE OF 2ND STREET A DISTANCE OF
469.67' TO A POINT ALONG THE GOWANUS CANAL;

THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 90°00'00" ALONG THE
WESTERLY SIDE OF THE GOWANUS CANAL A DISTANCE OF 202.51'

THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 87°21'26" BOUNDED
NORTHERLY BY THE SOUTHERLY SIDE OF 1ST STREET A DISTANCE OF 470.17' TO
A POINT;

THENCE TURNING AN INTERIOR ANGLE TO THE RIGHT OF 92°38'34" ALONG THE
EASTERLY SIDE OF BOND STREET A DISTANCE OF 180.83' TO THE POINT OF
BEGINNING AND CREATING AN INTERIOR ANGLE OF 90°00'00" WITH THE FIRST
DESCRIBED LINE.

CONTAINING APPROXIMATELY 90,022 SQUARE FEET (2.06663 ACRES).

NOTES:

1. THIS SURVEY IS BASED UPON EXISTING PHYSICAL CONDITIONS FOUND AT THE
SUBJECT SITE, DEED INFORMATION AND THE FOLLOWING REFERENCES:

- A. SECTION MAP 23
B. CURRENT TAX MAPS

C. FOR BLOCK 458 LOT 1 - CHICAGO TITLE INSURANCE COMPANY
TITLE NO. 3411-00259, EFFECTIVE DATE NOVEMBER 4, 2011.

D. SURVEY RELATED EXCEPTIONS:

EXCEPTION 6 - ORDER FOR PERMANENT CITY WATER TUNNEL IN
FAVOR OF THE CITY OF NEW YORK FOR CITY TUNNEL NO. 3
STAGE 2, CRFN 2010000249407, AS DEPICTED ON SURVEY

E. FOR BLOCK 452 LOT 1 - STEWART TITLE INSURANCE COMPANY
TITLE NO. 901209, EFFECTIVE DATE NOVEMBER 22, 2011.

SURVEY RELATED EXCEPTIONS:

EXCEPTIONS 5-9. EASEMENTS AND RIGHTS FOR DRIVEWAY RIGHTS
AND RIGHTS OF INGRESS AND EGRESS FOR AND AROUND THE
EXISTING CONCRETE LOADING AREA LOCATED AT THE NORTHEAST
CORNER OF BLOCK 452 LOT 1. REFERENCE DOCUMENTS AND
LOCATIONS ARE DEPICTED ON THE SURVEY.

F. FOR BLOCK 452 LOT 15 - STEWART TITLE INSURANCE COMPANY
TITLE NO. 901583, EFFECTIVE DATE JANUARY 10, 2012.

NO SURVEY RELATED EXCEPTIONS:

G. MAP TITLED "CITY OF NEW YORK COUNTY OF KINGS, TAX BLOCK
452 & 458" SCALE 1"=20' DATED MAY 5, 2012 BY MONROSE
SURVEYING CO., LLP.

2. THE MERIDIAN OF THIS SURVEY IS REFERENCED TO NEW YORK EAST STATE
PLANE COORDINATE SYSTEM NAD 83 AS ESTABLISHED THROUGH GPS
METHODS.

3. ELEVATIONS SHOWN ARE REFERENCED TO THE BROOKLYN HIGHWAY DATUM
(BHD) WITH A CONVERSION OF +2.56' ± BHD = NGVD 29. THIS CONVERSION
WAS ESTABLISHED ON THE HALCROW PLANS WHICH HAVE BEEN SUBMITTED
FOR PREVIOUS EPA/DEC SUBMISSIONS FOR THIS SITE.

4. ESTABLISHED LEGAL GRADES SHOWN PER FINAL SECTION MAP #23 DATED
8/10/95. ELEVATIONS PUBLISHED ON MAP #23 REFER TO THE BROOKLYN
HIGHWAY DATUM AND ARE IN REFERENCE TO THE TOP OF CURB ELEVATION.

5. STREET NAMES AND AND R.O.W WIDTHS, BLOCK, AND LOT NUMBERS AS PER
CURRENT TAX MAPS.

6. PLANIMETRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON HAS BEEN
OBTAINED FROM GROUND SURVEYS BY LANGAN, ENGINEERING,
ENVIRONMENTAL, SURVEYING AND LANDSCAPE ARCHITECTURE, D.P.C., FIELD
WORK COMPLETED DURING THE MONTHS OF DECEMBER 2012 AND JANUARY
2013.

7. OFFSETS (IF SHOWN) ARE FOR SURVEY REFERENCES ONLY AND ARE NOT TO
BE USED IN CONSTRUCTION OF ANY TYPE.

8. AS PER THE NATIONAL FLOOD INSURANCE PROGRAM FIRM MAP TITLED CITY
OF NEW YORK, NEW YORK, BRONX, RICHMOND, NEW YORK, QUEENS, AND KING
COUNTIES PANEL NUMBER 211 OF 457, MAP NUMBER 360497 PANEL 0211F,
EFFECTIVE DATE SEPTEMBER 5, 2007, PORTIONS OF THE PROJECT AREA ARE
WITHIN THE DOTTED ZONE X, AREAS OF 0.2% ANNUAL CHANCE FLOOD;
AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN
1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS
PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD AND PORTIONS OF
THE PROJECT AREA ARE WITHIN ZONE AE, WITH A BASE FLOOD ELEVATION
OF 10 (NGVD 29). THE DELINEATION OF THE ZONE X AND ZONE AE LINE IS
DEPICTED ON THE SURVEY.

9. PRIOR TO ANY DESIGN OR CONSTRUCTION, THE PROPER UTILITY AGENCIES
MUST BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD
LOCATIONS.

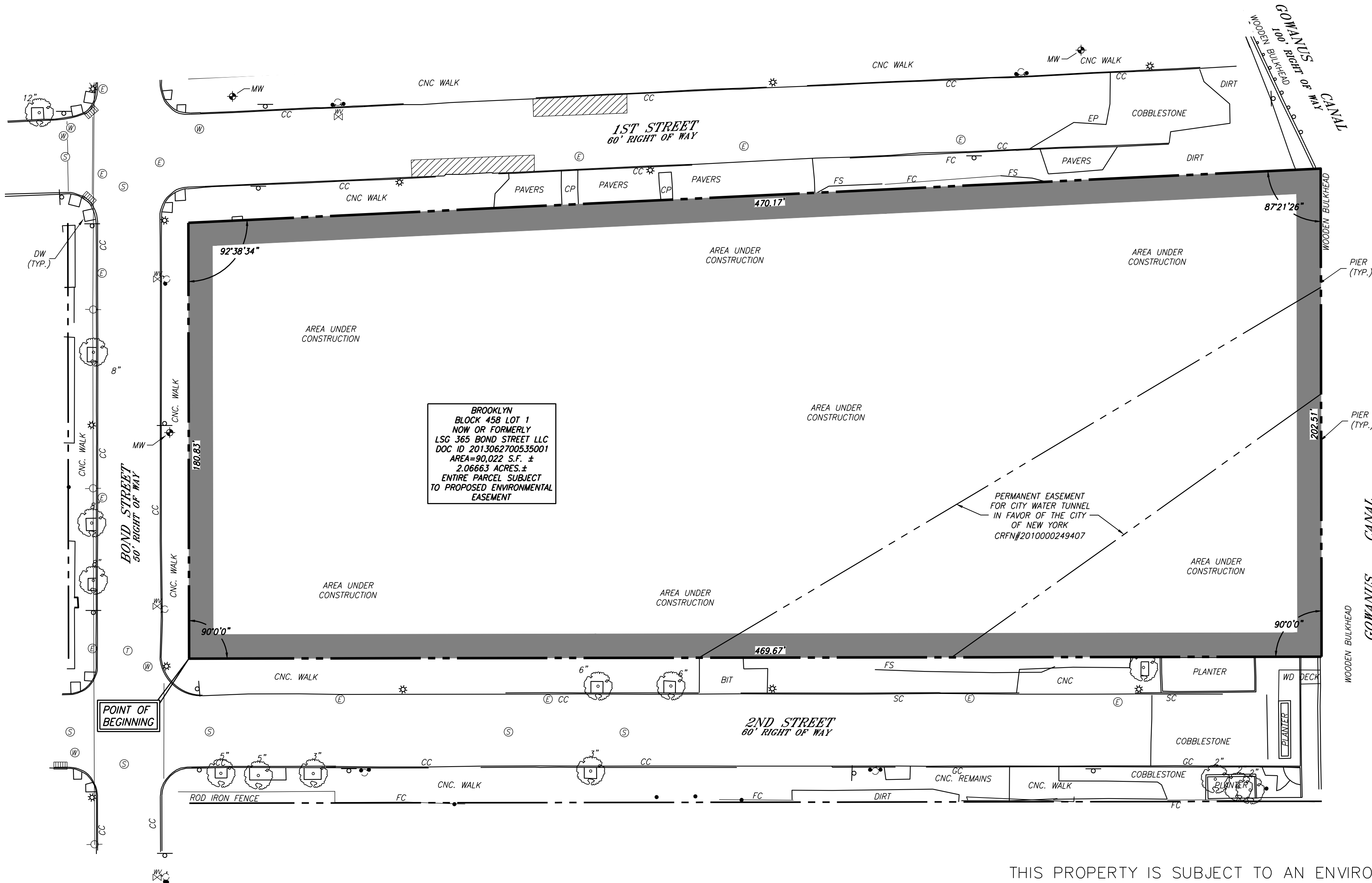
10. THE GOWANUS CANAL IS A WATER COURSE ON THE PROPERTY AS SHOWN
ON THE SURVEY.

11. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A
LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209,
SUB-DIVISION 2 OF N.Y. STATE EDUCATION LAW ARTICLE 145.

12. THIS SURVEY IS NOT VALID WITHOUT THE EMBOSSED OR INKED SEAL OF THE
PROFESSIONAL.

LEGEND (NOT SHOWN TO SCALE)

	HYDRANT		GAS LINE
	STREET LIGHT		WATER LINE
	AREA LIGHT		ELECTRIC LINE
	SIGNAL POLE		TELEPHONE LINE
	POLE		COMBINED SEWER LINE
	ANCHOR POLE		DRAINAGE LINE
	MANHOLE (TYPE AS LABELED)		OVERHEAD WIRE
	WATER VALVE		GUIDE RAIL (TYPE AS NOTED)
	GAS VALVE		FENCE (TYPE AS NOTED)
	UNKNOWN VALVE		TREE LINE
	CATCH BASIN		EASEMENT LINE
	SPOT ELEVATION		PROPERTY LINE
	CLEAN OUT		RIGHT-OF-WAY LINE
	TREE		CONTOUR LINE
	BENCH MARK		EDGE OF PAVEMENT
	SIGN		SINGLE WHITE STRIPE
	BOLLARD		DOUBLE YELLOW STRIPE
	SPAN POLE		BITUMINOUS CURB
	TRANSFORMER		STONE CURB
	MONITOR WELL		CONCRETE CURB
	WOOD		GRANITE CURB
	CONCRETE PAD		DETECTABLE WARNING
	FENCE METAL		EDGE OF WALK
	FENCE CHAIN LINK		BITUMINOUS
	FENCE STOCKADE		CONCRETE
	ESTABLISHED LEGAL GRADE		ENCROACHES
			CLEAR

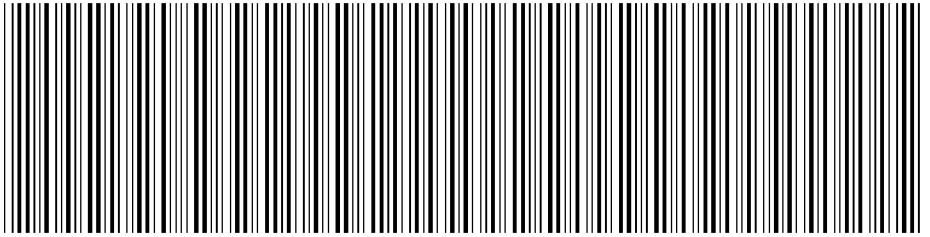


THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL
EASEMENT HELD BY THE NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW
YORK ENVIRONMENTAL CONSERVATION LAW. THE
ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS
EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT
PLAN (SMP). A COPY OF THE SMP MUST BE
OBTAINED BY ANY PARTY WITH AN INTEREST IN THE
PROPERTY. THE SMP CAN BE OBTAINED FROM NYS
DEPARTMENT OF ENVIRONMENTAL REMEDIATION, SITE
CONTROL SECTION, 625 BROADWAY, ALBANY, NY
12233 OR AT DERWEB@DEC.NY.GOV.

Date	Description	No.
REVISIONS		
* I HEREBY STATE THAT THIS PLAN IS BASED ON A FIELD SURVEY MADE BY ME OR UNDER MY IMMEDIATE SUPERVISION IN ACCORDANCE WITH NYSPLS CODE OF PRACTICE FOR LAND SURVEYS, AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, AND IN MY PROFESSIONAL OPINION, CORRECTLY REPRESENTS THE CONDITIONS FOUND ON THE DATE OF THE FIELD SURVEY AT THE SUBJECT PROPERTY"		
ANDREW G. IVES		DATE
PROFESSIONAL LAND SURVEYOR		
STATE LIC. NO. 50794		
LANGAN 555 Long Wharf Drive, New Haven, CT 06511 T: 203.562.5771 F: 203.789.6142 www.langan.com NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan LLC, Inc. Langan International LLC Collectively known as Langan		
365 BOND ST.		
BROOKLYN		
KINGS COUNTY		NEW YORK
EASEMENT MAP		
100287503		Drawing No.
APRIL 28, 2015		EA201
1"=30'		
RLH	AGI	

**NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



2015070100881002002E1B22

RECORDING AND ENDORSEMENT COVER PAGE

PAGE 1 OF 10

Document ID: 2015070100881002

Document Date: 06-01-2015

Preparation Date: 07-07-2015

Document Type: EASEMENT

Document Page Count: 9

PRESENTER:

MADISON TITLE AGENCY, LLC
(PICK-UP-SDS) AS AGENT FOR
1125 OCEAN AVENUE
LAKEWOOD, NJ 08701
212-808-9400
BAILAB@MADISONTITLE.COM

RETURN TO:

PAM HORN
460 PARK AVENUE, 13TH FLOOR
LIGHTSTONE GROUP
NEW YORK, NY 10022
MTANY-104769 NK

Borough	Block	Lot	Unit	Address
BROOKLYN	458	1	Entire Lot	365 BOND STREET
Property Type: APARTMENT BUILDING				

CROSS REFERENCE DATA

CRFN _____ or DocumentID _____ or _____ Year _____ Reel _____ Page _____ or File Number _____

PARTIES

GRANTOR/SELLER:

LSG 365 BOND STREET LLC
C/O LIGHTSTONE GROUP, LLC , 460 PARK AVENUE
NEW YORK, NY 10022

GRANTEE/BUYER:

PEOPLE OF STATE OF NEW YORK BY
COMMISSIONER, DEPT
625 BROADWAY
ALBANY, NY 11223

FEES AND TAXES

Mortgage :

Mortgage Amount: \$ 0.00

Taxable Mortgage Amount: \$ 0.00

Exemption:

TAXES: County (Basic): \$ 0.00

City (Additional): \$ 0.00

Spec (Additional): \$ 0.00

TASF: \$ 0.00

MTA: \$ 0.00

NYCTA: \$ 0.00

Additional MRT: \$ 0.00

TOTAL: \$ 0.00

Recording Fee: \$ 82.00

Affidavit Fee: \$ 0.00

Filing Fee:

\$ 100.00

NYC Real Property Transfer Tax:

\$ 0.00

NYS Real Estate Transfer Tax:

\$ 0.00

RECORDED OR FILED IN THE OFFICE

OF THE CITY REGISTER OF THE

CITY OF NEW YORK

Recorded/Filed 07-09-2015 12:57

City Register File No.(CRFN):

2015000236154



Annette McMill

City Register Official Signature

**ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW**

THIS INDENTURE made this 1st day of June, 2015, between Owner(s) LSG 365 Bond Street LLC, having an office at c/o The Lightstone Group, LLC, 460 Park Avenue, County of New York, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 365 Bond Street in the City of New York, County of Kings and State of New York, known and designated on the tax map of the New York City Department of Finance as tax map parcel number: Block 458 Lot 1, being the same as that property conveyed to Grantor by deed dated June 20, 2013 and recorded in the City Register of the City of New York in Instrument No. 2013062700535001. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 2.066 +/- acres, and is hereinafter more fully described in the Land Title Survey dated April 28, 2015 prepared by Andrew G. Ives, Professional Land Surveyor for Langan Engineering and Environmental Services, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C224174-05-13, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement")

1. **Purposes.** Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. **Institutional and Engineering Controls.** The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii),
Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial
as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the New York City Department of Health and Mental Hygiene to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an Environmental Easement held
by the New York State Department of Environmental Conservation**

pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to: Site Number: C224174
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to: Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

LSG 365 Bond Street LLC:

By: [Signature]
Print Name: Joseph E. Teichman

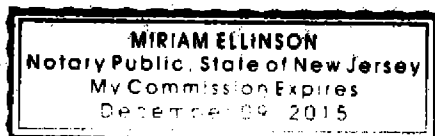
Title: EVP and General Counsel Date: 5-12-2015

Grantor's Acknowledgment

Jersey
STATE OF NEW ~~YORK~~)
) ss:
COUNTY OF Ocean)

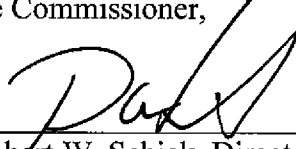
On the 12th day of May, in the year 20 15, before me, the undersigned, personally appeared Joseph E. Teichman personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

[Signature]
Notary Public - State of New-York Jersey



THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

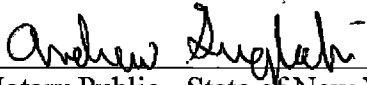
By:


Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 1st day of June, in the year 2015, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.


Notary Public - State of New York

ANDREW O. GUGLIELMI
Notary Public, State of New York
No. 02GU6177593
Qualified in Albany County
Commission Expires November 13, 2015

SCHEDULE "A" PROPERTY DESCRIPTION

ALL THAT CERTAIN plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the Borough of Brooklyn, County of Kings, City and State of New York, bounded and described as follows:

BEGINNING at the intersection of the northerly side of 2nd Street and the easterly side of Bond Street;

THENCE easterly along the northerly side of 2nd Street a distance of 469.67' to a point along the Gowanus Canal;

THENCE turning an interior angle to the right of 90°00'00" along the westerly side of the Gowanus a distance of 202.51';

THENCE turning an interior angle to the right of 87°21'26" bounded northerly by the southerly side of 1st Street a distance of 470.17' to a point;

THENCE turning an interior angle to the right of 92°38'34" along the easterly side of Bond Street a distance of 180.83' to the point of beginning and creating an interior angle of 90°00'00" with the first described line.

Containing approximately 90,022 square feet (2.06663 Acres).

APPENDIX B

Soil Vapor Monitoring Reports

25 April 2023

Sadique Ahmed
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Soil Vapor Monitoring Report – Year 6
365 Bond Street
Brooklyn, New York
BCP Site No. C224174
Langan Project No.: 100287503

Dear Mr. Ahmed:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this letter report to summarize periodic soil vapor sampling during the fifth year of passive sub-membrane depressurization system (SMDS) operation at 365 Bond Street in Brooklyn, New York (the “site”). The soil vapor monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) dated September 2015, prepared by Langan.

Background

The site is located at 365 Bond Street in the City of Brooklyn, Kings County, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. The site is approximately 2.066 acres and is located on the city block bordered by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west. Site location is shown on Figure 1.

The site was remediated under the NYSDEC Brownfield Cleanup Program in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRM) and Remedial Action Work Plan (RAWP), as described in the September 2015 Final Engineering Report (FER) and Construction Completion Report (CCR). As part of the remediation, soil vapor mitigation measures included installation of a sub-membrane piping network for a passive SMDS and a vapor barrier membrane beneath the ground floor slab of the building. The SMDS as-built layout is shown on Figure 2.

The site was redeveloped as a five- to twelve-story mixed-use commercial/residential building with a partial basement that was opened for residential occupation in April 2016. The building is being operated in accordance with the SMP which in part specifies that periodic soil vapor monitoring be completed to assess the effectiveness of the remedy. The SMP specifies that monitoring occur annually during the heating season unless otherwise required by NYSDEC to assess system effectiveness and determine if expansion to an active SMDS is warranted.

SMDS Inspection and Soil Vapor Sampling

On 20 June 2022, Langan conducted a visual inspection of the above-ground SMDS components prior to collecting sub-membrane soil vapor samples. The results of the inspection confirmed that all system components are in good condition. Langan also completed field screening of the soil vapor using a RAE Systems photo-ionization detector (PID) capable of detecting volatile organic compound (VOC) in the parts per billion (ppb) range. System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sample port (V2, V3 and V5). Current and previous field screening data are provided in Table 1. VOC readings detected with the PID at the sample ports ranged from 0 ppb to 7 ppb and vacuum measurements at the sample ports ranged from 0.016 inches water to 0.043 inches water. The field screening results indicate that very low levels of VOCs are present in the soil vapor collection system and that a vacuum condition exists that is removing these vapors from beneath the membrane. A copy of the passive SMDS inspection checklist and field data is provided in Attachment A.

Following the inspection and field screening, three sub-membrane soil vapor samples were collected using Summa canisters that were connected to each sample port via an approximately 3-foot length of Teflon-lined polyethylene tubing. Quality assurance/quality control (QA/QC) included collection of a duplicate sample (at the V3 location) and an ambient air sample from the exterior of the building. All samples were collected in accordance with the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel Summa canisters with flow control regulators supplied by the laboratory. The regulators were set to collect each sub-membrane soil vapor sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per United States Environmental Protection Agency (USEPA) / Interstate Technology and Regulatory Council (ITRC) soil vapor sampling guidance. Each sub-membrane soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored below a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis. All soil vapor and ambient air samples were submitted under chain of custody to York Analytical Laboratories, Inc. of Stratford, Connecticut (York) a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Soil vapor and ambient air samples were laboratory analyzed for VOCs via the USEPA TO-15 Method. A copy of the Summa canister log is provided in Attachment A.

Laboratory Analytical Results

The sub-membrane soil vapor analytical results were compared to the NYSDOH Matrices A and B of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. A summary of the sub-membrane soil vapor analytical results from this sampling event is provided in Table 2 and shown on Figure 3. The complete laboratory report for the June 2022 sampling event is provided in Attachment B.

The following compounds are included in the decision matrices in the NYSDOH Final Guidance on Soil Vapor Intrusion dated October 2006 and appended in May 2007 and May 2017:

- Carbon tetrachloride
- 1,1,1-Trichloroethane (1,1,1-TCA)
- Cis-1,2-Dichloroethylene (cis-1,2-DCE)
- Methylene chloride
- Trichloroethylene (TCE)
- Tetrachloroethylene (PCE)
- 1,1-Dichloroethylene
- Vinyl Chloride

Concentrations of 1,1,1-TCA, 1,1-dichloroethylene, methylene chloride, and vinyl chloride were not detected in any of the sub-membrane soil vapor samples collected.

As shown in Table 2, laboratory analytical results revealed low concentrations of NYSDOH Matrix VOCs in the sub-slab soil vapor. For the purposes of data evaluation, due to the presence of the SMDS, the vapor barrier, and the building foundation, it is reasonably anticipated that indoor air concentrations of VOCs originating from soil vapor do not exist inside the building.

Analytical results for TCE, cis-1,2-DCE and carbon tetrachloride in sub-slab soil vapor were compared to the NYSDOH Vapor Intrusion Decision Matrix A. TCE was not detected in soil vapor at V3 but was detected at a concentration of $0.77 \mu\text{g}/\text{m}^3$ at sample location V5 and at a concentration of $1.1 \mu\text{g}/\text{m}^3$ at sample location V2. Cis-1,2-DCE was not detected in soil vapor at V3 but was detected at a concentration of $0.86 \mu\text{g}/\text{m}^3$ at sample location V2 and at a concentration of $1.1 \mu\text{g}/\text{m}^3$ at sample location V5. Carbon tetrachloride was detected in soil vapor at all three sample ports at concentrations ranging from $0.31 \mu\text{g}/\text{m}^3$ at sample location V2 to $0.5 \mu\text{g}/\text{m}^3$ at sample location V5. These compounds were detected at concentrations below the Matrix A soil vapor threshold of $6 \mu\text{g}/\text{m}^3$ and are not expected to affect indoor air quality, no additional actions are needed to address human exposures.

Analytical results for PCE in sub-slab soil vapor were compared to the NYSDOH Vapor Intrusion Decision Matrix B. PCE was not detected in soil vapor at V3 but was detected at a concentration of $1.9 \mu\text{g}/\text{m}^3$ at sample location V2 and at a concentration of $2 \mu\text{g}/\text{m}^3$ at sample location V5. These concentrations are below the Matrix B soil vapor threshold of $100 \mu\text{g}/\text{m}^3$ and are not expected to affect indoor air quality, no additional actions are needed to address human exposures.

Several other VOCs were detected in soil vapor samples. Total VOC concentrations in the soil vapor samples ranged from 104.76 $\mu\text{g}/\text{m}^3$ (V5) to 139.94 $\mu\text{g}/\text{m}^3$ (V2). Benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) were detected in soil vapor at concentrations of 57.6 $\mu\text{g}/\text{m}^3$ (V3) to 73.6 $\mu\text{g}/\text{m}^3$ (V2).

Based on the remediation completed to date, the source of these vapors is likely residual contamination in soil that is being addressed by operation of the SMDS.

Historical sub-slab soil vapor analytical results are shown on Table 3. Comparison of the Year 6 monitoring analytical results to results from the four sampling events completed in Year 1 generally revealed a decrease in concentrations of total VOCs and BTEX in all three sampling locations. A comparison of the Year 6 monitoring analytical results to the Year 5 sampling event results reveals that total VOCs concentrations have generally remained stable or increased by less than one order of magnitude and BTEX concentrations have generally remained stable. Chlorinated VOCs were detected at concentrations requiring no further action when compared against the Matrix A, Matrix B, and Matrix C Vapor Intrusion thresholds during all seven sampling events.

Validation Overview

Data validation was completed for all sub-membrane soil vapor and ambient air results in accordance with the QAPP provided in the September 2015 SMP which included verification of sample results, verification of the identification of sample results, and recalculation of 10% of all sample results. Following data validation, a Data Usability Summary Report (DUSR) was prepared for all samples (and related QA/QC samples) collected during the monitoring event. The DUSR presents the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. The DUSR is included in Attachment C. Associated raw data is provided as Attachment B.

Conclusions

Based on the findings of this SMDS inspection and soil vapor monitoring event, the vacuum being produced in the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. A vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations for chlorinated VOCs were detected below the NYSDOH Vapor Intrusion Decision Matrix thresholds requiring further action.

Based on these findings, continued operation of the passive SMDS is sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. The operation, maintenance, and monitoring (OM&M) protocols provided in the SMP for this passive SMDS will consist of continued

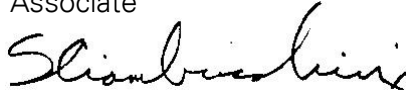
monitoring of the system annually during the heating season unless otherwise required by NYSDEC.

Sincerely,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



Christopher McMahon, CHMM
Associate



Steven Ciambuschini, P.G., L.E.P.
Senior Principal / Senior Vice President

CM:SAC:kn

Attachments: Table 1 – SMDS Screening Results
Table 2 – Summary of Sub-Slab Soil Vapor Analytical Results
Table 3 – Historical Sub-Slab Soil Vapor Analytical Results
Figure 1 – Site Location Map
Figure 2 – Sample Location Plan
Figure 3 – Sub-Slab Soil Vapor Analytical Results
Attachment A – Field Logs
Attachment B – Laboratory Analytical Results
Attachment C – Data Usability Summary Report (DUSR)

cc: Jennifer Jennings – LSG 365 Bond Street, LLC
Allyson Kritzer, Jessica Friscia – Langan

TABLES

Table 1
Soil Vapor Monitoring Report - Year 6
Field Screening Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Parameter Monitoring Event Date Units	PID Year 1, Month 1 5/20/2016 ppb	PID Year 1, Month 3 7/20/2016 ppb	PID Year 1, Month 6 10/20/2016 ppb	PID Year 1, Month 12 4/20/2017 ppb	PID Year 2 2/13/2018 ppb	PID Year 3 2/27/2019 ppb	PID Year 5 4/8/2021 ppb	PID Year 6 6/20/2022 ppb
Sample Port								
V2	329	239	373	1,058	637	70	7	0
V3	309	1,602	401	539	658	20	4	7
V5	257	0	363	717	640	10	0	0

Parameter Monitoring Event Date Units	Vacuum Month 1 5/20/2017 in. H2O	Vacuum Month 3 7/20/2017 in. H2O	Vacuum Month 6 10/20/2016 in. H2O	Vacuum Month 12 4/20/2017 in. H2O	Vacuum Year 2 2/13/2018 in. H2O	Vacuum Year 3 2/27/2019 in. H2O	Vacuum Year 5 4/8/2021 in. H2O	Vacuum Year 6 6/20/2022 in. H2O
Sample Port								
V2	0.015	0.011	0.012	0.017	0.064	0.057	0.031	0.043
V3	0.005	0.006	0.009	0.011	0.029	0.025	0.012	0.016
V5	0.018	0.015	0.024	0.009	0.021	0.020	0.024	0.018

Notes:

ppb: parts per billion
in. H2O: inches of water

Table 2
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	NYSDOH Decision Matrices Minimum Concentrations	Location	AMBIENT-1	V2	V3	V3	V5
		Sample Name	876_Ambient-1	878_V2	879_V3	880_DUP-1	877_V5
		Sample Date	06/20/2022	06/20/2022	06/20/2022	06/20/2022	06/20/2022
		Sample Type	AA	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	NS	ug/m3	<0.78 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
1,1,1-Trichloroethane	100	ug/m3	<0.62 U	<0.91 U	<0.87 U	<0.86 U	<0.87 U
1,1,2,2-Tetrachloroethane	NS	ug/m3	<0.78 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	ug/m3	<0.87 U	<1.3 U	<1.2 U	<1.2 U	<1.2 U
1,1,2-Trichloroethane	NS	ug/m3	<0.62 U	<0.91 U	<0.87 U	<0.86 U	<0.87 U
1,1-Dichloroethane	NS	ug/m3	<0.46 U	<0.67 U	<0.64 U	<0.64 U	<0.65 U
1,1-Dichloroethene	6	ug/m3	<0.11 U	<0.16 U	<0.16 U	<0.16 U	<0.16 U
1,2,4-Trichlorobenzene	NS	ug/m3	<0.84 UJ	<1.2 UJ	<1.2 UJ	<1.2 UJ	<1.2 UJ
1,2,4-Trimethylbenzene	NS	ug/m3	<0.56 U	17 D	6.1 D	6.4 D	6.1 D
1,2-Dibromoethane (Ethylene Dibromide)	NS	ug/m3	<0.87 U	<1.3 U	<1.2 U	<1.2 U	<1.2 U
1,2-Dichlorobenzene	NS	ug/m3	<0.68 U	<1 U	<0.95 U	<0.95 U	<0.96 U
1,2-Dichloroethane	NS	ug/m3	<0.46 U	<0.67 U	<0.64 U	<0.64 U	<0.65 U
1,2-Dichloropropane	NS	ug/m3	<0.52 U	<0.77 U	<0.73 U	<0.73 U	<0.74 U
1,2-Dichlorotetrafluoroethane	NS	ug/m3	<0.79 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U
1,3,5-Trimethylbenzene (Mesitylene)	NS	ug/m3	<0.56 U	4.3 D	1.7 D	1.8 D	1.9 D
1,3-Butadiene	NS	ug/m3	<0.75 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
1,3-Dichlorobenzene	NS	ug/m3	<0.68 U	<1 U	<0.95 U	<0.95 U	<0.96 U
1,3-Dichloropropane	NS	ug/m3	<0.52 U	<0.77 U	<0.73 U	<0.73 U	<0.74 U
1,4-Dichlorobenzene	NS	ug/m3	<0.68 U	<1 U	<0.95 U	<0.95 U	<0.96 U
1,4-Dioxane (P-Dioxane)	NS	ug/m3	<0.82 U	<1.2 U	<1.1 U	<1.1 U	<1.2 U
2-Hexanone (MBK)	NS	ug/m3	<0.93 UJ	<1.4 UJ	<1.3 UJ	<1.3 UJ	<1.3 UJ
4-Ethyltoluene	NS	ug/m3	<0.56 U	14 D	5.7 D	5.9 D	5.8 D
Acetone	NS	ug/m3	7.5 D	4 D	8.2 D	8 D	6.9 D
Acrylonitrile	NS	ug/m3	<0.25 U	<0.36 U	<0.34 U	<0.34 U	<0.35 U
Allyl Chloride (3-Chloropropene)	NS	ug/m3	<1.8 U	<2.6 U	<2.5 U	<2.5 U	<2.5 U
Benzene	NS	ug/m3	0.54 D	2.9 D	4 D	4.1 D	3.6 D
Benzyl Chloride	NS	ug/m3	<0.59 U	<0.86 U	<0.82 U	<0.82 U	<0.83 U
Bromodichloromethane	NS	ug/m3	<0.76 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
Bromoethene	NS	ug/m3	<0.49 U	<0.73 U	<0.69 U	<0.69 U	<0.7 U
Bromoform	NS	ug/m3	<1.2 U	<1.7 U	<1.6 U	<1.6 U	<1.7 U
Bromomethane	NS	ug/m3	<0.44 U	<0.64 U	<0.62 U	<0.61 U	<0.62 U
Carbon Disulfide	NS	ug/m3	<0.35 U	0.72 D	14 D	13 D	1 D
Carbon Tetrachloride	6	ug/m3	0.36 D	0.31 D	0.4 D	0.4 D	0.5 D
Chlorobenzene	NS	ug/m3	<0.52 U	<0.76 U	<0.73 U	<0.73 U	<0.74 U
Chloroethane	NS	ug/m3	<0.3 U	<0.44 U	<0.42 U	<0.42 U	<0.42 U
Chloroform	NS	ug/m3	<0.55 U	1.5 D	<0.78 U	<0.77 U	2.5 D
Chloromethane	NS	ug/m3	1 D	2.3 D	1.4 D	1.5 D	2.8 D
Cis-1,2-Dichloroethene	6	ug/m3	<0.11 U	0.86 D	<0.16 U	<0.16 U	1.1 D
Cis-1,3-Dichloropropene	NS	ug/m3	<0.51 U	<0.75 U	<0.72 U	<0.72 U	<0.73 U
Cyclohexane	NS	ug/m3	<0.39 U	1.3 D	1.2 D	1.3 D	0.83 D
Dibromochloromethane	NS	ug/m3	<0.96 U	<1.4 U	<1.4 U	<1.3 U	<1.4 U
Dichlorodifluoromethane	NS	ug/m3	2.8 D	3 D	3 D	3.1 D	3.2 D
Ethyl Acetate	NS	ug/m3	1.5 D	<1.2 U	<1.1 U	<1.1 U	<1.2 U
Ethylbenzene	NS	ug/m3	<0.49 U	7.7 D	5.3 D	5.5 D	5.4 D
Hexachlorobutadiene	NS	ug/m3	<1.2 UJ	<1.8 UJ	<1.7 UJ	<1.7 UJ	<1.7 UJ
Isopropanol	NS	ug/m3	1.6 D	<0.82 U	1.5 D	0.97 D	1.9 D
M,P-Xylene	NS	ug/m3	1.2 D	30 D	19 D	20 D	21 D
Methyl Ethyl Ketone (2-Butanone)	NS	ug/m3	1 D	1.4 D	4.4 D	4 D	1.1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	ug/m3	<0.46 UJ	0.75 J	<0.65 UJ	0.71 J	0.66 J
Methyl Methacrylate	NS	ug/m3	<0.46 U	<0.68 U	<0.65 U	<0.65 U	<0.66 U
Methylene Chloride	100	ug/m3	<0.79 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U
n-Heptane	NS	ug/m3	<0.46 U	2.4 D	2.8 D	2.9 D	2.4 D
n-Hexane	NS	ug/m3	0.44 D	3.3 D	3.1 D	3.3 D	1.9 D
o-Xylene (1,2-Dimethylbenzene)	NS	ug/m3	<0.49 U	13 D	7.7 D	8 D	7.6 D
Propylene	NS	ug/m3	<0.19 U	1.2 D	2.4 D	2.6 D	<0.28 U
Styrene	NS	ug/m3	<0.48 U	<0.71 U	<0.68 U	<0.67 U	<0.68 U
Tert-Butyl Methyl Ether	NS	ug/m3	<0.41 U	<0.6 U	<0.57 U	<0.57 U	<0.58 U
Tetrachloroethene (PCE)	100	ug/m3	<0.77 U	1.9 D	<1.1 U	<1.1 U	2 D
Tetrahydrofuran	NS	ug/m3	<0.67 U	3 D	5.5 D	5.9 D	1.2 D
Toluene	NS	ug/m3	1.7 D	20 D	20 D	22 D	20 D
Trans-1,2-Dichloroethene	NS	ug/m3	<0.45 U	<0.66 U	<0.63 U	<0.63 U	<0.63 U
Trans-1,3-Dichloropropene	NS	ug/m3	<0.51 U	<0.75 U	<0.72 U	<0.72 U	<0.73 U
Trichloroethene (TCE)	6	ug/m3	<0.15 U	1.1 D	<0.21 U	0.34 D	0.77 D
Trichlorofluoromethane	NS	ug/m3	1.5 D	2 D	2 D	2 D	2.6 D
Vinyl Acetate	NS	ug/m3	<0.4 U	<0.58 U	<0.56 U	<0.56 U	<0.56 U
Vinyl Chloride	6	ug/m3	<0.14 U	<0.21 U	<0.2 U	<0.2 U	<0.2 U
Total CVOCs	NS	ug/m3	ND	3.86	ND	0.34	3.87
Total BTEX	NS	ug/m3	3.44	73.6	56	59.6	57.6
Total VOCs	NS	ug/m3	21.14	139.94	119.4	123.72	104.76

Table 2
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

Page 2 of 2

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Notes:

AA - Ambient Air
SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

Ambient air sample analytical results are shown for reference only.

Total BTEX = calculation from BTEX results above the Limit of Detection

Total VOC = calculation from VOC results above the Limit of Detection

Qualifiers:

D - The concentration reported is a result of a diluted sample.

J - The analyte was positively identified and the associated numerical value is the approximate concentration of

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds minimum soil vapor concentrations recommending mitigation

Table 3
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	NYSDOH Decision Matrices Minimum Concentrations	Location	V2	V2	V2	V2	V2	V2	V2	V2	V2
		Sample Name	0762/V2_20160520	0763/Dup-1_20160520	0778/V2_072016	794/V2-20161020	816/V2	861/V2	866 V2	873_V2	878_V2
		Sample Date	05/20/2016	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	NS	ug/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	NA	<1.05 U	<1.26 U	<1.1 U
1,1,1-Trichloroethane	100	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U
1,1,2,2-Tetrachloroethane	NS	ug/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	<1.37 U	<1.05 U	<1.26 U	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.53 U	<1.17 U	<1.41 U	<1.3 U
1,1,2-Trichloroethane	NS	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U
1,1-Dichloroethane	NS	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.746 U	<0.67 U
1,1-Dichloroethene	6	ug/m3	<0.84 U	<1 U	<0.45 U	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.365 U	<0.16 U
1,2,4-Trichlorobenzene	NS	ug/m3	<1.6 U	<1.9 U	<0.84 U	<0.74 U	<14 U	<1.48 U	<1.13 U	<1.37 U	<1.2 U
1,2,4-Trimethylbenzene	NS	ug/m3	6.9 J	2.4 J	2.4 D	<0.49 U	<9.5 U	<0.983 U	6.46 D	5.07 D	17 D
1,2-Dibromoethane (Ethylene Dibromide)	NS	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.54 U	<1.17 U	<1.42 U	<1.3 U
1,2-Dichlorobenzene	NS	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U
1,2-Dichloroethane	NS	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.745 U	<0.67 U
1,2-Dichloropropane	NS	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.924 U	<0.707 U	<0.851 U	<0.77 U
1,2-Dichlorotetrafluoroethane	NS	ug/m3	<1.5 U	<1.8 U	<0.79 U	<0.7 U	<13 U	<1.4 U	<1.07 U	<1.29 U	<1.2 U
1,3,5-Trimethylbenzene (Mesitylene)	NS	ug/m3	2.1 D	<1.3 U	0.61 D	<0.49 U	<9.5 U	<0.983 U	1.95 D	1.36 D	4.3 D
1,3-Butadiene	NS	ug/m3	<1.4 U	<1.7 U	<0.75 U	<0.66 U	<13 U	<0.442 U	<1.01 U	<1.22 U	<1.1 U
1,3-Dichlorobenzene	NS	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U
1,3-Dichloropropane	NS	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	NA	<0.707 U	<0.851 U	<0.77 U
1,4-Dichlorobenzene	NS	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U
1,4-Dioxane (P-Dioxane)	NS	ug/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 UJ	<14 U	<0.721 U	<1.1 U	<1.33 U	<1.2 U
2,2,4-Trimethylpentane	NS	ug/m3	NA	NA	NA	NA	NA	<0.934 U	NA	NA	NA
2-Hexanone (MBK)	NS	ug/m3	<1.7 U	<2.1 U	<0.93 UJ	<0.82 U	<16 U	<0.82 U	<4.64 U	<1.51 U	<1.4 UJ
4-Ethyltoluene	NS	ug/m3	6.4 J	2 J	1.8 D	<0.49 U	<9.5 U	<0.983 U	5.86 J	4.35 D	14 D
Acetone	NS	ug/m3	48 D	58 D	14 D	2.4	280 D	19.7	6.28 D	2.63 D	4 D
Acrylonitrile	NS	ug/m3	<0.46 U	<0.56 U	<0.25 U	<0.22 U	<4.2 U	NA	<0.332 U	<0.4 U	<0.36 U
Allyl Chloride (3-Chloropropene)	NS	ug/m3	<3.3 U	<4 U	<1.8 U	<1.6 U	<30 U	<0.626 U	<2.39 U	<2.88 U	<2.6 U
Benzene	NS	ug/m3	9.4 D	6.4 D	0.98 D	<0.32 U	<6.1 U	1.08	2.78 D	2.94 D	2.9 D
Benzyl Chloride	NS	ug/m3	<1.1 U	<1.3 U	<0.59 U	<0.52 UJ	<10 U	<1.04 U	<0.792 U	<0.954 U	<0.86 U
Bromodichloromethane	NS	ug/m3	<1.4 U	<1.7 U	<0.76 U	<0.67 U	<13 U	<1.34 U	<1.02 U	<1.23 U	<1.1 U
Bromoethene	NS	ug/m3	<0.92 U	<1.1 U	<0.5 U	<0.44 U	<8.4 U	<0.874 U	<0.669 U	<0.806 U	<0.73 U
Bromoform	NS	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1 U	<20 U	<2.07 U	<1.58 UJ	<1.9 U	<1.7 U
Bromomethane	NS	ug/m3	<0.82 U	<1 U	<0.44 U	<0.39 U	<7.5 U	<0.777 U	<0.594 U	<0.715 U	<0.64 U
Carbon Disulfide	NS	ug/m3	<0.66 U	<0.8 U	0.53 D	<0.31 U	49 D	<0.623 U	0.476 D	0.574 D	0.72 D
Carbon Tetrachloride	6	ug/m3	<0.33 U	<0.4 U	<0.18 U	<0.16 U	<3 U	<1.26 U	0.481 D	0.348 D	0.31 D
Chlorobenzene	NS	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.921 U	<0.704 U	<0.848 U	<0.76 U
Chloroethane	NS	ug/m3	<0.56 U	<0.68 U	<0.3 U	<0.26 U	<5.1 U	<0.528 U	<0.403 U	<0.486 U	<0.44 U
Chloroform	NS	ug/m3	<1 U	<1.3 U	<0.55 U	0.73	<9.4 U	<0.977 U	<0.747 U	<0.899 U	1.5 D
Chloromethane	NS	ug/m3	2 D	2 D	5.6 D	0.41	7.2 D	1.9	3.54 D	1.07 D	2.3 D
Cis-1,2-Dichloroethene	6	ug/m3	<0.84 U	<1 U	0.81 D	<0.4 U	<7.6 U	<0.793 U	0.606 D	0.584 D	0.86 D
Cis-1,3-Dichloropropene	NS	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U
Cyclohexane	NS	ug/m3	1.8 D	1.6 D	0.47 D	<0.34 U	<6.6 U	<0.688 U	<0.526 U	0.697 D	1.3 D
Dibromochloromethane	NS	ug/m3	<1.8 U	<2.2 U	<0.97 U	<0.85 U	<16 U	<1.7 U	<1.3 U	<1.57 U	<1.4 U
Dichlorodifluoromethane	NS	ug/m3	2.7 D	2.8 D	1.1 D	<0.49 U	<9.5 U	2.11	2.12 J	2.19 D	3 D
Ethanol	NS	ug/m3	NA	NA	NA	NA	NA	11.9	NA	NA	NA
Ethyl Acetate	NS	ug/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 U	<14 U	<1.8 U	<1.1 U	<1.33 U	<1.2 U
Ethylbenzene	NS	ug/m3	6.3 J	3 J	2.5 D	<0.43 U	<8.4 U	<0.869 U	3.59 D	2.88 D	7.7 D
Hexachlorobutadiene	NS	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1.1 U	<21 U	<2.13 U	<1.63 U	<1.96 U	<1.8 UJ
Isopropanol	NS	ug/m3	<1 U	<1.3 U	<0.56 U	<0.49 U	54 D	2.56	1.13 D	2.35 D	<0.82 U
M,P-Xylene	NS	ug/m3	24 J	12 J	10 D	<0.87 U	<17 U	2.78	14.3 D	10.9 D	30 D
Methyl Ethyl Ketone (2-Butanone)	NS	ug/m3	7.1 D	6.7 D	3.9 D	0.38	81 D	2.75	2.34 D	0.815 D	1.4 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	<2.05 U	2.57 D	2.04 D	0.75 J
Methyl Methacrylate	NS	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	NA	<0.626 U	2.19 D	<0.68 U
Methylene Chloride	100	ug/m3	5.4 J	30 J	<0.79 U	<0.69 U	<13 U	<1.74 U	1.91 D	28.5 D	<1.2 U
n-Heptane	NS	ug/m3	3.9 D	3 D	1.1 D	<0.41 U	<7.9 U	<0.82 U	1.32 D	1.28 D	2.4 D
n-Hexane	NS	ug/m3	18 J	55 J	1.7 D	<0.35 U	<6.8 U	<0.705 U	1.08 D	2.14 D	3.3 D
o-Xylene (1,2-Dimethylbenzene)	NS	ug/m3	8.9 J	4.6 J	2.8 D	<0.43 U	<8.4 U	0.999	5.05 D	4.24 D	13 D
Propylene	NS	ug/m3	7.7 D	6.6 D	<0.2 U	<0.17 U	<3.3 U	NA	<0.263 U	<0.317 U	1.2 D
Styrene	NS	ug/m3	<0.9 U	<1.1 U	1.1 D	<0.43 U	<8.2 U	<0.852 U	<0.651 U	<0.785 U	<0.71 U
Tert-Butyl Alcohol	NS	ug/m3	NA	NA	NA	NA	NA	<1.52 U	NA	NA	NA
Tert-Butyl Methyl Ether	NS	ug/m3	<0.76 U	<0.93 U	<0.41 U	<0.36 U	<6.9 U	<0.721 U	<0.551 U	<0.664 U	<0.6 U
Tetrachloroethene (PCE)	100	ug/m3	1.6 J	<0.44 UJ	3.6 D	0.2	9.1 D	<1.36 U	2.18 D	1.75 D	1.9 D
Tetrahydrofuran	NS	ug/m3	29 D	26 D	37 D	0.65	37 D	1.48	1.8 D	1.58 D	3 D
Toluene	NS	ug/m3	32 J	19 J	11 D	0.6	17 D	15.5	12.4 D	10.9 D	20 D
Total Xylenes	NS	ug/m3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,2-Dichloroethene	NS	ug/m3	<0.84 U	<1 U	0.58 D	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.73 U	<0.66 U
Trans-1,3-Dichloropropene	NS	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U
Trichloroethene (TCE)	6	ug/m3	<0.28 U	<0.35 U	1.2 D	<0.13 U	<2.6 U	<1.07 U	0.904 D	0.792 D	1.1 D
Trichlorofluoromethane	NS	ug/m3	3.6 D	5.5 D	2 D	<0.56 U	<11 U	<1.12 U	1.29 D	1.45 D	2 D
Vinyl Acetate	NS	ug/m3	<0.74 U	<0.91 U	<0.4 UJ	<0.35 U	<6.8 U	NA	<0.538 U	<0.649 UJ	<0.58 U
Vinyl Chloride	6	ug/m3	<0.54 U	<0.66 U	<0.29 U	<0.26 U	<4.9 U	<0.511 U	<0.391 U	<0.235 U	<0.21 U
Total BTEX	NS	ug/m3	80.6	45	27.3	0.6	17	20.4	38.1	31.9	73.6
Total VOCs	NS	ug/m3	226.8	246.6	106.78	5.37	534.3	62.76	82.42	95.62	139.94

Table 3
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	NYSDOH Decision Matrices Minimum Concentrations	Location	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3	V3
		Sample Name	0764/V3_20160520	0779/V3_072016	0780/DUP-1_072016	795/V3-20161020	796/DUP-1-20161020	817/V3	818/DUP-1	862/V3	863/DUP-1	867 V3	868 DUP-1	874_V3	875_DUP-1	879_V3	880_DUP-1
		Sample Date	05/20/2016	07/20/2016	07/20/2016	10/20/2016	10/20/2016	04/20/2017	04/20/2017	02/13/2018	02/13/2018	02/27/2019	02/27/2019	04/08/2021	04/08/2021	06/20/2022	06/20/2022
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																	
1,1,1,2-Tetrachloroethane	NS	ug/m3	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	NA	NA	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U
1,1,1-Trichloroethane	100	ug/m3	<1.1 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.86 U
1,1,2,2-Tetrachloroethane	NS	ug/m3	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	<1.37 U	<1.37 U	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	ug/m3	<1.6 U	<0.8 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.53 U	<1.53 U	<1.15 U	<1.15 U	<1.37 U	<1.26 U	<1.2 U	<1.2 U
1,1,2-Trichloroethane	NS	ug/m3	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U
1,1-Dichloroethane	NS	ug/m3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.61 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U
1,1-Dichloroethene	6	ug/m3	<0.83 U	<0.42 U	<0.45 U	<0.4 U	<0.4 U	<7.1 U	<7.8 U	<0.793 U	<0.793 U	<0.597 U	<0.595 U	<0.356 U	<0.326 U	<0.16 U	<0.16 U
1,2,4-Trichlorobenzene	NS	ug/m3	<1.5 U	<0.78 U	<0.85 U	<0.74 U	<0.74 U	<13 U	<15 U	<1.48 U	<1.48 U	<1.12 U	<1.11 U	<1.33 U	<1.22 U	<1.2 UJ	<1.2 UJ
1,2,4-Trimethylbenzene	NS	ug/m3	2.8 D	5.6 D	4.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.44 D	4.57 D	4.14 D	3.71 D	6.1 D	6.4 D
1,2-Dibromoethane (Ethylene Dibromide)	NS	ug/m3	<1.6 U	<0.81 U	<0.77 U	<0.49 U	<0.49 U	<14 U	<15 U	<1.54 U	<1.54 U	<1.16 U	<1.15 U	<1.38 U	<1.26 U	<1.2 U	<1.2 U
1,2-Dichlorobenzene	NS	ug/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U
1,2-Dichloroethane	NS	ug/m3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.609 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U
1,2-Dichloropropane	NS	ug/m3	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	<0.924 U	<0.924 U	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U
1,2-Dichlorotetrafluoroethane	NS	ug/m3	<1.5 U	<0.73 U	<0.8 U	<0.7 U	<0.7 U	<12 U	<14 U	<1.4 U	<1.4 U	<1.05 U	<1.05 U	<1.25 U	<1.15 U	<1.1 U	<1.1 U
1,3,5-Trimethylbenzene (Mesitylene)	NS	ug/m3	<1 U	0.72 D	0.96 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	1.33 D	1.33 D	1.15 D	1.05 D	1.7 D	1.8 D
1,3-Butadiene	NS	ug/m3	<1.4 U	<0.7 U	<0.76 U	<0.66 U	<0.66 U	<12 U	<13 U	0.515	0.518	<1 U	<0.996 U	<1.19 U	<1.09 U	<1.1 U	<1.1 U
1,3-Dichlorobenzene	NS	ug/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U
1,3-Dichloropropane	NS	ug/m3	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	NA	NA	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U
1,4-Dichlorobenzene	NS	ug/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U
1,4-Dioxane (P-Dioxane)	NS	ug/m3	<1.5 U	<0.76 U	<0.82 U	<0.72 UJ	<0.72 UJ	<13 U	<14 UJ	<0.721 U	<0.721 U	<1.09 U	<1.08 U	<1.29 U	<1.18 U	<1.1 U	<1.1 U
2,2,4-Trimethylpentane	NS	ug/m3	NA	NA	NA	NA	NA	NA	NA	2.41	2.38	NA	NA	NA	NA	NA	NA
2-Hexanone (MBK)	NS	ug/m3	<1.7 U	1.3 J	1.2 J	<0.82 U	<0.82 U	<15 U	<16 U	<0.82 U	<0.82 U	<4.01 U	<4.06 U	<1.47 U	<1.35 U	<1.3 UJ	<1.3 UJ
4-Ethyltoluene	NS	ug/m3	2 D	2.4 D	2.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.29 J	4.5 J	3.7 D	3.23 D	5.7 D	5.9 D
Acetone	NS	ug/m3	61 D	47 D	42 D	1.9	1.1	200 JD	340 JD	20.3	20.8	4.97 D	4.92 D	7.46 J	4.41 J	8.2 D	8 D
Acrylonitrile	NS	ug/m3	<0.45 U	<0.23 U	<0.22 U	<0.22 U	<0.22 U	<3.9 U	<4.3 U	NA	NA	<0.327 U	<0.326 U	<0.389 U	<0.356 U	<0.34 U	<0.34 U
Allyl Chloride (3-Chloropropene)	NS	ug/m3	<3.3 U	<1.6 U	<1.8 U	<1.6 U	<1.6 U	<28 U	<31 U	<0.626 U	<0.626 U	<2.36 U	<2.35 U	<2.81 U	<2.57 U	<2.5 U	<2.5 U
Benzene	NS	ug/m3	4.1 D	4.4 D	4.5 D	0.45	0.32	9.1 D	6.9 D	2.82	2.74	7.94 D	8.29 D	5.33 D	4.98 D	4 D	4.1 D
Benzyl Chloride	NS	ug/m3	<1.1 U	<0.54 U	<0.59 U	<0.52 UJ	<0.52 UJ	<9.3 U	<10 U	<1.04 U	<1.04 U	<0.78 U	<0.777 U	<0.929 U	<0.85 U	<0.82 U	<0.82 U
Bromodichloromethane	NS	ug/m3	<1.4 U	<0.7 U	<0.77 U	<0.67 U	<0.67 U	<12 U	<13 U	<1.34 U	<1.34 U	<1.01 U	<1 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U
Bromoethene	NS	ug/m3	<0.91 U	<0.46 U	<0.5 U	<0.44 U	<0.44 U	<7.8 U	<8.6 U	<0.874 U	<0.874 U	<0.659 U	<0.656 U	<0.785 U	<0.718 U	<0.69 U	<0.69 U
Bromoform	NS	ug/m3	<2.2 U	<1.1 U	<1.2 U	<1 U	<1 U	<18 U	<20 U	<2.07 U	<2.07 U	<1.56 UJ	<1.55 UJ	<1.85 U	<1.7 U	<1.6 U	<1.6 U
Bromomethane	NS	ug/m3	<0.81 U	<0.41 U	<0.44 U	<0.39 U	<0.39 U	<6.9 U	<7.6 U	<0.777 U	<0.777 U	<0.585 U	<0.582 U	<0.697 U	<0.638 U	<0.62 U	<0.61 U
Carbon Disulfide	NS	ug/m3	0.65 D	0.88 D	0.82 D	<0.31 U	<0.31 U	<5.6 U	55 D	<0.623 U	<0.623 U	<0.469 U	<0.467 U	0.559 D	0.511 D	14 D	13 D
Carbon Tetrachloride	6	ug/m3	<0.33 U	<0.17 U	<0.18 U	<0.16 U	<0.16 U	<2.8 U	<3.1 U	<1.26 U	<1.26 U	0.474 D	0.472 D	0.451 D	0.31 D	0.4 D	0.4 D
Chlorobenzene	NS	ug/m3	<0.96 U	<0.48 U	<0.53 U	<0.46 U	<0.46 U	<8.2 U	<9.1 U	<0.921 U	<0.921 U	<0.693 U	<0.691 U	<0.826 U	<0.756 U	<0.73 U	<0.73 U
Chloroethane	NS	ug/m3	<0.55 U	<0.28 U	<0.3 U	<0.26 U	<0.26 U	<4.7 U	<5.2 U	<0.528 U	<0.528 U	<0.397 U	<0.396 U	<0.473 U	<0.433 U	<0.42 U	<0.42 U
Chloroform	NS	ug/m3	<1 U	<0.51 U	<0.56 U	<0.49 U	<0.49 U	<8.7 U	<9.6 U	<0.977 U	<0.977 U	<0.735 U	<0.732 U	<0.876 U	<0.802 U	<0.78 U	<0.77 U
Chloromethane	NS	ug/m3	2.9 D	2.3 D	2.2 D	<0.21 U	0.23	4.4 D	5.7 D	1.53	1.62	1.31 D	1.27 D	0.963 D	0.916 D	1.4 D	1.5 D
Cis-1,2-Dichloroethene	6	ug/m3	<0.83 U	<0.42 U	<0.45 U	<0.4 U	<0.4 U	<7.1 U	<7.8 U	<0.793 U	<0.793 U	<0.597 U	<0.595 U	<0.356 U	<0.326 U	<0.16 U	<0.16 U
Cis-1,3-Dichloropropene	NS	ug/m3	<0.95 U	<0.48 U	<0.52 U	<0.45 U	<0.45 U	<8.1 U	<8.9 U	<0.908 U	<0.908 U	<0.684 U	<0.681 U	<0.814 U	<0.745 U	<0.72 U	<0.72 U
Cyclohexane	NS	ug/m3	1.7 D	1.4 D	1.5 D	<0.34 U	<0.34 U	<6.2 U	<6.8 U	0.702	<0.688 U	1.45 D	1.39 D	1.48 D	1.36 D	1.2 D	1.3 D
Dibromochloromethane	NS	ug/m3	<1.8 U	<0.89 U	<0.97 U	<0.85 U</											

Table 3
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	NYSDOH Decision Matrices Minimum Concentrations	Location	V5	V5	V5	V5	V5	V5	V5	V5
		Sample Name	0765/V5_20160520	0781/V5_072016	797/V5-20161020	819/V5	864/V5	869 V5	872_V5	877_V5
		Sample Date	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane	NS	ug/m3	<1.3 U	<0.76 U	<0.69 U	<12 U	NA	<1.01 U	<1.1 U	<1.1 U
1,1,1-Trichloroethane	100	ug/m3	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U
1,1,2,2-Tetrachloroethane	NS	ug/m3	<1.3 U	<0.76 U	<0.69 U	<12 U	<1.37 U	<1.01 U	<1.1 U	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	NS	ug/m3	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.53 U	<1.12 U	<1.23 U	<1.2 U
1,1,2-Trichloroethane	NS	ug/m3	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U
1,1-Dichloroethane	NS	ug/m3	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U
1,1-Dichloroethene	6	ug/m3	<0.76 U	<0.44 U	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.317 U	<0.16 U
1,2,4-Trichlorobenzene	NS	ug/m3	<1.4 U	<0.82 U	<0.74 U	<12 U	<1.48 U	<1.09 U	<1.19 U	<1.2 U
1,2,4-Trimethylbenzene	NS	ug/m3	1.9 D	5.4 D	0.69	<8.3 U	<0.983 U	3.53 D	3.86 D	6.1 D
1,2-Dibromoethane (Ethylene Dibromide)	NS	ug/m3	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.54 U	<1.13 U	<1.23 U	<1.2 U
1,2-Dichlorobenzene	NS	ug/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U
1,2-Dichloroethane	NS	ug/m3	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U
1,2-Dichloropropane	NS	ug/m3	<0.89 U	<0.51 U	<0.46 U	<7.8 U	<0.924 U	<0.678 U	<0.74 U	<0.74 U
1,2-Dichlorotetrafluoroethane	NS	ug/m3	<1.3 U	<0.78 U	<0.7 U	<12 U	<1.4 U	<1.03 U	<1.12 U	<1.1 U
1,3,5-Trimethylbenzene (Mesitylene)	NS	ug/m3	<0.94 U	<0.55 U	<0.49 U	<8.3 U	<0.983 U	1.08 D	1.02 D	1.9 D
1,3-Butadiene	NS	ug/m3	<1.3 U	<0.74 U	<0.66 U	<11 U	<0.442 U	<0.974 U	<1.06 U	<1.1 U
1,3-Dichlorobenzene	NS	ug/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U
1,3-Dichloropropane	NS	ug/m3	<0.89 U	<0.51 U	<0.46 U	<7.8 U	NA	<0.678 U	<0.74 U	<0.74 U
1,4-Dichlorobenzene	NS	ug/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U
1,4-Dioxane (P-Dioxane)	NS	ug/m3	<1.4 U	<0.8 U	<0.72 UJ	<12 U	<0.721 U	<1.06 U	<1.15 U	<1.2 U
2,2,4-Trimethylpentane	NS	ug/m3	NA	NA	NA	NA	1.35	NA	NA	NA
2-Hexanone (MBK)	NS	ug/m3	<1.6 U	1.1 D	<0.82 U	<14 U	<0.82 U	4.39 D	<1.31 U	<1.3 UJ
4-Ethyltoluene	NS	ug/m3	1.3 D	2.1 D	0.88	<8.3 U	<0.983 U	3.68 J	3.31 D	5.8 D
Acetone	NS	ug/m3	73 D	41 D	1.8	350 D	25.2	6.66 D	3.23 D	6.9 D
Acrylonitrile	NS	ug/m3	<0.42 U	<0.24 U	<0.22 U	<3.6 U	NA	<0.318 U	<0.347 U	<0.35 U
Allyl Chloride (3-Chloropropene)	NS	ug/m3	<3 U	<1.7 U	<1.6 U	<26 U	<0.626 U	<2.3 U	<2.51 U	<2.5 U
Benzene	NS	ug/m3	1.5 D	1.5 D	2.3	<5.4 U	1.47	2.39 D	2.05 D	3.6 D
Benzyl Chloride	NS	ug/m3	<0.99 U	<0.58 U	<0.52 UJ	<8.7 U	<1.04 U	<0.759 U	<0.829 U	<0.83 U
Bromodichloromethane	NS	ug/m3	<1.3 U	<0.74 U	<0.67 U	<11 U	<1.34 U	<0.983 U	<1.07 U	<1.1 U
Bromoethene	NS	ug/m3	<0.84 U	<0.49 U	<0.44 U	<7.3 U	<0.874 U	<0.642 U	<0.7 U	<0.7 U
Bromoform	NS	ug/m3	<2 U	<1.1 U	<1 U	<17 U	<2.07 U	<1.52 UJ	<1.65 U	<1.7 U
Bromomethane	NS	ug/m3	<0.74 U	<0.43 U	<0.39 U	<6.5 U	<0.777 U	<0.57 U	<0.622 U	<0.62 U
Carbon Disulfide	NS	ug/m3	<0.6 U	0.35 D	<0.31 U	<5.2 U	<0.623 U	0.594 D	0.897 D	1 D
Carbon Tetrachloride	6	ug/m3	<0.3 U	<0.17 U	<0.16 U	<2.6 U	<1.26 U	0.461 D	0.403 D	0.5 D
Chlorobenzene	NS	ug/m3	<0.88 U	<0.51 U	<0.46 U	<7.7 U	<0.921 U	<0.675 U	<0.737 U	<0.74 U
Chloroethane	NS	ug/m3	<0.51 U	<0.29 U	<0.26 U	<4.4 U	<0.528 U	<0.387 U	<0.422 U	<0.42 U
Chloroform	NS	ug/m3	2 D	2.3 D	<0.49 U	<8.2 U	1.15	1.22 D	1.49 D	2.5 D
Chloromethane	NS	ug/m3	2.3 D	5 D	<0.21 U	<3.5 U	3.76	0.757 D	1.59 D	2.8 D
Cis-1,2-Dichloroethene	6	ug/m3	1.7 D	0.57 D	<0.4 U	<6.7 U	2.12	1.74 D	1.14 D	1.1 D
Cis-1,3-Dichloropropene	NS	ug/m3	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U
Cyclohexane	NS	ug/m3	1.1 D	0.61 D	<0.34 U	<5.8 U	<0.688 U	0.606 D	0.551 D	0.83 D
Dibromochloromethane	NS	ug/m3	<1.6 U	<0.95 U	<0.85 U	<14 U	<1.7 U	<1.25 U	<1.36 U	<1.4 U
Dichlorodifluoromethane	NS	ug/m3	3.3 D	1.3 D	<0.49 U	<8.3 U	2.15	2.39 D	2.22 D	3.2 D
Ethanol	NS	ug/m3	NA	NA	NA	NA	23	NA	NA	NA
Ethyl Acetate	NS	ug/m3	<1.4 U	<0.8 U	<0.72 U	<12 U	<1.8 U	1.8 D	<1.15 U	<1.2 U
Ethylbenzene	NS	ug/m3	3.4 D	3.9 D	1.2	<7.3 U	<0.869 U	2.99 D	2.57 D	5.4 D
Hexachlorobutadiene	NS	ug/m3	<2 U	<1.2 U	<1.1 U	<18 U	<2.13 U	<1.56 U	<1.71 U	<1.7 UJ
Isopropanol	NS	ug/m3	<0.94 U	6.4 D	<0.49 U	49 D	6.44	1.3 D	4.6 D	1.9 D
M,P-Xylene	NS	ug/m3	14 D	14 D	4.1	<15 U	2.71	10.4 D	9.52 D	21 D
Methyl Ethyl Ketone (2-Butanone)	NS	ug/m3	15 D	7.6 D	0.35	280 D	4.07	2.16 D	1.23 D	1.1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	ug/m3	<0.78 U	<0.46 U	<0.41 U	<6.9 U	<2.05 U	2.88 D	3.08 D	0.66 J
Methyl Methacrylate	NS	ug/m3	<0.78 U	<0.45 U	<0.41 U	<6.9 U	NA	<0.601 U	1.84 D	<0.66 U
Methylene Chloride	100	ug/m3	3.9 D	<0.77 U	<0.69 U	<12 U	<1.74 U	1.27 D	15.8 D	<1.1 U
n-Heptane	NS	ug/m3	1.9 D	1.6 D	0.57	<6.9 U	<0.82 U	1.26 D	1.12 D	2.4 D
n-Hexane	NS	ug/m3	18 D	2.6 D	0.7	<5.9 U	1.02	1.24 D	1.69 D	1.9 D
o-Xylene (1,2-Dimethylbenzene)	NS	ug/m3	4.7 D	<0.48 U	1.3	<7.3 U	<0.869 U	3.69 D	3.55 D	7.6 D
Propylene	NS	ug/m3	9.4 D	3.3 D	3.4	7.8 D	NA	<0.252 U	<0.276 U	<0.28 U
Styrene	NS	ug/m3	<0.82 U	<0.47 U	<0.43 U	<7.2 U	<0.852 U	<0.625 U	<0.682 U	<0.68 U
Tert-Butyl Alcohol	NS	ug/m3	NA	NA	NA	NA	<1.52 U	NA	NA	NA
Tert-Butyl Methyl Ether	NS	ug/m3	<0.69 U	<0.4 U	<0.36 U	<6.1 U	<0.721 U	<0.529 U	<0.577 U	<0.58 U
Tetrachloroethene (PCE)	100	ug/m3	3 D	1.7 D	<0.17 U	8 D	2.55	2.49 D	2.17 D	2 D
Tetrahydrofuran	NS	ug/m3	38 D	13 D	<0.59 U	120 D	2.87	1.38 D	1.13 D	1.2 D
Toluene	NS	ug/m3	10 D	19 D	7.2	16 D	10.3	13.1 D	10.1 D	20 D
Total Xylenes	NS	ug/m3	NA	NA	NA	NA	NA	NA	NA	NA
Trans-1,2-Dichloroethene	NS	ug/m3	<0.76 U	0.57 D	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.635 U	<0.63 U
Trans-1,3-Dichloropropene	NS	ug/m3	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U
Trichloroethene (TCE)	6	ug/m3	<0.26 U	1.5 D	<0.13 U	<2.3 U	<1.07 U	0.946 D	0.688 D	0.77 D
Trichlorofluoromethane	NS	ug/m3	9.7 D	5.5 D	<0.56 U	<9.4 U	2.21	1.9 D	1.8 D	2.6 D
Vinyl Acetate	NS	ug/m3	<0.67 U	<0.39 UJ	<0.35 U	<5.9 U	NA	<0.517 U	<0.564 UJ	<0.56 U
Vinyl Chloride	6	ug/m3	<0.49 U	<0.28 U	<0.26 U	<4.3 U	<0.511 U	<0.375 U	<0.205 U	<0.2 U
Total BTEX	NS	ug/m3	33.6	38.4	16.1	16	14.5	32.6	27.8	57.6
Total VOCs	NS	ug/m3	219.1	141.9	24.49	747.9	92.37	78.304	82.649	104.76

Table 3
Soil Vapor Monitoring Report - Year 6
Soil Vapor Sample Analytical Results

Page 4 of 4

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Notes:

SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

Total BTEX = calculation from BTEX results above the Limit of Detection

Total VOC = calculation from VOC results above the Limit of Detection

Qualifiers:

D - The concentration reported is a result of a diluted sample.

J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

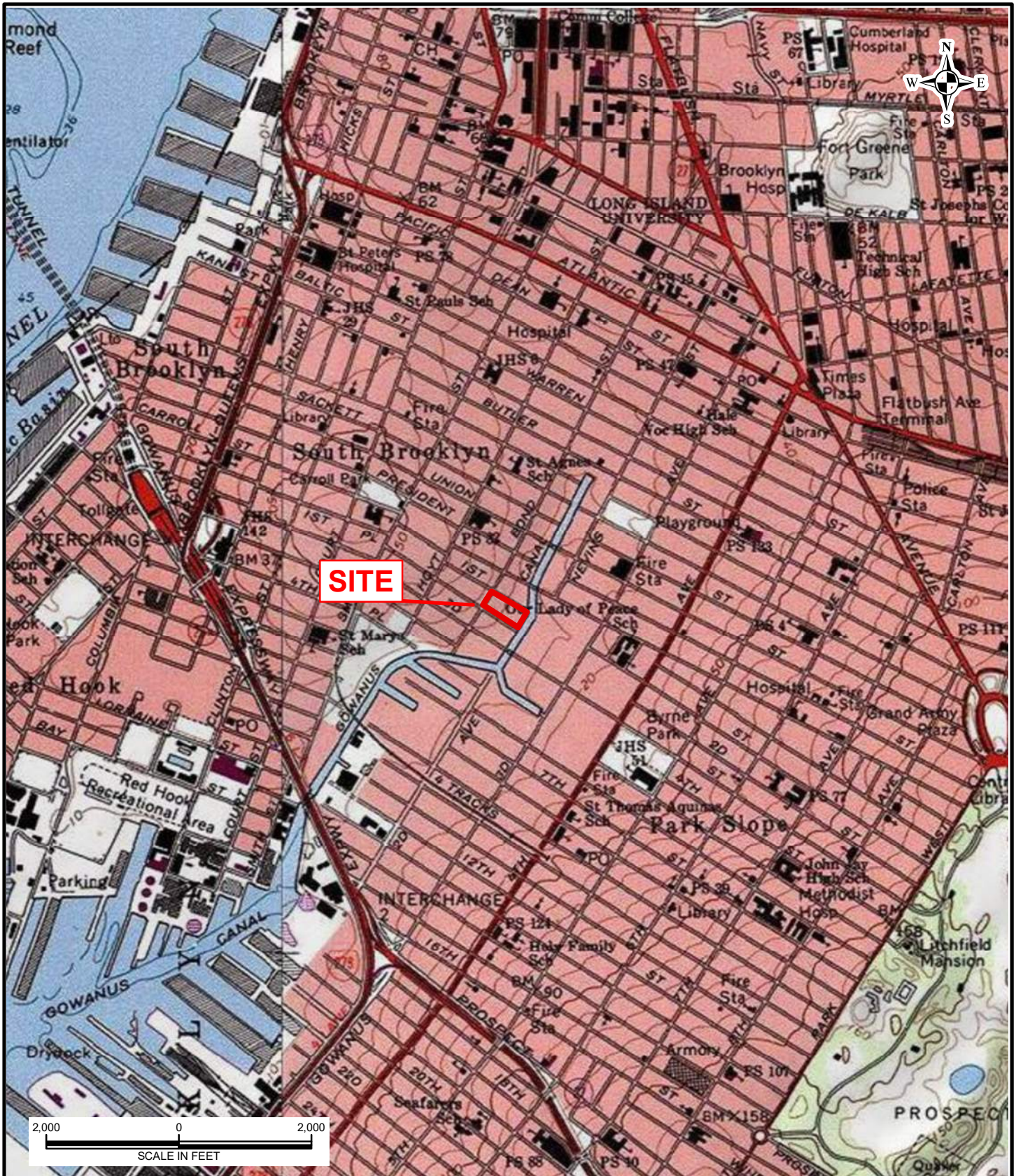
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds minimum soil vapor concentrations recommending mitigation

FIGURES



LANGAN

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
Langan International LLC

Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**365 BOND STREET
DEVELOPMENT**

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Drawing Title

**SITE LOCATION
MAP**

Project No.

100287503

Date

3/20/2019

Scale

1"=2000'

Drawn By

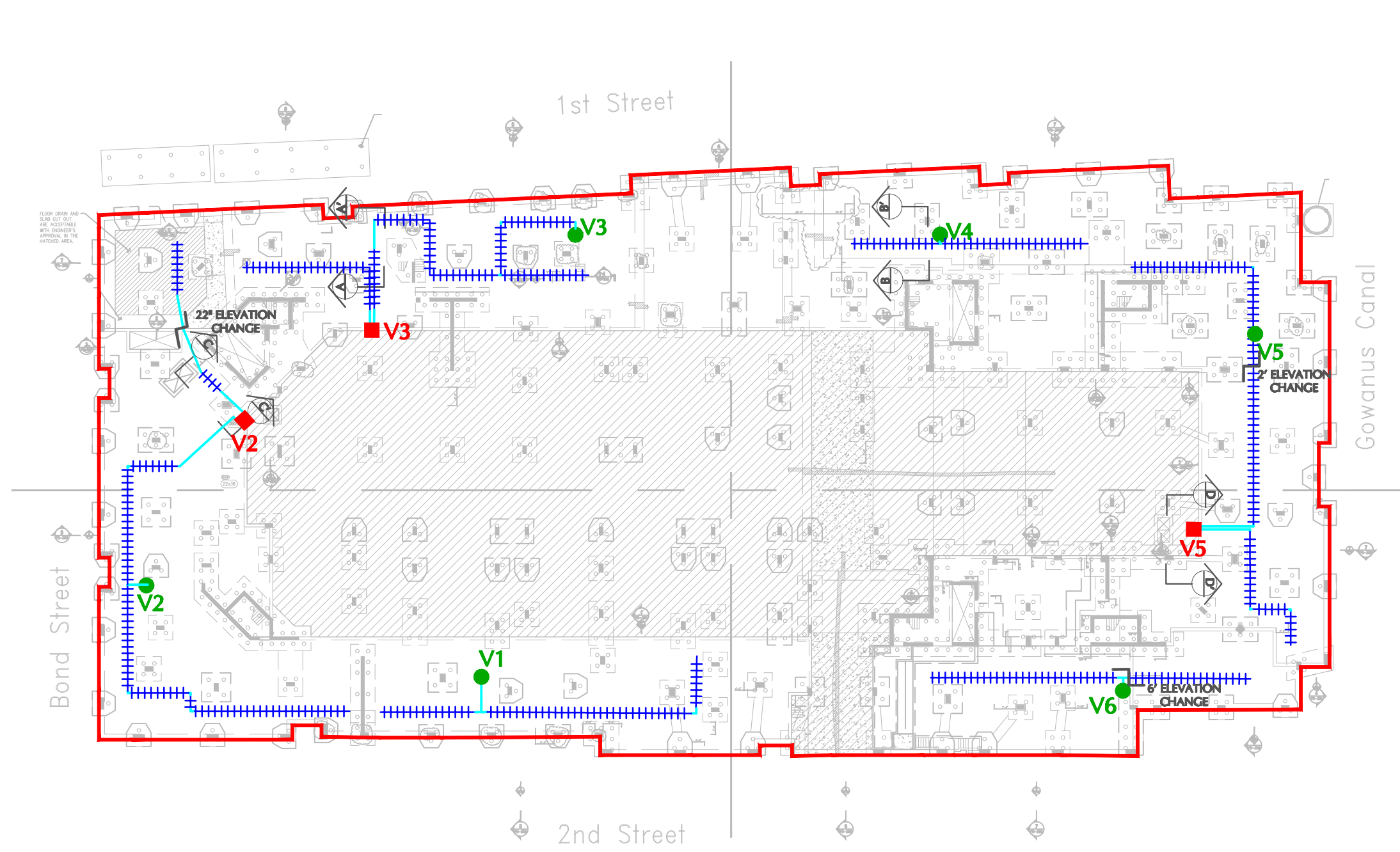
amf

Last Revised

4/20/2021

Figure

1



- LEGEND:**
- BUILDING EXTERIOR
 - SUBGRADE PARKING AREA
 - INSTALLED BELOW GRADE HORIZONTAL WELL SMDs SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
 - INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
 - INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
 - INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

- NOTES:**
- ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
 - THE INSTALLED SMDs WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
 - FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
 - SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan	Project 365 BOND STREET DEVELOPMENT 365 BOND STREET BROOKLYN NEW YORK	Drawing Title SAMPLE LOCATION PLAN	Project No. 100287501	Drawing No. 2
			Date MARCH 20, 2019	
			Scale AS SHOWN	
			Drawn By JR	
			Submission Date APRIL 20, 2021	

Location	V3	V3
Sample Name	879 V3	880 DUP-1
Sample Date	06/20/2022	06/20/2022
Sample Type	SV	SV
VOCs (ug/m3)		
1,2,4-Trimethylbenzene	6.1 D	6.4 D
1,3,5-Trimethylbenzene (Mesitylene)	1.7 D	1.8 D
4-Ethyltoluene	5.7 D	5.9 D
Acetone	8.2 D	8 D
Benzene	4 D	4.1 D
Carbon Disulfide	14 D	13 D
Carbon Tetrachloride	0.4 D	0.4 D
Chloroform	<0.78 U	<0.77 U
Chloromethane	1.4 D	1.5 D
Cis-1,2-Dichloroethene	<0.16 U	<0.16 U
Cyclohexane	1.2 D	1.3 D
Dichlorodifluoromethane	3 D	3.1 D
Ethyl Acetate	<1.1 U	<1.1 U
Ethylbenzene	5.3 D	5.5 D
Isopropanol	1.5 D	0.97 D
M,P-Xylene	19 D	20 D
Methyl Ethyl Ketone (2-Butanone)	4.4 D	4 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.65 UJ	0.71 J
n-Heptane	2.8 D	2.9 D
n-Hexane	3.1 D	3.3 D
o-Xylene (1,2-Dimethylbenzene)	7.7 D	8 D
Propylene	2.4 D	2.6 D
Tetrachloroethene (PCE)	<1.1 U	<1.1 U
Tetrahydrofuran	5.5 D	5.9 D
Toluene	20 D	22 D
Trichloroethene (TCE)	<0.21 U	0.34 D
Trichlorofluoromethane	2 D	2 D
Total BTEX	56	59.6

Analyte	NYSDOH Decision Matrices Minimum Concentrations
VOCs	
1,2,4-Trimethylbenzene	NS
1,3,5-Trimethylbenzene (Mesitylene)	NS
4-Ethyltoluene	NS
Acetone	NS
Benzene	NS
Carbon Disulfide	NS
Carbon Tetrachloride	NS
Chloroform	NS
Chloromethane	NS
Cis-1,2-Dichloroethene	6
Cyclohexane	NS
Dichlorodifluoromethane	NS
Ethyl Acetate	NS
Ethylbenzene	NS
Isopropanol	NS
M,P-Xylene	NS
Methyl Ethyl Ketone (2-Butanone)	NS
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS
n-Heptane	NS
n-Hexane	NS
o-Xylene (1,2-Dimethylbenzene)	NS
Propylene	NS
Tetrachloroethene (PCE)	100
Tetrahydrofuran	NS
Toluene	NS
Trichloroethene (TCE)	6
Trichlorofluoromethane	NS
Total BTEX	NS

Notes:

AA - Ambient Air
SV - Soil Vapor
NS - No standard
ug/m3 - microgram per cubic meter
RL - Reporting limit
<RL - Not detected
Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).
Ambient air sample analytical results are shown for reference only.

Qualifiers:

D - The concentration reported is a result of a diluted sample.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.

UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.

U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds minimum soil vapor concentrations recommending mitigation

Location	V2
Sample Name	878 V2
Sample Date	06/20/2022
Sample Type	SV
VOCs (ug/m3)	
1,2,4-Trimethylbenzene	17 D
1,3,5-Trimethylbenzene (Mesitylene)	4.3 D
4-Ethyltoluene	14 D
Acetone	4 D
Benzene	2.9 D
Carbon Disulfide	0.72 D
Carbon Tetrachloride	0.31 D
Chloroform	1.5 D
Chloromethane	2.3 D
Cis-1,2-Dichloroethene	0.86 D
Cyclohexane	1.3 D
Dichlorodifluoromethane	3 D
Ethyl Acetate	<1.2 U
Ethylbenzene	7.7 D
Isopropanol	<0.82 U
M,P-Xylene	30 D
Methyl Ethyl Ketone (2-Butanone)	1.4 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.75 J
n-Heptane	2.4 D
n-Hexane	3.3 D
o-Xylene (1,2-Dimethylbenzene)	13 D
Propylene	1.2 D
Tetrachloroethene (PCE)	1.9 D
Tetrahydrofuran	3 D
Toluene	20 D
Trichloroethene (TCE)	1.1 D
Trichlorofluoromethane	2 D
Total BTEX	73.6

Location	V5
Sample Name	877 V5
Sample Date	06/20/2022
Sample Type	SV
VOCs (ug/m3)	
1,2,4-Trimethylbenzene	6.1 D
1,3,5-Trimethylbenzene (Mesitylene)	1.9 D
4-Ethyltoluene	5.8 D
Acetone	6.9 D
Benzene	3.6 D
Carbon Disulfide	1 D
Carbon Tetrachloride	0.5 D
Chloroform	2.5 D
Chloromethane	2.8 D
Cis-1,2-Dichloroethene	1.1 D
Cyclohexane	0.83 D
Dichlorodifluoromethane	3.2 D
Ethyl Acetate	<1.2 U
Ethylbenzene	5.4 D
Isopropanol	1.9 D
M,P-Xylene	21 D
Methyl Ethyl Ketone (2-Butanone)	1.1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	0.66 J
n-Heptane	2.4 D
n-Hexane	1.9 D
o-Xylene (1,2-Dimethylbenzene)	7.6 D
Propylene	<0.28 U
Tetrachloroethene (PCE)	2 D
Tetrahydrofuran	1.2 D
Toluene	20 D
Trichloroethene (TCE)	0.77 D
Trichlorofluoromethane	2.6 D
Total BTEX	57.6

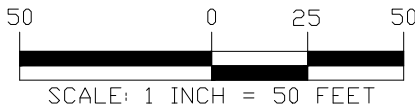
Location	AMBIENT-1
Sample Name	876 AMBIENT-1
Sample Date	06/20/2022
Sample Type	AA
VOCs (ug/m3)	
1,2,4-Trimethylbenzene	<0.66 U
1,3,5-Trimethylbenzene (Mesitylene)	<0.66 U
4-Ethyltoluene	<0.66 U
Acetone	7.5 D
Benzene	0.54 D
Carbon Disulfide	<0.35 U
Carbon Tetrachloride	0.36 D
Chloroform	<0.65 U
Chloromethane	1 D
Cis-1,2-Dichloroethene	<0.11 U
Cyclohexane	<0.39 U
Dichlorodifluoromethane	2.8 D
Ethyl Acetate	1.5 D
Ethylbenzene	<0.49 U
Isopropanol	1.6 D
M,P-Xylene	1.2 D
Methyl Ethyl Ketone (2-Butanone)	1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.46 UJ
n-Heptane	<0.46 U
n-Hexane	0.44 D
o-Xylene (1,2-Dimethylbenzene)	<0.49 U
Propylene	<0.19 U
Tetrachloroethene (PCE)	<0.77 U
Tetrahydrofuran	<0.67 U
Toluene	1.7 D
Trichloroethene (TCE)	<0.15 U
Trichlorofluoromethane	1.5 D
Total BTEX	3.44

LEGEND:

-  BUILDING EXTERIOR
-  SUBGRADE PARKING AREA
-  INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
-  INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
-  **V3** INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
-  INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

NOTES:

- ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
- THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
- FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
- SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.



LANGAN

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Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

**365 BOND STREET
DEVELOPMENT**

365 BOND STREET

BROOKLYN

NEW YORK

Drawing Title

**SUMMARY OF
SUB-SLAB SOIL
VAPOR ANALYTICAL
RESULTS**

Project No.
100287501

Date
4/13/2023

Scale
AS SHOWN

Drawn By
IHB

Last Revised
4/13/2023

Drawing No.

3

ATTACHMENT A

Field Logs

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 365 Bond Street, Brooklyn, New York

Samplers: Esther Arthur

Date: 6/20/2022

Sample #	878	879	880	877	876		
Location	V2	V3	DUP-1	V-5	Ambient-1		
Summa Canister ID	28856	37319	34502	16976	41934		
Flow Controller ID	Y-15	5624	6865	13560	7360		
PID Test of SSDS Air	0 ppb	7 ppb	7 ppb	0 ppb	0 ppb		
Pressure Gauge - before sampling	-30	-30	-30	-30	-30		
Sample Time (Start)	8:29	8:45	8:45	8:18	8:07		
Sample Time (Stop)	10:35	10:45	10:45	10:23	13:16		
Total Sample Time (min)	126	120	120	125	309		
Pressure Gauge - after sampling	-6	-6	-5	-6	-10		
Sample Volume	6L	6L	6L	6L	6L		
Canister Pressure Went to Ambient Pressure?	YES / <u>NO</u>	YES / <u>NO</u>	YES / <u>NO</u>	YES / <u>NO</u>	YES / <u>NO</u>	YES / NO	YES / NO
Associated Ambient Air Sample Number	Ambient-1	Ambient-1	Ambient-1	Ambient-1	N/A	N/A	N/A
Weather 24 hours before and during sampling	Sunny, 70s						
General Comments	Ambient-1 placed on 1st Street sidewalk. 880_DUP-1 parent sample is 879_V3						

PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: EA Date: 6/20/2022 Weather Conditions: 60s-70s, Sunny

Reason for Inspection (i.e., routine, severe condition, etc.): _____

When was the last rain event? 6/17/2022

Current Temperature: 62° F

Current Barometric Pressure: 30.1

Valve Manifolds		
Location	PID (ppb)	Vacuum (in. H2O)
V2	0	-0.043
V3	7	-0.016
V5	0	-0.018

Comments

Riser Pipes Exhaust		
Location	PID (ppb)	Air Flow (CFM)
V1	--	--
V2	0	0.32
V3	0	2.6
V4	0.3	1.62
V5	0	1.9
V6	0	2.1

Comments

no access

Inspection Comments

No access to V1 riser at the time of inspection. V1 riser is located within a tenant space. Building supervisor could not reach tenant at the time of the inspection and did not get access into tenant unit prior to the inspection.

Emergency Contact Information		
Name	Title	Phone Number
Christopher Cusumano	Building Management	718-705-8413
Steven Ciambuschini	Langan Qualified Environmental Professional	973-560-4900 (office) 973-560-4982 (direct)
Christopher McMahon	Langan Project Manager	973-560-4900 (office) 973-560-4861 (direct)
Jennifer Jennings	Lighstone Representative	718-564-6531 (direct)
Sadique Ahmed	NYSDEC Case Manager	518-402-9656 (office)

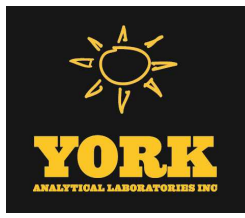
ATTACHMENT B

Laboratory Analytical Reports

Table of Contents for York SDG 22F1033

22F1033 QA Summary Report	1
Introduction and Sample Cross Reference	2
General Notes Relating to this Report	3
Sample Results	4
876_Ambient-1	4
Volatile Organic Compounds in Air by GC/MS	4
877_V5	6
877_V5	7
878_V2	10
879_V3	13
880_DUP-1	15
880_DUP-1	16
Case Narrative	19
Quality Batch Summary	25
QA/QC Summary Data	26
Volatile Organic Compounds in Air by GC/MS EPA TO-15	26
Chains of Custody	37
22F1033 Data Package	39
22F1033 AIR Data	39
AIR QC Summary	41
Blank Spike Results - Batch: BF21412	42
Blank Spike Results - Batch: BF21498	45
Batch Summary - Batch: BF21412	48
Batch Summary - Batch: BF21498	49
Blank Results - Batch: BF21412	50
Blank Results - Batch: BF21498	53
Mass Spec Tune - Seq: Y2D2240	56
Mass Spec Tune - Seq: Y2F2411	57
Mass Spec Tune - Seq: Y2F2413	58
Sequence Summary - Seq: Y2D2240	59
Sequence Summary - Seq: Y2F2411	60
Sequence Summary - Seq: Y2F2413	61
Internal Std. Summary Seq: Y2D2240	62
Internal Std. Summary Seq: Y2F2411	64
Internal Std. Summary Seq: Y2F2413	65

Hold Time Summary.....	66
Reporting Limits Summary.....	67
AIR Sample Data.....	69
Sample Results and Raw Data.....	70
876_Ambient-1.....	70
877_V5.....	89
878_V2.....	111
879_V3.....	134
880_DUP-1.....	156
AIR Standards Data.....	179
Initial Calibration - Cal: YD20018.....	180
Initial Calibration Raw Data - Cal: YD20018.....	189
Initial Calibration Check - Cal: YD20018.....	217
Continuing Calibration Check - Seq: Y2F2411.....	223
Continuing Calibration Check - Seq: Y2F2413.....	229
AIR Raw QC Data.....	235
Mass Spec Tune Raw Data - Seq: Y2D2240.....	236
Mass Spec Tune Raw Data - Seq: Y2F2411.....	237
Mass Spec Tune Raw Data - Seq: Y2F2413.....	238
Blank Raw Data - Batch: BF21412.....	239
Blank Raw Data - Batch: BF21498.....	258
Blank Spike Raw Data - Batch: BF21412.....	277
Blank Spike Raw Data - Batch: BF21498.....	281
Batch Canister Certification Prep Logs.....	285
Batch Canister Certification.....	287
Preparation Benchsheets - Batch: BF21412.....	290
Preparation Benchsheets - Batch: BF21498.....	292
Injection Logs.....	294
Media Request Form.....	297



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive, 4th Floor

Parsipanny NJ, 07054-2172

Attention: Jessica Friscia

Report Date: 07/12/2022

Client Project ID: 100287505

York Project (SDG) No.: 22F1033

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 07/12/2022
Client Project ID: 100287505
York Project (SDG) No.: 22F1033

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive, 4th Floor
Parsipanny NJ, 07054-2172
Attention: Jessica Friscia

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 June 20, 2022 and listed below. The project was identified as your project: **100287505**.

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>
22F1033-01	876_Ambient-1	Outdoor Ambient Air	06/20/2022	06/20/2022
22F1033-02	877_V5	Soil Vapor	06/20/2022	06/20/2022
22F1033-03	878_V2	Soil Vapor	06/20/2022	06/20/2022
22F1033-04	879_V3	Soil Vapor	06/20/2022	06/20/2022
22F1033-05	880_DUP-1	Soil Vapor	06/20/2022	06/20/2022

General Notes for York Project (SDG) No.: 22F1033

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 07/12/2022

Cassie L. Mosher
Laboratory Manager





Sample Information

Client Sample ID: 876_Ambient-1

York Sample ID: 22F1033-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22F1033

100287505

Outdoor Ambient Air

June 20, 2022 1:16 pm

06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	0.78	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.62	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.78	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.87	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.62	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.46	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.11	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	0.84	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.56	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.87	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.68	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.46	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.52	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.79	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.56	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
106-99-0	1,3-Butadiene	ND		ug/m ³	0.75	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.68	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.52	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.68	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
123-91-1	1,4-Dioxane	ND		ug/m ³	0.82	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
78-93-3	2-Butanone	1.0		ug/m ³	0.33	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				
591-78-6	* 2-Hexanone	ND		ug/m ³	0.93	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m ³	1.8	1.131	EPA TO-15	06/22/2022 03:00	06/22/2022 15:35	AS
						Certifications: NELAC-NY12058,NJDEP-Queens				



Sample Information

Client Sample ID: 876_Ambient-1

York Sample ID: 22F1033-01

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Outdoor Ambient Air

Collection Date/Time
June 20, 2022 1:16 pm

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.46	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
67-64-1	Acetone	7.5		ug/m ³	0.54	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
107-13-1	Acrylonitrile	ND		ug/m ³	0.25	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
71-43-2	Benzene	0.54		ug/m ³	0.36	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
100-44-7	Benzyl chloride	ND		ug/m ³	0.59	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-27-4	Bromodichloromethane	ND		ug/m ³	0.76	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-25-2	Bromoform	ND		ug/m ³	1.2	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
74-83-9	Bromomethane	ND		ug/m ³	0.44	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-15-0	Carbon disulfide	ND		ug/m ³	0.35	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
56-23-5	Carbon tetrachloride	0.36		ug/m ³	0.18	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
108-90-7	Chlorobenzene	ND		ug/m ³	0.52	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-00-3	Chloroethane	ND		ug/m ³	0.30	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
67-66-3	Chloroform	ND		ug/m ³	0.55	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
74-87-3	Chloromethane	1.0		ug/m ³	0.23	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.11	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.51	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
110-82-7	Cyclohexane	ND		ug/m ³	0.39	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
124-48-1	Dibromochloromethane	ND		ug/m ³	0.96	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.56	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
141-78-6	* Ethyl acetate	1.5		ug/m ³	0.82	1.131	EPA TO-15 Certifications:	06/22/2022 03:00	06/22/2022 15:35	AS
100-41-4	Ethyl Benzene	ND		ug/m ³	0.49	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.2	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
67-63-0	Isopropanol	1.6		ug/m ³	0.56	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.46	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS



Sample Information

Client Sample ID: 876_Ambient-1

York Sample ID: 22F1033-01

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Outdoor Ambient Air

Collection Date/Time
June 20, 2022 1:16 pm

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.41	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-09-2	Methylene chloride	ND		ug/m ³	0.79	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
142-82-5	n-Heptane	ND		ug/m ³	0.46	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
110-54-3	n-Hexane	0.44		ug/m ³	0.40	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
95-47-6	o-Xylene	ND		ug/m ³	0.49	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
179601-23-1	p- & m- Xylenes	1.2		ug/m ³	0.98	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.56	1.131	EPA TO-15 Certifications:	06/22/2022 03:00	06/22/2022 15:35	AS
115-07-1	* Propylene	ND		ug/m ³	0.19	1.131	EPA TO-15 Certifications:	06/22/2022 03:00	06/22/2022 15:35	AS
100-42-5	Styrene	ND		ug/m ³	0.48	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
127-18-4	Tetrachloroethylene	ND		ug/m ³	0.77	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.67	1.131	EPA TO-15 Certifications:	06/22/2022 03:00	06/22/2022 15:35	AS
108-88-3	Toluene	1.7		ug/m ³	0.43	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.45	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.51	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
79-01-6	Trichloroethylene	ND		ug/m ³	0.15	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m ³	0.64	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
108-05-4	Vinyl acetate	ND		ug/m ³	0.40	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
593-60-2	Vinyl bromide	ND		ug/m ³	0.49	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS
75-01-4	Vinyl Chloride	ND		ug/m ³	0.14	1.131	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/22/2022 03:00	06/22/2022 15:35	AS

Sample Information

Client Sample ID: 877_V5

York Sample ID: 22F1033-02

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:23 am

Date Received
06/20/2022



Sample Information

Client Sample ID: 877_V5

York Sample ID: 22F1033-02

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:23 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.87	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.87	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.65	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
95-63-6	1,2,4-Trimethylbenzene	6.1		ug/m ³	0.79	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.96	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.65	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.74	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
108-67-8	1,3,5-Trimethylbenzene	1.9		ug/m ³	0.79	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.96	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.74	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.96	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
123-91-1	1,4-Dioxane	ND		ug/m ³	1.2	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
78-93-3	2-Butanone	1.1		ug/m ³	0.47	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
107-05-1	3-Chloropropene	ND		ug/m ³	2.5	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ



Sample Information

Client Sample ID: 877_V5

York Sample ID: 22F1033-02

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:23 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	0.66	TO-CC V, TO-LCS -L	ug/m ³	0.66	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
67-64-1	Acetone	6.9		ug/m ³	0.76	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
107-13-1	Acrylonitrile	ND		ug/m ³	0.35	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
71-43-2	Benzene	3.6		ug/m ³	0.51	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
100-44-7	Benzyl chloride	ND		ug/m ³	0.83	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-25-2	Bromoform	ND		ug/m ³	1.7	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
74-83-9	Bromomethane	ND		ug/m ³	0.62	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-15-0	Carbon disulfide	1.0		ug/m ³	0.50	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
56-23-5	Carbon tetrachloride	0.50		ug/m ³	0.25	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
108-90-7	Chlorobenzene	ND		ug/m ³	0.74	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-00-3	Chloroethane	ND		ug/m ³	0.42	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
67-66-3	Chloroform	2.5		ug/m ³	0.78	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
74-87-3	Chloromethane	2.8		ug/m ³	0.33	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
156-59-2	cis-1,2-Dichloroethylene	1.1		ug/m ³	0.16	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.73	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
110-82-7	Cyclohexane	0.83		ug/m ³	0.55	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
124-48-1	Dibromochloromethane	ND		ug/m ³	1.4	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-71-8	Dichlorodifluoromethane	3.2		ug/m ³	0.79	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
141-78-6	* Ethyl acetate	ND		ug/m ³	1.2	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
100-41-4	Ethyl Benzene	5.4		ug/m ³	0.70	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.7	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
67-63-0	Isopropanol	1.9		ug/m ³	0.79	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ



Sample Information

Client Sample ID: 877_V5

York Sample ID: 22F1033-02

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:23 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.66	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.58	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-09-2	Methylene chloride	ND		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
142-82-5	n-Heptane	2.4		ug/m ³	0.66	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
110-54-3	n-Hexane	1.9		ug/m ³	0.56	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
95-47-6	o-Xylene	7.6		ug/m ³	0.70	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
179601-23-1	p- & m- Xylenes	21		ug/m ³	1.4	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
622-96-8	* p-Ethyltoluene	5.8		ug/m ³	0.79	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
115-07-1	* Propylene	ND		ug/m ³	0.28	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
100-42-5	Styrene	ND		ug/m ³	0.68	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
127-18-4	Tetrachloroethylene	2.0		ug/m ³	1.1	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
109-99-9	* Tetrahydrofuran	1.2		ug/m ³	0.94	1.601	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 10:08	LLJ
108-88-3	Toluene	20		ug/m ³	0.60	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.63	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.73	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
79-01-6	Trichloroethylene	0.77		ug/m ³	0.22	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	2.6		ug/m ³	0.90	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
108-05-4	Vinyl acetate	ND		ug/m ³	0.56	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
593-60-2	Vinyl bromide	ND		ug/m ³	0.70	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ
75-01-4	Vinyl Chloride	ND		ug/m ³	0.20	1.601	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 10:08	LLJ



Sample Information

Client Sample ID: 878_V2

York Sample ID: 22F1033-03

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:35 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	1.1	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.91	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.3	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.91	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.67	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	17		ug/m ³	0.82	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.3	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	1.0	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.67	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.77	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.2	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	4.3		ug/m ³	0.82	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	1.0	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.77	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	1.0	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m ³	1.2	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
78-93-3	2-Butanone	1.4		ug/m ³	0.49	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m ³	1.4	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m ³	2.6	1.66	EPA TO-15	06/23/2022 02:00	06/23/2022 11:10	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			



Sample Information

Client Sample ID: 878_V2

York Sample ID: 22F1033-03

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:35 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	0.75	TO-CC V, TO-LCS -L	ug/m ³	0.68	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
67-64-1	Acetone	4.0		ug/m ³	0.79	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
107-13-1	Acrylonitrile	ND		ug/m ³	0.36	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
71-43-2	Benzene	2.9		ug/m ³	0.53	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
100-44-7	Benzyl chloride	ND		ug/m ³	0.86	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-25-2	Bromoform	ND		ug/m ³	1.7	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
74-83-9	Bromomethane	ND		ug/m ³	0.64	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-15-0	Carbon disulfide	0.72		ug/m ³	0.52	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
56-23-5	Carbon tetrachloride	0.31		ug/m ³	0.26	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
108-90-7	Chlorobenzene	ND		ug/m ³	0.76	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-00-3	Chloroethane	ND		ug/m ³	0.44	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
67-66-3	Chloroform	1.5		ug/m ³	0.81	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
74-87-3	Chloromethane	2.3		ug/m ³	0.34	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
156-59-2	cis-1,2-Dichloroethylene	0.86		ug/m ³	0.16	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.75	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
110-82-7	Cyclohexane	1.3		ug/m ³	0.57	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
124-48-1	Dibromochloromethane	ND		ug/m ³	1.4	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-71-8	Dichlorodifluoromethane	3.0		ug/m ³	0.82	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
141-78-6	* Ethyl acetate	ND		ug/m ³	1.2	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
100-41-4	Ethyl Benzene	7.7		ug/m ³	0.72	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.8	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
67-63-0	Isopropanol	ND		ug/m ³	0.82	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ



Sample Information

Client Sample ID: 878_V2

York Sample ID: 22F1033-03

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:35 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.68	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.60	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-09-2	Methylene chloride	ND		ug/m ³	1.2	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
142-82-5	n-Heptane	2.4		ug/m ³	0.68	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
110-54-3	n-Hexane	3.3		ug/m ³	0.59	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
95-47-6	o-Xylene	13		ug/m ³	0.72	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
179601-23-1	p- & m- Xylenes	30		ug/m ³	1.4	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
622-96-8	* p-Ethyltoluene	14		ug/m ³	0.82	1.66	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 11:10	LLJ
115-07-1	* Propylene	1.2		ug/m ³	0.29	1.66	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 11:10	LLJ
100-42-5	Styrene	ND		ug/m ³	0.71	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
127-18-4	Tetrachloroethylene	1.9		ug/m ³	1.1	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
109-99-9	* Tetrahydrofuran	3.0		ug/m ³	0.98	1.66	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 11:10	LLJ
108-88-3	Toluene	20		ug/m ³	0.63	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.66	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.75	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
79-01-6	Trichloroethylene	1.1		ug/m ³	0.22	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	2.0		ug/m ³	0.93	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
108-05-4	Vinyl acetate	ND		ug/m ³	0.58	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
593-60-2	Vinyl bromide	ND		ug/m ³	0.73	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ
75-01-4	Vinyl Chloride	ND		ug/m ³	0.21	1.66	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 11:10	LLJ



Sample Information

Client Sample ID: 879_V3

York Sample ID: 22F1033-04

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.87	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.87	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.64	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
95-63-6	1,2,4-Trimethylbenzene	6.1		ug/m ³	0.78	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.95	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.64	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.73	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
108-67-8	1,3,5-Trimethylbenzene	1.7		ug/m ³	0.78	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.95	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.73	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.95	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
78-93-3	2-Butanone	4.4		ug/m ³	0.47	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
107-05-1	3-Chloropropene	ND		ug/m ³	2.5	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.65	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			



Sample Information

Client Sample ID: 879_V3

York Sample ID: 22F1033-04

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-64-1	Acetone	8.2		ug/m ³	0.75	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
107-13-1	Acrylonitrile	ND		ug/m ³	0.34	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
71-43-2	Benzene	4.0		ug/m ³	0.51	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
100-44-7	Benzyl chloride	ND		ug/m ³	0.82	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
75-25-2	Bromoform	ND		ug/m ³	1.6	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
74-83-9	Bromomethane	ND		ug/m ³	0.62	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
75-15-0	Carbon disulfide	14		ug/m ³	0.49	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
56-23-5	Carbon tetrachloride	0.40		ug/m ³	0.25	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
108-90-7	Chlorobenzene	ND		ug/m ³	0.73	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
75-00-3	Chloroethane	ND		ug/m ³	0.42	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
67-66-3	Chloroform	ND		ug/m ³	0.78	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
74-87-3	Chloromethane	1.4		ug/m ³	0.33	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.16	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.72	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
110-82-7	Cyclohexane	1.2		ug/m ³	0.55	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
124-48-1	Dibromochloromethane	ND		ug/m ³	1.4	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
75-71-8	Dichlorodifluoromethane	3.0		ug/m ³	0.79	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.588	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 12:13	LLJ
100-41-4	Ethyl Benzene	5.3		ug/m ³	0.69	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.7	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
67-63-0	Isopropanol	1.5		ug/m ³	0.78	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.65	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.57	1.588	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 12:13	LLJ



Sample Information

Client Sample ID: 879_V3

York Sample ID: 22F1033-04

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
142-82-5	n-Heptane	2.8		ug/m ³	0.65	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
110-54-3	n-Hexane	3.1		ug/m ³	0.56	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
95-47-6	o-Xylene	7.7		ug/m ³	0.69	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
179601-23-1	p- & m- Xylenes	19		ug/m ³	1.4	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
622-96-8	* p-Ethyltoluene	5.7		ug/m ³	0.78	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
115-07-1	* Propylene	2.4		ug/m ³	0.27	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
100-42-5	Styrene	ND		ug/m ³	0.68	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
127-18-4	Tetrachloroethylene	ND		ug/m ³	1.1	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
109-99-9	* Tetrahydrofuran	5.5		ug/m ³	0.94	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:				
108-88-3	Toluene	20		ug/m ³	0.60	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.63	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.72	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
79-01-6	Trichloroethylene	ND		ug/m ³	0.21	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-69-4	Trichlorofluoromethane (Freon 11)	2.0		ug/m ³	0.89	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
108-05-4	Vinyl acetate	ND		ug/m ³	0.56	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
593-60-2	Vinyl bromide	ND		ug/m ³	0.69	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			
75-01-4	Vinyl Chloride	ND		ug/m ³	0.20	1.588	EPA TO-15	06/23/2022 02:00	06/23/2022 12:13	LLJ
						Certifications:	NELAC-NY12058,NJDEP-Queens			

Sample Information

Client Sample ID: 880_DUP-1

York Sample ID: 22F1033-05

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022



Sample Information

Client Sample ID: 880_DUP-1

York Sample ID: 22F1033-05

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.86	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.86	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.64	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
95-63-6	1,2,4-Trimethylbenzene	6.4		ug/m ³	0.78	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.95	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.64	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.73	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
108-67-8	1,3,5-Trimethylbenzene	1.8		ug/m ³	0.78	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.95	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.73	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.95	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
78-93-3	2-Butanone	4.0		ug/m ³	0.47	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
107-05-1	3-Chloropropene	ND		ug/m ³	2.5	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ



Sample Information

Client Sample ID: 880_DUP-1

York Sample ID: 22F1033-05

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-10-1	4-Methyl-2-pentanone	0.71	TO-CC V, TO-LCS -L	ug/m ³	0.65	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
67-64-1	Acetone	8.0		ug/m ³	0.75	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
107-13-1	Acrylonitrile	ND		ug/m ³	0.34	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
71-43-2	Benzene	4.1		ug/m ³	0.51	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
100-44-7	Benzyl chloride	ND		ug/m ³	0.82	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-25-2	Bromoform	ND		ug/m ³	1.6	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
74-83-9	Bromomethane	ND		ug/m ³	0.61	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-15-0	Carbon disulfide	13		ug/m ³	0.49	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
56-23-5	Carbon tetrachloride	0.40		ug/m ³	0.25	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
108-90-7	Chlorobenzene	ND		ug/m ³	0.73	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-00-3	Chloroethane	ND		ug/m ³	0.42	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
67-66-3	Chloroform	ND		ug/m ³	0.77	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
74-87-3	Chloromethane	1.5		ug/m ³	0.33	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.16	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.72	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
110-82-7	Cyclohexane	1.3		ug/m ³	0.54	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-71-8	Dichlorodifluoromethane	3.1		ug/m ³	0.78	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
100-41-4	Ethyl Benzene	5.5		ug/m ³	0.69	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.7	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
67-63-0	Isopropanol	0.97		ug/m ³	0.78	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ



Sample Information

Client Sample ID: 880_DUP-1

York Sample ID: 22F1033-05

York Project (SDG) No.
22F1033

Client Project ID
100287505

Matrix
Soil Vapor

Collection Date/Time
June 20, 2022 10:45 am

Date Received
06/20/2022

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.65	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.57	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-09-2	Methylene chloride	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
142-82-5	n-Heptane	2.9		ug/m ³	0.65	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
110-54-3	n-Hexane	3.3		ug/m ³	0.56	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
95-47-6	o-Xylene	8.0		ug/m ³	0.69	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
179601-23-1	p- & m- Xylenes	20		ug/m ³	1.4	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
622-96-8	* p-Ethyltoluene	5.9		ug/m ³	0.78	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
115-07-1	* Propylene	2.6		ug/m ³	0.27	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
100-42-5	Styrene	ND		ug/m ³	0.67	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
127-18-4	Tetrachloroethylene	ND		ug/m ³	1.1	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
109-99-9	* Tetrahydrofuran	5.9		ug/m ³	0.93	1.583	EPA TO-15 Certifications:	06/23/2022 02:00	06/23/2022 13:16	LLJ
108-88-3	Toluene	22		ug/m ³	0.60	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.63	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.72	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
79-01-6	Trichloroethylene	0.34		ug/m ³	0.21	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-69-4	Trichlorofluoromethane (Freon 11)	2.0		ug/m ³	0.89	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
108-05-4	Vinyl acetate	ND		ug/m ³	0.56	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
593-60-2	Vinyl bromide	ND		ug/m ³	0.69	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ
75-01-4	Vinyl Chloride	ND		ug/m ³	0.20	1.583	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	06/23/2022 02:00	06/23/2022 13:16	LLJ



CASE NARRATIVE

York Project/SDG No.: 22F1033
Client: Langan Engineering & Environmental Services (NJ)
Client Project ID: 100287505
Prepared for: Jessica Friscia

Introduction

This Case Narrative applies only to the following samples submitted to our laboratory on **06/20/2022 16:30** as detailed on the chain-of-custody form.

The 5 sample(s) were received intact, unless otherwise noted.

Chain-of-custody was maintained from receipt through analysis in the laboratory.

Methodology

All preparation and analyses were conducted according to EPA Compendium Method TO-15 guidance.

Client Sample Information and Non-Conformances

<u>Laboratory ID</u>	<u>Sample Name</u>	<u>Matrix</u>
22F1033-01	876_Ambient-1	Air
22F1033-02	877_V5	Air
22F1033-03	878_V2	Air
22F1033-04	879_V3	Air
22F1033-05	880_DUP-1	Air

Any additional Client Sample Non-conformances are detailed in the proceeding Case Narrative Non-Conformance Summary tables.

No other problems were encountered during analysis.

QC Sample Non-Conformances

Any QC Sample Non-conformances (SCV, CCV, BS, MS, DUP) are detailed in the proceeding Case Narrative Non-Conformance Summary tables.

No other problems were encountered during analysis.

York Project/SDG no.: 22F1033 Statement

We certify that these data are in compliance with SOP requirements both technically and for completeness for other than the conditions stated above. Release of the data contained in the hard copy report and any electronic data deliverables has been authorized by the Laboratory Manager as verified by the signature on this laboratory report.



Approved by: Krys Trafalski
Technical Director

Date: 7/5/22

York Analytical Laboratories, Inc.
Formulae Used for Sample Calculations

1. Volatiles in Air (ppbv)

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

$$Cx = \frac{(Ax)(Cis)(DF)}{(Ais)(RRF)}$$

2. Volatiles in Air (ug/m³)

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

$$Cx \text{ (ug/m}^3\text{)} = \frac{\text{ppbv} \times \text{Molecular wt.}}{(24.45)}$$

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

Cis = Concentration of the internal standard spiking mixture, ppbv



Case Narrative Non-Conformance Summary

Laboratory: York Analytical Laboratories, Inc.

Project:

Laboratory Sample ID(s): -01 - -05

Review Date(s): -

Client:

Lab Project No:

Sampling Date(s): 06/20/2022 - 06/20/2022

Laboratory Reviewer(s):

QC Sample Nonconformances

Batch ID: BF21412 Affected Samples: See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BF21412-BS1	1,2,4-Trichlorobenzene - 120-82-1	6.21 ppbv	LCS	62.1	70-130	Low Bias				
BF21412-BS1	2-Hexanone - 591-78-6	5.34 ppbv	LCS	53.4	70-130	Low Bias				
BF21412-BS1	4-Methyl-2-pentanone - 108-10-1	5.66 ppbv	LCS	56.6	70-130	Low Bias				
BF21412-BS1	Hexachlorobutadiene - 87-68-3	5.72 ppbv	LCS	57.2	70-130	Low Bias				

Batch ID: BF21498 Affected Samples: See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
BF21498-BS1	1,2,4-Trichlorobenzene - 120-82-1	6.82 ppbv	LCS	68.2	70-130	Low Bias				
BF21498-BS1	2-Hexanone - 591-78-6	5.74 ppbv	LCS	57.4	70-130	Low Bias				
BF21498-BS1	4-Methyl-2-pentanone - 108-10-1	6.00 ppbv	LCS	60.0	70-130	Low Bias				
BF21498-BS1	Hexachlorobutadiene - 87-68-3	6.23 ppbv	LCS	62.3	70-130	Low Bias				

Batch ID: Y2F2411 Affected Samples: See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y2F2411-CCV1	1,2,4-Trichlorobenzene - 120-82-1	5.72 ppbv	Calibration Check	57.2	70-130	Low Bias				
Y2F2411-CCV1	2-Hexanone - 591-78-6	5.62 ppbv	Calibration Check	56.2	70-130	Low Bias				
Y2F2411-CCV1	4-Methyl-2-pentanone - 108-10-1	5.80 ppbv	Calibration Check	58.0	70-130	Low Bias				
Y2F2411-CCV1	Hexachlorobutadiene - 87-68-3	5.99 ppbv	Calibration Check	59.9	70-130	Low Bias				

Batch ID: Y2F2413 Affected Samples: See Batch Summary

QC Sample ID	Analyte - CAS No.	Result	Type of QC Nonconformance	%REC	%REC Limits	Bias	RPD	RPD Limit	Bias	Notes
Y2F2413-CCV1	1,2,4-Trichlorobenzene - 120-82-1	6.39 ppbv	Calibration Check	63.9	70-130	Low Bias				
Y2F2413-CCV1	2-Hexanone - 591-78-6	5.75 ppbv	Calibration Check	57.5	70-130	Low Bias				
Y2F2413-CCV1	4-Methyl-2-pentanone - 108-10-1	6.04 ppbv	Calibration Check	60.4	70-130	Low Bias				
Y2F2413-CCV1	Hexachlorobutadiene - 87-68-3	6.24 ppbv	Calibration Check	62.4	70-130	Low Bias				



Batch ID: BF21412

General Method: Volatile Organic Compounds in Air by GC/MS

YORK Sample ID

Client Sample ID

22F1033-01	876_Ambient-1
BF21412-BLK1	Blank
BF21412-BS1	LCS

Batch ID: BF21498

General Method: Volatile Organic Compounds in Air by GC/MS

YORK Sample ID

Client Sample ID

22F1033-02	877_V5
22F1033-03	878_V2
22F1033-04	879_V3
22F1033-05	880_DUP-1
BF21498-BLK1	Blank
BF21498-BS1	LCS

No Sample Nonconformances Found

Notes: Other nonconformances, if any, are detailed in the Data Quality Assessment worksheets.

For multiple surrogate analyses such as semi-volatiles, volatiles, etc, single surrogate excursions do not necessarily indicate a bias in the sample. Samples with multiple surrogate excursions may exhibit a bias in the results.

Definitions:

- LCS - Laboratory Control Sample
- LCS dup - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MSD - Matrix Spike Duplicate
- BS - Blank Spike also called LCS
- BSD - Blank Spike Duplicate also called LCS dup
- SRM - Standard Reference Material
- DUP - Duplicate



QC DATA QUALIFIERS

LabID	Analysis	Analyte	Qualifier	Definition
Y2F2411-CCV1	Volatile Organics, EPA TO15 Full List	Hexachlorobutadiene	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
BF21412-BS1	Volatile Organics, EPA TO15 Full List	1,2,4-Trichlorobenzene	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21412-BS1	Volatile Organics, EPA TO15 Full List	2-Hexanone	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21412-BS1	Volatile Organics, EPA TO15 Full List	Hexachlorobutadiene	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21498-BS1	Volatile Organics, EPA TO15 Full List	2-Hexanone	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21498-BS1	Volatile Organics, EPA TO15 Full List	4-Methyl-2-pentanone	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21412-BS1	Volatile Organics, EPA TO15 Full List	4-Methyl-2-pentanone	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
BF21498-BS1	Volatile Organics, EPA TO15 Full List	Hexachlorobutadiene	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
Y2F2413-CCV1	Volatile Organics, EPA TO15 Full List	Hexachlorobutadiene	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).



LabID	Analysis	Analyte	Qualifier	Definition
Y2F2411-CCV1	Volatile Organics, EPA TO15 Full List	4-Methyl-2-pentanone	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
Y2F2411-CCV1	Volatile Organics, EPA TO15 Full List	2-Hexanone	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
Y2F2411-CCV1	Volatile Organics, EPA TO15 Full List	1,2,4-Trichlorobenzene	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
Y2F2413-CCV1	Volatile Organics, EPA TO15 Full List	1,2,4-Trichlorobenzene	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
Y2F2413-CCV1	Volatile Organics, EPA TO15 Full List	4-Methyl-2-pentanone	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
Y2F2413-CCV1	Volatile Organics, EPA TO15 Full List	2-Hexanone	TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
BF21498-BS1	Volatile Organics, EPA TO15 Full List	1,2,4-Trichlorobenzene	TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.



Analytical Batch Summary

Batch ID: BF21412 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
22F1033-01	876_Ambient-1	06/22/22
BF21412-BLK1	Blank	06/22/22
BF21412-BS1	LCS	06/22/22
BF21412-DUP1	Duplicate	06/22/22

Batch ID: BF21498 **Preparation Method:** EPA TO15 PREP **Prepared By:** AS

YORK Sample ID	Client Sample ID	Preparation Date
22F1033-02	877_V5	06/23/22
22F1033-03	878_V2	06/23/22
22F1033-04	879_V3	06/23/22
22F1033-05	880_DUP-1	06/23/22
BF21498-BLK1	Blank	06/23/22
BF21498-BS1	LCS	06/23/22
BF21498-DUP1	Duplicate	06/23/22



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21412 - EPA TO15 PREP

Blank (BF21412-BLK1)

Prepared & Analyzed: 06/22/2022

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	"
n-Heptane	ND	0.41	"



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21412 - EPA TO15 PREP

Blank (BF21412-BLK1)

Prepared & Analyzed: 06/22/2022

n-Hexane	ND	0.35	ug/m ³
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 (BF21412-BS1)

Prepared & Analyzed: 06/22/2022

1,1,1,2-Tetrachloroethane	8.89		ppbv	10.0	88.9	70-130	
1,1,1-Trichloroethane	10.3		"	10.0	103	70-130	
1,1,2,2-Tetrachloroethane	7.92		"	10.0	79.2	70-130	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.1		"	10.0	101	70-130	
1,1,2-Trichloroethane	8.39		"	10.0	83.9	70-130	
1,1-Dichloroethane	9.19		"	10.0	91.9	70-130	
1,1-Dichloroethylene	8.73		"	10.0	87.3	70-130	
1,2,4-Trichlorobenzene	6.21		"	10.0	62.1	70-130	Low Bias
1,2,4-Trimethylbenzene	7.83		"	10.0	78.3	70-130	
1,2-Dibromoethane	8.47		"	10.0	84.7	70-130	
1,2-Dichlorobenzene	7.51		"	10.0	75.1	70-130	
1,2-Dichloroethane	9.32		"	10.0	93.2	70-130	
1,2-Dichloropropane	7.59		"	10.0	75.9	70-130	
1,2-Dichlorotetrafluoroethane	11.2		"	10.0	112	70-130	
1,3,5-Trimethylbenzene	7.93		"	10.0	79.3	70-130	
1,3-Butadiene	7.28		"	10.0	72.8	70-130	
1,3-Dichlorobenzene	7.71		"	10.0	77.1	70-130	
1,3-Dichloropropane	8.06		"	10.0	80.6	70-130	
1,4-Dichlorobenzene	7.55		"	10.0	75.5	70-130	
1,4-Dioxane	7.04		"	10.0	70.4	70-130	
2-Butanone	7.77		"	10.0	77.7	70-130	
2-Hexanone	5.34		"	10.0	53.4	70-130	Low Bias
3-Chloropropene	7.83		"	10.0	78.3	70-130	
4-Methyl-2-pentanone	5.66		"	10.0	56.6	70-130	Low Bias
Acetone	7.04		"	10.0	70.4	70-130	
Acrylonitrile	7.99		"	10.0	79.9	70-130	
Benzene	9.11		"	10.0	91.1	70-130	
Benzyl chloride	7.39		"	10.0	73.9	70-130	
Bromodichloromethane	8.29		"	10.0	82.9	70-130	
Bromoform	8.93		"	10.0	89.3	70-130	
Bromomethane	10.2		"	10.0	102	70-130	
Carbon disulfide	9.59		"	10.0	95.9	70-130	
Carbon tetrachloride	9.51		"	10.0	95.1	70-130	



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21412 - EPA TO15 PREP

LCS (BF21412-BS1)

Prepared & Analyzed: 06/22/2022

Chlorobenzene	8.36		ppbv	10.0		83.6	70-130				
Chloroethane	9.11		"	10.0		91.1	70-130				
Chloroform	9.90		"	10.0		99.0	70-130				
Chloromethane	7.18		"	10.0		71.8	70-130				
cis-1,2-Dichloroethylene	8.52		"	10.0		85.2	70-130				
cis-1,3-Dichloropropylene	8.19		"	10.0		81.9	70-130				
Cyclohexane	8.75		"	10.0		87.5	70-130				
Dibromochloromethane	9.36		"	10.0		93.6	70-130				
Dichlorodifluoromethane	10.0		"	10.0		100	70-130				
Ethyl acetate	8.17		"	10.0		81.7	70-130				
Ethyl Benzene	8.55		"	10.0		85.5	70-130				
Hexachlorobutadiene	5.72		"	10.0		57.2	70-130	Low Bias			
Isopropanol	8.18		"	10.0		81.8	70-130				
Methyl Methacrylate	7.69		"	10.0		76.9	70-130				
Methyl tert-butyl ether (MTBE)	9.50		"	10.0		95.0	70-130				
Methylene chloride	7.70		"	10.0		77.0	70-130				
n-Heptane	8.15		"	10.0		81.5	70-130				
n-Hexane	8.75		"	10.0		87.5	70-130				
o-Xylene	8.49		"	10.0		84.9	70-130				
p- & m- Xylenes	17.1		"	20.0		85.7	70-130				
p-Ethyltoluene	8.14		"	10.0		81.4	70-130				
Propylene	7.82		"	10.0		78.2	70-130				
Styrene	8.09		"	10.0		80.9	70-130				
Tetrachloroethylene	7.78		"	10.0		77.8	70-130				
Tetrahydrofuran	7.83		"	10.0		78.3	70-130				
Toluene	8.11		"	10.0		81.1	70-130				
trans-1,2-Dichloroethylene	9.06		"	10.0		90.6	70-130				
trans-1,3-Dichloropropylene	8.20		"	10.0		82.0	70-130				
Trichloroethylene	7.91		"	10.0		79.1	70-130				
Trichlorofluoromethane (Freon 11)	10.4		"	10.0		104	70-130				
Vinyl acetate	7.44		"	10.0		74.4	70-130				
Vinyl bromide	10.3		"	10.0		103	70-130				
Vinyl Chloride	7.43		"	10.0		74.3	70-130				



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21412 - EPA TO15 PREP

Duplicate (BF21412-DUP1)	*Source sample: 22F1004-02 (Duplicate)				Prepared & Analyzed: 06/22/2022						
1,1,1,2-Tetrachloroethane	ND	0.80	ug/m ³		ND					25	
1,1,1-Trichloroethane	ND	0.64	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	0.80	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.89	"		ND					25	
1,1,2-Trichloroethane	ND	0.64	"		ND					25	
1,1-Dichloroethane	ND	0.47	"		ND					25	
1,1-Dichloroethylene	ND	0.12	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.87	"		ND					25	
1,2,4-Trimethylbenzene	0.52	0.57	"		0.46				11.8	25	
1,2-Dibromoethane	ND	0.90	"		ND					25	
1,2-Dichlorobenzene	ND	0.70	"		ND					25	
1,2-Dichloroethane	ND	0.47	"		ND					25	
1,2-Dichloropropane	ND	0.54	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	0.82	"		ND					25	
1,3,5-Trimethylbenzene	ND	0.57	"		ND					25	
1,3-Butadiene	ND	0.77	"		ND					25	
1,3-Dichlorobenzene	ND	0.70	"		ND					25	
1,3-Dichloropropane	ND	0.54	"		ND					25	
1,4-Dichlorobenzene	ND	0.70	"		ND					25	
1,4-Dioxane	ND	0.84	"		ND					25	
2-Butanone	0.65	0.34	"		0.69				5.13	25	
2-Hexanone	ND	0.96	"		ND					25	
3-Chloropropene	ND	1.8	"		ND					25	
4-Methyl-2-pentanone	ND	0.48	"		ND					25	
Acetone	7.4	0.55	"		7.2				2.28	25	
Acrylonitrile	ND	0.25	"		ND					25	
Benzene	0.52	0.37	"		0.56				6.90	25	
Benzyl chloride	ND	0.60	"		ND					25	
Bromodichloromethane	ND	0.78	"		ND					25	
Bromoform	ND	1.2	"		ND					25	
Bromomethane	ND	0.45	"		ND					25	
Carbon disulfide	ND	0.36	"		ND					25	
Carbon tetrachloride	0.44	0.18	"		0.37				18.2	25	
Chlorobenzene	ND	0.54	"		ND					25	
Chloroethane	ND	0.31	"		ND					25	
Chloroform	ND	0.57	"		ND					25	
Chloromethane	1.3	0.24	"		1.3				0.00	25	
cis-1,2-Dichloroethylene	ND	0.12	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.53	"		ND					25	
Cyclohexane	ND	0.40	"		ND					25	
Dibromochloromethane	ND	0.99	"		ND					25	
Dichlorodifluoromethane	2.8	0.58	"		2.8				0.00	25	
Ethyl acetate	0.97	0.84	"		0.97				0.00	25	
Ethyl Benzene	ND	0.51	"		0.35					25	
Hexachlorobutadiene	ND	1.2	"		ND					25	
Isopropanol	1.7	0.57	"		1.8				1.63	25	
Methyl Methacrylate	ND	0.48	"		0.24					25	
Methyl tert-butyl ether (MTBE)	ND	0.42	"		ND					25	
Methylene chloride	0.73	0.81	"		0.69				5.71	25	
n-Heptane	0.29	0.48	"		0.33				15.4	25	
n-Hexane	0.45	0.41	"		0.45				0.00	25	



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21412 - EPA TO15 PREP

Duplicate (BF21412-DUP1)	*Source sample: 22F1004-02 (Duplicate)				Prepared & Analyzed: 06/22/2022						
o-Xylene	0.51	0.51	ug/m ³		0.51				0.00	25	
p- & m- Xylenes	1.4	1.0	"		1.4				3.64	25	
p-Ethyltoluene	ND	0.57	"		ND					25	
Propylene	ND	0.20	"		ND					25	
Styrene	ND	0.50	"		ND					25	
Tetrachloroethylene	0.47	0.79	"		0.47				0.00	25	
Tetrahydrofuran	ND	0.69	"		ND					25	
Toluene	1.7	0.44	"		1.7				0.00	25	
trans-1,2-Dichloroethylene	ND	0.46	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.53	"		ND					25	
Trichloroethylene	ND	0.16	"		ND					25	
Trichlorofluoromethane (Freon 11)	1.6	0.66	"		1.6				0.00	25	
Vinyl acetate	ND	0.41	"		ND					25	
Vinyl bromide	ND	0.51	"		ND					25	
Vinyl Chloride	ND	0.15	"		ND					25	

Batch BF21498 - EPA TO15 PREP

Blank (BF21498-BLK1)	Prepared & Analyzed: 06/23/2022										
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	"								



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21498 - EPA TO15 PREP

Blank (BF21498-BLK1)

Prepared & Analyzed: 06/23/2022

Chlorobenzene	ND	0.46	ug/m ³
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	"
n-Heptane	ND	0.41	"
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	"



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF21498 - EPA TO15 PREP											
LCS (BF21498-BS1)						Prepared & Analyzed: 06/23/2022					
1,1,1,2-Tetrachloroethane	9.55		ppbv	10.0		95.5	70-130				
1,1,1-Trichloroethane	11.4		"	10.0		114	70-130				
1,1,2,2-Tetrachloroethane	8.62		"	10.0		86.2	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.2		"	10.0		112	70-130				
1,1,2-Trichloroethane	9.14		"	10.0		91.4	70-130				
1,1-Dichloroethane	10.0		"	10.0		100	70-130				
1,1-Dichloroethylene	9.65		"	10.0		96.5	70-130				
1,2,4-Trichlorobenzene	6.82		"	10.0		68.2	70-130	Low Bias			
1,2,4-Trimethylbenzene	8.72		"	10.0		87.2	70-130				
1,2-Dibromoethane	9.18		"	10.0		91.8	70-130				
1,2-Dichlorobenzene	8.29		"	10.0		82.9	70-130				
1,2-Dichloroethane	10.5		"	10.0		105	70-130				
1,2-Dichloropropane	7.98		"	10.0		79.8	70-130				
1,2-Dichlorotetrafluoroethane	12.4		"	10.0		124	70-130				
1,3,5-Trimethylbenzene	8.84		"	10.0		88.4	70-130				
1,3-Butadiene	8.10		"	10.0		81.0	70-130				
1,3-Dichlorobenzene	8.54		"	10.0		85.4	70-130				
1,3-Dichloropropane	8.66		"	10.0		86.6	70-130				
1,4-Dichlorobenzene	8.31		"	10.0		83.1	70-130				
1,4-Dioxane	7.51		"	10.0		75.1	70-130				
2-Butanone	8.37		"	10.0		83.7	70-130				
2-Hexanone	5.74		"	10.0		57.4	70-130	Low Bias			
3-Chloropropene	8.24		"	10.0		82.4	70-130				
4-Methyl-2-pentanone	6.00		"	10.0		60.0	70-130	Low Bias			
Acetone	7.76		"	10.0		77.6	70-130				
Acrylonitrile	8.48		"	10.0		84.8	70-130				
Benzene	9.87		"	10.0		98.7	70-130				
Benzyl chloride	8.32		"	10.0		83.2	70-130				
Bromodichloromethane	9.01		"	10.0		90.1	70-130				
Bromoform	9.87		"	10.0		98.7	70-130				
Bromomethane	11.4		"	10.0		114	70-130				
Carbon disulfide	10.4		"	10.0		104	70-130				
Carbon tetrachloride	10.0		"	10.0		100	70-130				
Chlorobenzene	9.04		"	10.0		90.4	70-130				
Chloroethane	9.93		"	10.0		99.3	70-130				
Chloroform	11.0		"	10.0		110	70-130				
Chloromethane	8.27		"	10.0		82.7	70-130				
cis-1,2-Dichloroethylene	9.15		"	10.0		91.5	70-130				
cis-1,3-Dichloropropylene	8.75		"	10.0		87.5	70-130				
Cyclohexane	9.42		"	10.0		94.2	70-130				
Dibromochloromethane	10.2		"	10.0		102	70-130				
Dichlorodifluoromethane	11.2		"	10.0		112	70-130				
Ethyl acetate	8.77		"	10.0		87.7	70-130				
Ethyl Benzene	9.19		"	10.0		91.9	70-130				
Hexachlorobutadiene	6.23		"	10.0		62.3	70-130	Low Bias			
Isopropanol	8.93		"	10.0		89.3	70-130				
Methyl Methacrylate	8.27		"	10.0		82.7	70-130				
Methyl tert-butyl ether (MTBE)	10.3		"	10.0		103	70-130				
Methylene chloride	8.30		"	10.0		83.0	70-130				
n-Heptane	8.58		"	10.0		85.8	70-130				
n-Hexane	9.32		"	10.0		93.2	70-130				



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21498 - EPA TO15 PREP

LCS (BF21498-BS1)

Prepared & Analyzed: 06/23/2022

o-Xylene	9.26		ppbv	10.0		92.6	70-130				
p- & m- Xylenes	18.7		"	20.0		93.5	70-130				
p-Ethyltoluene	9.15		"	10.0		91.5	70-130				
Propylene	7.94		"	10.0		79.4	70-130				
Styrene	8.84		"	10.0		88.4	70-130				
Tetrachloroethylene	8.45		"	10.0		84.5	70-130				
Tetrahydrofuran	8.35		"	10.0		83.5	70-130				
Toluene	8.77		"	10.0		87.7	70-130				
trans-1,2-Dichloroethylene	9.88		"	10.0		98.8	70-130				
trans-1,3-Dichloropropylene	9.01		"	10.0		90.1	70-130				
Trichloroethylene	8.52		"	10.0		85.2	70-130				
Trichlorofluoromethane (Freon 11)	11.7		"	10.0		117	70-130				
Vinyl acetate	7.96		"	10.0		79.6	70-130				
Vinyl bromide	11.4		"	10.0		114	70-130				
Vinyl Chloride	8.24		"	10.0		82.4	70-130				

Duplicate (BF21498-DUP1)

*Source sample: 22F1004-01 (Duplicate)

Prepared & Analyzed: 06/23/2022

1,1,1,2-Tetrachloroethane	ND	1.3	ug/m ³		ND					25	
1,1,1-Trichloroethane	ND	1.1	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	1.3	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.5	"		ND					25	
1,1,2-Trichloroethane	ND	1.1	"		ND					25	
1,1-Dichloroethane	ND	0.78	"		ND					25	
1,1-Dichloroethylene	ND	0.19	"		ND					25	
1,2,4-Trichlorobenzene	ND	1.4	"		ND					25	
1,2,4-Trimethylbenzene	43	0.95	"		45				4.53	25	
1,2-Dibromoethane	ND	1.5	"		ND					25	
1,2-Dichlorobenzene	ND	1.2	"		ND					25	
1,2-Dichloroethane	ND	0.78	"		ND					25	
1,2-Dichloropropane	ND	0.89	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	1.4	"		ND					25	
1,3,5-Trimethylbenzene	55	0.95	"		57				2.88	25	
1,3-Butadiene	ND	1.3	"		ND					25	
1,3-Dichlorobenzene	ND	1.2	"		ND					25	
1,3-Dichloropropane	ND	0.89	"		ND					25	
1,4-Dichlorobenzene	ND	1.2	"		ND					25	
1,4-Dioxane	ND	1.4	"		ND					25	
2-Butanone	3.6	0.57	"		3.6				0.00	25	
2-Hexanone	ND	1.6	"		ND					25	
3-Chloropropene	ND	3.0	"		ND					25	
4-Methyl-2-pentanone	ND	0.79	"		ND					25	
Acetone	22	0.92	"		23				8.38	25	
Acrylonitrile	ND	0.42	"		ND					25	
Benzene	2.4	0.62	"		2.4				0.00	25	
Benzyl chloride	ND	1.0	"		ND					25	
Bromodichloromethane	ND	1.3	"		ND					25	
Bromoform	ND	2.0	"		ND					25	
Bromomethane	ND	0.75	"		ND					25	
Carbon disulfide	ND	0.60	"		ND					25	
Carbon tetrachloride	0.36	0.30	"		0.36				0.00	25	
Chlorobenzene	ND	0.89	"		ND					25	



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

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BF21498 - EPA TO15 PREP

Duplicate (BF21498-DUP1)	*Source sample: 22F1004-01 (Duplicate)				Prepared & Analyzed: 06/23/2022						
Chloroethane	ND	0.51	ug/m ³		ND					25	
Chloroform	8.7	0.94	"		9.2				5.29	25	
Chloromethane	ND	0.40	"		ND					25	
cis-1,2-Dichloroethylene	ND	0.19	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.88	"		ND					25	
Cyclohexane	2.9	0.67	"		2.7				7.23	25	
Dibromochloromethane	ND	1.6	"		ND					25	
Dichlorodifluoromethane	2.7	0.96	"		3.1				13.3	25	
Ethyl acetate	ND	1.4	"		ND					25	
Ethyl Benzene	18	0.84	"		17				1.91	25	
Hexachlorobutadiene	ND	2.1	"		ND					25	
Isopropanol	1.5	0.95	"		1.4				3.28	25	
Methyl Methacrylate	ND	0.79	"		ND					25	
Methyl tert-butyl ether (MTBE)	2.0	0.70	"		2.0				0.00	25	
Methylene chloride	8.2	1.3	"		8.7				5.58	25	
n-Heptane	7.5	0.79	"		7.1				5.41	25	
n-Hexane	5.1	0.68	"		4.9				4.08	25	
o-Xylene	60	0.84	"		60				0.696	25	
p- & m- Xylenes	45	1.7	"		45				0.561	25	
p-Ethyltoluene	38	0.95	"		39				2.71	25	
Propylene	8.6	0.33	"		8.8				3.05	25	
Styrene	ND	0.82	"		ND					25	
Tetrachloroethylene	12	1.3	"		12				6.59	25	
Tetrahydrofuran	1.5	1.1	"		ND					25	
Toluene	10	0.73	"		11				4.88	25	
trans-1,2-Dichloroethylene	ND	0.77	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.88	"		ND					25	
Trichloroethylene	ND	0.26	"		ND					25	
Trichlorofluoromethane (Freon 11)	1.6	1.1	"		1.7				6.45	25	
Vinyl acetate	ND	0.68	"		ND					25	
Vinyl bromide	ND	0.85	"		ND					25	
Vinyl Chloride	ND	0.25	"		ND					25	



Sample and Data Qualifiers Relating to This Work Order

TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
TO-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.: 22F1033

Samples Received: 06/20/2022 16:30 By: Adanny Camacho Logged In: 06/20/2022 15:28 By: Tom Gabrielson

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
22F1033-01	EPA TO15 PREP	06/22/2022 3:00	06/22/2022 3:00	Arlene Schork
22F1033-02	EPA TO15 PREP	06/23/2022 2:00	06/23/2022 2:00	Arlene Schork
22F1033-03	EPA TO15 PREP	06/23/2022 2:00	06/23/2022 2:00	Arlene Schork
22F1033-04	EPA TO15 PREP	06/23/2022 2:00	06/23/2022 2:00	Arlene Schork
22F1033-05	EPA TO15 PREP	06/23/2022 2:00	06/23/2022 2:00	Arlene Schork

Analysis Chain-of-Custody

Sample ID	Reason Analysis	Analysis Start Date	Analysis End Date	Analyst
22F1033-01	Volatile Organics, EPA TO15 Full List	06/22/2022 3:00	06/22/2022 15:35	Arlene Schork
22F1033-02	Volatile Organics, EPA TO15 Full List	06/23/2022 2:00	06/23/2022 10:08	Lie Ling Jauw
22F1033-03	Volatile Organics, EPA TO15 Full List	06/23/2022 2:00	06/23/2022 11:10	Lie Ling Jauw
22F1033-04	Volatile Organics, EPA TO15 Full List	06/23/2022 2:00	06/23/2022 12:13	Lie Ling Jauw
22F1033-05	Volatile Organics, EPA TO15 Full List	06/23/2022 2:00	06/23/2022 13:16	Lie Ling Jauw

York Analytical Laboratories, Inc.

SDG: 22F1033

CLASS: AIR

METHOD: EPA TO-15

DATA PACKAGE COVER PAGE

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Client Sample Id:

876 Ambient-1

877 V5

878 V2

879 V3

880 DUP-1

Lab Sample Id:

22F1033-01

22F1033-02

22F1033-03

22F1033-04

22F1033-05

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:

6/27/2022

Title:

Laboratory Manager

FORM III

LCS / LCS DUPLICATE RECOVERY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Matrix: AirBatch: BF21412Laboratory ID: BF21412-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	8.89	88.9	70 - 130
1,1,1-Trichloroethane	10.0	10.3	103	70 - 130
1,1,2,2-Tetrachloroethane	10.0	7.92	79.2	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	10.1	101	70 - 130
1,1,2-Trichloroethane	10.0	8.39	83.9	70 - 130
1,1-Dichloroethane	10.0	9.19	91.9	70 - 130
1,1-Dichloroethylene	10.0	8.73	87.3	70 - 130
1,2,4-Trichlorobenzene	10.0	6.21	62.1 *	70 - 130
1,2,4-Trimethylbenzene	10.0	7.83	78.3	70 - 130
1,2-Dibromoethane	10.0	8.47	84.7	70 - 130
1,2-Dichlorobenzene	10.0	7.51	75.1	70 - 130
1,2-Dichloroethane	10.0	9.32	93.2	70 - 130
1,2-Dichloropropane	10.0	7.59	75.9	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	11.2	112	70 - 130
1,3,5-Trimethylbenzene	10.0	7.93	79.3	70 - 130
1,3-Butadiene	10.0	7.28	72.8	70 - 130
1,3-Dichlorobenzene	10.0	7.71	77.1	70 - 130
1,3-Dichloropropane	10.0	8.06	80.6	70 - 130
1,4-Dichlorobenzene	10.0	7.55	75.5	70 - 130
1,4-Dioxane	10.0	7.04	70.4	70 - 130
2-Butanone	10.0	7.77	77.7	70 - 130
2-Hexanone	10.0	5.34	53.4 *	70 - 130
3-Chloropropene	10.0	7.83	78.3	70 - 130
4-Methyl-2-pentanone	10.0	5.66	56.6 *	70 - 130
Acetone	10.0	7.04	70.4	70 - 130
Acrylonitrile	10.0	7.99	79.9	70 - 130
Benzene	10.0	9.11	91.1	70 - 130
Benzyl chloride	10.0	7.39	73.9	70 - 130
Bromodichloromethane	10.0	8.29	82.9	70 - 130
Bromoform	10.0	8.93	89.3	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY
EPA TO-15Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Matrix: AirBatch: BF21412Laboratory ID: BF21412-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	10.2	102	70 - 130
Carbon disulfide	10.0	9.59	95.9	70 - 130
Carbon tetrachloride	10.0	9.51	95.1	70 - 130
Chlorobenzene	10.0	8.36	83.6	70 - 130
Chloroethane	10.0	9.11	91.1	70 - 130
Chloroform	10.0	9.90	99.0	70 - 130
Chloromethane	10.0	7.18	71.8	70 - 130
cis-1,2-Dichloroethylene	10.0	8.52	85.2	70 - 130
cis-1,3-Dichloropropylene	10.0	8.19	81.9	70 - 130
Cyclohexane	10.0	8.75	87.5	70 - 130
Dibromochloromethane	10.0	9.36	93.6	70 - 130
Dichlorodifluoromethane	10.0	10.0	100	70 - 130
Ethyl acetate	10.0	8.17	81.7	70 - 130
Ethyl Benzene	10.0	8.55	85.5	70 - 130
Hexachlorobutadiene	10.0	5.72	57.2 *	70 - 130
Isopropanol	10.0	8.18	81.8	70 - 130
Methyl Methacrylate	10.0	7.69	76.9	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	9.50	95.0	70 - 130
Methylene chloride	10.0	7.70	77.0	70 - 130
n-Heptane	10.0	8.15	81.5	70 - 130
n-Hexane	10.0	8.75	87.5	70 - 130
o-Xylene	10.0	8.49	84.9	70 - 130
p- & m- Xylenes	20.0	17.1	85.7	70 - 130
p-Ethyltoluene	10.0	8.14	81.4	70 - 130
Propylene	10.0	7.82	78.2	70 - 130
Styrene	10.0	8.09	80.9	70 - 130
Tetrachloroethylene	10.0	7.78	77.8	70 - 130
Tetrahydrofuran	10.0	7.83	78.3	70 - 130
Toluene	10.0	8.11	81.1	70 - 130
trans-1,2-Dichloroethylene	10.0	9.06	90.6	70 - 130

FORM III**LCS / LCS DUPLICATE RECOVERY****EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air
Batch: BF21412 Laboratory ID: BF21412-BS1
Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,3-Dichloropropylene	10.0	8.20	82.0	70 - 130
Trichloroethylene	10.0	7.91	79.1	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	10.4	104	70 - 130
Vinyl acetate	10.0	7.44	74.4	70 - 130
Vinyl bromide	10.0	10.3	103	70 - 130
Vinyl Chloride	10.0	7.43	74.3	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.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Matrix: AirBatch: BF21498Laboratory ID: BF21498-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	9.55	95.5	70 - 130
1,1,1-Trichloroethane	10.0	11.4	114	70 - 130
1,1,2,2-Tetrachloroethane	10.0	8.62	86.2	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	11.2	112	70 - 130
1,1,2-Trichloroethane	10.0	9.14	91.4	70 - 130
1,1-Dichloroethane	10.0	10.0	100	70 - 130
1,1-Dichloroethylene	10.0	9.65	96.5	70 - 130
1,2,4-Trichlorobenzene	10.0	6.82	68.2 *	70 - 130
1,2,4-Trimethylbenzene	10.0	8.72	87.2	70 - 130
1,2-Dibromoethane	10.0	9.18	91.8	70 - 130
1,2-Dichlorobenzene	10.0	8.29	82.9	70 - 130
1,2-Dichloroethane	10.0	10.5	105	70 - 130
1,2-Dichloropropane	10.0	7.98	79.8	70 - 130
1,2-Dichlorotetrafluoroethane	10.0	12.4	124	70 - 130
1,3,5-Trimethylbenzene	10.0	8.84	88.4	70 - 130
1,3-Butadiene	10.0	8.10	81.0	70 - 130
1,3-Dichlorobenzene	10.0	8.54	85.4	70 - 130
1,3-Dichloropropane	10.0	8.66	86.6	70 - 130
1,4-Dichlorobenzene	10.0	8.31	83.1	70 - 130
1,4-Dioxane	10.0	7.51	75.1	70 - 130
2-Butanone	10.0	8.37	83.7	70 - 130
2-Hexanone	10.0	5.74	57.4 *	70 - 130
3-Chloropropene	10.0	8.24	82.4	70 - 130
4-Methyl-2-pentanone	10.0	6.00	60.0 *	70 - 130
Acetone	10.0	7.76	77.6	70 - 130
Acrylonitrile	10.0	8.48	84.8	70 - 130
Benzene	10.0	9.87	98.7	70 - 130
Benzyl chloride	10.0	8.32	83.2	70 - 130
Bromodichloromethane	10.0	9.01	90.1	70 - 130
Bromoform	10.0	9.87	98.7	70 - 130

FORM III

LCS / LCS DUPLICATE RECOVERY
EPA TO-15Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Matrix: AirBatch: BF21498Laboratory ID: BF21498-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
Bromomethane	10.0	11.4	114	70 - 130
Carbon disulfide	10.0	10.4	104	70 - 130
Carbon tetrachloride	10.0	10.0	100	70 - 130
Chlorobenzene	10.0	9.04	90.4	70 - 130
Chloroethane	10.0	9.93	99.3	70 - 130
Chloroform	10.0	11.0	110	70 - 130
Chloromethane	10.0	8.27	82.7	70 - 130
cis-1,2-Dichloroethylene	10.0	9.15	91.5	70 - 130
cis-1,3-Dichloropropylene	10.0	8.75	87.5	70 - 130
Cyclohexane	10.0	9.42	94.2	70 - 130
Dibromochloromethane	10.0	10.2	102	70 - 130
Dichlorodifluoromethane	10.0	11.2	112	70 - 130
Ethyl acetate	10.0	8.77	87.7	70 - 130
Ethyl Benzene	10.0	9.19	91.9	70 - 130
Hexachlorobutadiene	10.0	6.23	62.3 *	70 - 130
Isopropanol	10.0	8.93	89.3	70 - 130
Methyl Methacrylate	10.0	8.27	82.7	70 - 130
Methyl tert-butyl ether (MTBE)	10.0	10.3	103	70 - 130
Methylene chloride	10.0	8.30	83.0	70 - 130
n-Heptane	10.0	8.58	85.8	70 - 130
n-Hexane	10.0	9.32	93.2	70 - 130
o-Xylene	10.0	9.26	92.6	70 - 130
p- & m- Xylenes	20.0	18.7	93.5	70 - 130
p-Ethyltoluene	10.0	9.15	91.5	70 - 130
Propylene	10.0	7.94	79.4	70 - 130
Styrene	10.0	8.84	88.4	70 - 130
Tetrachloroethylene	10.0	8.45	84.5	70 - 130
Tetrahydrofuran	10.0	8.35	83.5	70 - 130
Toluene	10.0	8.77	87.7	70 - 130
trans-1,2-Dichloroethylene	10.0	9.88	98.8	70 - 130

FORM III**LCS / LCS DUPLICATE RECOVERY****EPA TO-15**Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Matrix: AirBatch: BF21498Laboratory ID: BF21498-BS1Preparation: EPA TO15 PREPInitial/Final: 400 mL / 400 mL

COMPOUND	SPIKE ADDED (ppbv)	LCS CONCENTRATION (ppbv)	LCS % REC. #	QC LIMITS REC.
trans-1,3-Dichloropropylene	10.0	9.01	90.1	70 - 130
Trichloroethylene	10.0	8.52	85.2	70 - 130
Trichlorofluoromethane (Freon 11)	10.0	11.7	117	70 - 130
Vinyl acetate	10.0	7.96	79.6	70 - 130
Vinyl bromide	10.0	11.4	114	70 - 130
Vinyl Chloride	10.0	8.24	82.4	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.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505Batch: BF21412Batch Matrix: AirPreparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
876_Ambient-1	22F1033-01	TQ220725.D	06/22/22 03:00	
Blank	BF21412-BLK1	TQ220720.D	06/22/22 03:00	
LCS	BF21412-BS1	TQ220718.D	06/22/22 03:00	

FORM IV**PREPARATION BATCH SUMMARY****EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Batch: BF21498 Batch Matrix: Air Preparation: EPA TO15 PREP

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
877_V5	22F1033-02	TQ220738.D	06/23/22 02:00	From BF21412 by AS on 06/23/2022
878_V2	22F1033-03	TQ220739.D	06/23/22 02:00	From BF21412 by AS on 06/23/2022
879_V3	22F1033-04	TQ220740.D	06/23/22 02:00	From BF21412 by AS on 06/23/2022
880_DUP-1	22F1033-05	TQ220741.D	06/23/22 02:00	From BF21412 by AS on 06/23/2022
Blank	BF21498-BLK1	TQ220736.D	06/23/22 02:00	
LCS	BF21498-BS1	TQ220733.D	06/23/22 02:00	

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

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21412-BLK1 File ID: TQ220720.D
Prepared: 06/22/22 03:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/22/22 09:55 Instrument: TO15 AIR2
Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018

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	J
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. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21412-BLK1 File ID: TQ220720.D
Prepared: 06/22/22 03:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/22/22 09:55 Instrument: TO15_AIR2
Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018

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
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
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:York Analytical Laboratories, Inc.SDG:22F1033

Client:Langan Engineering & Environmental Services (NJ)Project:100287505

Matrix:AirLaboratory ID:BF21412-BLK1File ID:TQ220720.D

Prepared:06/22/22 03:00Preparation:EPA TO15 PREPInitial/Final:400 mL / 400 mL

Analyzed:06/22/22 09:55Instrument:TO15_AIR2

Batch:BF21412Sequence:Y2F2411Calibration:YD20018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
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	557287	11.985	679348	11.979	
ISTD: 1,4-Difluorobenzene	3071204	13.557	3753147	13.558	
ISTD: d5-Chlorobenzene	2595772	18.827	3277670	18.824	

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

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21498-BLK1 File ID: TQ220736.D
Prepared: 06/23/22 02:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/23/22 08:08 Instrument: TO15 AIR2
Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018

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	J
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. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21498-BLK1 File ID: TQ220736.D
Prepared: 06/23/22 02:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/23/22 08:08 Instrument: TO15_AIR2
Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018

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
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
156-60-5	trans-1,2-Dichloroethylene	0.40	U

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:	<u>York Analytical Laboratories, Inc.</u>	SDG:	<u>22F1033</u>		
Client:	<u>Langan Engineering & Environmental Services (NJ)</u>	Project:	<u>100287505</u>		
Matrix:	<u>Air</u>	Laboratory ID:	<u>BF21498-BLK1</u>	File ID:	<u>TQ220736.D</u>
Prepared:	<u>06/23/22 02:00</u>	Preparation:	<u>EPA TO15 PREP</u>	Initial/Final:	<u>400 mL / 400 mL</u>
Analyzed:	<u>06/23/22 08:08</u>	Instrument:	<u>TO15_AIR2</u>		
Batch:	<u>BF21498</u>	Sequence:	<u>Y2F2413</u>	Calibration:	<u>YD20018</u>

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
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	430531	11.989	554760	11.985	
ISTD: 1,4-Difluorobenzene	2450248	13.564	3144562	13.564	
ISTD: d5-Chlorobenzene	2033016	18.824	2743461	18.824	

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Lab File ID:

TQ219719.D

Injection Date:

04/19/22

Instrument ID:

TO15_AIR2

Injection Time:

22:46

Sequence:

Y2D2240

Lab Sample ID:

Y2D2240-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	12.3	PASS
75	30 - 66% of 95	41.4	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.88	PASS
173	Less than 2% of 174	0.787	PASS
174	50 - 120% of 95	84.4	PASS
175	4 - 9% of 174	6.83	PASS
176	93 - 101% of 174	95.2	PASS
177	5 - 9% of 176	6.54	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Lab File ID:

TQ220716.D

Injection Date:

06/22/22

Instrument ID:

TO15_AIR2

Injection Time:

05:53

Sequence:

Y2F2411

Lab Sample ID:

Y2F2411-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	11.8	PASS
75	30 - 66% of 95	42.7	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.59	PASS
173	Less than 2% of 174	0.858	PASS
174	50 - 120% of 95	80.9	PASS
175	4 - 9% of 174	7.3	PASS
176	93 - 101% of 174	99.1	PASS
177	5 - 9% of 176	6.52	PASS

FORM V

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Lab File ID:

TQ220731.D

Injection Date:

06/23/22

Instrument ID:

TO15_AIR2

Injection Time:

02:44

Sequence:

Y2F2413

Lab Sample ID:

Y2F2413-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8 - 40% of 95	12.4	PASS
75	30 - 66% of 95	43.7	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.42	PASS
173	Less than 2% of 174	0.746	PASS
174	50 - 120% of 95	79.6	PASS
175	4 - 9% of 174	7.15	PASS
176	93 - 101% of 174	97.2	PASS
177	5 - 9% of 176	6.55	PASS

FORM V**ANALYSIS BATCH (SEQUENCE) SUMMARY
EPA TO-15**Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Sequence: Y2D2240Instrument: TO15 AIR2Calibration: YD20018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y2D2240-TUN1	TQ219719.D	04/19/22 22:46
Cal Standard	Y2D2240-CAL1	TQ219721.D	04/20/22 00:38
Cal Standard	Y2D2240-CAL2	TQ219722.D	04/20/22 01:34
Cal Standard	Y2D2240-CAL3	TQ219723.D	04/20/22 02:30
Cal Standard	Y2D2240-CAL4	TQ219724.D	04/20/22 03:29
Cal Standard	Y2D2240-CAL5	TQ219725.D	04/20/22 04:31
Cal Standard	Y2D2240-CAL6	TQ219726.D	04/20/22 05:29
Cal Standard	Y2D2240-CAL7	TQ219727.D	04/20/22 06:27
Cal Standard	Y2D2240-CAL8	TQ219728.D	04/20/22 07:27
Cal Standard	Y2D2240-CAL9	TQ219729.D	04/20/22 08:30
Cal Standard	Y2D2240-CALA	TQ219730.D	04/20/22 09:38
Secondary Cal Check	Y2D2240-SCV1	TQ219733.D	04/20/22 13:51

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Sequence:

Y2F2411

Instrument:

TO15 AIR2

Calibration:

YD20018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y2F2411-TUN1	TQ220716.D	06/22/22 05:53
Calibration Check	Y2F2411-CCV1	TQ220717.D	06/22/22 06:51
LCS	BF21412-BS1	TQ220718.D	06/22/22 07:50
Blank	BF21412-BLK1	TQ220720.D	06/22/22 09:55
876_Ambient-1	22F1033-01	TQ220725.D	06/22/22 15:35

FORM V

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Sequence:

Y2F2413

Instrument:

TO15 AIR2

Calibration:

YD20018

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	Y2F2413-TUN1	TQ220731.D	06/23/22 02:44
Calibration Check	Y2F2413-CCV1	TQ220732.D	06/23/22 03:41
LCS	BF21498-BS1	TQ220733.D	06/23/22 04:39
Blank	BF21498-BLK1	TQ220736.D	06/23/22 08:08
877_V5	22F1033-02	TQ220738.D	06/23/22 10:08
878_V2	22F1033-03	TQ220739.D	06/23/22 11:10
879_V3	22F1033-04	TQ220740.D	06/23/22 12:13
880_DUP-1	22F1033-05	TQ220741.D	06/23/22 13:16

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Sequence: Y2D2240Instrument: TO15 AIR2Calibration: YD20018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (Y2D2240-CAL1)		Lab File ID: TQ219721.D			Analyzed: 04/20/22 00:38				
Bromochloromethane	614705	11.969	625244	11.976	98	50 - 200	-0.0070	+/-0.33	
ISTD: 1,4-Difluorobenzene	2956431	13.548	2917121	13.548	101	50 - 200	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	2321399	18.802	2637328	18.805	88	50 - 200	-0.0030	+/-0.33	
Cal Standard (Y2D2240-CAL2)		Lab File ID: TQ219722.D			Analyzed: 04/20/22 01:34				
Bromochloromethane	592282	11.969	625244	11.976	95	50 - 200	-0.0070	+/-0.33	
ISTD: 1,4-Difluorobenzene	2845748	13.548	2917121	13.548	98	50 - 200	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	2325395	18.802	2637328	18.805	88	50 - 200	-0.0030	+/-0.33	
Cal Standard (Y2D2240-CAL3)		Lab File ID: TQ219723.D			Analyzed: 04/20/22 02:30				
Bromochloromethane	575476	11.976	625244	11.976	92	50 - 200	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	2745284	13.551	2917121	13.548	94	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2298185	18.799	2637328	18.805	87	50 - 200	-0.0060	+/-0.33	
Cal Standard (Y2D2240-CAL4)		Lab File ID: TQ219724.D			Analyzed: 04/20/22 03:29				
Bromochloromethane	588419	11.966	625244	11.976	94	50 - 200	-0.0100	+/-0.33	
ISTD: 1,4-Difluorobenzene	2777815	13.542	2917121	13.548	95	50 - 200	-0.0060	+/-0.33	
ISTD: d5-Chlorobenzene	2340250	18.799	2637328	18.805	89	50 - 200	-0.0060	+/-0.33	
Cal Standard (Y2D2240-CAL5)		Lab File ID: TQ219725.D			Analyzed: 04/20/22 04:31				
Bromochloromethane	579451	11.969	625244	11.976	93	50 - 200	-0.0070	+/-0.33	
ISTD: 1,4-Difluorobenzene	2741838	13.551	2917121	13.548	94	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2381513	18.802	2637328	18.805	90	50 - 200	-0.0030	+/-0.33	
Cal Standard (Y2D2240-CAL6)		Lab File ID: TQ219726.D			Analyzed: 04/20/22 05:29				
Bromochloromethane	582218	11.975	625244	11.976	93	50 - 200	-0.0010	+/-0.33	
ISTD: 1,4-Difluorobenzene	2735686	13.551	2917121	13.548	94	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2404553	18.802	2637328	18.805	91	50 - 200	-0.0030	+/-0.33	
Cal Standard (Y2D2240-CAL7)		Lab File ID: TQ219727.D			Analyzed: 04/20/22 06:27				
Bromochloromethane	625244	11.976	625244	11.976	100	50 - 200	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	2917121	13.548	2917121	13.548	100	50 - 200	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	2637328	18.805	2637328	18.805	100	50 - 200	0.0000	+/-0.33	
Cal Standard (Y2D2240-CAL8)		Lab File ID: TQ219728.D			Analyzed: 04/20/22 07:27				
Bromochloromethane	700776	11.976	625244	11.976	112	50 - 200	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	3266575	13.551	2917121	13.548	112	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2888649	18.805	2637328	18.805	110	50 - 200	0.0000	+/-0.33	
Cal Standard (Y2D2240-CAL9)		Lab File ID: TQ219729.D			Analyzed: 04/20/22 08:30				
Bromochloromethane	759672	11.979	625244	11.976	122	50 - 200	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	3635030	13.554	2917121	13.548	125	50 - 200	0.0060	+/-0.33	
ISTD: d5-Chlorobenzene	3128886	18.808	2637328	18.805	119	50 - 200	0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY

EPA TO-15

Laboratory:York Analytical Laboratories, Inc.

SDG:22F1033

Client:Langan Engineering & Environmental Services (NJ)

Project:100287505

Sequence:Y2D2240

Instrument:TO15 AIR2

Calibration:YD20018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (Y2D2240-CALA)			Lab File ID: TQ219730.D			Analyzed: 04/20/22 09:38			
Bromochloromethane	810463	11.985	625244	11.976	130	50 - 200	0.0090	+/-0.33	
ISTD: 1,4-Difluorobenzene	3868285	13.561	2917121	13.548	133	50 - 200	0.0130	+/-0.33	
ISTD: d5-Chlorobenzene	3280934	18.811	2637328	18.805	124	50 - 200	0.0060	+/-0.33	
Secondary Cal Check (Y2D2240-SCV1)			Lab File ID: TQ219733.D			Analyzed: 04/20/22 13:51			
Bromochloromethane	831276	11.982	625244	11.976	133	50 - 200	0.0060	+/-0.33	
ISTD: 1,4-Difluorobenzene	4001569	13.554	2917121	13.548	137	50 - 200	0.0060	+/-0.33	
ISTD: d5-Chlorobenzene	3457469	18.808	2637328	18.805	131	50 - 200	0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Sequence: Y2F2411Instrument: TO15 AIR2Calibration: YD20018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (Y2F2411-CCV1)			Lab File ID: TQ220717.D			Analyzed: 06/22/22 06:51			
Bromochloromethane	679348	11.979				50 - 200		+/-0.33	
ISTD: 1,4-Difluorobenzene	3753147	13.558				50 - 200		+/-0.33	
ISTD: d5-Chlorobenzene	3277670	18.824				50 - 200		+/-0.33	
LCS (BF21412-BS1)			Lab File ID: TQ220718.D			Analyzed: 06/22/22 07:50			
Bromochloromethane	675791	11.982	679348	11.979	99	50 - 200	0.0030	+/-0.33	
ISTD: 1,4-Difluorobenzene	3731361	13.561	3753147	13.558	99	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	3235770	18.824	3277670	18.824	99	50 - 200	0.0000	+/-0.33	
Blank (BF21412-BLK1)			Lab File ID: TQ220720.D			Analyzed: 06/22/22 09:55			
Bromochloromethane	557287	11.985	679348	11.979	82	50 - 200	0.0060	+/-0.33	
ISTD: 1,4-Difluorobenzene	3071204	13.557	3753147	13.558	82	50 - 200	-0.0010	+/-0.33	
ISTD: d5-Chlorobenzene	2595772	18.827	3277670	18.824	79	50 - 200	0.0030	+/-0.33	
876_Ambient-1 (22F1033-01)			Lab File ID: TQ220725.D			Analyzed: 06/22/22 15:35			
Bromochloromethane	511425	11.988	679348	11.979	75	50 - 200	0.0090	+/-0.33	
ISTD: 1,4-Difluorobenzene	2844337	13.561	3753147	13.558	76	50 - 200	0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2475155	18.827	3277670	18.824	76	50 - 200	0.0030	+/-0.33	

FORM VIII

INTERNAL STANDARD AREA AND RT SUMMARY
EPA TO-15Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Sequence: Y2F2413Instrument: TO15 AIR2Calibration: YD20018

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (Y2F2413-CCV1)			Lab File ID: TQ220732.D			Analyzed: 06/23/22 03:41			
Bromochloromethane	554760	11.985				50 - 200		+/-0.33	
ISTD: 1,4-Difluorobenzene	3144562	13.564				50 - 200		+/-0.33	
ISTD: d5-Chlorobenzene	2743461	18.824				50 - 200		+/-0.33	
LCS (BF21498-BS1)			Lab File ID: TQ220733.D			Analyzed: 06/23/22 04:39			
Bromochloromethane	582885	11.972	554760	11.985	105	50 - 200	-0.0130	+/-0.33	
ISTD: 1,4-Difluorobenzene	3273013	13.561	3144562	13.564	104	50 - 200	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2836074	18.824	2743461	18.824	103	50 - 200	0.0000	+/-0.33	
Blank (BF21498-BLK1)			Lab File ID: TQ220736.D			Analyzed: 06/23/22 08:08			
Bromochloromethane	430531	11.989	554760	11.985	78	50 - 200	0.0040	+/-0.33	
ISTD: 1,4-Difluorobenzene	2450248	13.564	3144562	13.564	78	50 - 200	0.0000	+/-0.33	
ISTD: d5-Chlorobenzene	2033016	18.824	2743461	18.824	74	50 - 200	0.0000	+/-0.33	
877_V5 (22F1033-02)			Lab File ID: TQ220738.D			Analyzed: 06/23/22 10:08			
Bromochloromethane	379658	11.976	554760	11.985	68	50 - 200	-0.0090	+/-0.33	
ISTD: 1,4-Difluorobenzene	2203931	13.558	3144562	13.564	70	50 - 200	-0.0060	+/-0.33	
ISTD: d5-Chlorobenzene	1950640	18.821	2743461	18.824	71	50 - 200	-0.0030	+/-0.33	
878_V2 (22F1033-03)			Lab File ID: TQ220739.D			Analyzed: 06/23/22 11:10			
Bromochloromethane	386336	11.998	554760	11.985	70	50 - 200	0.0130	+/-0.33	
ISTD: 1,4-Difluorobenzene	2166578	13.561	3144562	13.564	69	50 - 200	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	1918757	18.818	2743461	18.824	70	50 - 200	-0.0060	+/-0.33	
879_V3 (22F1033-04)			Lab File ID: TQ220740.D			Analyzed: 06/23/22 12:13			
Bromochloromethane	400947	11.979	554760	11.985	72	50 - 200	-0.0060	+/-0.33	
ISTD: 1,4-Difluorobenzene	2275233	13.558	3144562	13.564	72	50 - 200	-0.0060	+/-0.33	
ISTD: d5-Chlorobenzene	2037419	18.821	2743461	18.824	74	50 - 200	-0.0030	+/-0.33	
880_DUP-1 (22F1033-05)			Lab File ID: TQ220741.D			Analyzed: 06/23/22 13:16			
Bromochloromethane	403503	11.985	554760	11.985	73	50 - 200	0.0000	+/-0.33	
ISTD: 1,4-Difluorobenzene	2265314	13.561	3144562	13.564	72	50 - 200	-0.0030	+/-0.33	
ISTD: d5-Chlorobenzene	2024835	18.818	2743461	18.824	74	50 - 200	-0.0060	+/-0.33	

HOLDING TIME SUMMARY

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

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
876_Ambient-1	06/20/22 13:16	06/20/22 16:30	06/22/22 03:00	1.57	30.00	06/22/22 15:35	2.10	30.00	
877_V5	06/20/22 10:23	06/20/22 16:30	06/23/22 02:00	2.65	30.00	06/23/22 10:08	2.99	30.00	
878_V2	06/20/22 10:35	06/20/22 16:30	06/23/22 02:00	2.64	30.00	06/23/22 11:10	3.02	30.00	
879_V3	06/20/22 10:45	06/20/22 16:30	06/23/22 02:00	2.64	30.00	06/23/22 12:13	3.06	30.00	
880_DUP-1	06/20/22 10:45	06/20/22 16:30	06/23/22 02:00	2.64	30.00	06/23/22 13:16	3.10	30.00	

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Matrix: Air

Instrument: TO15 AIR2

Analyte	LOD	LOQ	Units
1,1,1,2-Tetrachloroethane	0.41	0.7	ug/m ³
1,1,1-Trichloroethane	0.47	0.55	ug/m ³
1,1,2,2-Tetrachloroethane	0.34	0.7	ug/m ³
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.75	0.78	ug/m ³
1,1,2-Trichloroethane	0.24	0.55	ug/m ³
1,1-Dichloroethane	0.34	0.41	ug/m ³
1,1-Dichloroethylene	0.1	0.1	ug/m ³
1,2,4-Trichlorobenzene	0.6	0.75	ug/m ³
1,2,4-Trimethylbenzene	0.3	0.5	ug/m ³
1,2-Dibromoethane	0.31	0.78	ug/m ³
1,2-Dichlorobenzene	0.4	0.61	ug/m ³
1,2-Dichloroethane	0.26	0.41	ug/m ³
1,2-Dichloropropane	0.24	0.47	ug/m ³
1,2-Dichlorotetrafluoroethane	0.7	0.71	ug/m ³
1,3,5-Trimethylbenzene	0.27	0.5	ug/m ³
1,3-Butadiene	0.086	0.68	ug/m ³
1,3-Dichlorobenzene	0.41	0.61	ug/m ³
1,3-Dichloropropane	0.15	0.47	ug/m ³
1,4-Dichlorobenzene	0.37	0.61	ug/m ³
1,4-Dioxane	0.3	0.73	ug/m ³
2-Butanone	0.18	0.3	ug/m ³
2-Hexanone	0.17	0.83	ug/m ³
3-Chloropropene	0.24	1.6	ug/m ³
4-Methyl-2-pentanone	0.35	0.42	ug/m ³
Acetone	0.24	0.48	ug/m ³
Acrylonitrile	0.17	0.22	ug/m ³
Benzene	0.32	0.32	ug/m ³
Benzyl chloride	0.28	0.53	ug/m ³
Bromodichloromethane	0.23	0.68	ug/m ³
Bromoform	0.52	1.1	ug/m ³
Bromomethane	0.39	0.39	ug/m ³
Carbon disulfide	0.3	0.32	ug/m ³
Carbon tetrachloride	0.16	0.16	ug/m ³
Chlorobenzene	0.26	0.47	ug/m ³
Chloroethane	0.17	0.27	ug/m ³
Chloroform	0.46	0.5	ug/m ³

METHOD DETECTION AND REPORTING LIMITS

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Matrix: Air

Instrument: TO15_AIR2

Analyte	LOD	LOQ	Units
Chloromethane	0.1	0.21	ug/m ³
cis-1,2-Dichloroethylene	0.1	0.1	ug/m ³
cis-1,3-Dichloropropylene	0.19	0.46	ug/m ³
Cyclohexane	0.3	0.35	ug/m ³
Dibromochloromethane	0.42	0.87	ug/m ³
Dichlorodifluoromethane	0.45	0.5	ug/m ³
Ethyl acetate	0.25	0.73	ug/m ³
Ethyl Benzene	0.3	0.44	ug/m ³
Hexachlorobutadiene	0.92	1.1	ug/m ³
Isopropanol	0.24	0.5	ug/m ³
Methyl Methacrylate	0.13	0.42	ug/m ³
Methyl tert-butyl ether (MTBE)	0.36	0.37	ug/m ³
Methylene chloride	0.25	0.71	ug/m ³
n-Heptane	0.18	0.42	ug/m ³
n-Hexane	0.29	0.36	ug/m ³
o-Xylene	0.11	0.44	ug/m ³
p- & m- Xylenes	0.63	0.88	ug/m ³
p-Ethyltoluene	0.38	0.5	ug/m ³
Propylene	0.074	0.18	ug/m ³
Styrene	0.26	0.43	ug/m ³
Tetrachloroethylene	0.34	0.69	ug/m ³
Tetrahydrofuran	0.16	0.6	ug/m ³
Toluene	0.23	0.38	ug/m ³
trans-1,2-Dichloroethylene	0.32	0.4	ug/m ³
trans-1,3-Dichloropropylene	0.42	0.46	ug/m ³
Trichloroethylene	0.14	0.14	ug/m ³
Trichlorofluoromethane (Freon 11)	0.43	0.57	ug/m ³
Vinyl acetate	0.22	0.36	ug/m ³
Vinyl bromide	0.43	0.44	ug/m ³
Vinyl Chloride	0.11	0.13	ug/m ³

AIR Sample Data

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

876_Ambient-1

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Outdoor Ambient Air Laboratory ID: 22F1033-01 File ID: TQ220725.D
 Sampled: 06/20/22 13:16 Prepared: 06/22/22 03:00 Analyzed: 06/22/22 15:35
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.13	0.78	U
71-55-6	1,1,1-Trichloroethane	1.13	0.62	U
79-34-5	1,1,2,2-Tetrachloroethane	1.13	0.78	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.13	0.87	U
79-00-5	1,1,2-Trichloroethane	1.13	0.62	U
75-34-3	1,1-Dichloroethane	1.13	0.46	U
75-35-4	1,1-Dichloroethylene	1.13	0.11	U
120-82-1	1,2,4-Trichlorobenzene	1.13	0.84	U
95-63-6	1,2,4-Trimethylbenzene	1.13	0.56	U
106-93-4	1,2-Dibromoethane	1.13	0.87	U
95-50-1	1,2-Dichlorobenzene	1.13	0.68	U
107-06-2	1,2-Dichloroethane	1.13	0.46	U
78-87-5	1,2-Dichloropropane	1.13	0.52	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.13	0.79	U
108-67-8	1,3,5-Trimethylbenzene	1.13	0.56	U
106-99-0	1,3-Butadiene	1.13	0.75	U
541-73-1	1,3-Dichlorobenzene	1.13	0.68	U
142-28-9	1,3-Dichloropropane	1.13	0.52	U
106-46-7	1,4-Dichlorobenzene	1.13	0.68	U
123-91-1	1,4-Dioxane	1.13	0.82	U
78-93-3	2-Butanone	1.13	1.0	D
591-78-6	2-Hexanone	1.13	0.93	U
107-05-1	3-Chloropropene	1.13	1.8	U
108-10-1	4-Methyl-2-pentanone	1.13	0.46	U
67-64-1	Acetone	1.13	7.5	D
107-13-1	Acrylonitrile	1.13	0.25	U
71-43-2	Benzene	1.13	0.54	D
100-44-7	Benzyl chloride	1.13	0.59	U
75-27-4	Bromodichloromethane	1.13	0.76	U
75-25-2	Bromoform	1.13	1.2	U
74-83-9	Bromomethane	1.13	0.44	U
75-15-0	Carbon disulfide	1.13	0.35	U
56-23-5	Carbon tetrachloride	1.13	0.36	D
108-90-7	Chlorobenzene	1.13	0.52	U
75-00-3	Chloroethane	1.13	0.30	U
67-66-3	Chloroform	1.13	0.55	U
74-87-3	Chloromethane	1.13	1.0	D
156-59-2	cis-1,2-Dichloroethylene	1.13	0.11	U
10061-01-5	cis-1,3-Dichloropropylene	1.13	0.51	U
110-82-7	Cyclohexane	1.13	0.39	U

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

876_Ambient-1

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Outdoor Ambient Air Laboratory ID: 22F1033-01 File ID: TQ220725.D
 Sampled: 06/20/22 13:16 Prepared: 06/22/22 03:00 Analyzed: 06/22/22 15:35
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
124-48-1	Dibromochloromethane	1.13	0.96	U
75-71-8	Dichlorodifluoromethane	1.13	2.8	D
141-78-6	Ethyl acetate	1.13	1.5	D
100-41-4	Ethyl Benzene	1.13	0.49	U
87-68-3	Hexachlorobutadiene	1.13	1.2	U
67-63-0	Isopropanol	1.13	1.6	D
80-62-6	Methyl Methacrylate	1.13	0.46	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1.13	0.41	U
75-09-2	Methylene chloride	1.13	0.79	U
142-82-5	n-Heptane	1.13	0.46	U
110-54-3	n-Hexane	1.13	0.44	D
95-47-6	o-Xylene	1.13	0.49	U
179601-23-1	p- & m- Xylenes	1.13	1.2	D
622-96-8	p-Ethyltoluene	1.13	0.56	U
115-07-1	Propylene	1.13	0.19	U
100-42-5	Styrene	1.13	0.48	U
127-18-4	Tetrachloroethylene	1.13	0.77	U
109-99-9	Tetrahydrofuran	1.13	0.67	U
108-88-3	Toluene	1.13	1.7	D
156-60-5	trans-1,2-Dichloroethylene	1.13	0.45	U
10061-02-6	trans-1,3-Dichloropropylene	1.13	0.51	U
79-01-6	Trichloroethylene	1.13	0.15	U
75-69-4	Trichlorofluoromethane (Freon 11)	1.13	1.5	D
108-05-4	Vinyl acetate	1.13	0.40	U
593-60-2	Vinyl bromide	1.13	0.49	U
75-01-4	Vinyl Chloride	1.13	0.14	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	511425	11.988	679348	11.979	
ISTD: 1,4-Difluorobenzene	2844337	13.561	3753147	13.558	
ISTD: d5-Chlorobenzene	2475155	18.827	3277670	18.824	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220725.D
 Acq On : 22 Jun 2022 3:35 pm
 Operator : AS
 Sample : 22F1033-01
 Misc : QBT02062222A 0.533X/750 ML
 ALS Vial : 1 Sample Multiplier: 1.131
 InstName : T015_AIR2

Quant Time: Jun 23 06:10:57 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

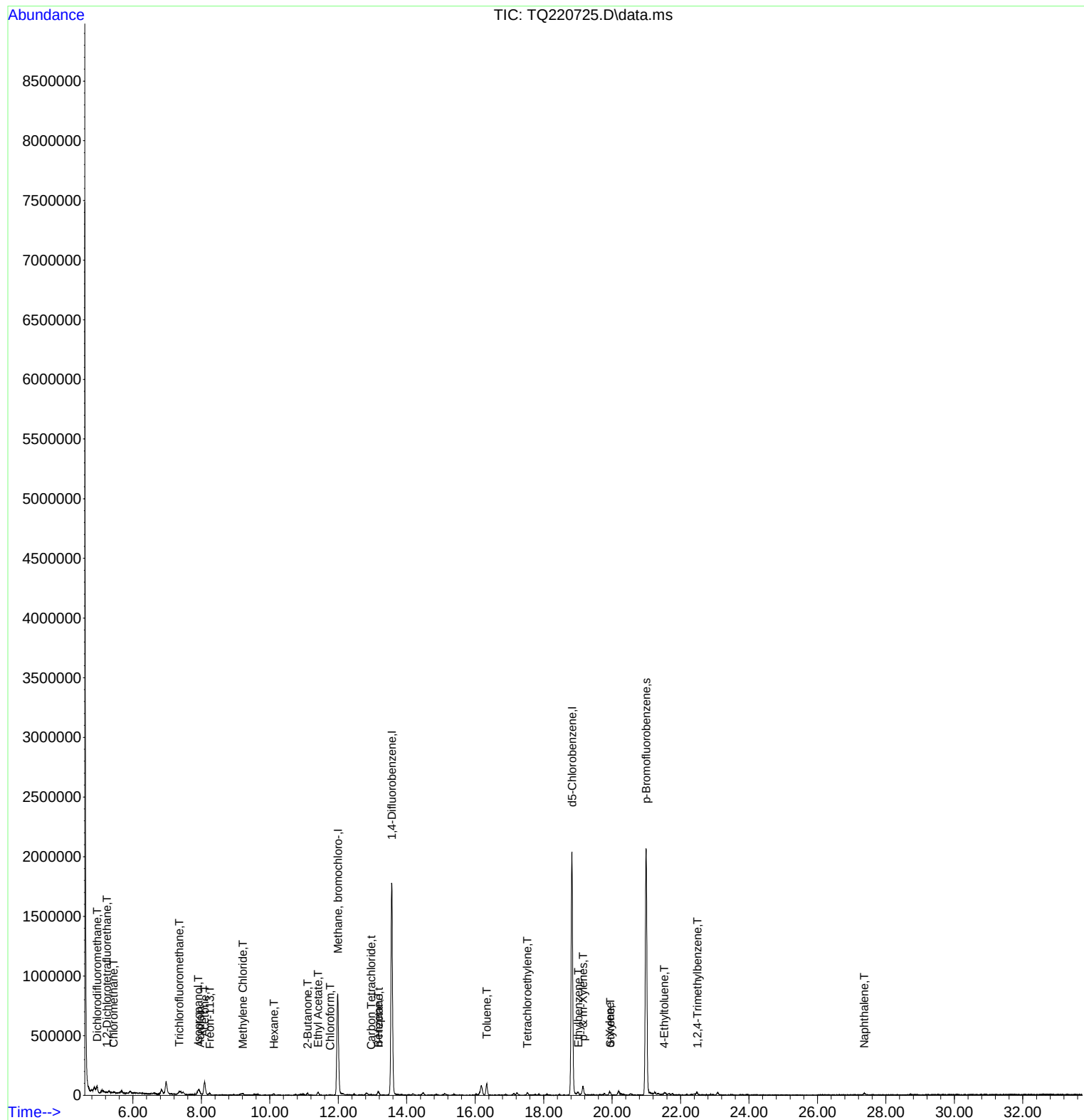
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

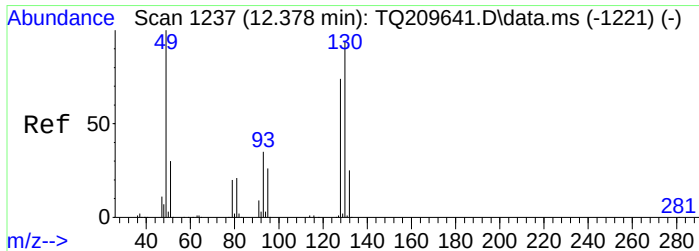
Internal Standards						
1) Methane, bromochloro-	11.988	49	511425	10.00	ppbv	# 0.01
37) 1,4-Difluorobenzene	13.561	114	2844337	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.827	117	2475155	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1525479	9.42	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.20%	
Target Compounds						
						Qvalue
3) Dichlorodifluoromethane	4.950	85	81196	0.50	ppbv	# 80
4) 1,2-Dichlorotetrafluor...	5.240	85	4001m	0.03	ppbv	
5) Chloromethane	5.432	50	11934m	0.44	ppbv	
11) Trichlorofluoromethane	7.349	101	35253m	0.23	ppbv	
12) Isopropanol	7.911	45	85749	0.58	ppbv	99
13) Acrolein	7.963	56	3016m	0.13	ppbv	
14) Acetone	8.092	43	232062	2.79	ppbv	# 80
15) Freon-113	8.246	101	9139m	0.07	ppbv	
18) Methylene Chloride	9.214	49	8619m	0.15	ppbv	
23) Hexane	10.117	57	9133m	0.11	ppbv	
26) 2-Butanone	11.104	43	28845m	0.30	ppbv	
27) Ethyl Acetate	11.406	43	36251	0.36	ppbv	# 28
29) Chloroform	11.763	83	4487m	0.03	ppbv	
33) Carbon Tetrachloride	12.959	117	5757m	0.05	ppbv	
35) Benzene	13.165	78	31326	0.15	ppbv	# 39
36) n-Heptane	13.175	43	7512m	0.09	ppbv	
45) Toluene	16.336	91	129615	0.41	ppbv	# 95
50) Tetrachloroethylene	17.519	166	10722m	0.07	ppbv	
56) Ethylbenzene	19.004	91	27132	0.07	ppbv	81
57) p- & m-Xylenes	19.149	91	73542	0.25	ppbv	# 94
58) o-Xylene	19.930	91	27171m	0.09	ppbv	
59) Styrene	19.943	104	5805m	0.02	ppbv	
65) 4-Ethyltoluene	21.515	105	26465m	0.06	ppbv	
68) 1,2,4-Trimethylbenzene	22.490	105	25156m	0.07	ppbv	
78) Naphthalene	27.364	128	28653m	0.06	ppbv	

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

Data Path : C:\msdchem\1\data\062222\
Data File : TQ220725.D
Acq On : 22 Jun 2022 3:35 pm
Operator : AS
Sample : 22F1033-01
Misc : QBT02062222A 0.533X/750 ML
ALS Vial : 1 Sample Multiplier: 1.131
InstName : T015_AIR2

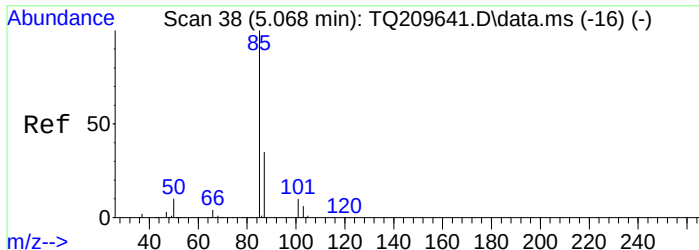
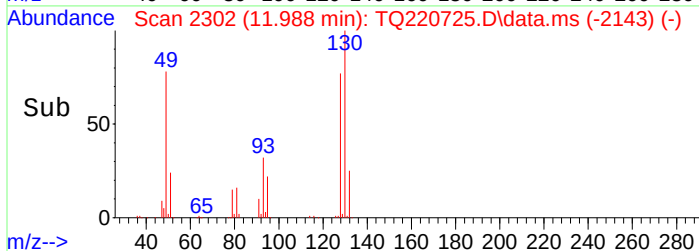
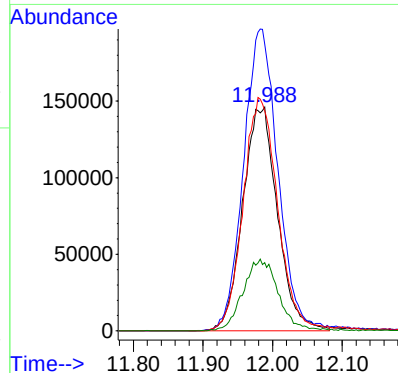
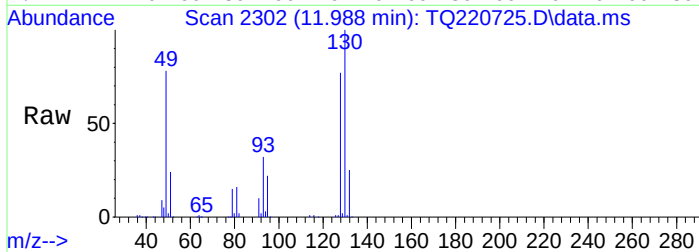
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QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





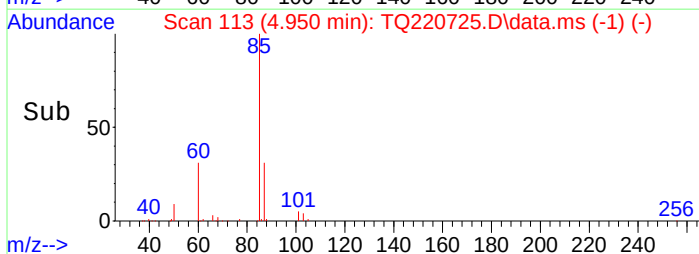
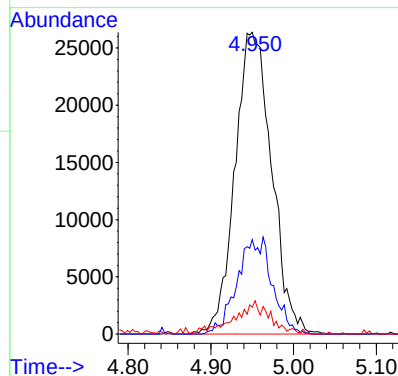
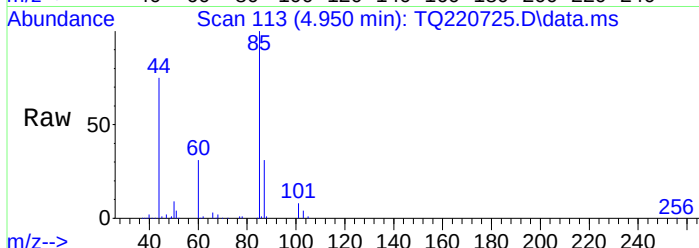
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.988 min Scan# 2302
Delta R.T. 0.012 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

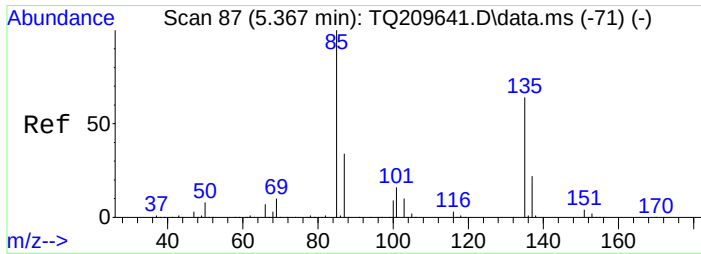
Tgt Ion	Ratio	Lower	Upper
49	100		
130	132.5	48.1	99.9#
128	103.6	38.3	79.5#
51	32.0	20.3	42.3



#3
Dichlorodifluoromethane
Concen: 0.50 ppbv
RT: 4.950 min Scan# 113
Delta R.T. -0.016 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

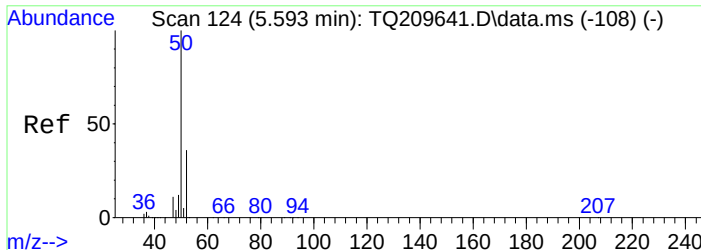
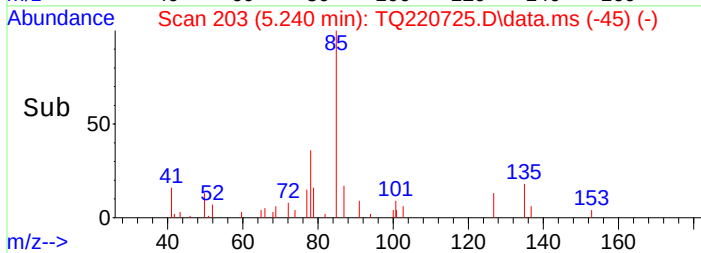
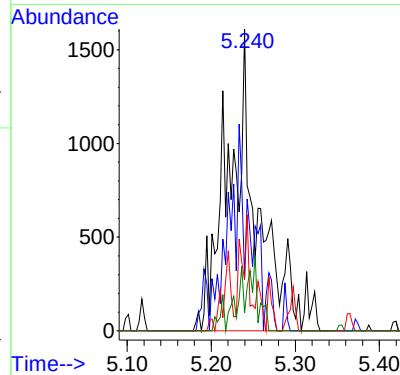
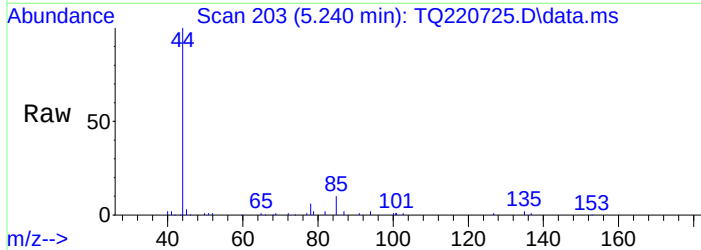
Tgt Ion	Ratio	Lower	Upper
85	100		
87	19.8	20.9	43.5#
50	5.5	7.2	15.0#





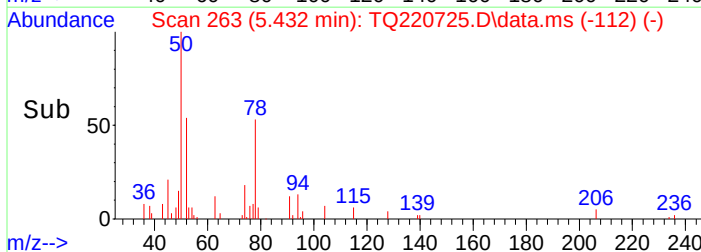
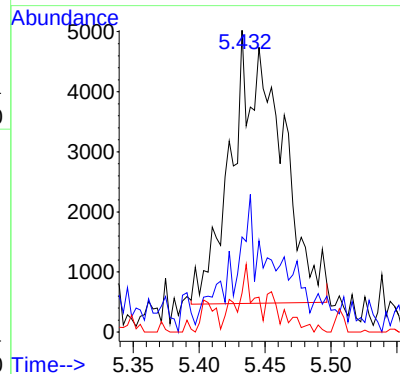
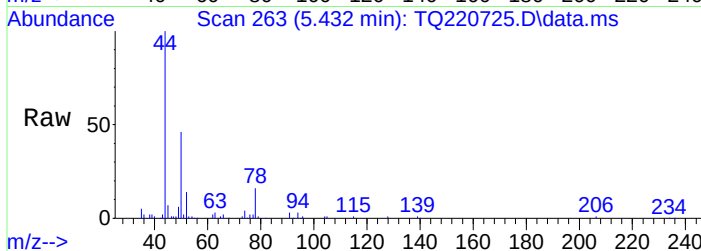
#4
1,2-Dichlorotetrafluorethane
Concen: 0.03 ppbv m
RT: 5.240 min Scan# 203
Delta R.T. 0.007 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

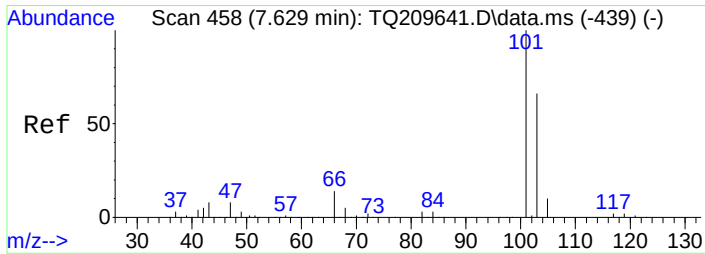
Tgt Ion	Ratio	Lower	Upper
85	100		
135	30.4	47.0	97.6#
87	0.0	20.9	43.5#
137	0.0	15.0	31.2#



#5
Chloromethane
Concen: 0.44 ppbv m
RT: 5.432 min Scan# 263
Delta R.T. -0.016 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

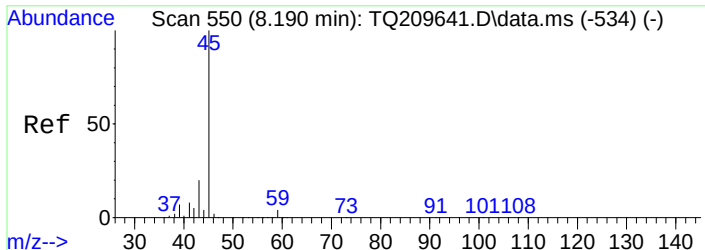
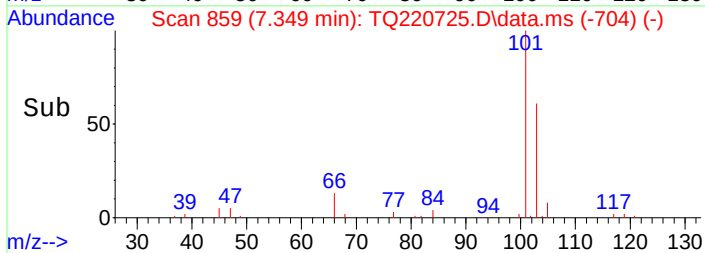
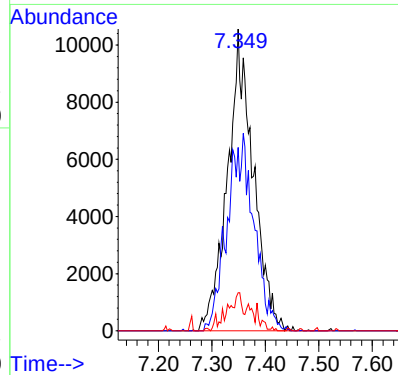
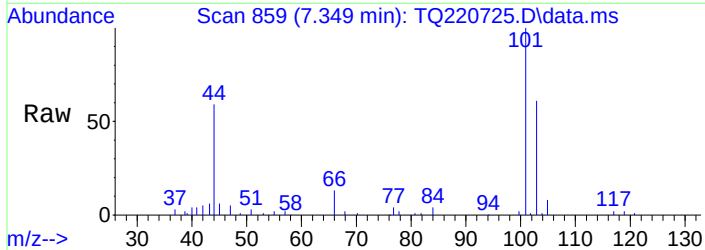
Tgt Ion	Ratio	Lower	Upper
50	100		
52	0.0	0.0	65.2
49	5.2	0.0	19.6





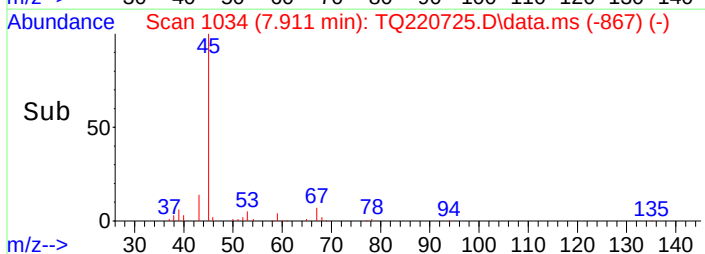
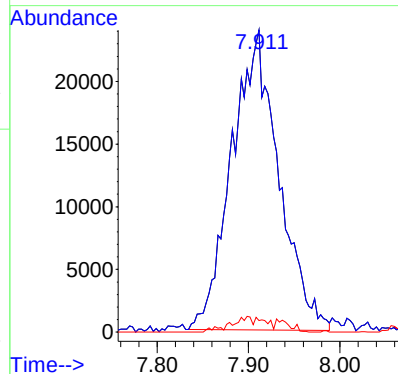
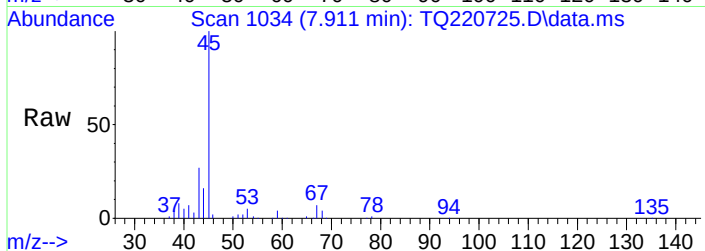
#11
 Trichlorofluoromethane
 Concen: 0.23 ppbv m
 RT: 7.349 min Scan# 859
 Delta R.T. -0.003 min
 Lab File: TQ220725.D
 Acq: 22 Jun 2022 3:35 pm

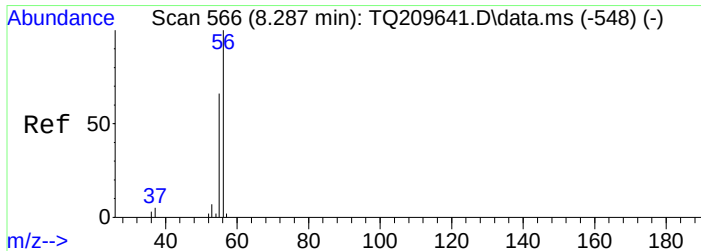
Tgt Ion:	101	Resp:	35253
Ion Ratio	Lower	Upper	
101	100		
103	28.1	42.3	87.8#
66	1.6	7.8	16.2#



#12
 Isopropanol
 Concen: 0.58 ppbv
 RT: 7.911 min Scan# 1034
 Delta R.T. 0.038 min
 Lab File: TQ220725.D
 Acq: 22 Jun 2022 3:35 pm

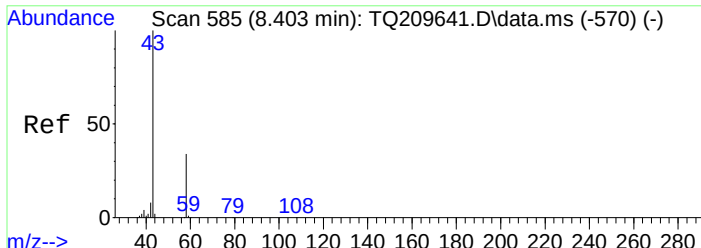
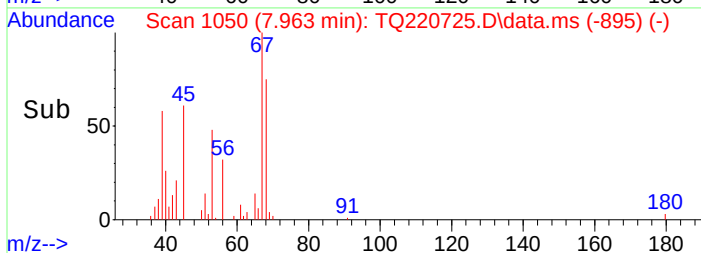
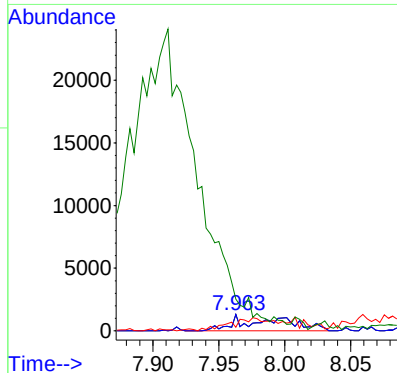
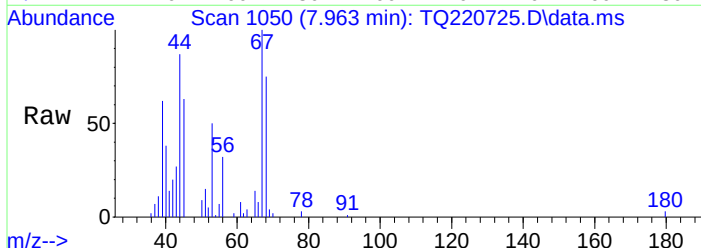
Tgt Ion:	45	Resp:	85749
Ion Ratio	Lower	Upper	
45	100		
45	100.0	65.0	135.0
59	0.9	0.0	10.0





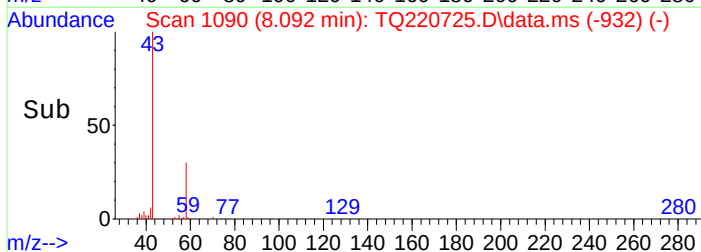
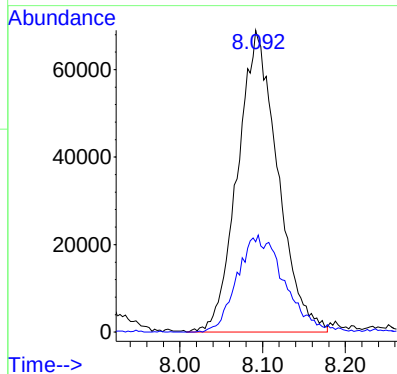
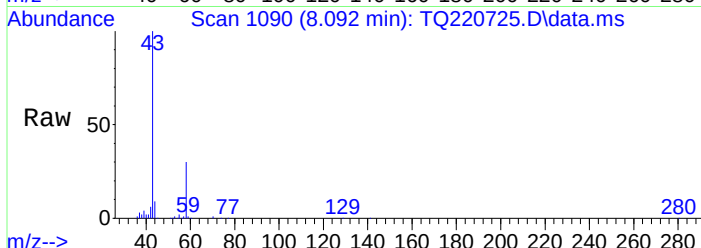
#13
Acrolein
Concen: 0.13 ppbv m
RT: 7.963 min Scan# 1050
Delta R.T. -0.003 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

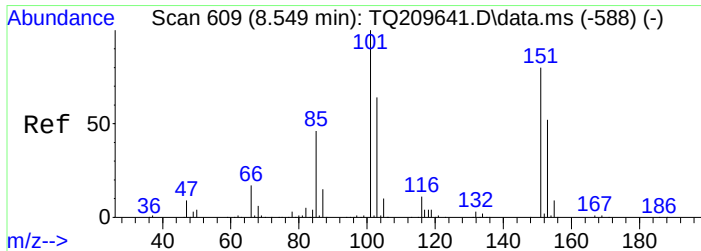
Tgt Ion	Ratio	Lower	Upper
56	100		
56	38.7	80.0	120.0#
55	37.2	40.0	120.0#
45	18.0	17.5	52.5



#14
Acetone
Concen: 2.79 ppbv
RT: 8.092 min Scan# 1090
Delta R.T. 0.007 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

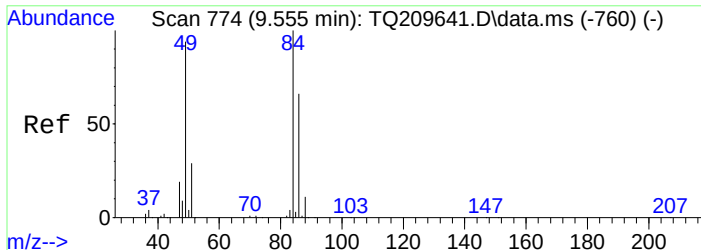
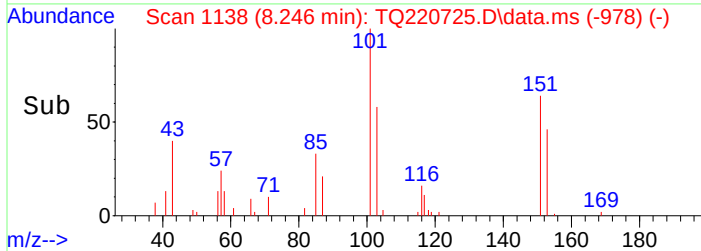
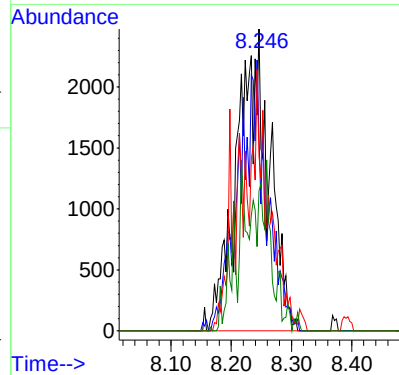
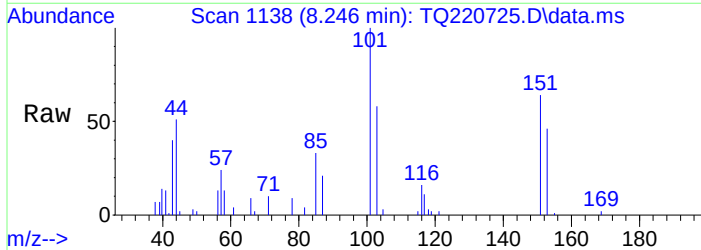
Tgt Ion	Ratio	Lower	Upper
43	100		
58	20.8	20.9	43.3#





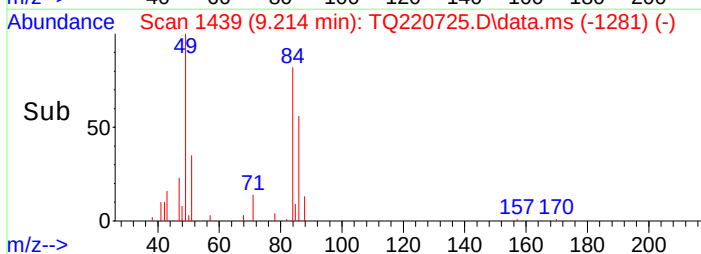
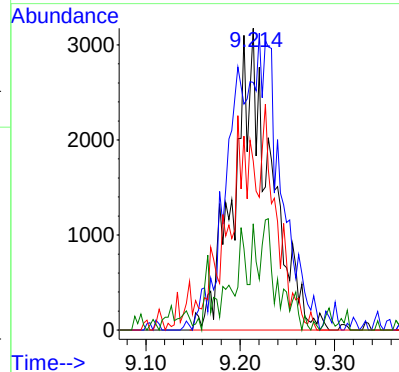
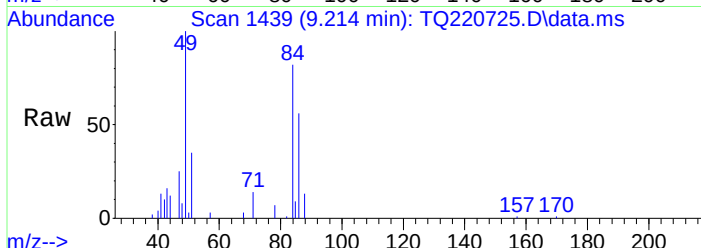
#15
 Freon-113
 Concen: 0.07 ppbv m
 RT: 8.246 min Scan# 1138
 Delta R.T. 0.016 min
 Lab File: TQ220725.D
 Acq: 22 Jun 2022 3:35 pm

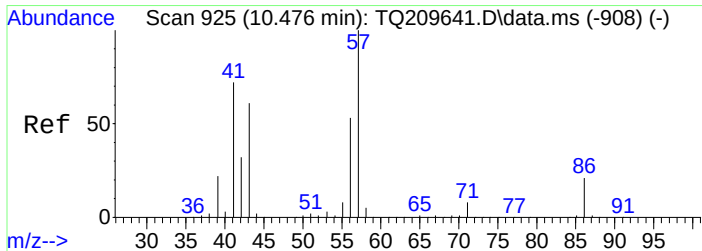
Tgt Ion:	101	Resp:	9139
Ion Ratio	Lower	Upper	
101	100		
151	0.0	50.5	104.9#
103	0.0	42.0	87.2#
153	0.0	32.4	67.4#



#18
 Methylene Chloride
 Concen: 0.15 ppbv m
 RT: 9.214 min Scan# 1439
 Delta R.T. 0.007 min
 Lab File: TQ220725.D
 Acq: 22 Jun 2022 3:35 pm

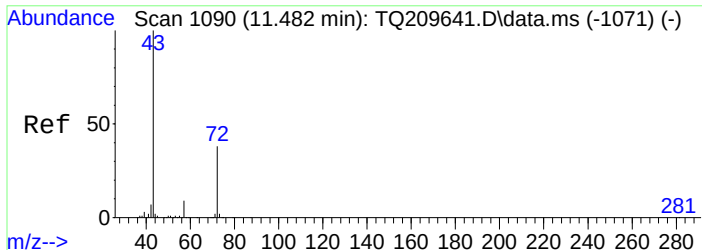
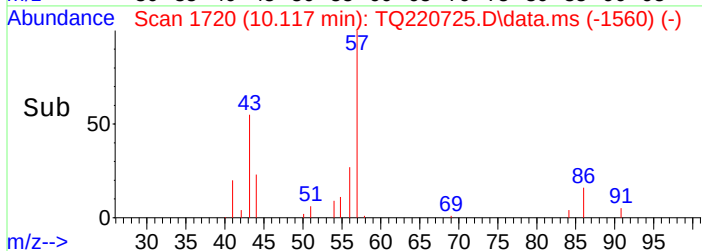
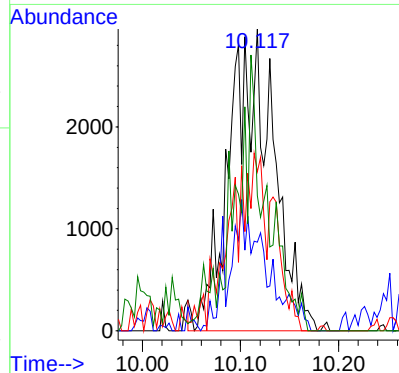
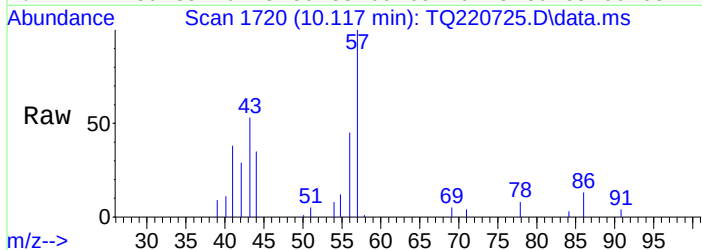
Tgt Ion:	49	Resp:	8619
Ion Ratio	Lower	Upper	
49	100		
84	0.0	49.9	103.5#
86	0.0	31.8	66.0#
51	0.0	20.2	41.9#





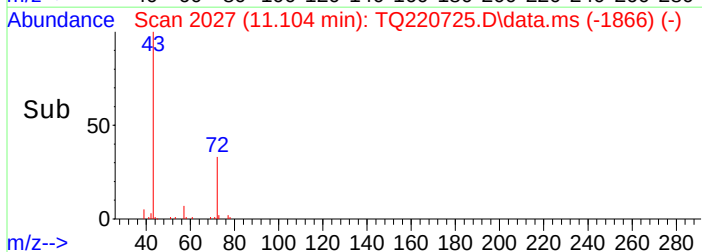
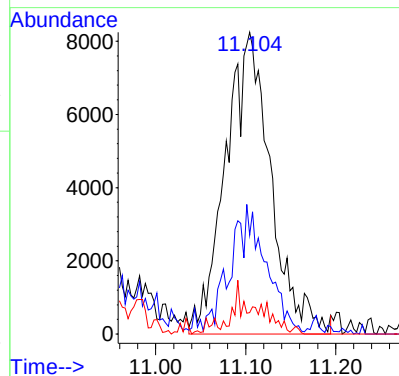
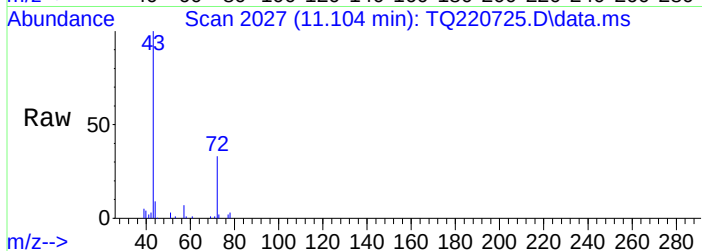
#23
Hexane
Concen: 0.11 ppbv m
RT: 10.117 min Scan# 1720
Delta R.T. 0.013 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

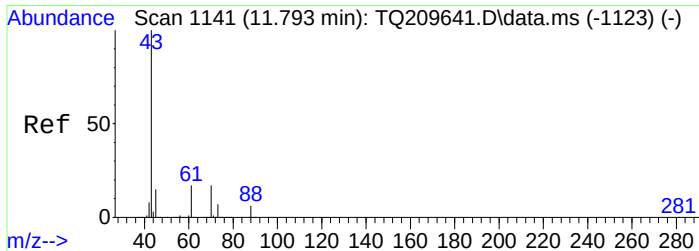
Tgt Ion:	57	Resp:	9133
Ion Ratio	Lower	Upper	
57	100		
42	13.5	21.6	45.0#
43	8.9	42.0	87.2#
56	0.0	33.3	69.1#



#26
2-Butanone
Concen: 0.30 ppbv m
RT: 11.104 min Scan# 2027
Delta R.T. 0.016 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

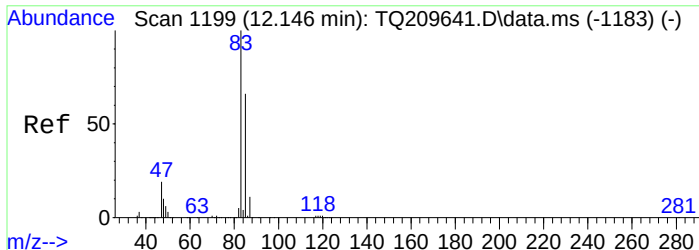
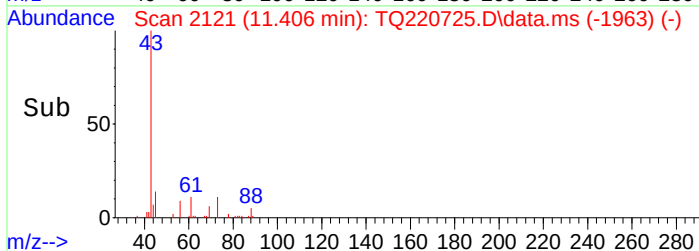
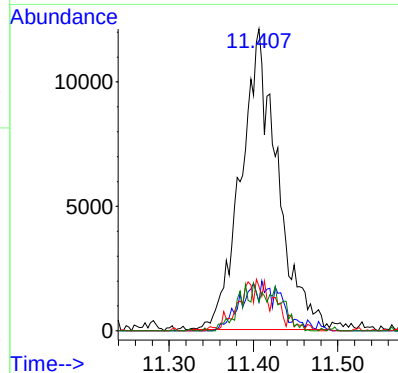
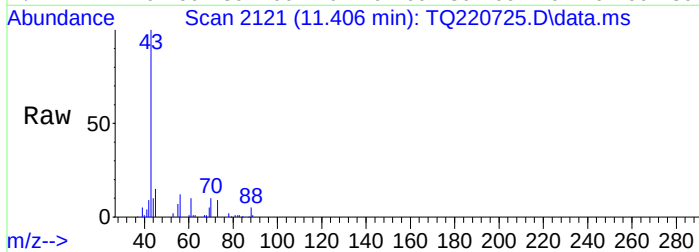
Tgt Ion:	43	Resp:	28845
Ion Ratio	Lower	Upper	
43	100		
72	9.1	16.1	33.5#
57	3.3	4.9	10.3#





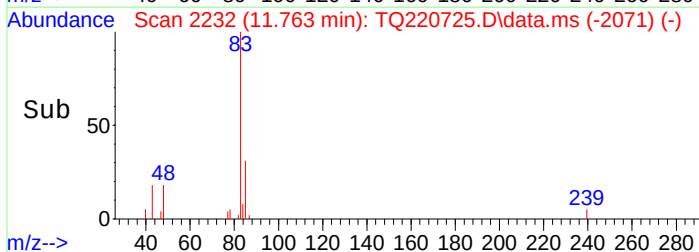
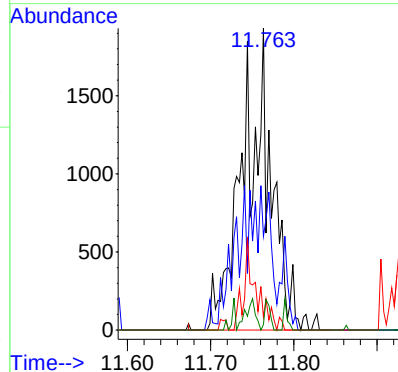
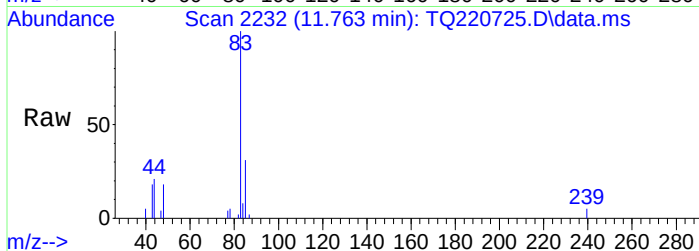
#27
Ethyl Acetate
Concen: 0.36 ppbv
RT: 11.406 min Scan# 2121
Delta R.T. 0.009 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

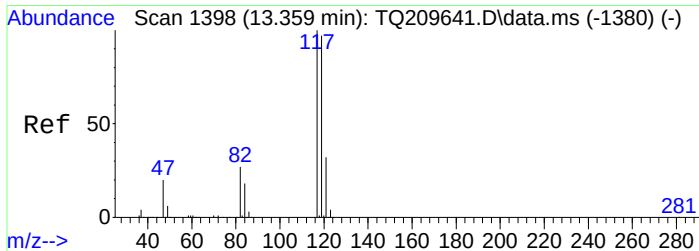
Tgt Ion	Ratio	Lower	Upper
43	100		
61	3.5	51.4	106.8#
45	4.0	9.4	19.6#
70	0.0	7.5	15.5#



#29
Chloroform
Concen: 0.03 ppbv m
RT: 11.763 min Scan# 2232
Delta R.T. 0.016 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

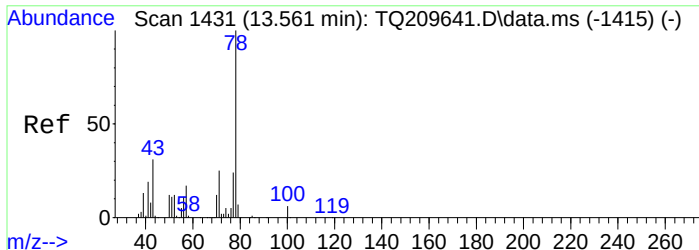
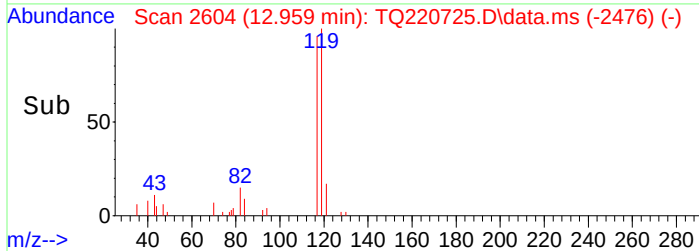
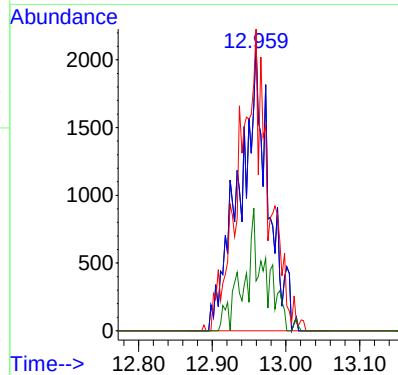
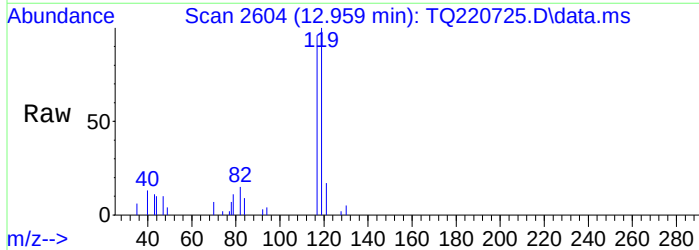
Tgt Ion	Ratio	Lower	Upper
83	100		
85	12.4	41.7	86.7#
47	13.4	15.1	31.5#
87	0.0	6.7	13.9#





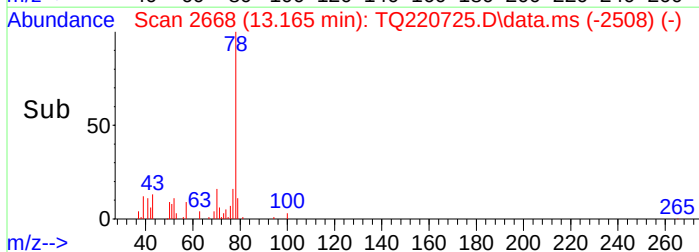
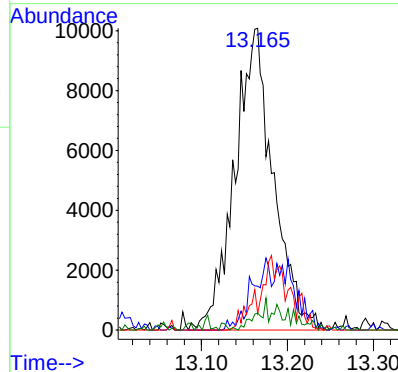
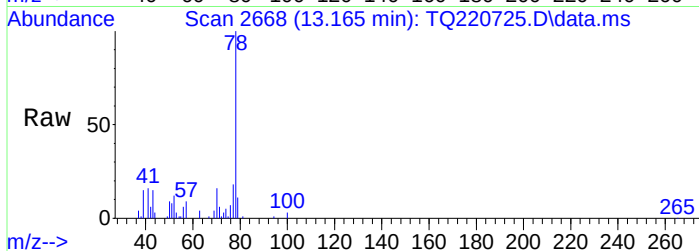
#33
Carbon Tetrachloride
Concen: 0.05 ppbv m
RT: 12.959 min Scan# 2604
Delta R.T. 0.012 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

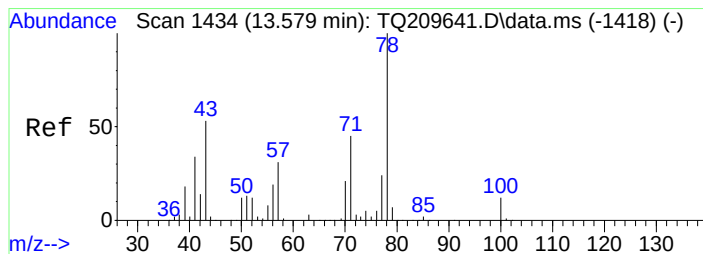
Tgt Ion	Ratio	Lower	Upper
117	100		
117	67.2	80.0	120.0#
119	51.7	76.9	115.3#
121	0.0	21.7	40.3#



#35
Benzene
Concen: 0.15 ppbv
RT: 13.165 min Scan# 2668
Delta R.T. 0.013 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

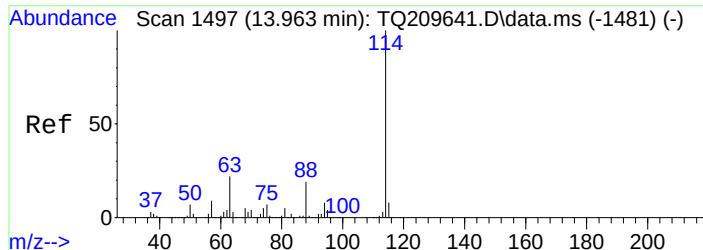
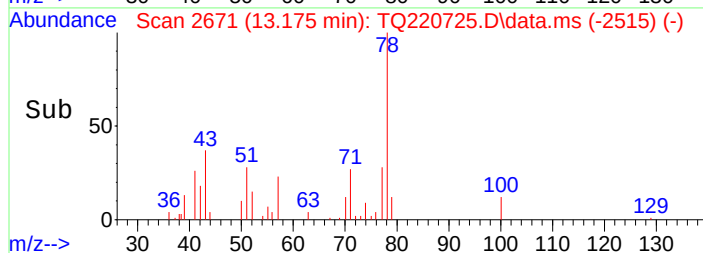
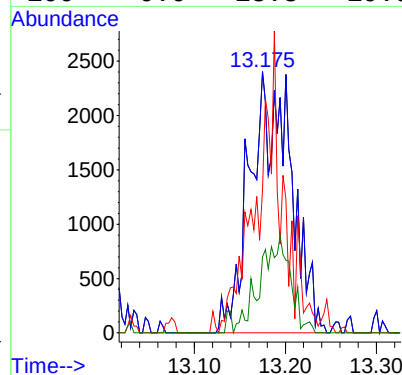
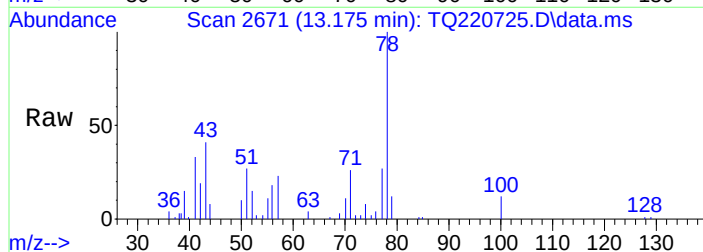
Tgt Ion	Ratio	Lower	Upper
78	100		
43	4.5	37.5	77.9#
71	3.7	22.0	45.8#
42	0.0	8.8	18.4#





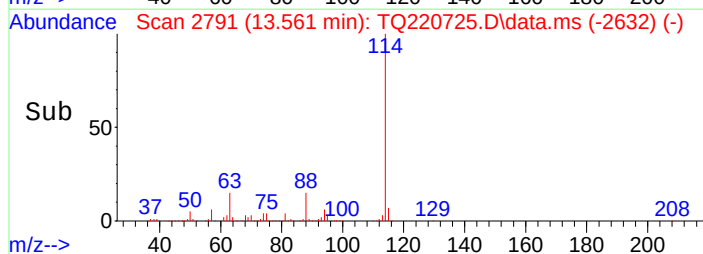
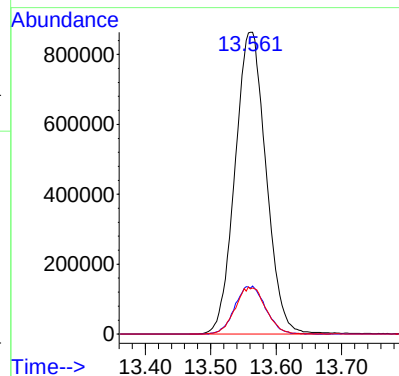
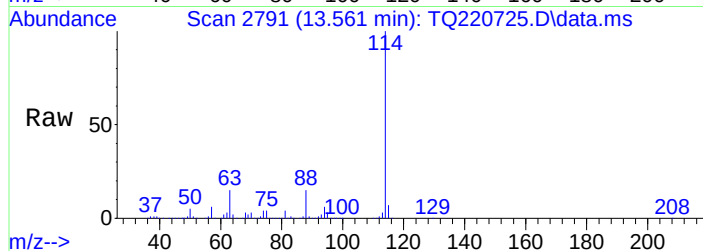
#36
n-Heptane
Concen: 0.09 ppbv m
RT: 13.175 min Scan# 2671
Delta R.T. 0.003 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

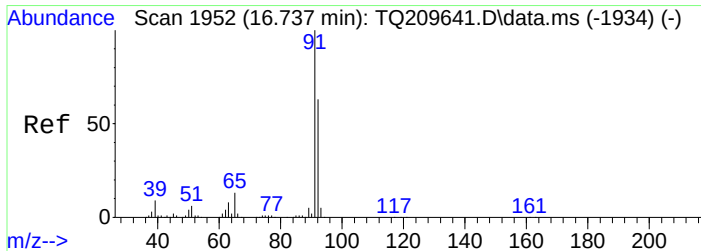
Tgt Ion	Ratio	Lower	Upper
43	100		
43	18.9	80.0	120.0#
57	18.3	42.6	64.0#
100	0.0	13.3	19.9#



#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.561 min Scan# 2791
Delta R.T. 0.013 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

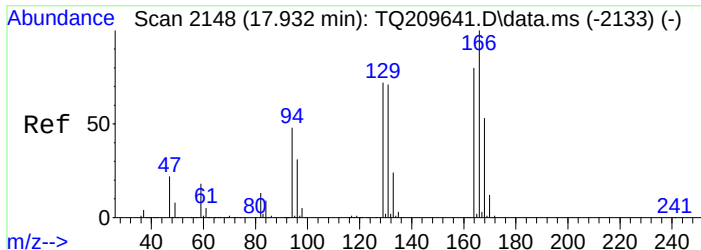
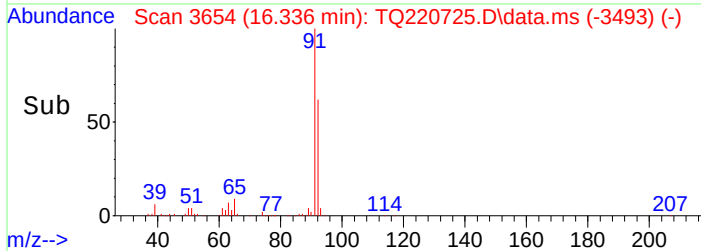
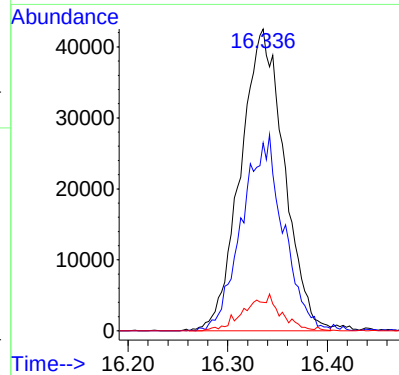
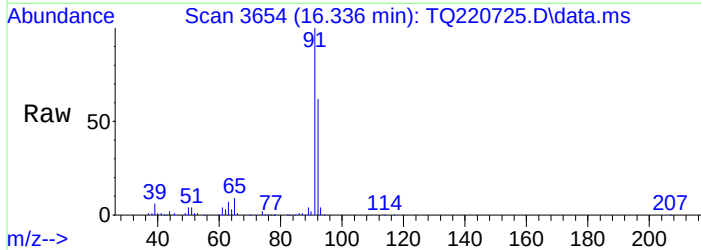
Tgt Ion	Ratio	Lower	Upper
114	100		
63	15.8	12.9	26.9
88	15.4	10.7	22.3





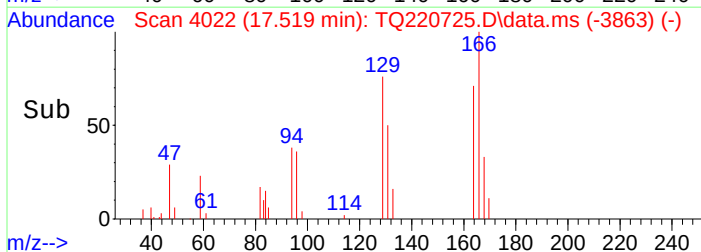
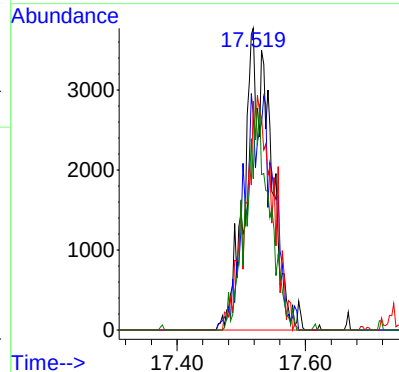
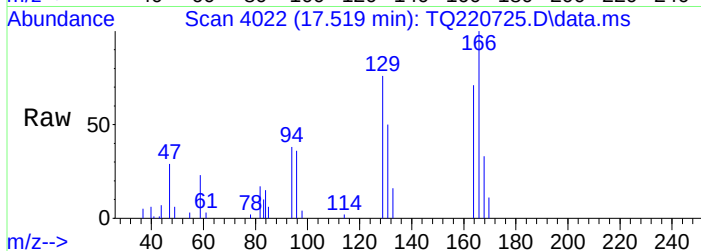
#45
Toluene
Concen: 0.41 ppbv
RT: 16.336 min Scan# 3654
Delta R.T. 0.017 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

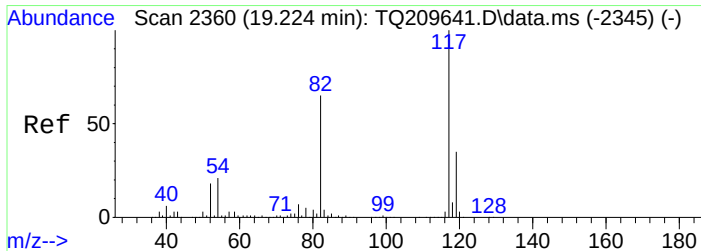
Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.4	38.7	80.3
65	3.5	7.5	15.5#



#50
Tetrachloroethylene
Concen: 0.07 ppbv m
RT: 17.519 min Scan# 4022
Delta R.T. 0.013 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

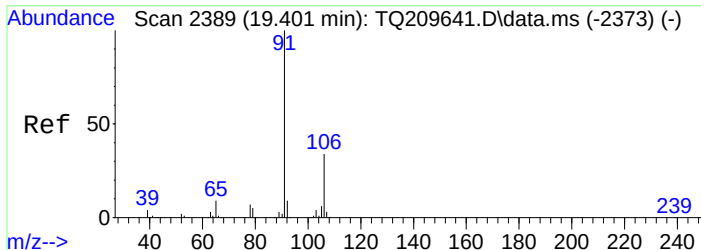
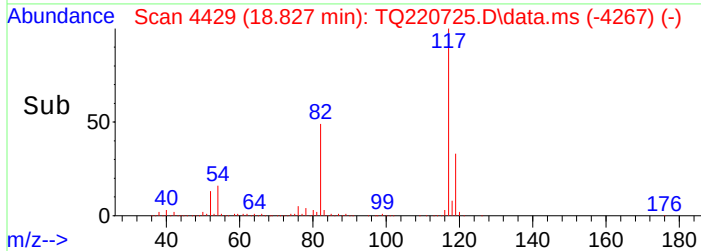
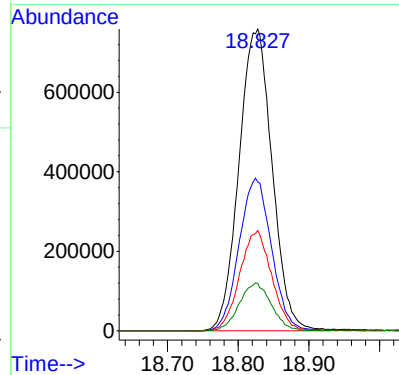
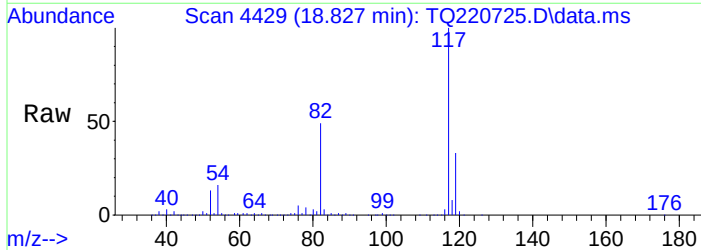
Tgt Ion	Ratio	Lower	Upper
166	100		
164	17.3	51.0	106.0#
129	69.5	48.1	99.9
131	54.7	46.3	96.3





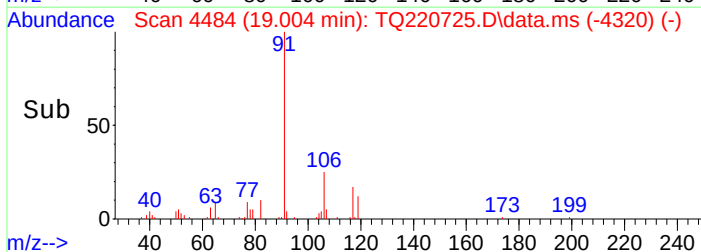
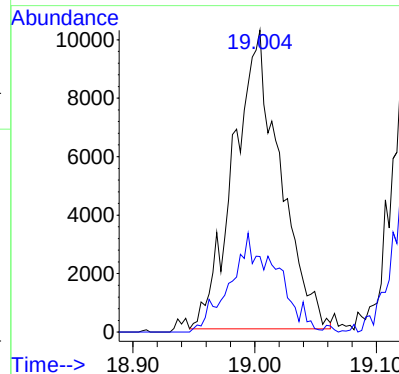
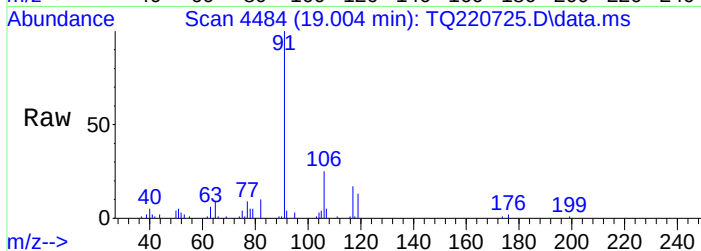
#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.827 min Scan# 4429
Delta R.T. 0.022 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

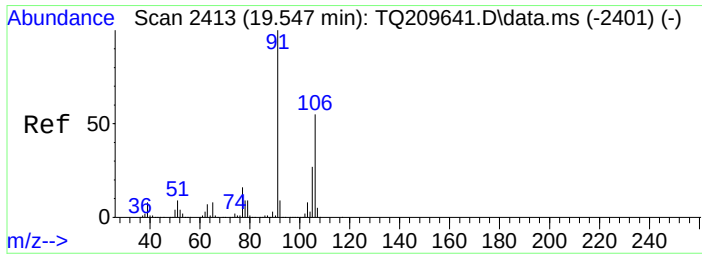
Tgt Ion:	117	Resp:	2475155
Ion	Ratio	Lower	Upper
117	100		
82	49.5	37.1	77.1
119	32.0	22.1	45.9
54	15.4	13.8	28.6



#56
Ethylbenzene
Concen: 0.07 ppbv
RT: 19.004 min Scan# 4484
Delta R.T. 0.026 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

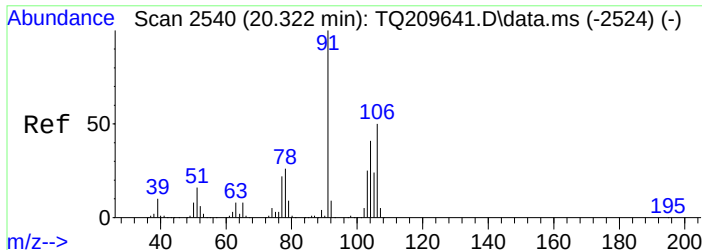
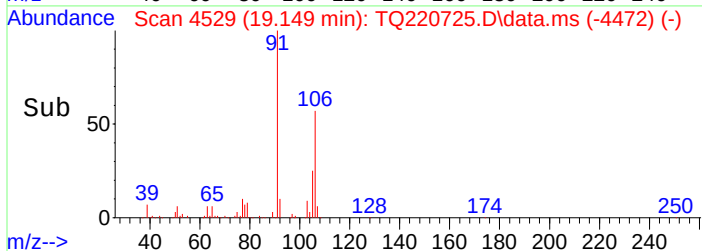
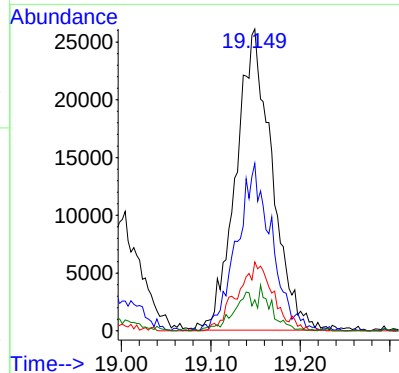
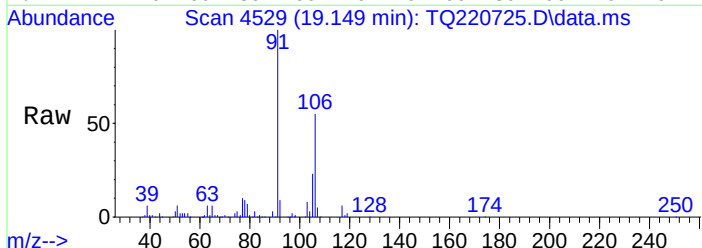
Tgt Ion:	91	Resp:	27132
Ion	Ratio	Lower	Upper
91	100		
106	21.2	20.5	42.7





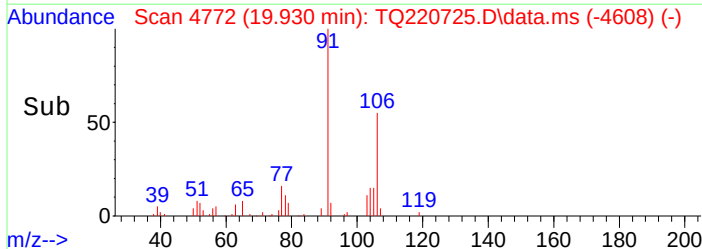
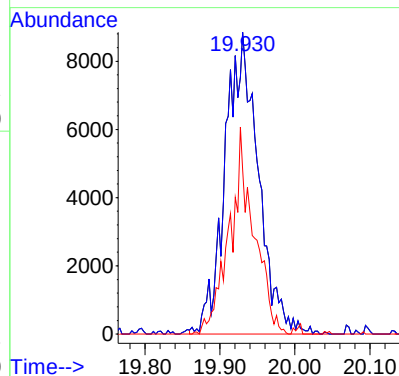
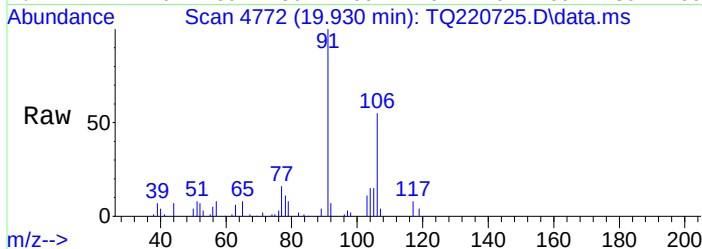
#57
p- & m-Xylenes
Concen: 0.25 ppbv
RT: 19.149 min Scan# 4529
Delta R.T. 0.023 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

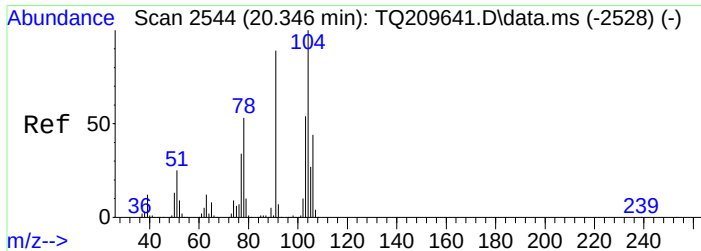
Tgt Ion	Ratio	Lower	Upper
91	100		
106	53.2	32.6	67.8
105	21.8	14.5	30.1
77	5.3	8.5	17.7#



#58
o-Xylene
Concen: 0.09 ppbv m
RT: 19.930 min Scan# 4772
Delta R.T. 0.026 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

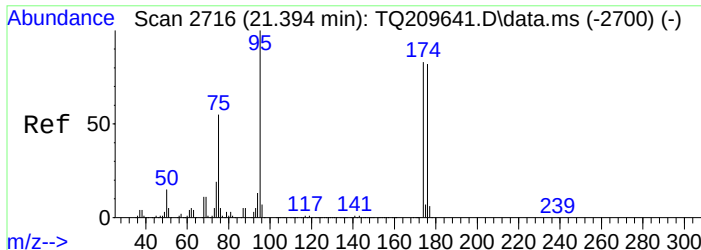
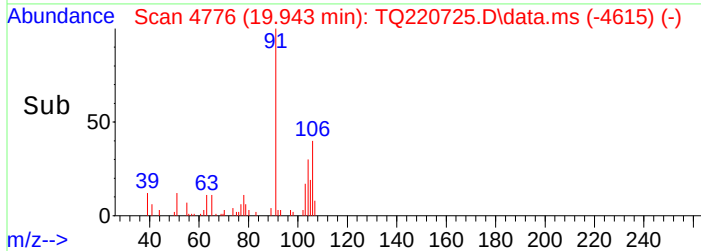
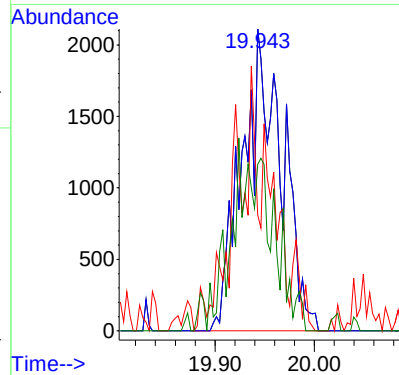
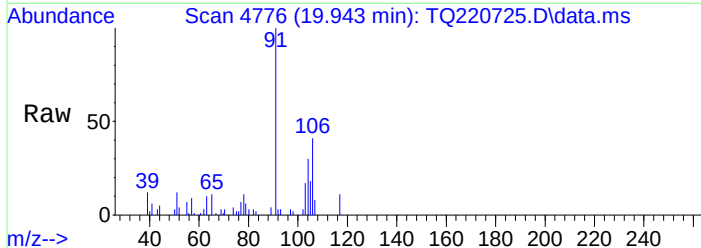
Tgt Ion	Ratio	Lower	Upper
91	100		
91	82.7	80.0	120.0
106	35.3	38.2	57.2#





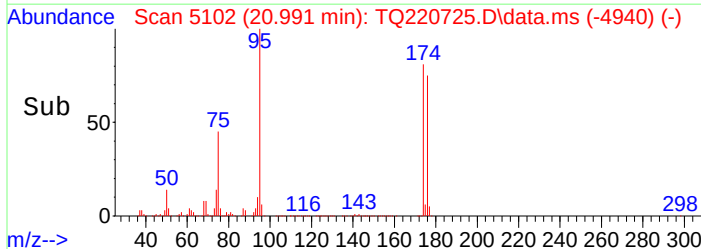
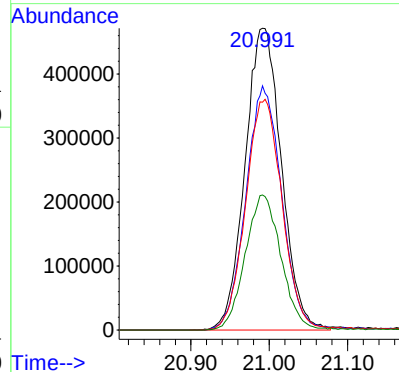
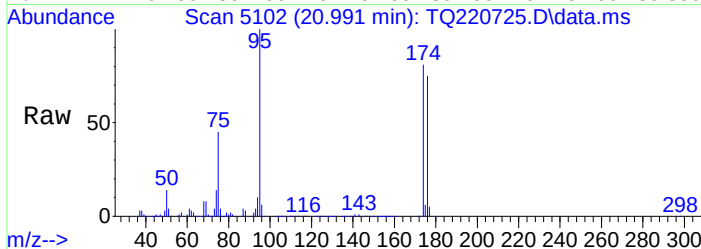
#59
Styrene
Concen: 0.02 ppbv m
RT: 19.943 min Scan# 4776
Delta R.T. 0.019 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

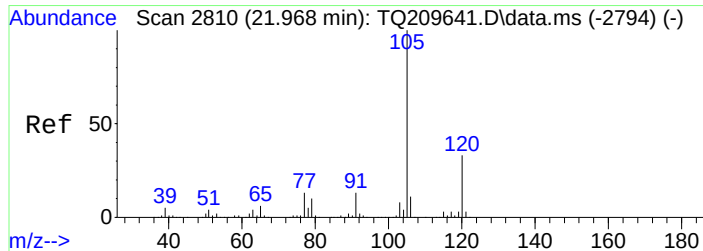
Tgt Ion	Ratio	Lower	Upper
104	100		
104	59.9	65.0	135.0#
78	11.4	0.0	0.0#
103	9.5	0.0	0.0#



#64
p-Bromofluorobenzene
Concen: 9.42 ppbv
RT: 20.991 min Scan# 5102
Delta R.T. 0.022 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

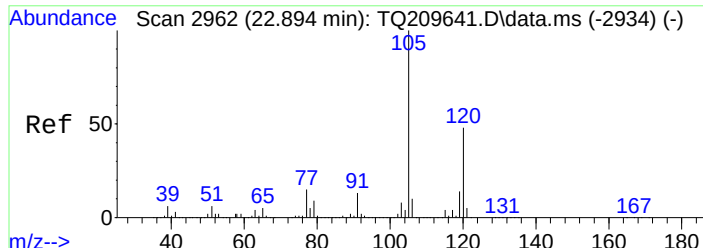
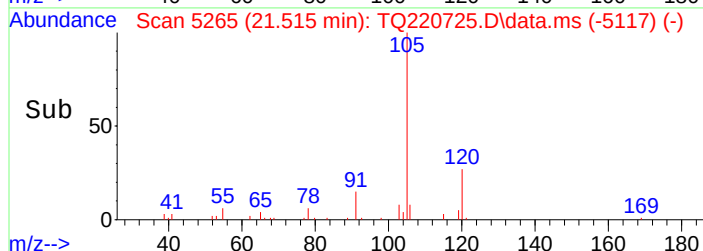
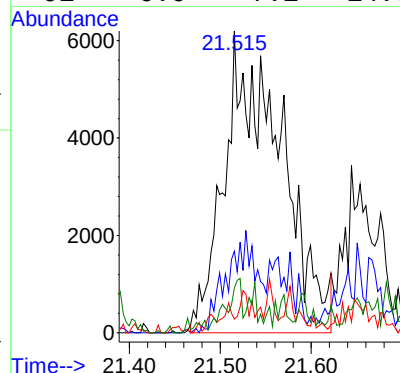
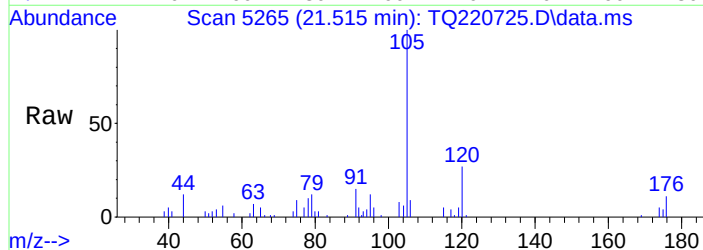
Tgt Ion	Ratio	Lower	Upper
95	100		
174	79.4	53.2	110.6
176	76.8	51.6	107.2
75	43.8	30.7	63.7





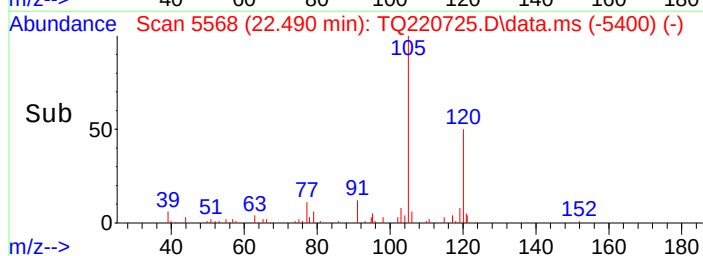
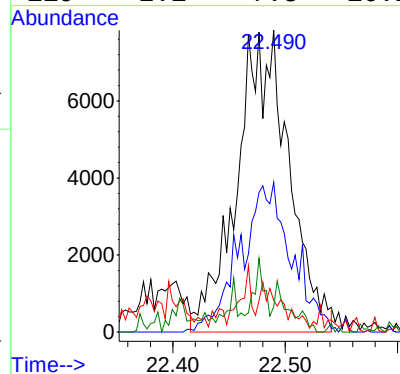
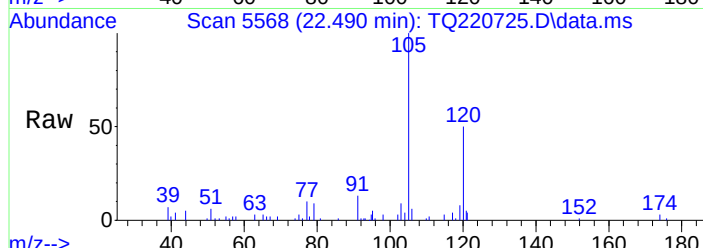
#65
4-Ethyltoluene
Concen: 0.06 ppbv m
RT: 21.515 min Scan# 5265
Delta R.T. -0.023 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

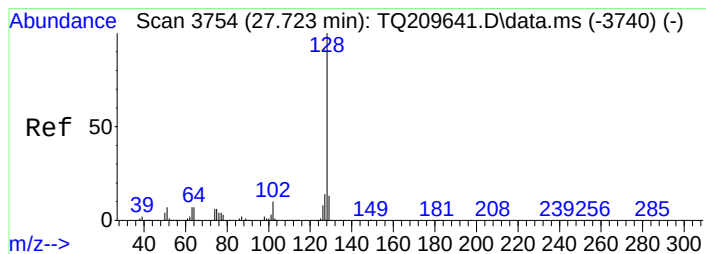
Tgt Ion	105	120	77	91
Ratio	100	5.9	0.0	0.0
Resp	26465	19.6	7.3	7.1
Lower				
Upper		40.8#	15.3#	14.7#



#68
1,2,4-Trimethylbenzene
Concen: 0.07 ppbv m
RT: 22.490 min Scan# 5568
Delta R.T. 0.042 min
Lab File: TQ220725.D
Acq: 22 Jun 2022 3:35 pm

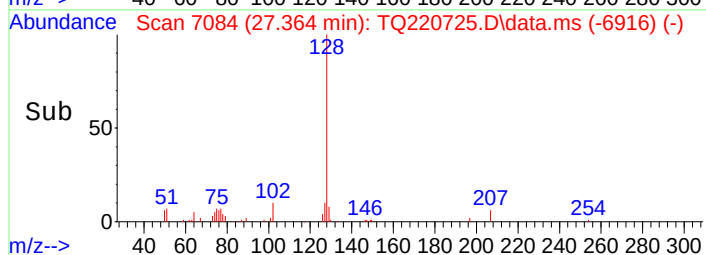
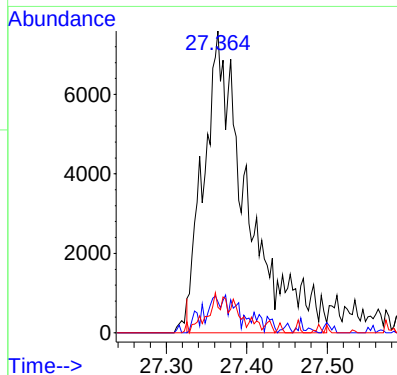
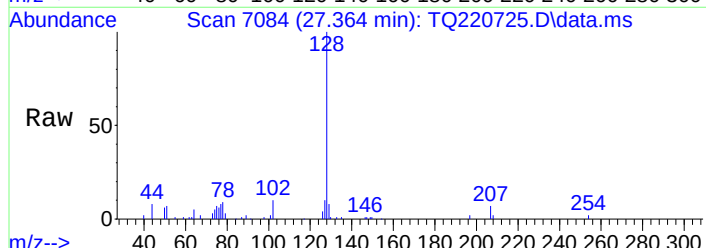
Tgt Ion	105	120	77	119
Ratio	100	11.7	3.9	2.1
Resp	25156	30.2	8.1	7.8
Lower				
Upper		62.6#	16.9#	16.2#





#78
 Naphthalene
 Concen: 0.06 ppbv m
 RT: 27.364 min Scan# 7084
 Delta R.T. 0.039 min
 Lab File: TQ220725.D
 Acq: 22 Jun 2022 3:35 pm

Tgt Ion:	128	Resp:	28653
Ion Ratio	Lower	Upper	
128	100		
127	2.0	8.1	16.9#
129	0.0	7.1	14.7#



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

877_V5

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-02 File ID: TQ220738.D
 Sampled: 06/20/22 10:23 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 10:08
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.6	1.1	U
71-55-6	1,1,1-Trichloroethane	1.6	0.87	U
79-34-5	1,1,2,2-Tetrachloroethane	1.6	1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.6	1.2	U
79-00-5	1,1,2-Trichloroethane	1.6	0.87	U
75-34-3	1,1-Dichloroethane	1.6	0.65	U
75-35-4	1,1-Dichloroethylene	1.6	0.16	U
120-82-1	1,2,4-Trichlorobenzene	1.6	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.6	6.1	D
106-93-4	1,2-Dibromoethane	1.6	1.2	U
95-50-1	1,2-Dichlorobenzene	1.6	0.96	U
107-06-2	1,2-Dichloroethane	1.6	0.65	U
78-87-5	1,2-Dichloropropane	1.6	0.74	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.6	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.6	1.9	D
106-99-0	1,3-Butadiene	1.6	1.1	U
541-73-1	1,3-Dichlorobenzene	1.6	0.96	U
142-28-9	1,3-Dichloropropane	1.6	0.74	U
106-46-7	1,4-Dichlorobenzene	1.6	0.96	U
123-91-1	1,4-Dioxane	1.6	1.2	U
78-93-3	2-Butanone	1.6	1.1	D
591-78-6	2-Hexanone	1.6	1.3	U
107-05-1	3-Chloropropene	1.6	2.5	U
108-10-1	4-Methyl-2-pentanone	1.6	0.66	D
67-64-1	Acetone	1.6	6.9	D
107-13-1	Acrylonitrile	1.6	0.35	U
71-43-2	Benzene	1.6	3.6	D
100-44-7	Benzyl chloride	1.6	0.83	U
75-27-4	Bromodichloromethane	1.6	1.1	U
75-25-2	Bromoform	1.6	1.7	U
74-83-9	Bromomethane	1.6	0.62	U
75-15-0	Carbon disulfide	1.6	1.0	D
56-23-5	Carbon tetrachloride	1.6	0.50	D
108-90-7	Chlorobenzene	1.6	0.74	U
75-00-3	Chloroethane	1.6	0.42	U
67-66-3	Chloroform	1.6	2.5	D
74-87-3	Chloromethane	1.6	2.8	D
156-59-2	cis-1,2-Dichloroethylene	1.6	1.1	D
10061-01-5	cis-1,3-Dichloropropylene	1.6	0.73	U
110-82-7	Cyclohexane	1.6	0.83	D

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

877_V5

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-02 File ID: TQ220738.D
 Sampled: 06/20/22 10:23 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 10:08
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15 AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
124-48-1	Dibromochloromethane	1.6	1.4	U
75-71-8	Dichlorodifluoromethane	1.6	3.2	D
141-78-6	Ethyl acetate	1.6	1.2	U
100-41-4	Ethyl Benzene	1.6	5.4	D
87-68-3	Hexachlorobutadiene	1.6	1.7	U
67-63-0	Isopropanol	1.6	1.9	D
80-62-6	Methyl Methacrylate	1.6	0.66	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1.6	0.58	U
75-09-2	Methylene chloride	1.6	1.1	U
142-82-5	n-Heptane	1.6	2.4	D
110-54-3	n-Hexane	1.6	1.9	D
95-47-6	o-Xylene	1.6	7.6	D
179601-23-1	p- & m- Xylenes	1.6	21	D
622-96-8	p-Ethyltoluene	1.6	5.8	D
115-07-1	Propylene	1.6	0.28	U
100-42-5	Styrene	1.6	0.68	U
127-18-4	Tetrachloroethylene	1.6	2.0	D
109-99-9	Tetrahydrofuran	1.6	1.2	D
108-88-3	Toluene	1.6	20	D
156-60-5	trans-1,2-Dichloroethylene	1.6	0.63	U
10061-02-6	trans-1,3-Dichloropropylene	1.6	0.73	U
79-01-6	Trichloroethylene	1.6	0.77	D
75-69-4	Trichlorofluoromethane (Freon 11)	1.6	2.6	D
108-05-4	Vinyl acetate	1.6	0.56	U
593-60-2	Vinyl bromide	1.6	0.70	U
75-01-4	Vinyl Chloride	1.6	0.20	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	379658	11.976	554760	11.985	
ISTD: 1,4-Difluorobenzene	2203931	13.558	3144562	13.564	
ISTD: d5-Chlorobenzene	1950640	18.821	2743461	18.824	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220738.D
 Acq On : 23 Jun 2022 10:08 am
 Operator : LLJ
 Sample : 22F1033-02
 Misc : QBT02062322A 1X/400 ML
 ALS Vial : 3 Sample Multiplier: 1.601
 InstName : T015_AIR2

Quant Time: Jun 24 04:22:22 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

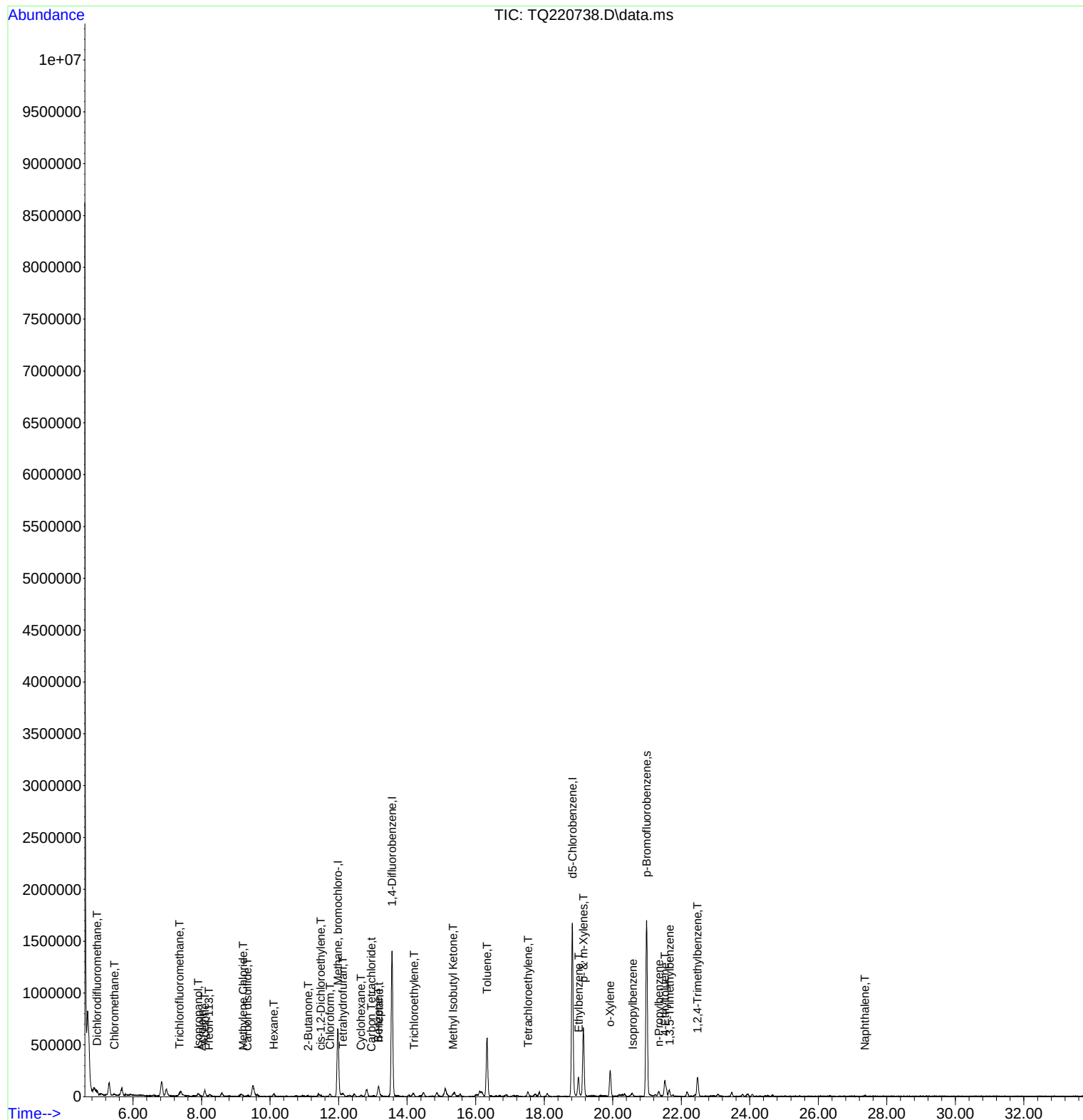
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

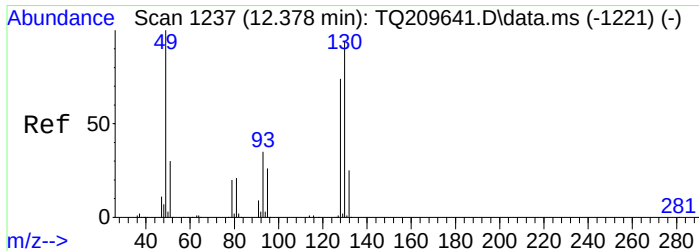
Internal Standards						
1) Methane, bromochloro-	11.976	49	379658	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.558	114	2203931	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.821	117	1950640	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.985	95	1229093	9.63	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.30%	
Target Compounds						
						Qvalue
3) Dichlorodifluoromethane	4.947	85	49649m	0.41	ppbv	
5) Chloromethane	5.452	50	17131m	0.86	ppbv	
11) Trichlorofluoromethane	7.349	101	33286m	0.29	ppbv	
12) Isopropanol	7.902	45	57290	0.48	ppbv	99
13) Acrolein	7.998	56	2072m	0.12	ppbv	
14) Acetone	8.095	43	112349	1.82	ppbv	99
15) Freon-113	8.211	101	5696m	0.06	ppbv	
18) Methylene Chloride	9.204	49	5114m	0.12	ppbv	
20) Carbon disulfide	9.329	76	24540m	0.20	ppbv	
23) Hexane	10.101	57	19533m	0.33	ppbv	
26) 2-Butanone	11.108	43	17277	0.24	ppbv	# 75
28) cis-1,2-Dichloroethylene	11.477	61	10712m	0.18	ppbv	
29) Chloroform	11.747	83	32604m	0.32	ppbv	
30) Tetrahydrofuran	12.124	42	10118m	0.26	ppbv	
32) Cyclohexane	12.644	56	9315m	0.15	ppbv	
33) Carbon Tetrachloride	12.950	117	4412m	0.05	ppbv	
35) Benzene	13.152	78	105536	0.70	ppbv	# 48
36) n-Heptane	13.169	43	22679m	0.37	ppbv	
38) Trichloroethylene	14.194	95	7743	0.09	ppbv	# 15
43) Methyl Isobutyl Ketone	15.332	43	12907	0.10	ppbv	# 74
45) Toluene	16.326	91	802624	3.24	ppbv	99
50) Tetrachloroethylene	17.529	166	22336m	0.18	ppbv	
56) Ethylbenzene	18.998	91	244570	0.78	ppbv	97
57) p- & m-Xylenes	19.143	91	714021	3.04	ppbv	97
58) o-Xylene	19.921	91	272167	1.10	ppbv	99
61) n-Propylbenzene	21.345	91	65612	0.16	ppbv	98
62) Isopropylbenzene	20.583	105	20440m	0.06	ppbv	
65) 4-Ethyltoluene	21.522	105	255117	0.74	ppbv	# 62
66) 1,3,5-Trimethylbenzene	21.654	105	68527m	0.24	ppbv	
68) 1,2,4-Trimethylbenzene	22.470	105	230225	0.78	ppbv	# 75
78) Naphthalene	27.358	128	19572m	0.05	ppbv	

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220738.D
Acq On : 23 Jun 2022 10:08 am
Operator : LLJ
Sample : 22F1033-02
Misc : QBT02062322A 1X/400 ML
ALS Vial : 3 Sample Multiplier: 1.601
InstName : T015_AIR2

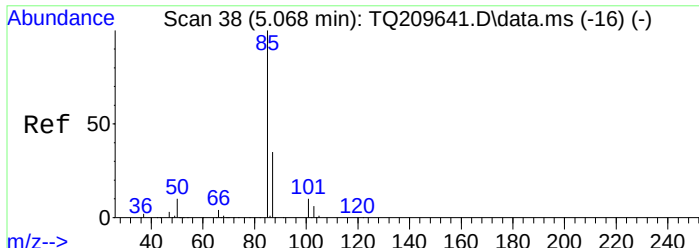
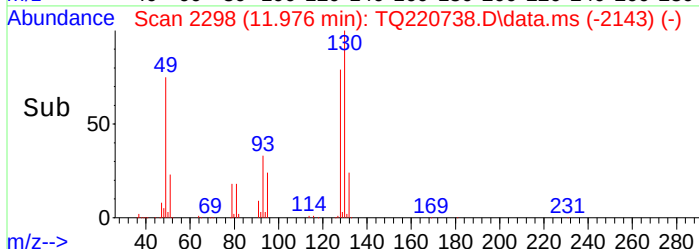
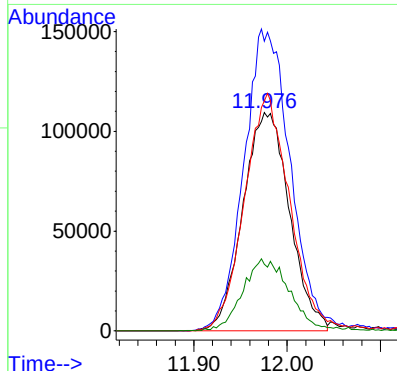
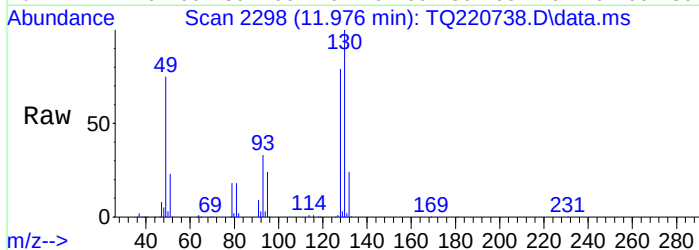
Quant Time: Jun 24 04:22:22 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





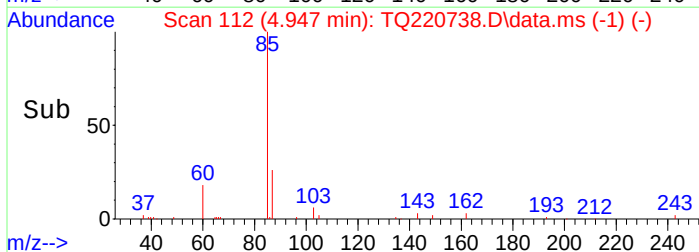
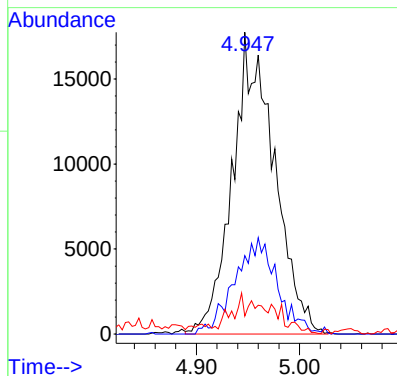
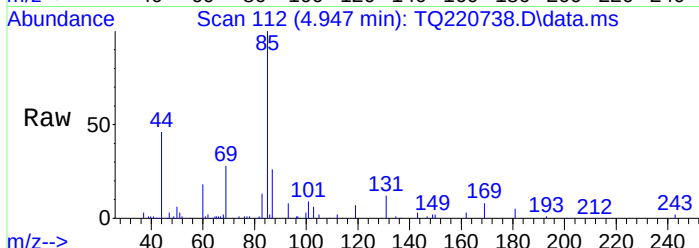
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.976 min Scan# 2298
Delta R.T. -0.000 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

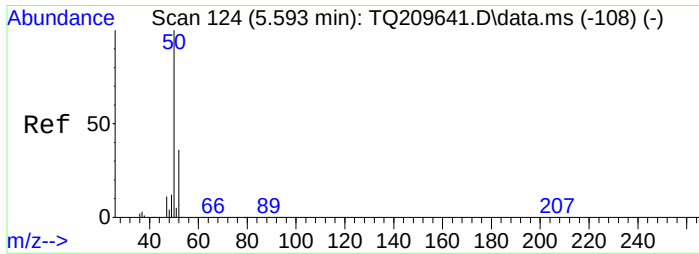
Tgt Ion	Ratio	Lower	Upper
49	100		
130	138.4	48.1	99.9#
128	105.5	38.3	79.5#
51	32.8	20.3	42.3



#3
Dichlorodifluoromethane
Concen: 0.41 ppbv m
RT: 4.947 min Scan# 112
Delta R.T. -0.019 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

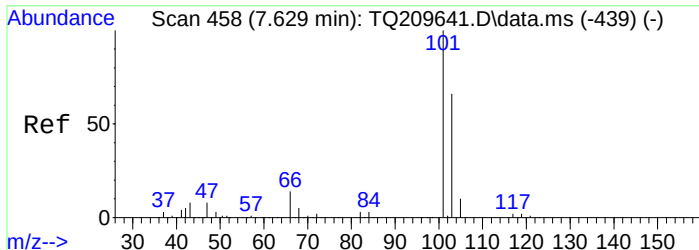
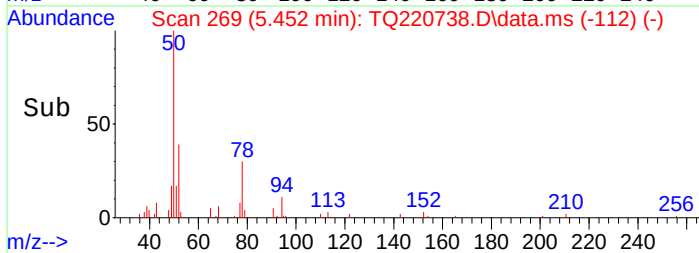
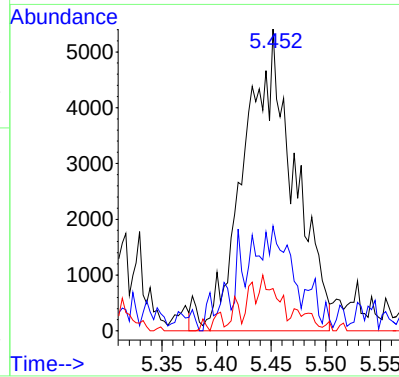
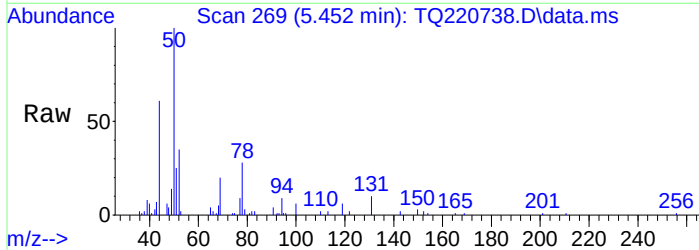
Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.4	20.9	43.5
50	1.0	7.2	15.0#





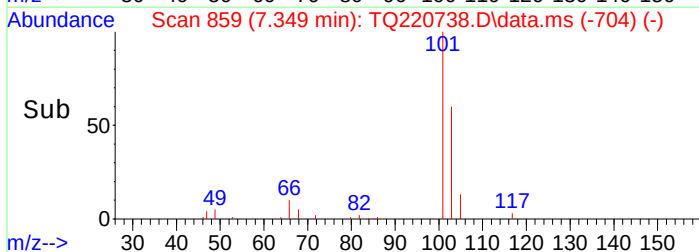
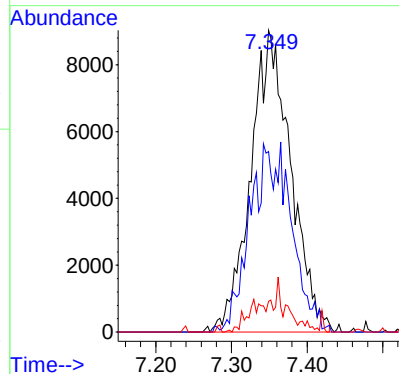
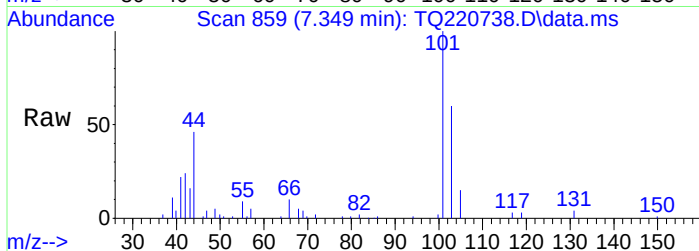
#5
Chloromethane
Concen: 0.86 ppbv m
RT: 5.452 min Scan# 269
Delta R.T. 0.004 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

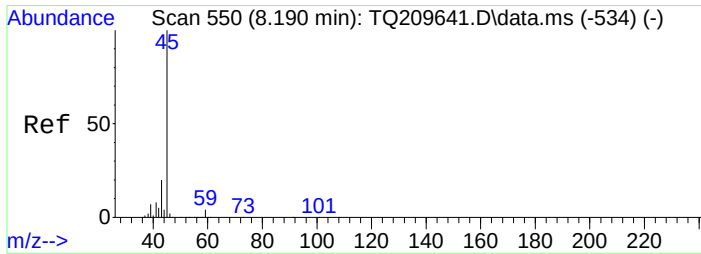
Tgt Ion	Ratio	Lower	Upper
50	100		
52	5.9	0.0	65.2
49	0.0	0.0	19.6



#11
Trichlorofluoromethane
Concen: 0.29 ppbv m
RT: 7.349 min Scan# 859
Delta R.T. -0.003 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

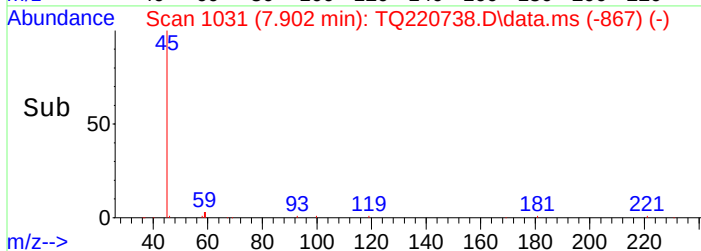
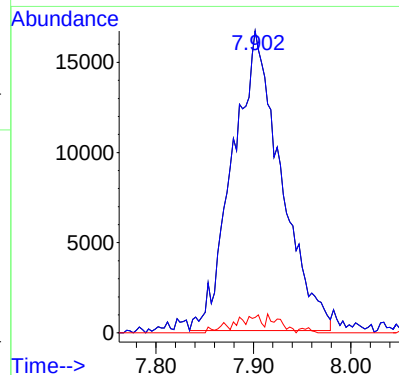
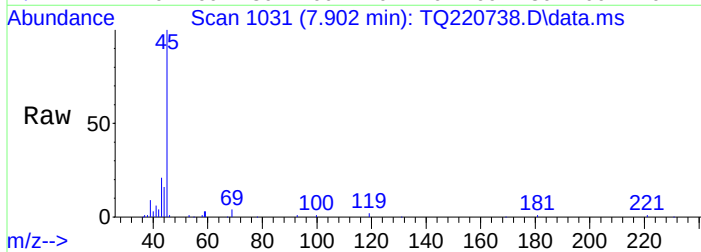
Tgt Ion	Ratio	Lower	Upper
101	100		
103	26.8	42.3	87.8#
66	0.0	7.8	16.2#





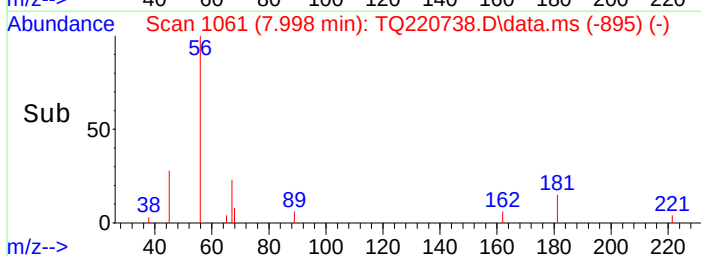
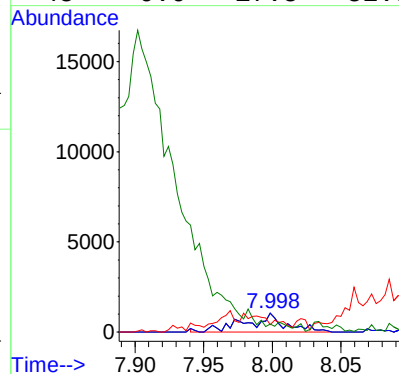
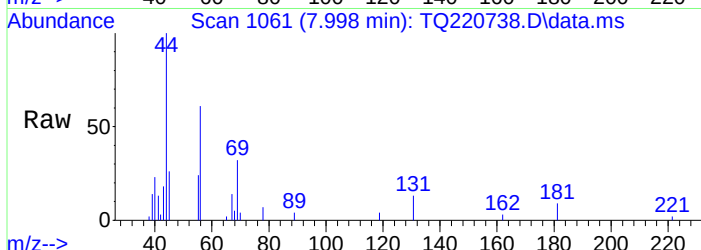
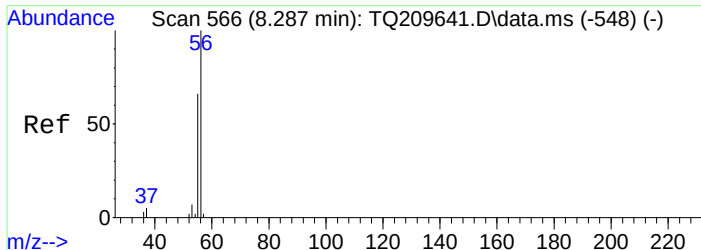
#12
Isopropanol
Concen: 0.48 ppbv
RT: 7.902 min Scan# 1031
Delta R.T. 0.029 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

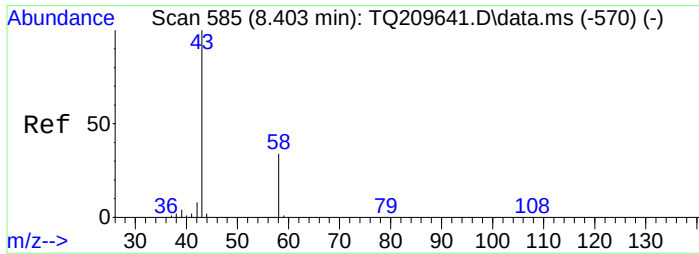
Tgt Ion:	45	Resp:	57290
Ion Ratio	Lower	Upper	
45	100		
45	100.0	65.0	135.0
59	0.9	0.0	10.0



#13
Acrolein
Concen: 0.12 ppbv m
RT: 7.998 min Scan# 1061
Delta R.T. 0.032 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

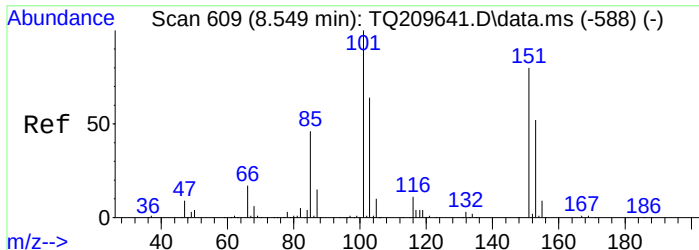
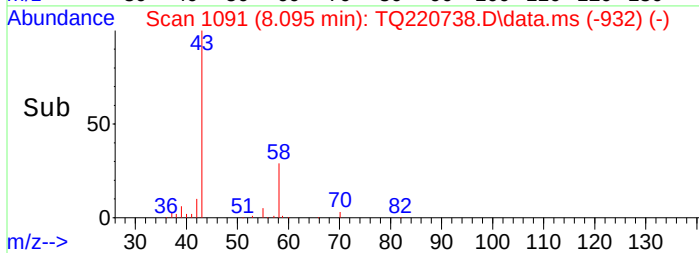
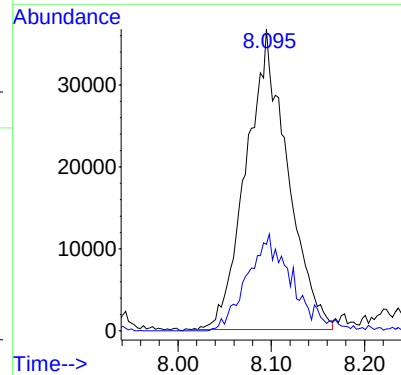
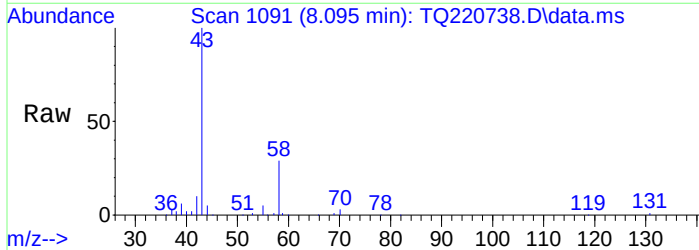
Tgt Ion:	56	Resp:	2072
Ion Ratio	Lower	Upper	
56	100		
56	31.6	80.0	120.0#
55	0.0	40.0	120.0#
45	0.0	17.5	52.5#





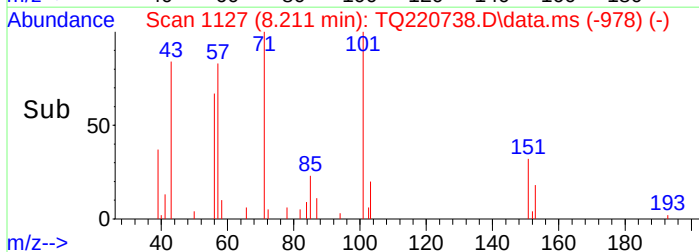
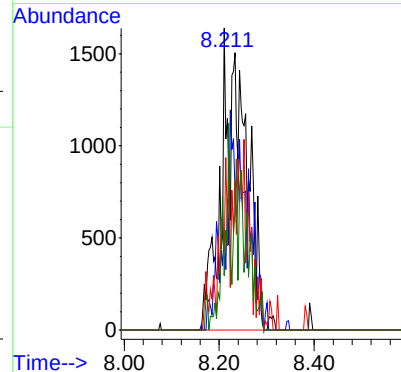
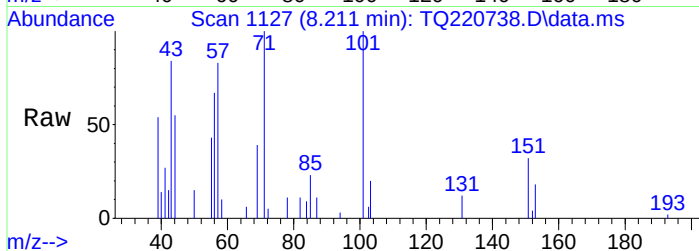
#14
Acetone
Concen: 1.82 ppbv
RT: 8.095 min Scan# 1091
Delta R.T. 0.010 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

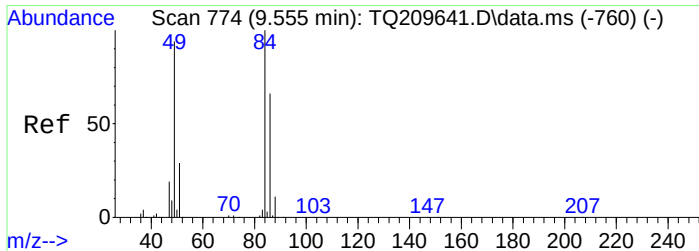
Tgt Ion: 43 Resp: 112349
Ion Ratio Lower Upper
43 100
58 32.5 20.9 43.3



#15
Freon-113
Concen: 0.06 ppbv m
RT: 8.211 min Scan# 1127
Delta R.T. -0.019 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

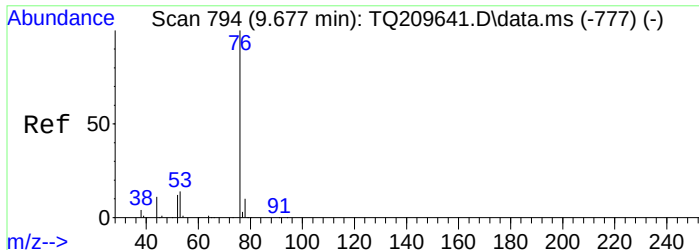
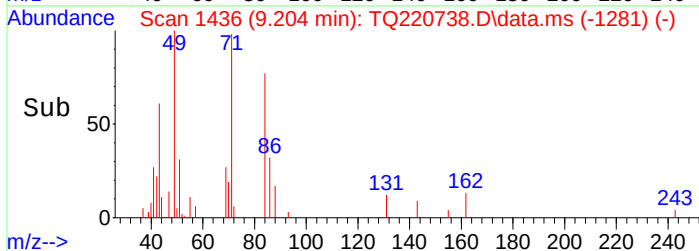
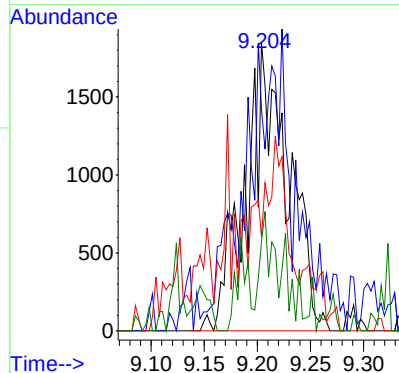
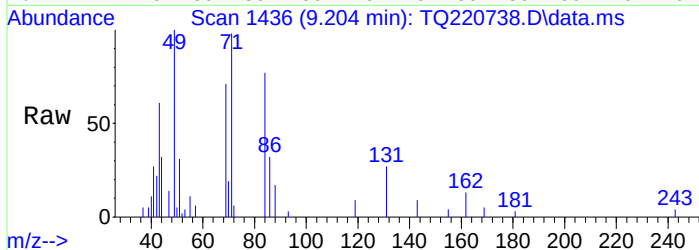
Tgt Ion: 101 Resp: 5696
Ion Ratio Lower Upper
101 100
151 15.3 50.5 104.9#
103 0.0 42.0 87.2#
153 0.0 32.4 67.4#





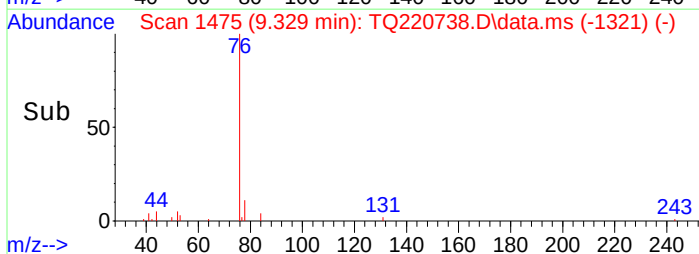
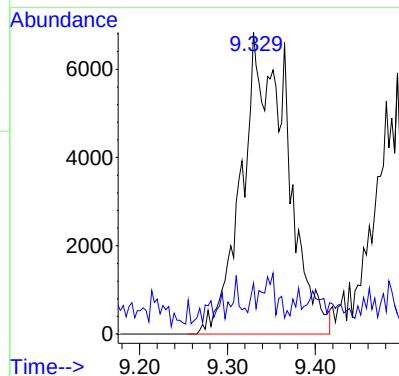
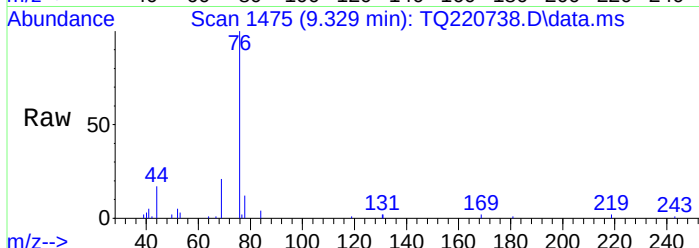
#18
Methylene Chloride
Concen: 0.12 ppbv m
RT: 9.204 min Scan# 1436
Delta R.T. -0.003 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

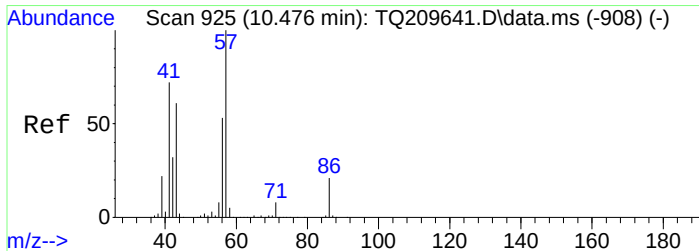
Tgt Ion: 49 Resp: 5114
Ion Ratio Lower Upper
49 100
84 23.1 49.9 103.5#
86 0.0 31.8 66.0#
51 0.0 20.2 41.9#



#20
Carbon disulfide
Concen: 0.20 ppbv m
RT: 9.329 min Scan# 1475
Delta R.T. -0.004 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

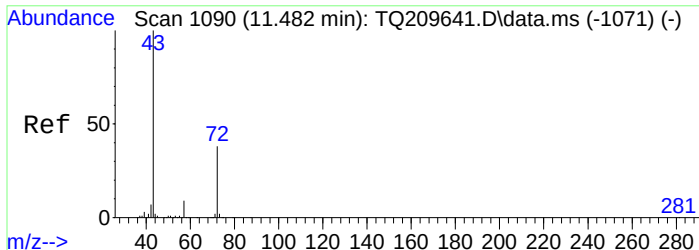
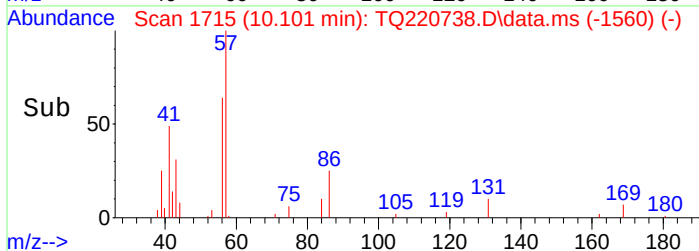
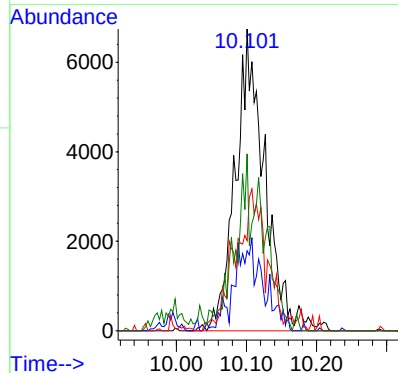
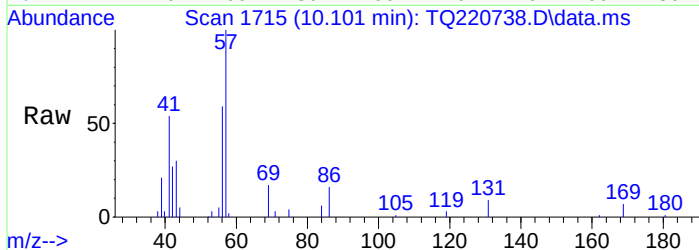
Tgt Ion: 76 Resp: 24540
Ion Ratio Lower Upper
76 100
44 0.0 8.3 17.3#





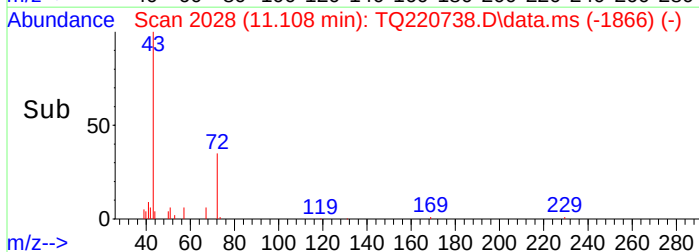
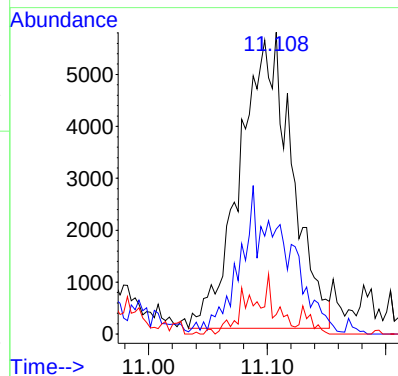
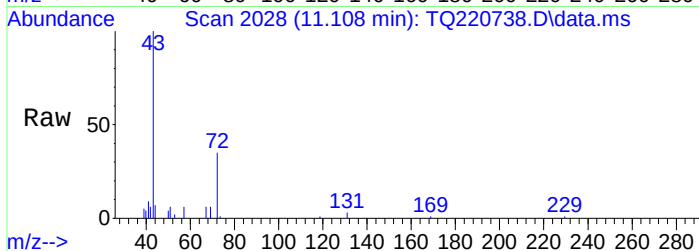
#23
Hexane
Concen: 0.33 ppbv m
RT: 10.101 min Scan# 1715
Delta R.T. -0.003 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

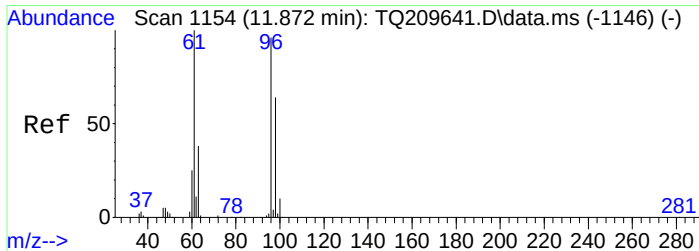
Tgt Ion	Ratio	Lower	Upper
57	100		
42	0.0	21.6	45.0#
43	21.3	42.0	87.2#
56	9.4	33.3	69.1#



#26
2-Butanone
Concen: 0.24 ppbv
RT: 11.108 min Scan# 2028
Delta R.T. 0.020 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

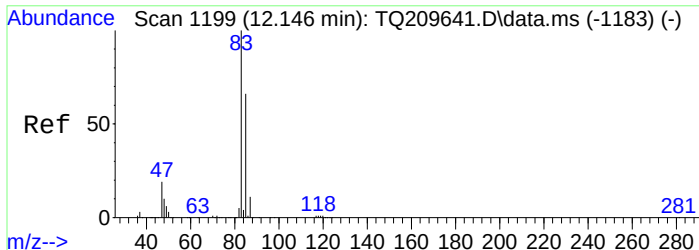
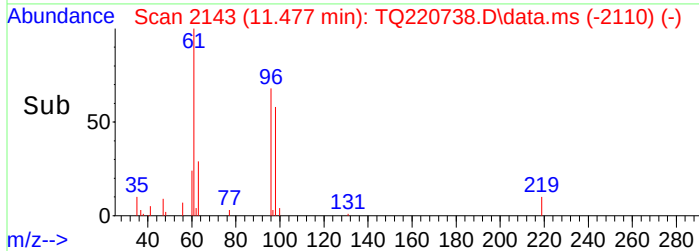
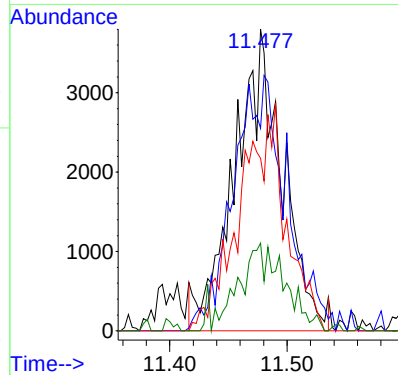
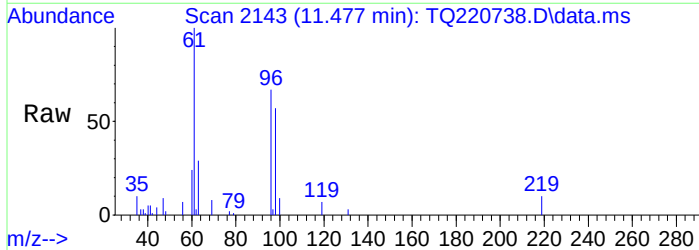
Tgt Ion	Ratio	Lower	Upper
43	100		
72	12.1	16.1	33.5#
57	0.0	4.9	10.3#





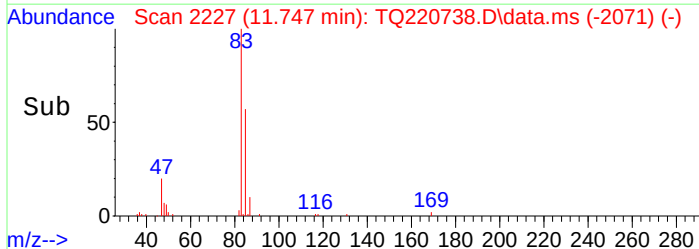
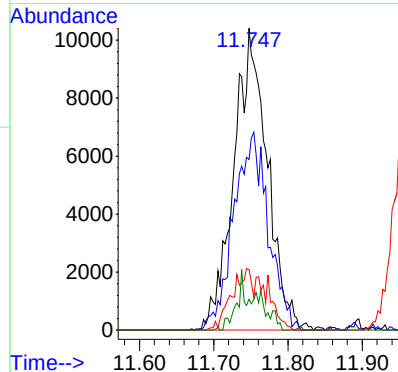
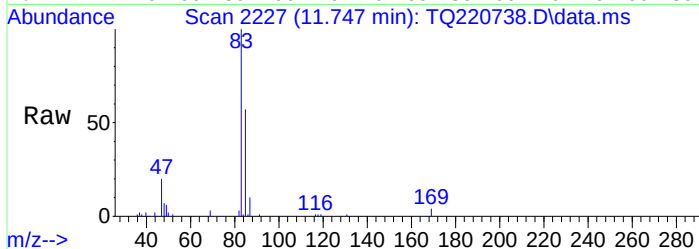
#28
 cis-1,2-Dichloroethylene
 Concen: 0.18 ppbv m
 RT: 11.477 min Scan# 2143
 Delta R.T. 0.006 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

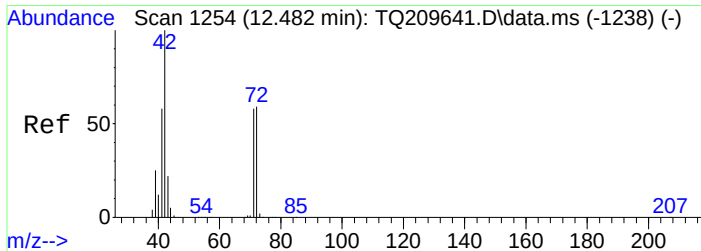
Tgt Ion	Ratio	Lower	Upper
61	100		
96	49.3	39.8	82.8
98	41.0	25.5	52.9
63	0.0	17.3	35.9#



#29
 Chloroform
 Concen: 0.32 ppbv m
 RT: 11.747 min Scan# 2227
 Delta R.T. 0.000 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

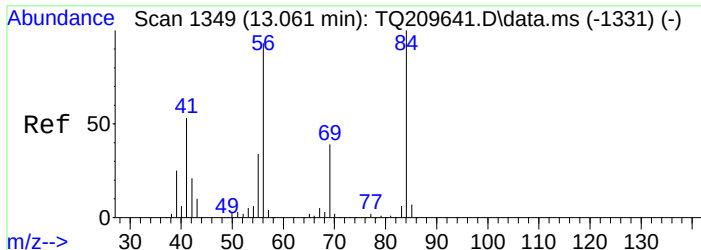
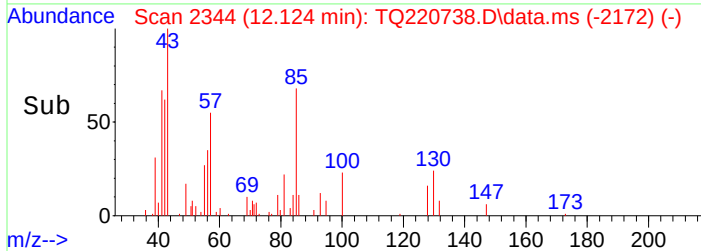
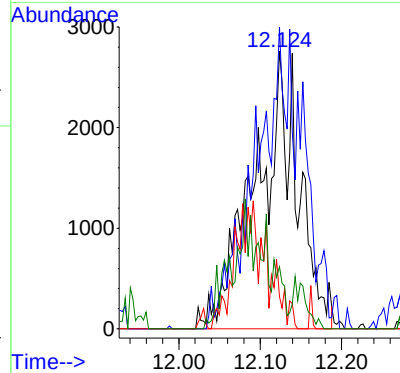
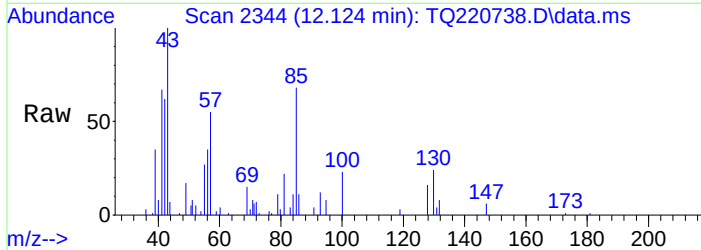
Tgt Ion	Ratio	Lower	Upper
83	100		
85	0.0	41.7	86.7#
47	12.3	15.1	31.5#
87	0.0	6.7	13.9#





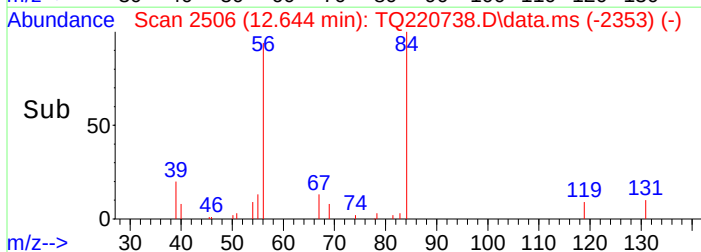
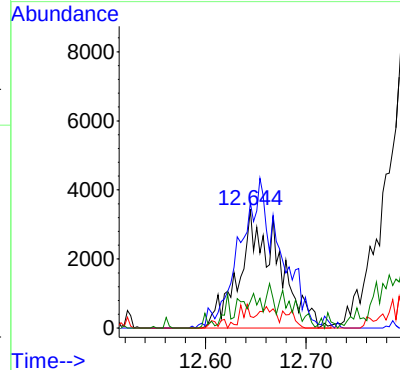
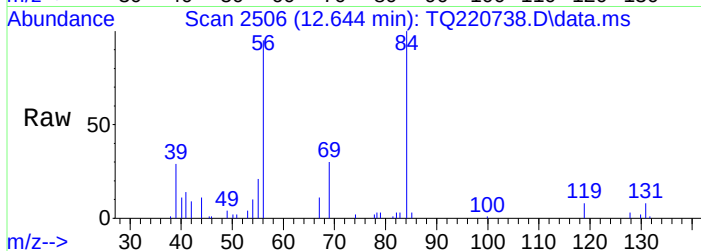
#30
Tetrahydrofuran
Concen: 0.26 ppbv m
RT: 12.124 min Scan# 2344
Delta R.T. 0.052 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

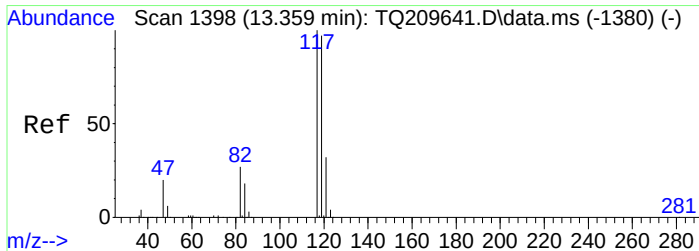
Tgt Ion	Ratio	Lower	Upper
42	100		
41	9.0	35.2	73.0#
72	13.0	27.2	56.6#
71	6.7	25.9	53.7#



#32
Cyclohexane
Concen: 0.15 ppbv m
RT: 12.644 min Scan# 2506
Delta R.T. -0.010 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

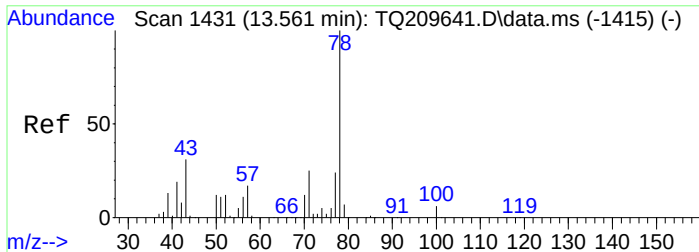
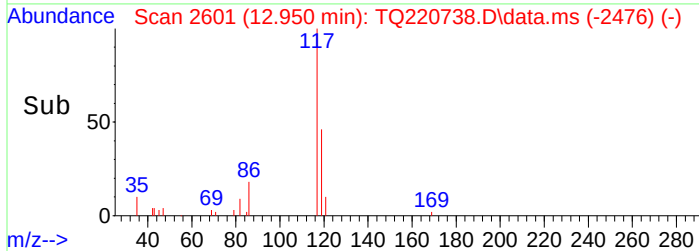
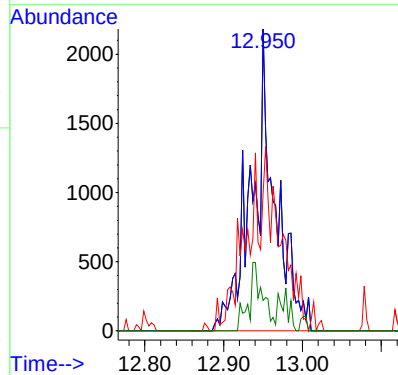
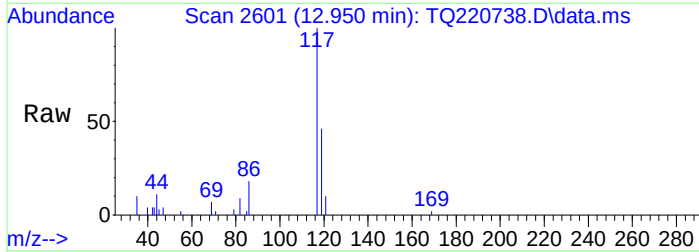
Tgt Ion	Ratio	Lower	Upper
56	100		
84	73.3	54.1	112.3
42	5.5	15.3	31.7#
55	0.0	23.5	48.7#





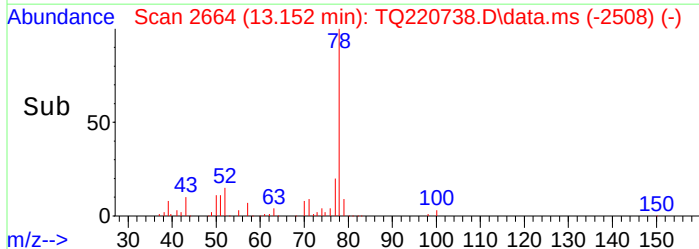
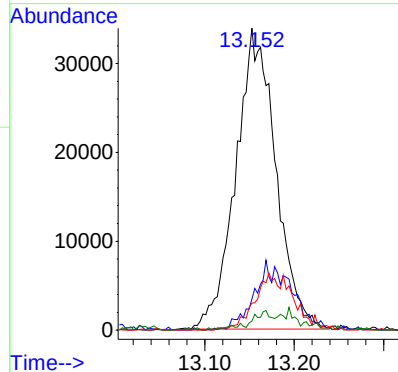
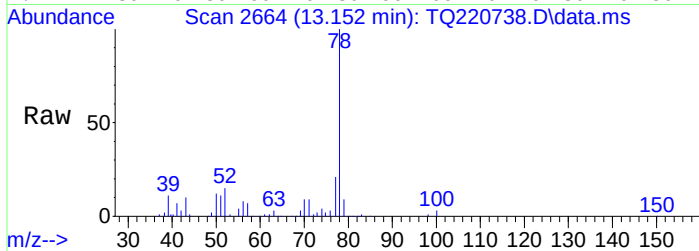
#33
Carbon Tetrachloride
Concen: 0.05 ppbv m
RT: 12.950 min Scan# 2601
Delta R.T. 0.003 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

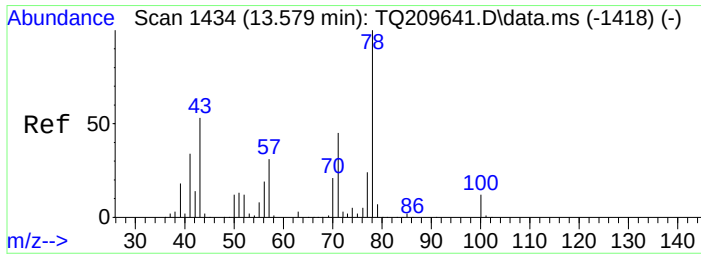
Tgt Ion:	117	Resp:	4412
Ion Ratio	Lower	Upper	
117	100		
117	47.7	80.0	120.0#
119	0.0	76.9	115.3#
121	0.0	21.7	40.3#



#35
Benzene
Concen: 0.70 ppbv
RT: 13.152 min Scan# 2664
Delta R.T. 0.000 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

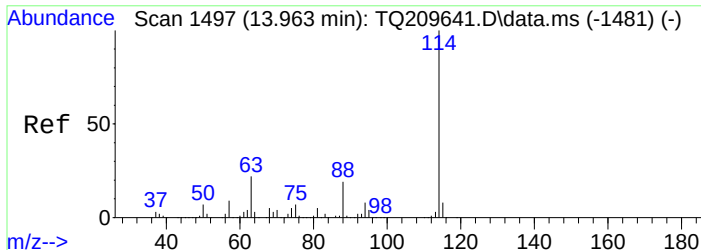
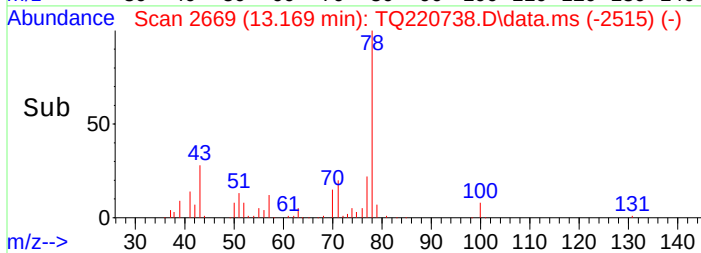
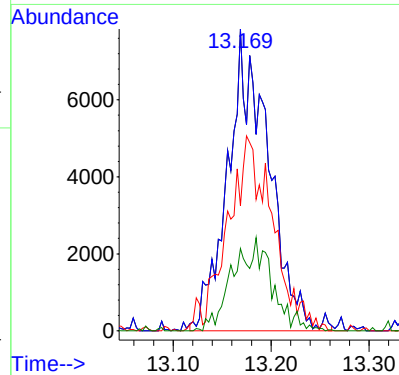
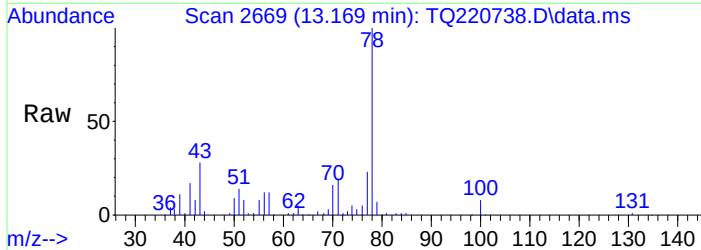
Tgt Ion:	78	Resp:	105536
Ion Ratio	Lower	Upper	
78	100		
43	10.1	37.5	77.9#
71	10.5	22.0	45.8#
42	2.2	8.8	18.4#





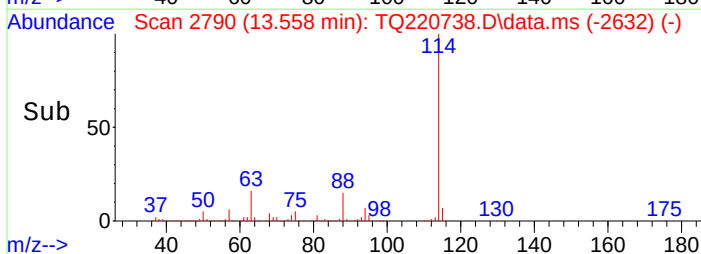
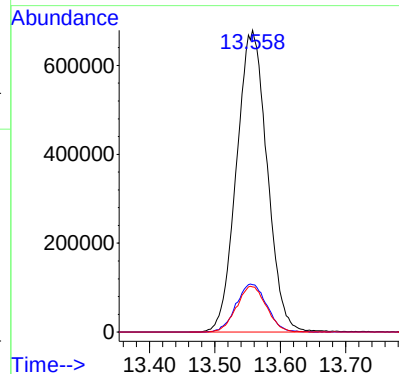
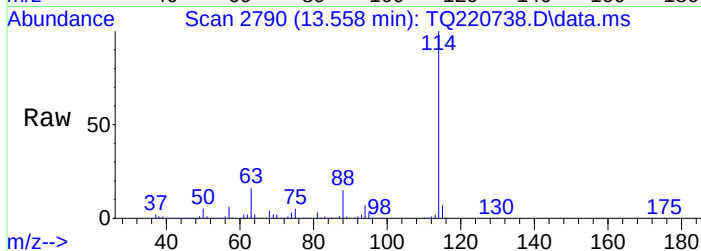
#36
n-Heptane
Concen: 0.37 ppbv m
RT: 13.169 min Scan# 2669
Delta R.T. -0.003 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

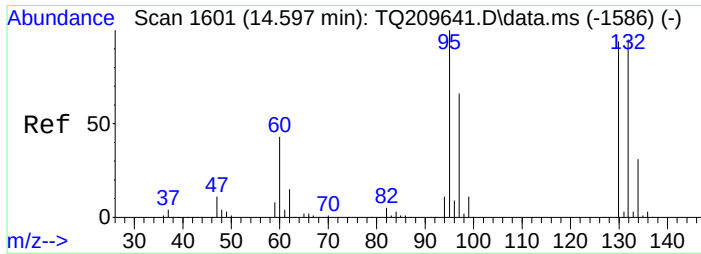
Tgt Ion	Ratio	Lower	Upper
43	100		
43	47.0	80.0	120.0#
57	0.0	42.6	64.0#
100	14.2	13.3	19.9



#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.558 min Scan# 2790
Delta R.T. 0.010 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

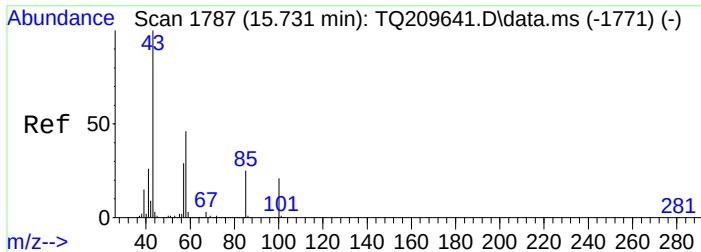
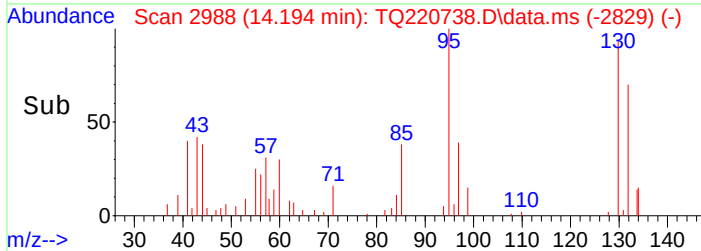
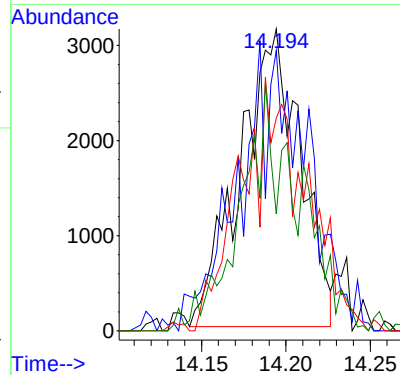
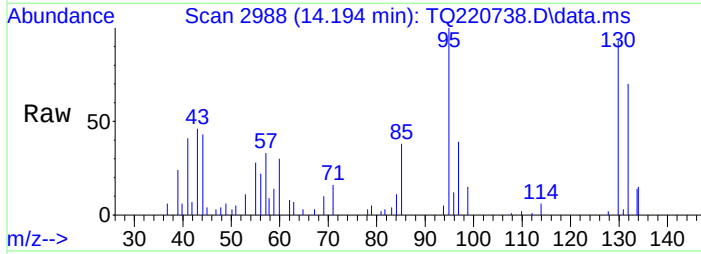
Tgt Ion	Ratio	Lower	Upper
114	100		
63	15.9	12.9	26.9
88	14.8	10.7	22.3





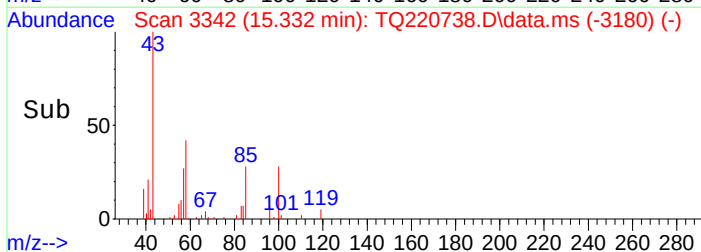
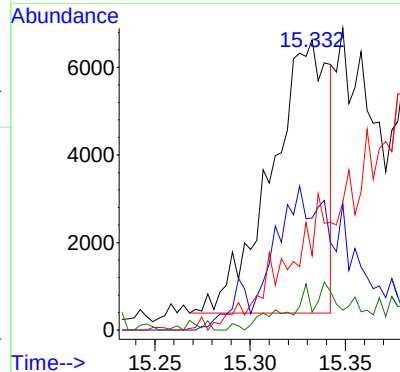
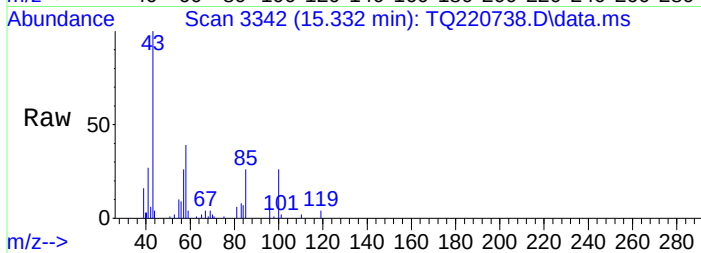
#38
 Trichloroethylene
 Concen: 0.09 ppbv
 RT: 14.194 min Scan# 2988
 Delta R.T. 0.010 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

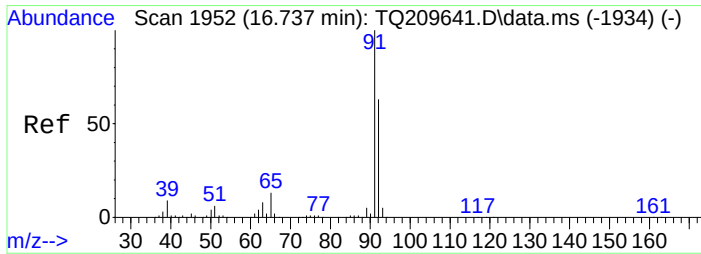
Tgt Ion	Ratio	Lower	Upper
95	100		
130	12.4	66.0	137.0#
132	0.0	63.3	131.5#
97	19.7	41.9	87.1#



#43
 Methyl Isobutyl Ketone
 Concen: 0.10 ppbv
 RT: 15.332 min Scan# 3342
 Delta R.T. 0.019 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

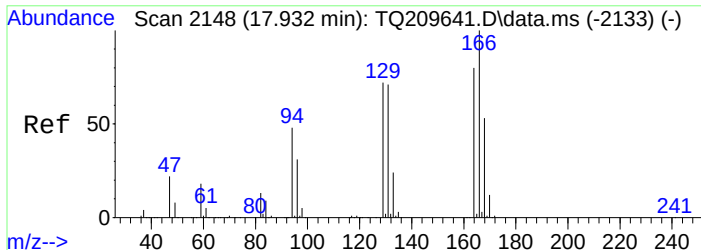
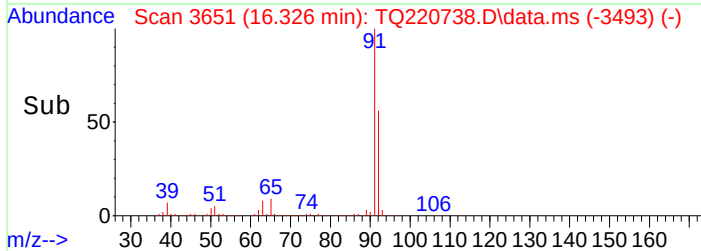
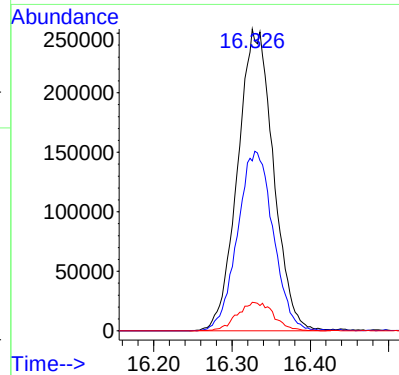
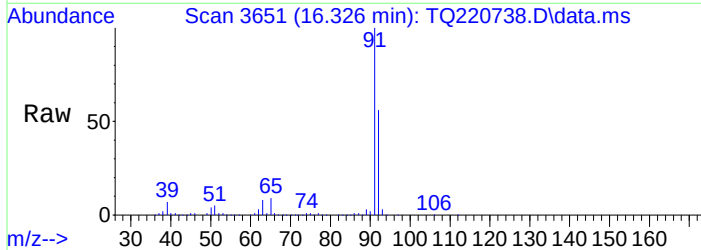
Tgt Ion	Ratio	Lower	Upper
43	100		
58	26.8	25.1	52.1
57	41.1	15.5	32.3#
42	0.0	5.0	15.0#





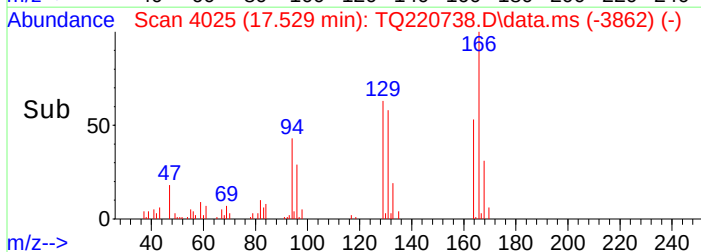
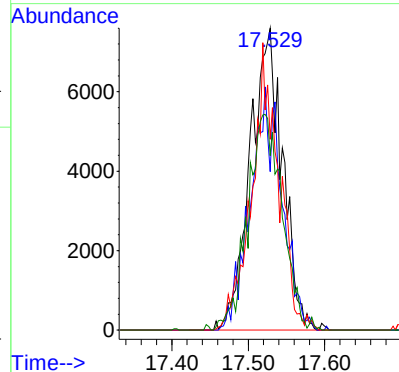
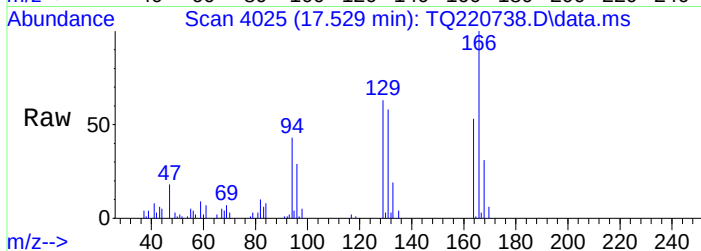
#45
Toluene
Concen: 3.24 ppbv
RT: 16.326 min Scan# 3651
Delta R.T. 0.007 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

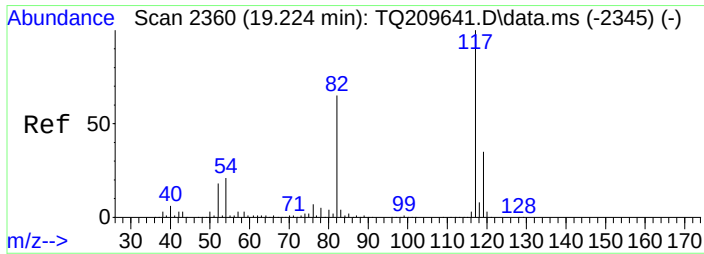
Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	38.7	80.3
65	9.4	7.5	15.5



#50
Tetrachloroethylene
Concen: 0.18 ppbv m
RT: 17.529 min Scan# 4025
Delta R.T. 0.023 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

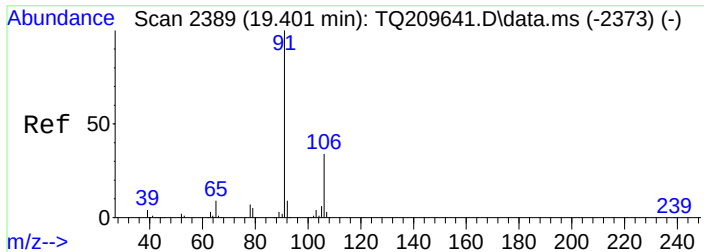
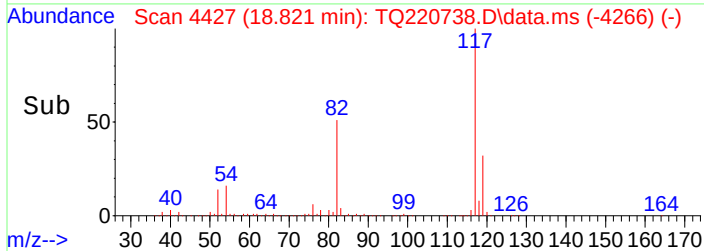
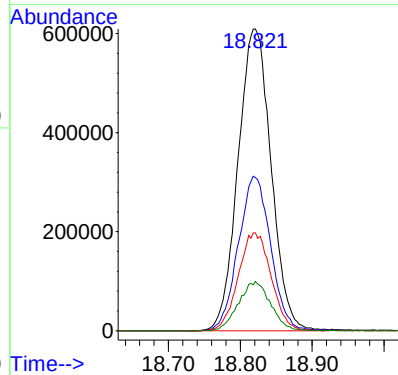
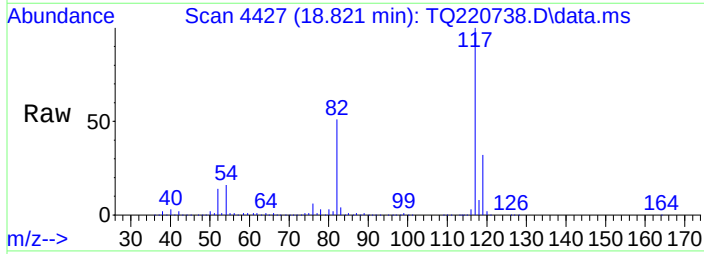
Tgt Ion	Ratio	Lower	Upper
166	100		
164	47.4	51.0	106.0#
129	65.4	48.1	99.9
131	75.6	46.3	96.3





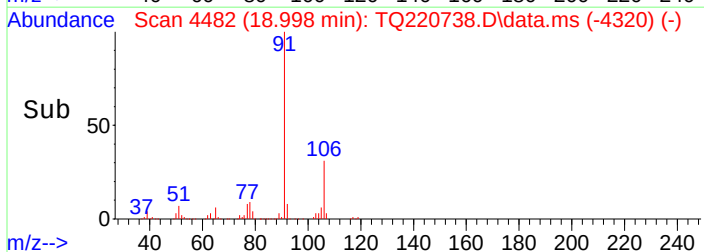
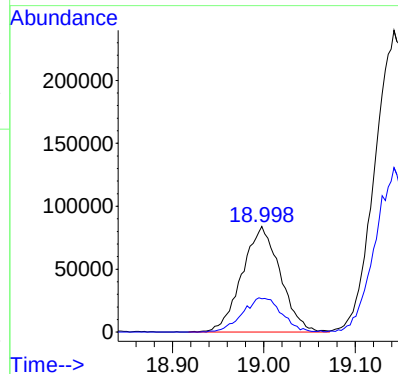
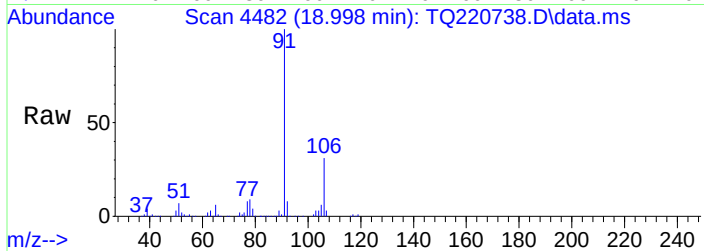
#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.821 min Scan# 4427
Delta R.T. 0.016 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

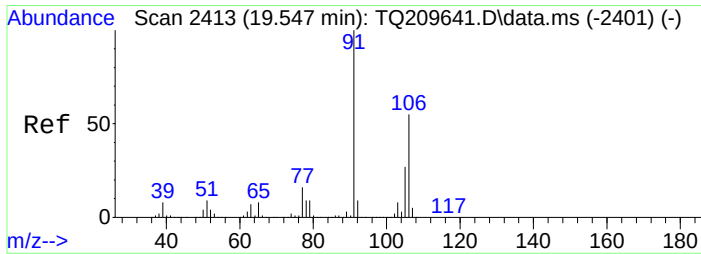
Tgt Ion:	117	Resp:	1950640
Ion Ratio	Lower	Upper	
117	100		
82	50.1	37.1	77.1
119	32.2	22.1	45.9
54	15.9	13.8	28.6



#56
Ethylbenzene
Concen: 0.78 ppbv
RT: 18.998 min Scan# 4482
Delta R.T. 0.020 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

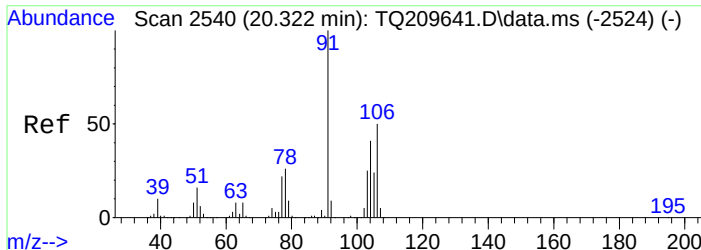
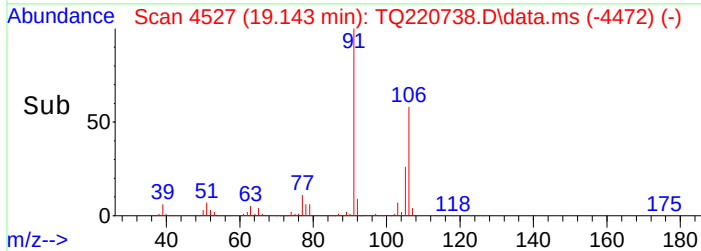
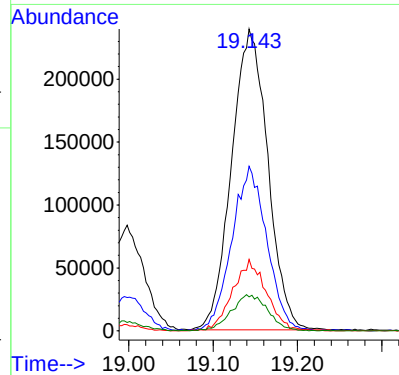
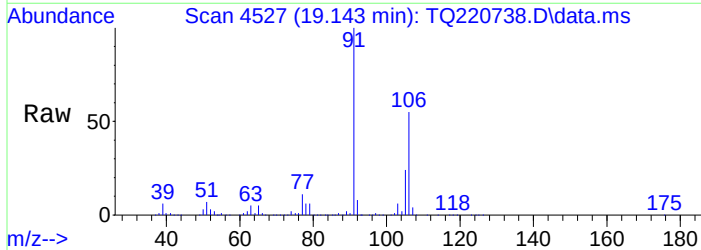
Tgt Ion:	91	Resp:	244570
Ion Ratio	Lower	Upper	
91	100		
106	33.2	20.5	42.7





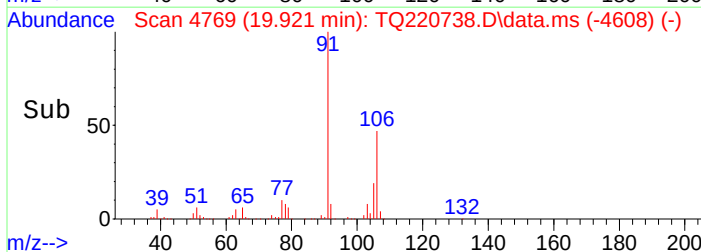
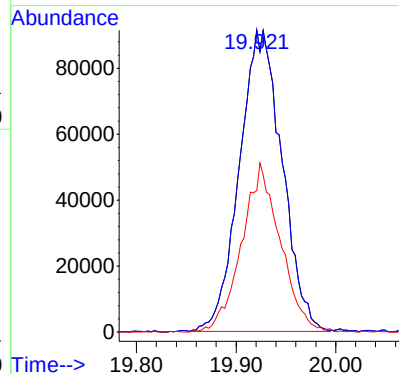
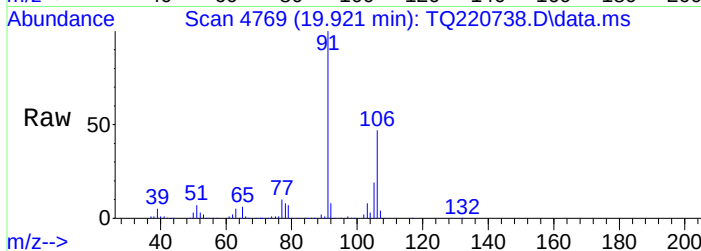
#57
p- & m-Xylenes
Concen: 3.04 ppbv
RT: 19.143 min Scan# 4527
Delta R.T. 0.017 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

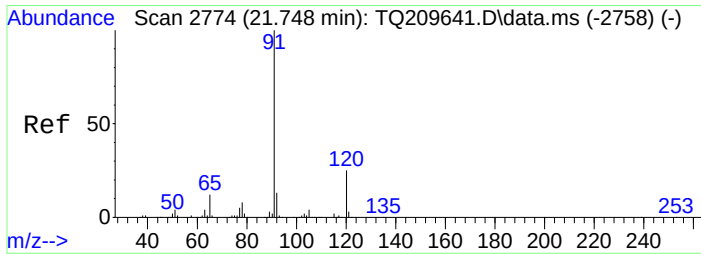
Tgt Ion	91	Resp	714021
Ion Ratio	100	Lower	Upper
106	52.7	32.6	67.8
105	22.0	14.5	30.1
77	12.1	8.5	17.7



#58
o-Xylene
Concen: 1.10 ppbv
RT: 19.921 min Scan# 4769
Delta R.T. 0.017 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

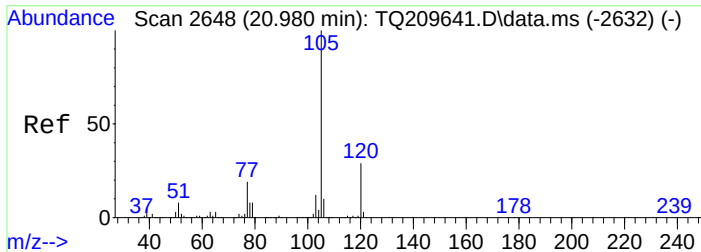
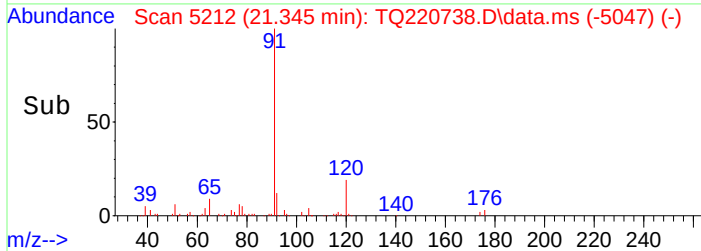
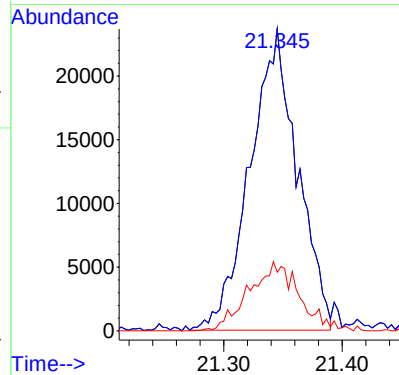
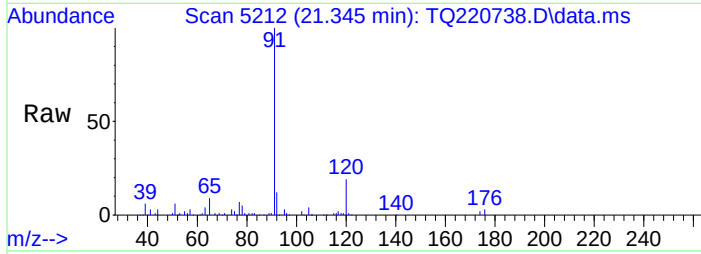
Tgt Ion	91	Resp	272167
Ion Ratio	100	Lower	Upper
91	100.0	80.0	120.0
106	50.8	38.2	57.2





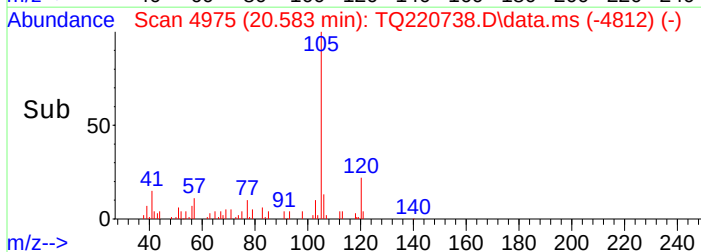
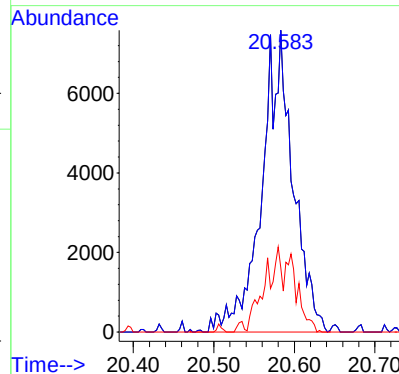
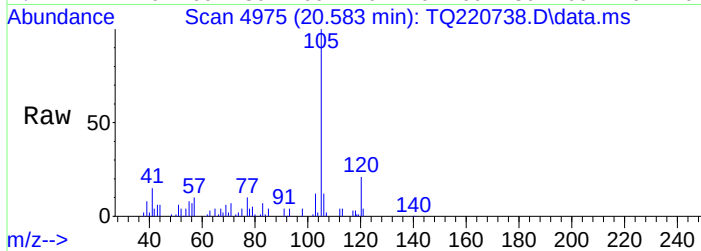
#61
n-Propylbenzene
Concen: 0.16 ppbv
RT: 21.345 min Scan# 5212
Delta R.T. 0.029 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

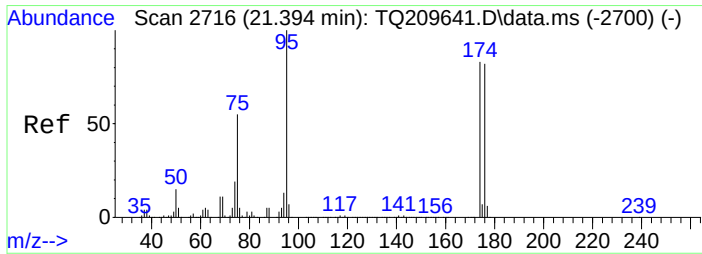
Tgt Ion:	91	Resp:	65612
Ion Ratio	Lower	Upper	
91	100		
91	100.0	80.0	120.0
120	24.2	10.0	30.0



#62
Isopropylbenzene
Concen: 0.06 ppbv m
RT: 20.583 min Scan# 4975
Delta R.T. 0.023 min
Lab File: TQ220738.D
Acq: 23 Jun 2022 10:08 am

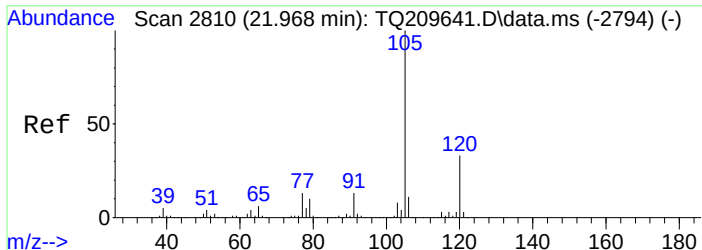
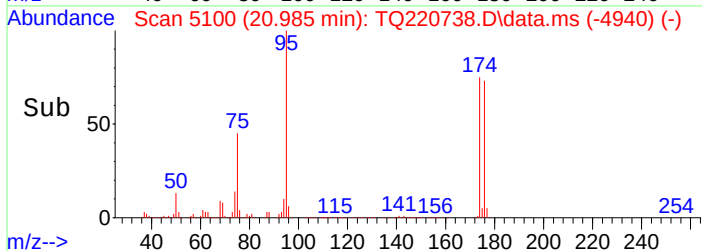
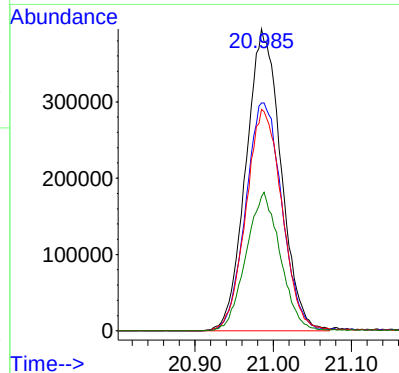
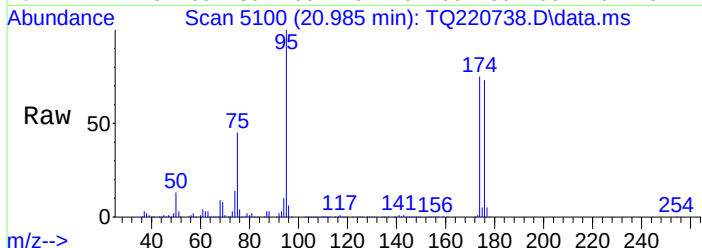
Tgt Ion:	105	Resp:	20440
Ion Ratio	Lower	Upper	
105	100		
105	35.6	80.0	120.0#
120	7.7	10.0	30.0#





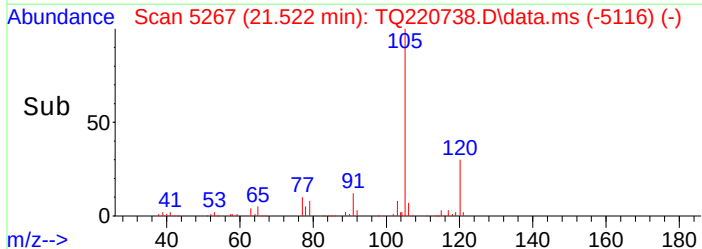
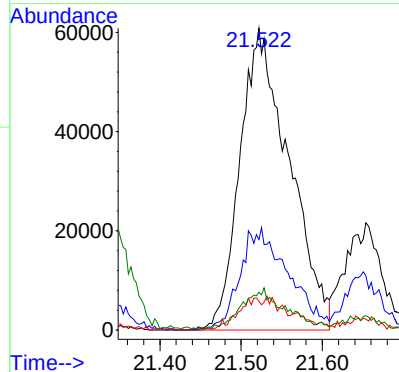
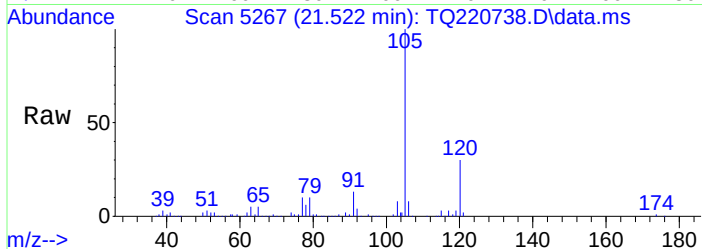
#64
 p-Bromofluorobenzene
 Concen: 9.63 ppbv
 RT: 20.985 min Scan# 5100
 Delta R.T. 0.016 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

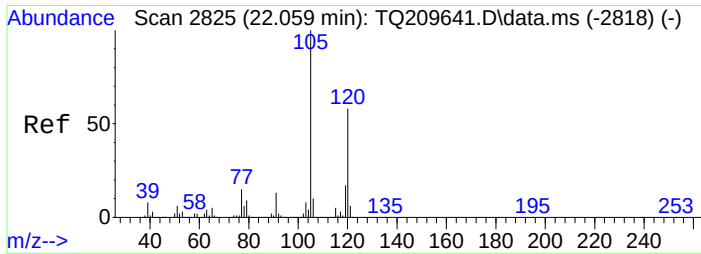
Tgt Ion:	95	Resp:	1229093
Ion	Ratio	Lower	Upper
95	100		
174	78.0	53.2	110.6
176	75.4	51.6	107.2
75	44.9	30.7	63.7



#65
 4-Ethyltoluene
 Concen: 0.74 ppbv
 RT: 21.522 min Scan# 5267
 Delta R.T. -0.016 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

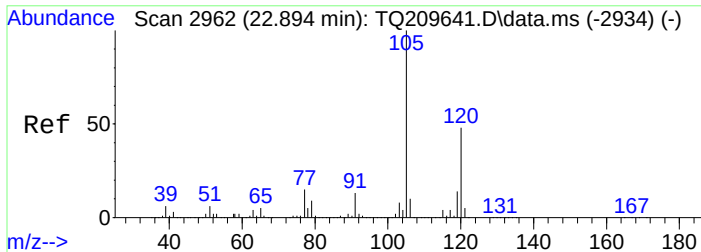
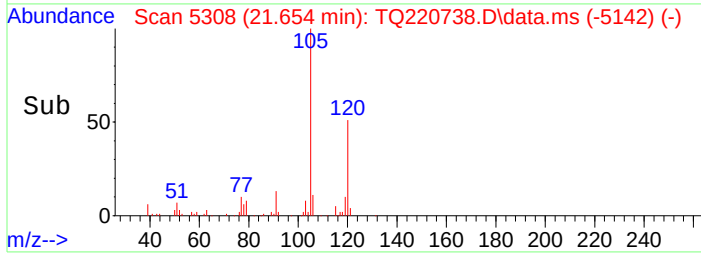
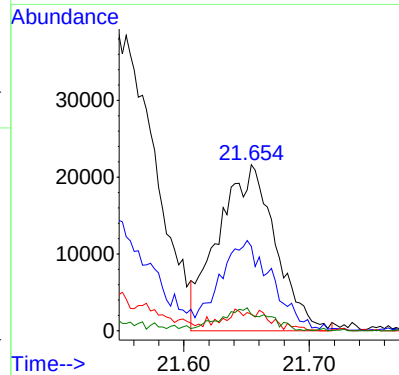
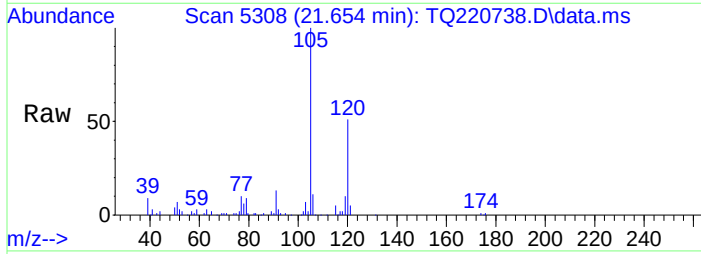
Tgt Ion:	105	Resp:	255117
Ion	Ratio	Lower	Upper
105	100		
120	0.0	19.6	40.8#
77	1.0	7.3	15.3#
91	11.8	7.1	14.7





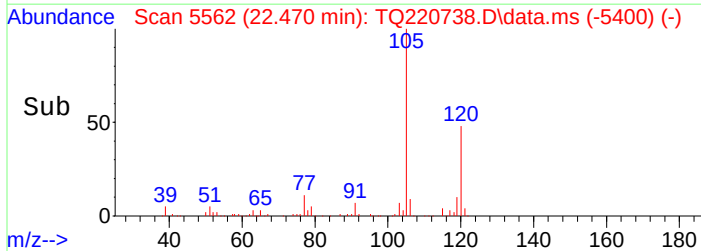
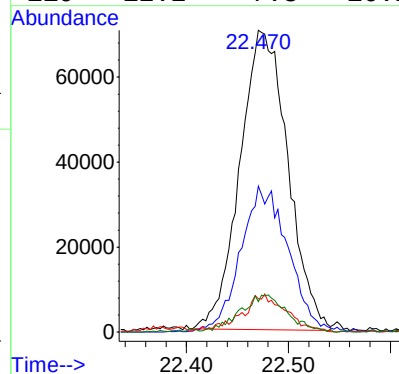
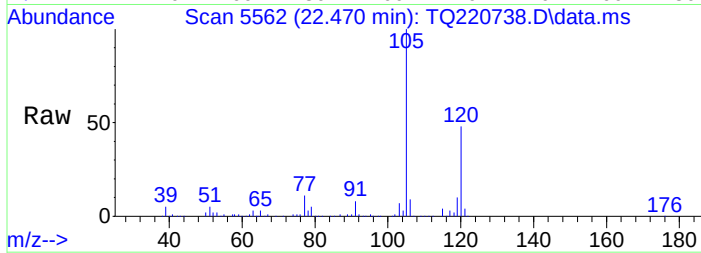
#66
 1,3,5-Trimethylbenzene
 Concen: 0.24 ppbv m
 RT: 21.654 min Scan# 5308
 Delta R.T. 0.033 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

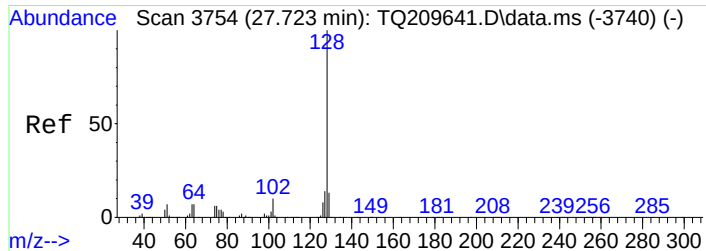
Tgt Ion	105	Resp	68527
Ion Ratio	Lower	Upper	
105	100		
120	0.0	39.2	58.8#
77	5.7	10.1	15.1#
119	0.0	6.1	18.3#



#68
 1,2,4-Trimethylbenzene
 Concen: 0.78 ppbv
 RT: 22.470 min Scan# 5562
 Delta R.T. 0.022 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

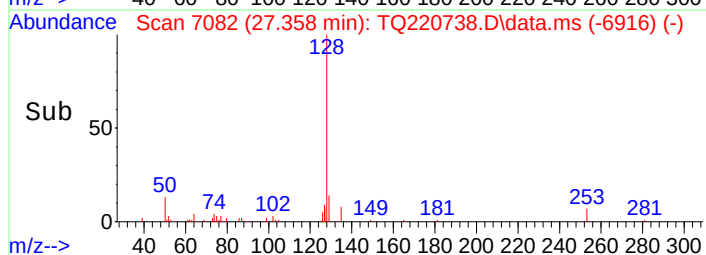
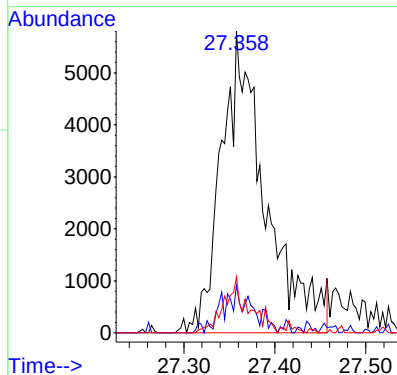
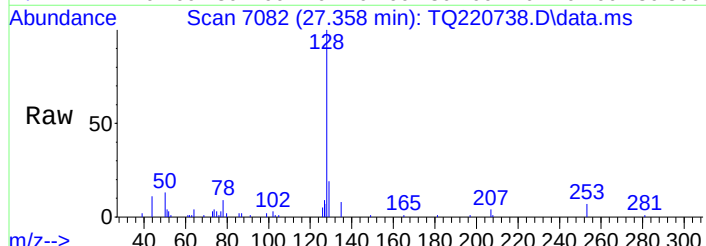
Tgt Ion	105	Resp	230225
Ion Ratio	Lower	Upper	
105	100		
120	25.0	30.2	62.6#
77	4.7	8.1	16.9#
119	12.2	7.8	16.2





#78
 Naphthalene
 Concen: 0.05 ppbv m
 RT: 27.358 min Scan# 7082
 Delta R.T. 0.033 min
 Lab File: TQ220738.D
 Acq: 23 Jun 2022 10:08 am

Tgt Ion:	128	Resp:	19572
Ion Ratio	Lower	Upper	
128	100		
127	0.0	8.1	16.9#
129	6.6	7.1	14.7#



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

878_V2

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-03 File ID: TQ220739.D
 Sampled: 06/20/22 10:35 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 11:10
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.66	1.1	U
71-55-6	1,1,1-Trichloroethane	1.66	0.91	U
79-34-5	1,1,2,2-Tetrachloroethane	1.66	1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.66	1.3	U
79-00-5	1,1,2-Trichloroethane	1.66	0.91	U
75-34-3	1,1-Dichloroethane	1.66	0.67	U
75-35-4	1,1-Dichloroethylene	1.66	0.16	U
120-82-1	1,2,4-Trichlorobenzene	1.66	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.66	17	D
106-93-4	1,2-Dibromoethane	1.66	1.3	U
95-50-1	1,2-Dichlorobenzene	1.66	1.0	U
107-06-2	1,2-Dichloroethane	1.66	0.67	U
78-87-5	1,2-Dichloropropane	1.66	0.77	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.66	1.2	U
108-67-8	1,3,5-Trimethylbenzene	1.66	4.3	D
106-99-0	1,3-Butadiene	1.66	1.1	U
541-73-1	1,3-Dichlorobenzene	1.66	1.0	U
142-28-9	1,3-Dichloropropane	1.66	0.77	U
106-46-7	1,4-Dichlorobenzene	1.66	1.0	U
123-91-1	1,4-Dioxane	1.66	1.2	U
78-93-3	2-Butanone	1.66	1.4	D
591-78-6	2-Hexanone	1.66	1.4	U
107-05-1	3-Chloropropene	1.66	2.6	U
108-10-1	4-Methyl-2-pentanone	1.66	0.75	D
67-64-1	Acetone	1.66	4.0	D
107-13-1	Acrylonitrile	1.66	0.36	U
71-43-2	Benzene	1.66	2.9	D
100-44-7	Benzyl chloride	1.66	0.86	U
75-27-4	Bromodichloromethane	1.66	1.1	U
75-25-2	Bromoform	1.66	1.7	U
74-83-9	Bromomethane	1.66	0.64	U
75-15-0	Carbon disulfide	1.66	0.72	D
56-23-5	Carbon tetrachloride	1.66	0.31	D
108-90-7	Chlorobenzene	1.66	0.76	U
75-00-3	Chloroethane	1.66	0.44	U
67-66-3	Chloroform	1.66	1.5	D
74-87-3	Chloromethane	1.66	2.3	D
156-59-2	cis-1,2-Dichloroethylene	1.66	0.86	D
10061-01-5	cis-1,3-Dichloropropylene	1.66	0.75	U
110-82-7	Cyclohexane	1.66	1.3	D

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

878_V2

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-03 File ID: TQ220739.D
 Sampled: 06/20/22 10:35 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 11:10
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
124-48-1	Dibromochloromethane	1.66	1.4	U
75-71-8	Dichlorodifluoromethane	1.66	3.0	D
141-78-6	Ethyl acetate	1.66	1.2	U
100-41-4	Ethyl Benzene	1.66	7.7	D
87-68-3	Hexachlorobutadiene	1.66	1.8	U
67-63-0	Isopropanol	1.66	0.82	U
80-62-6	Methyl Methacrylate	1.66	0.68	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1.66	0.60	U
75-09-2	Methylene chloride	1.66	1.2	U
142-82-5	n-Heptane	1.66	2.4	D
110-54-3	n-Hexane	1.66	3.3	D
95-47-6	o-Xylene	1.66	13	D
179601-23-1	p- & m- Xylenes	1.66	30	D
622-96-8	p-Ethyltoluene	1.66	14	D
115-07-1	Propylene	1.66	1.2	D
100-42-5	Styrene	1.66	0.71	U
127-18-4	Tetrachloroethylene	1.66	1.9	D
109-99-9	Tetrahydrofuran	1.66	3.0	D
108-88-3	Toluene	1.66	20	D
156-60-5	trans-1,2-Dichloroethylene	1.66	0.66	U
10061-02-6	trans-1,3-Dichloropropylene	1.66	0.75	U
79-01-6	Trichloroethylene	1.66	1.1	D
75-69-4	Trichlorofluoromethane (Freon 11)	1.66	2.0	D
108-05-4	Vinyl acetate	1.66	0.58	U
593-60-2	Vinyl bromide	1.66	0.73	U
75-01-4	Vinyl Chloride	1.66	0.21	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	386336	11.998	554760	11.985	
ISTD: 1,4-Difluorobenzene	2166578	13.561	3144562	13.564	
ISTD: d5-Chlorobenzene	1918757	18.818	2743461	18.824	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220739.D
 Acq On : 23 Jun 2022 11:10 am
 Operator : LLJ
 Sample : 22F1033-03
 Misc : QBT02062322A 1X/400 ML
 ALS Vial : 4 Sample Multiplier: 1.66
 InstName : T015_AIR2

Quant Time: Jun 24 05:06:42 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

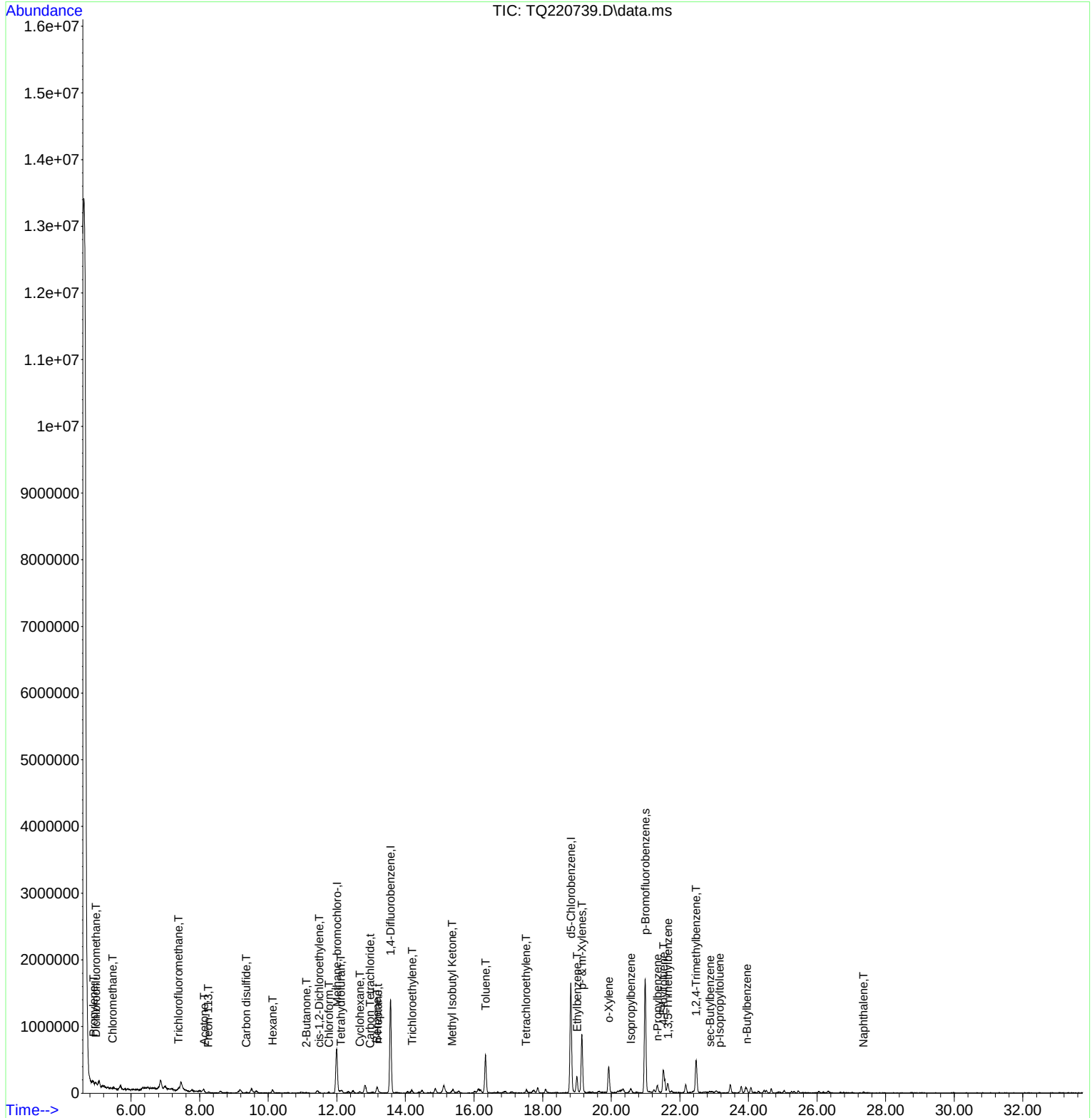
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

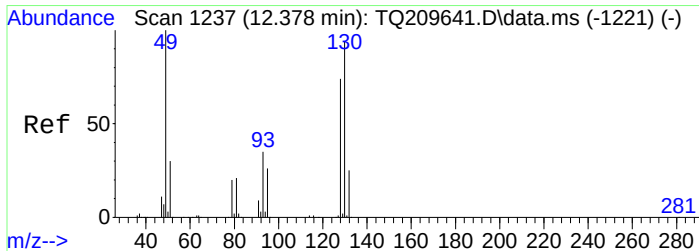
Internal Standards						
1) Methane, bromochloro-	11.998	49	386336m	10.00	ppbv	0.02
37) 1,4-Difluorobenzene	13.561	114	2166578	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.818	117	1918757	10.00	ppbv	0.01
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.988	95	1225415	9.76	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.60%	
Target Compounds						
					Qvalue	
2) Propylene	4.908	42	7850m	0.42	ppbv	
3) Dichlorodifluoromethane	4.976	85	44721	0.36	ppbv #	90
5) Chloromethane	5.458	50	13474m	0.66	ppbv	
11) Trichlorofluoromethane	7.374	101	23872m	0.21	ppbv	
12) Isopropanol	7.873	45	1013	Below Cal	#	99
14) Acetone	8.127	43	63458	1.01	ppbv #	69
15) Freon-113	8.249	101	4728m	0.05	ppbv	
20) Carbon disulfide	9.352	76	17034m	0.14	ppbv	
23) Hexane	10.127	57	34441	0.57	ppbv #	51
26) 2-Butanone	11.111	43	20920m	0.29	ppbv	
28) cis-1,2-Dichloroethylene	11.484	61	7709m	0.13	ppbv	
29) Chloroform	11.770	83	19581m	0.19	ppbv	
30) Tetrahydrofuran	12.111	42	24886m	0.62	ppbv	
32) Cyclohexane	12.667	56	13925m	0.22	ppbv	
33) Carbon Tetrachloride	12.966	117	2636m	0.03	ppbv	
35) Benzene	13.165	78	83578	0.54	ppbv #	53
36) n-Heptane	13.191	43	22406m	0.36	ppbv	
38) Trichloroethylene	14.188	95	10757m	0.12	ppbv	
43) Methyl Isobutyl Ketone	15.352	43	13210	0.11	ppbv #	77
45) Toluene	16.332	91	775993	3.19	ppbv	98
50) Tetrachloroethylene	17.512	166	20958m	0.17	ppbv	
56) Ethylbenzene	18.998	91	327937	1.07	ppbv	96
57) p- & m-Xylenes	19.142	91	950948	4.12	ppbv	98
58) o-Xylene	19.927	91	442924	1.82	ppbv #	91
61) n-Propylbenzene	21.345	91	154563	0.39	ppbv	98
62) Isopropylbenzene	20.570	105	39740	0.12	ppbv	97
65) 4-Ethyltoluene	21.519	105	592824	1.75	ppbv #	89
66) 1,3,5-Trimethylbenzene	21.650	105	152263	0.53	ppbv	96
68) 1,2,4-Trimethylbenzene	22.470	105	613255	2.10	ppbv #	94
69) sec-Butylbenzene	22.879	105	14508	0.03	ppbv #	94
70) p-Isopropyltoluene	23.152	119	9613m	0.03	ppbv	
74) n-Butylbenzene	23.949	91	32600	0.10	ppbv #	72
78) Naphthalene	27.354	128	24421m	0.06	ppbv	

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220739.D
Acq On : 23 Jun 2022 11:10 am
Operator : LLJ
Sample : 22F1033-03
Misc : QBT02062322A 1X/400 ML
ALS Vial : 4 Sample Multiplier: 1.66
InstName : T015_AIR2

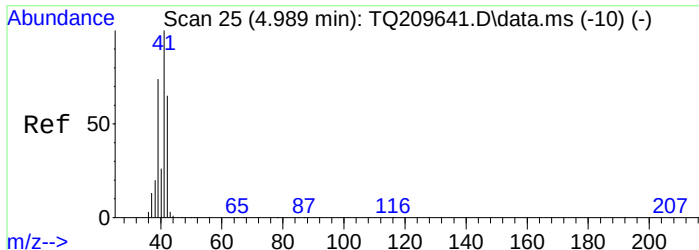
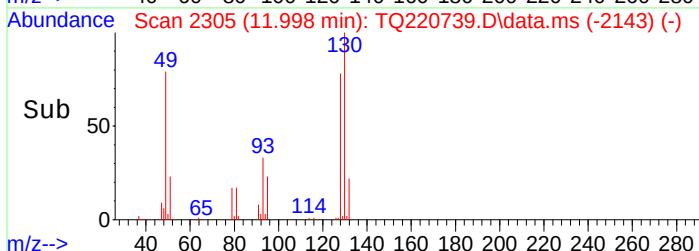
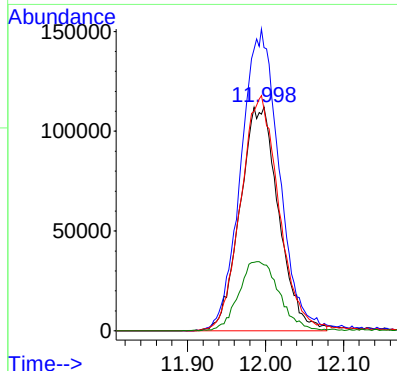
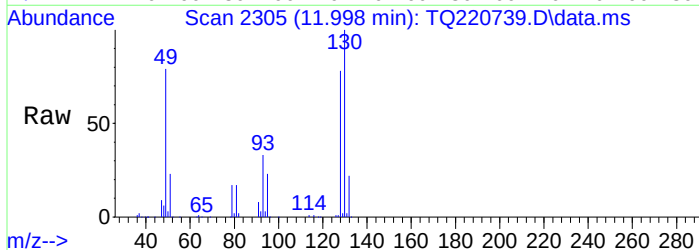
Quant Time: Jun 24 05:06:42 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





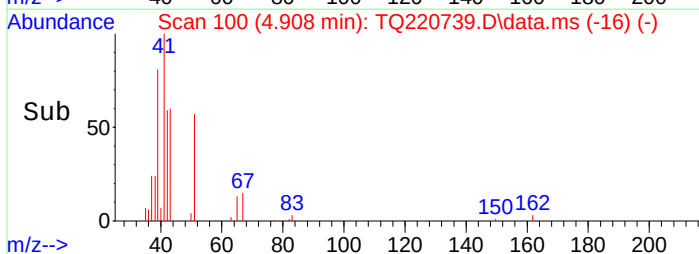
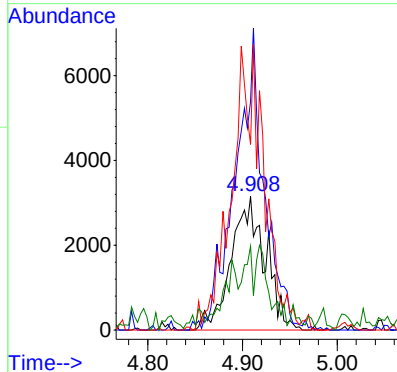
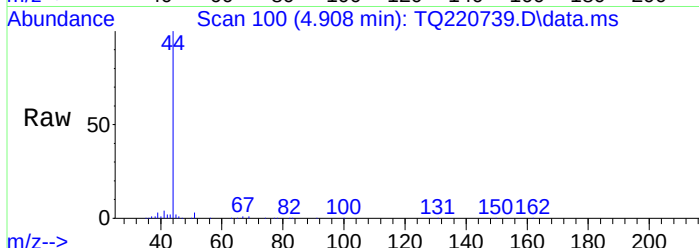
#1
Methane, bromochloro-
Concen: 10.00 ppbv m
RT: 11.998 min Scan# 2305
Delta R.T. 0.022 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

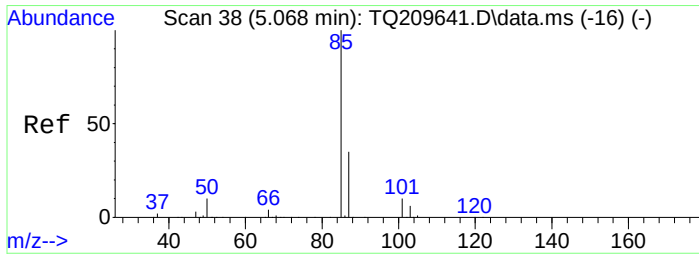
Tgt Ion	Ratio	Lower	Upper
49	100		
130	133.7	48.1	99.9#
128	104.1	38.3	79.5#
51	32.2	20.3	42.3



#2
Propylene
Concen: 0.42 ppbv m
RT: 4.908 min Scan# 100
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

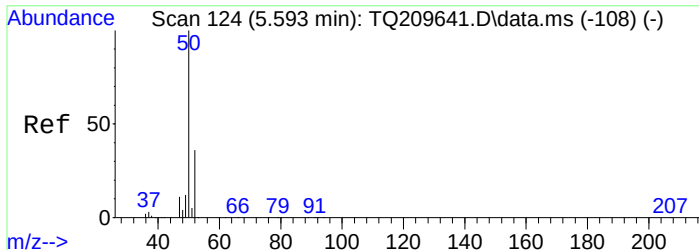
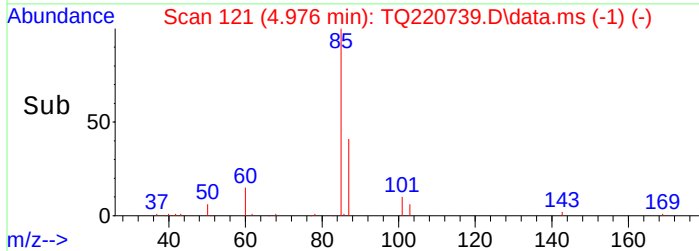
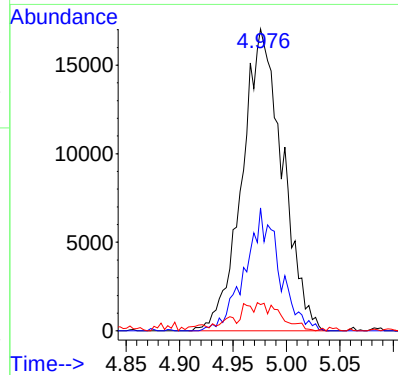
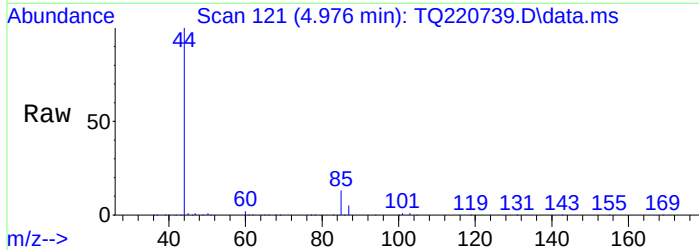
Tgt Ion	Ratio	Lower	Upper
42	100		
41	167.6	90.7	211.7
39	67.9	54.1	162.3
40	15.5	18.7	56.1#





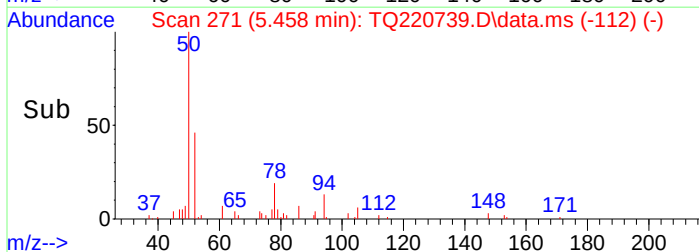
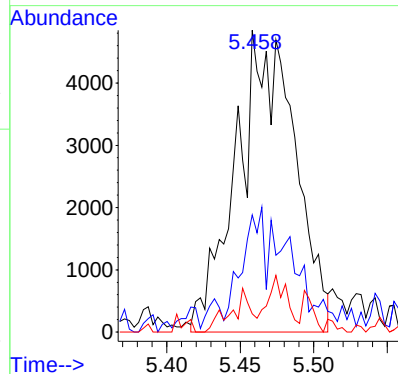
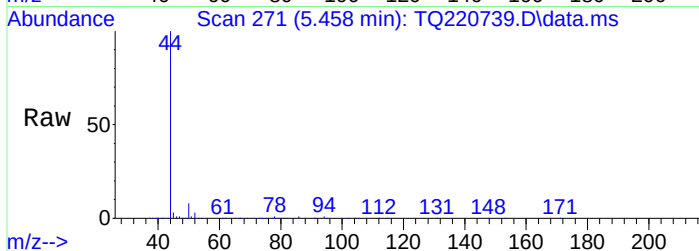
#3
 Dichlorodifluoromethane
 Concen: 0.36 ppbv
 RT: 4.976 min Scan# 121
 Delta R.T. 0.010 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

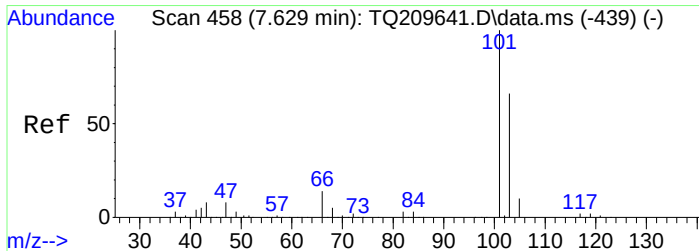
Tgt Ion	Ratio	Lower	Upper
85	100		
87	34.6	20.9	43.5
50	1.7	7.2	15.0#



#5
 Chloromethane
 Concen: 0.66 ppbv m
 RT: 5.458 min Scan# 271
 Delta R.T. 0.010 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

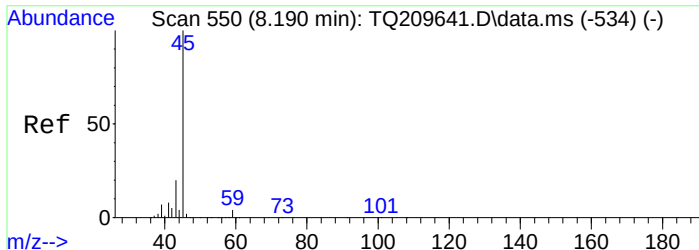
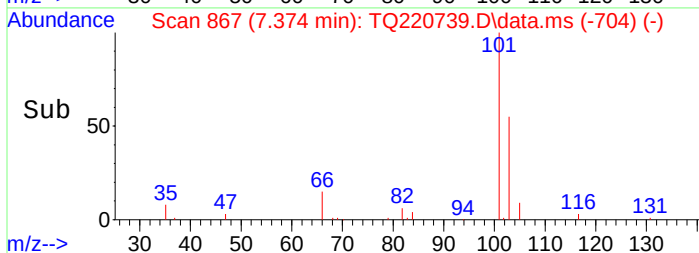
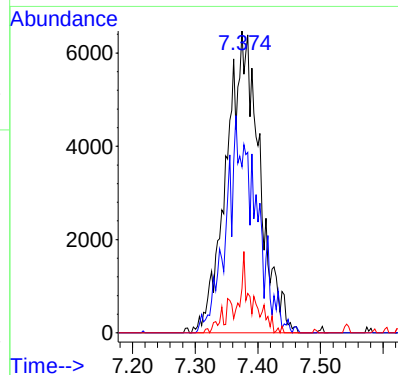
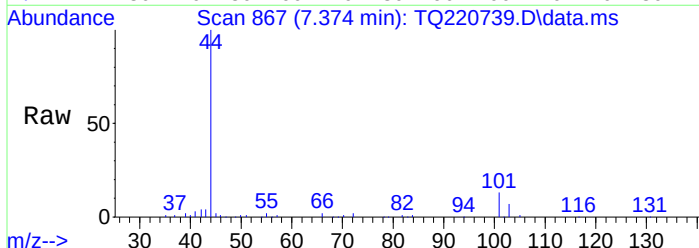
Tgt Ion	Ratio	Lower	Upper
50	100		
52	0.0	0.0	65.2
49	0.0	0.0	19.6





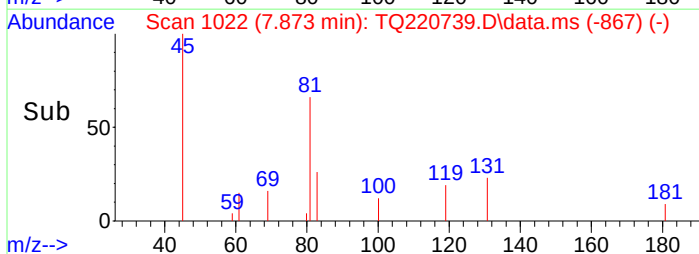
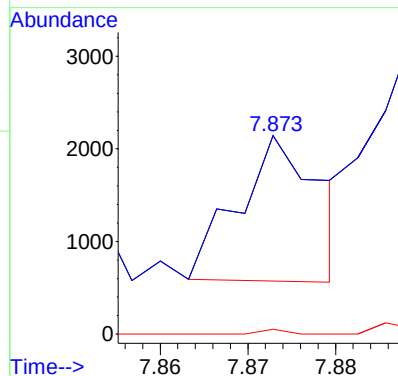
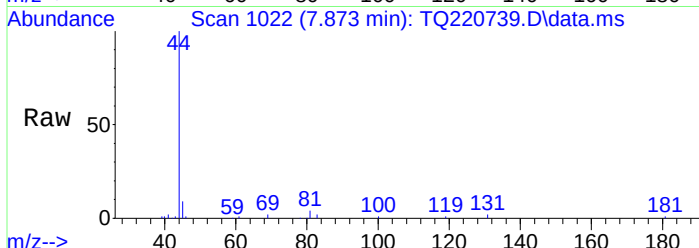
#11
 Trichlorofluoromethane
 Concen: 0.21 ppbv m
 RT: 7.374 min Scan# 867
 Delta R.T. 0.022 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

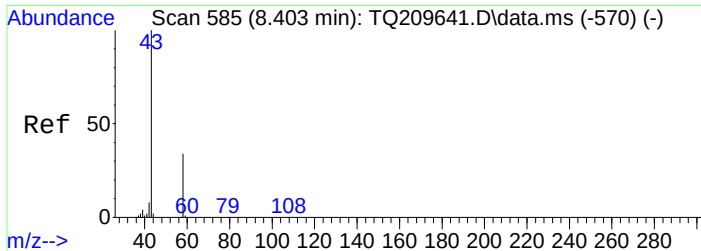
Tgt Ion:	101	Resp:	23872
Ion Ratio	Lower	Upper	
101	100		
103	7.3	42.3	87.8#
66	0.0	7.8	16.2#



#12
 Isopropanol
 Concen: Below Cal
 RT: 7.873 min Scan# 1022
 Delta R.T. -0.000 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

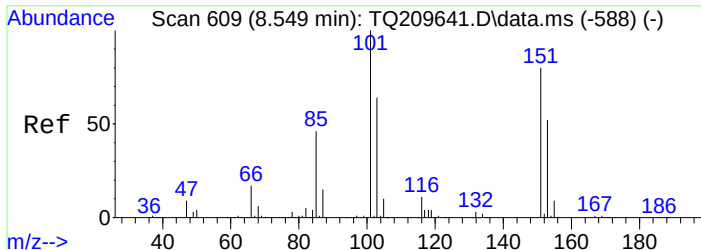
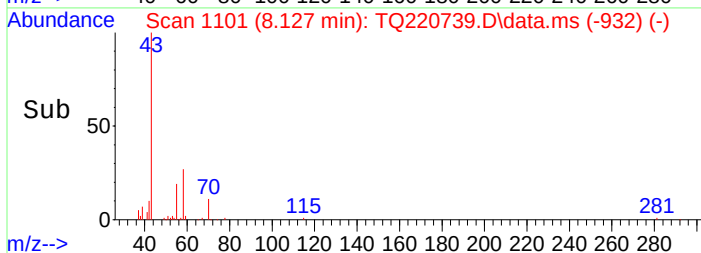
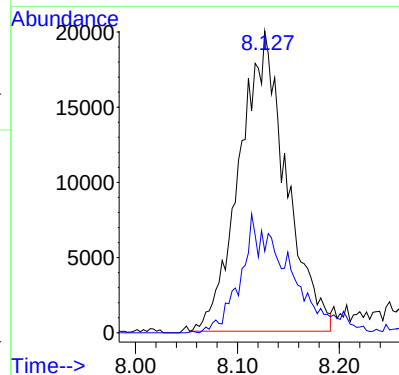
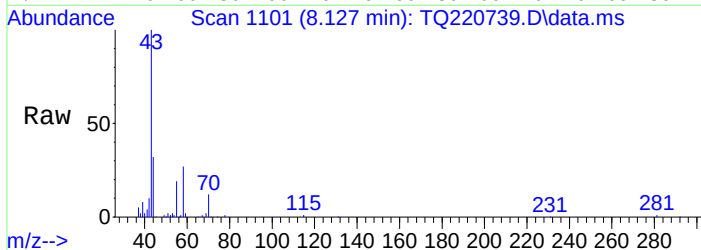
Tgt Ion:	45	Resp:	1013
Ion Ratio	Lower	Upper	
45	100		
45	100.0	65.0	135.0
59	0.0	0.0	10.0





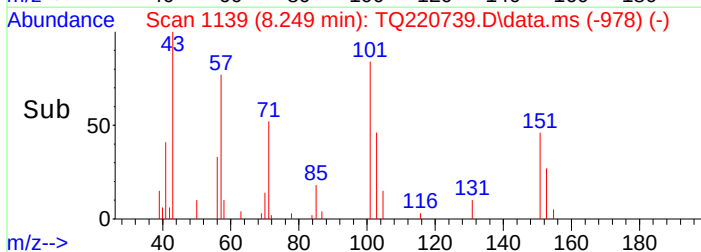
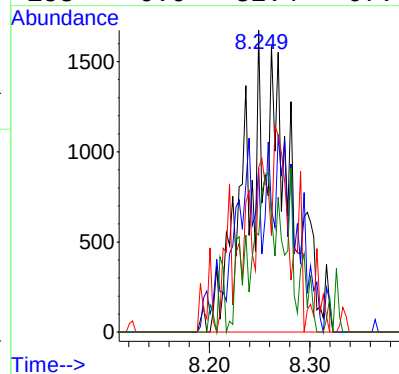
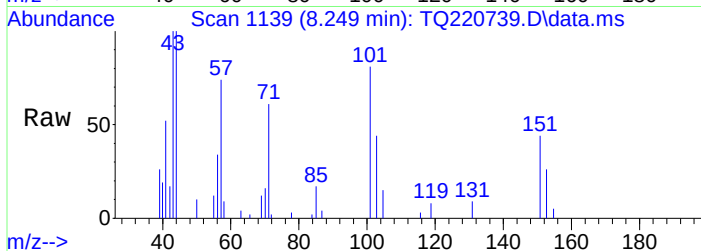
#14
Acetone
Concen: 1.01 ppbv
RT: 8.127 min Scan# 1101
Delta R.T. 0.042 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

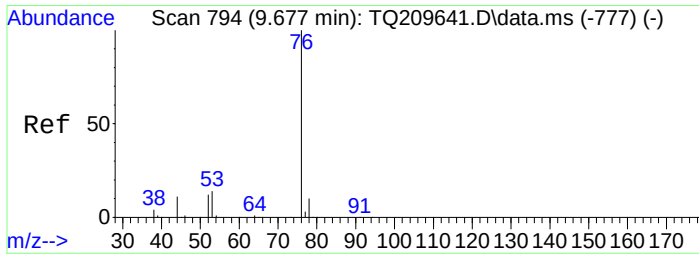
Tgt Ion: 43 Resp: 63458
Ion Ratio Lower Upper
43 100
58 15.0 20.9 43.3#



#15
Freon-113
Concen: 0.05 ppbv m
RT: 8.249 min Scan# 1139
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

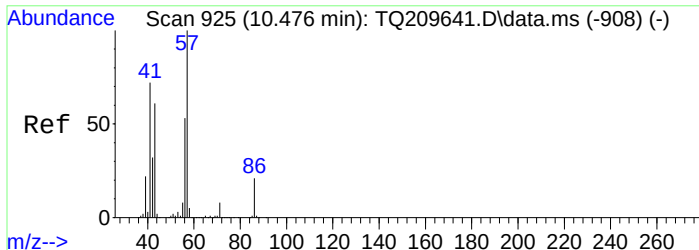
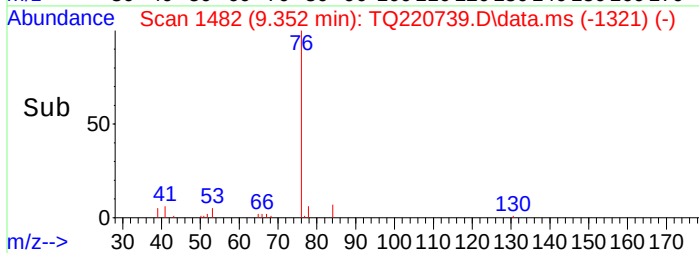
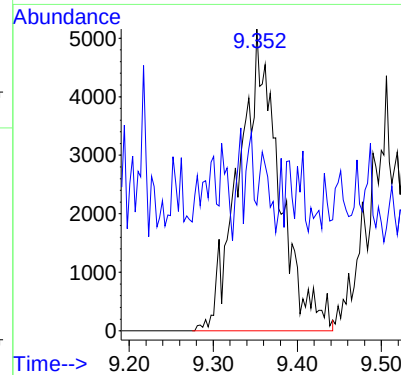
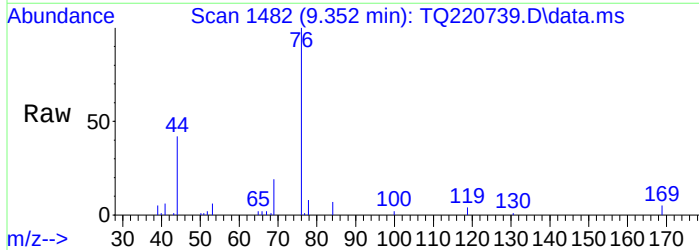
Tgt Ion: 101 Resp: 4728
Ion Ratio Lower Upper
101 100
151 18.4 50.5 104.9#
103 0.0 42.0 87.2#
153 0.0 32.4 67.4#





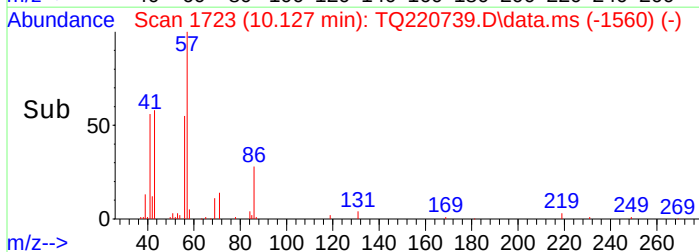
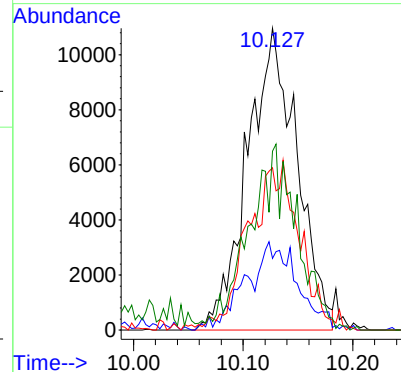
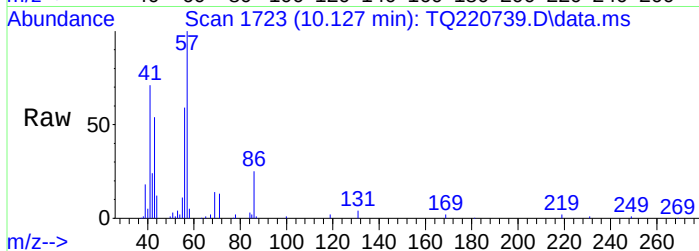
#20
Carbon disulfide
Concen: 0.14 ppbv m
RT: 9.352 min Scan# 1482
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

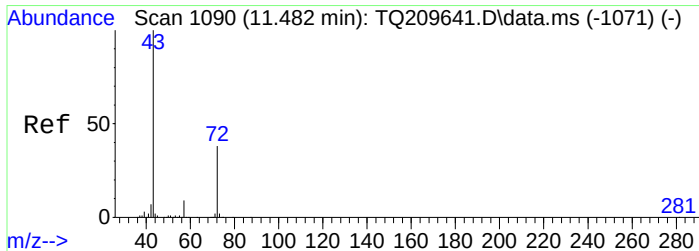
Tgt Ion: 76 Resp: 17034
Ion Ratio Lower Upper
76 100
44 6.2 8.3 17.3#



#23
Hexane
Concen: 0.57 ppbv
RT: 10.127 min Scan# 1723
Delta R.T. 0.023 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

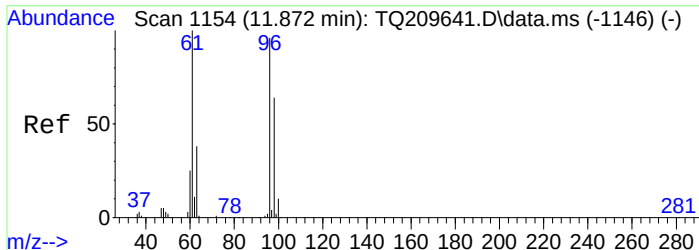
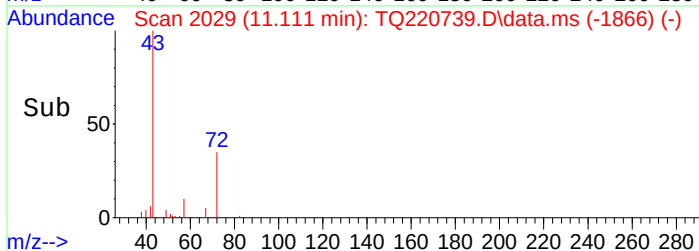
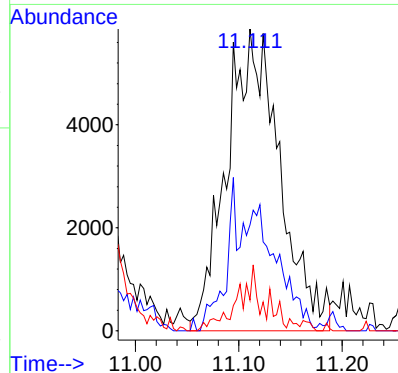
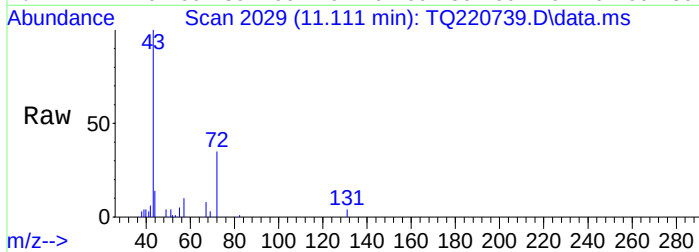
Tgt Ion: 57 Resp: 34441
Ion Ratio Lower Upper
57 100
42 15.5 21.6 45.0#
43 30.9 42.0 87.2#
56 3.3 33.3 69.1#





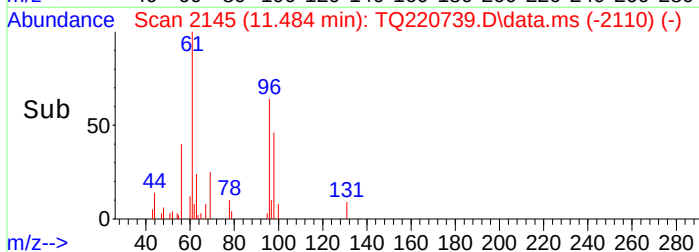
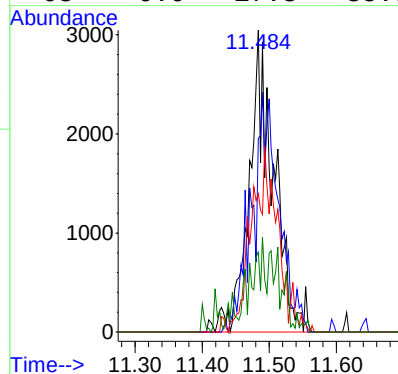
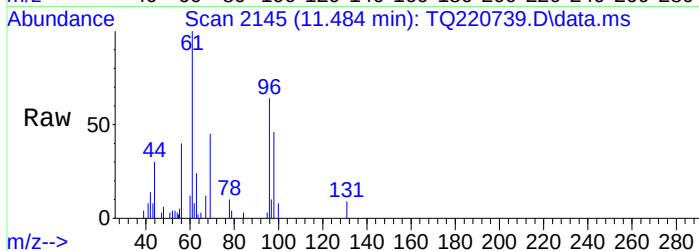
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2-Butanone
Concen: 0.29 ppbv m
RT: 11.111 min Scan# 2029
Delta R.T. 0.023 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

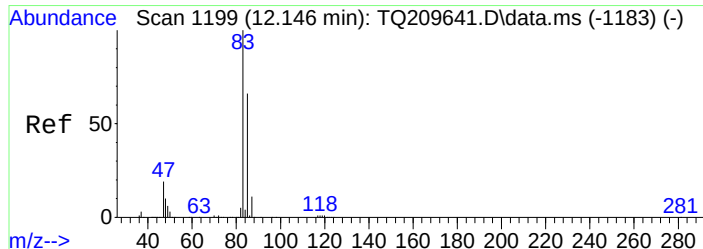
Tgt Ion:	43	Resp:	20920
Ion Ratio	Lower	Upper	
43	100		
72	11.8	16.1	33.5#
57	0.0	4.9	10.3#



#28
cis-1,2-Dichloroethylene
Concen: 0.13 ppbv m
RT: 11.484 min Scan# 2145
Delta R.T. 0.013 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

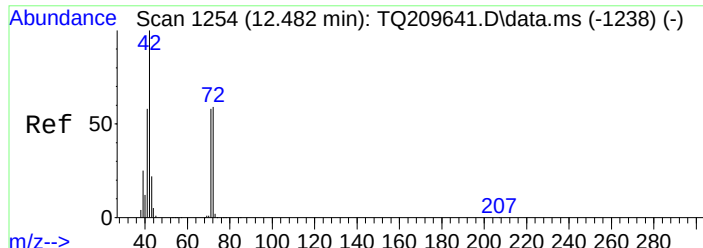
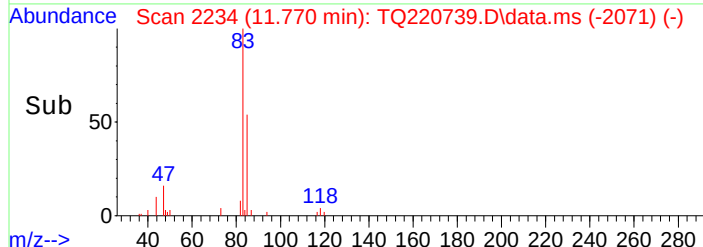
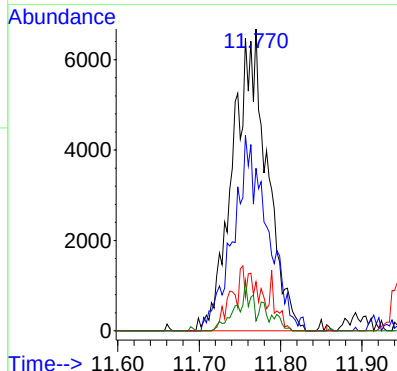
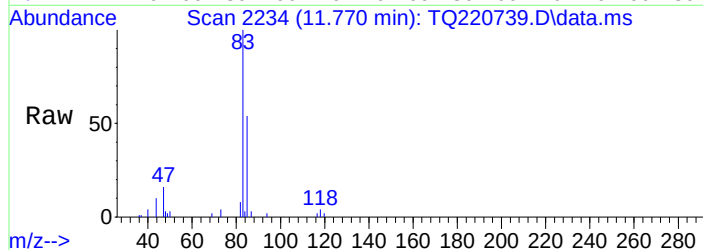
Tgt Ion:	61	Resp:	7709
Ion Ratio	Lower	Upper	
61	100		
96	13.0	39.8	82.8#
98	26.7	25.5	52.9
63	0.0	17.3	35.9#





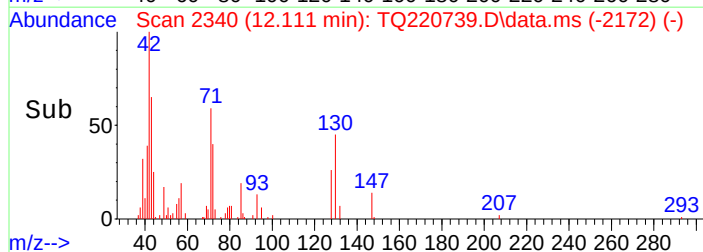
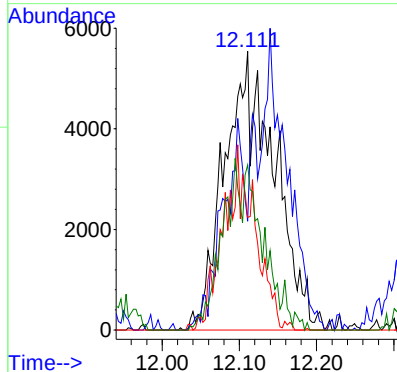
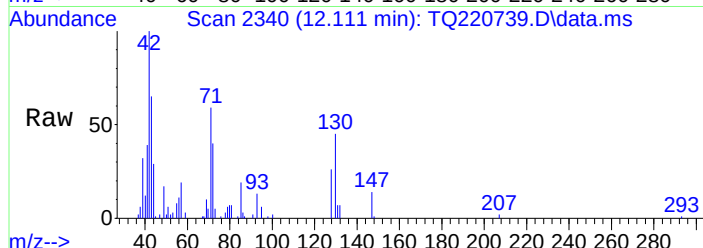
#29
Chloroform
Concen: 0.19 ppbv m
RT: 11.770 min Scan# 2234
Delta R.T. 0.023 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

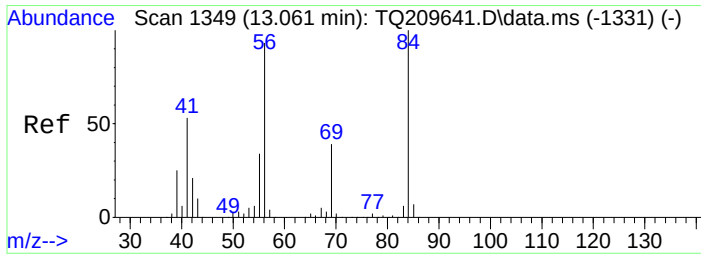
Tgt Ion	83	Resp	19581
Ion Ratio	100		
Lower	41.7		86.7#
Upper	31.5#		13.9#



#30
Tetrahydrofuran
Concen: 0.62 ppbv m
RT: 12.111 min Scan# 2340
Delta R.T. 0.039 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

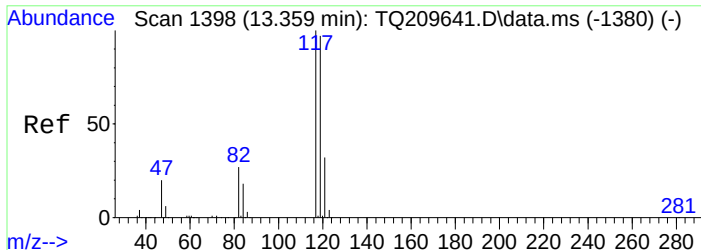
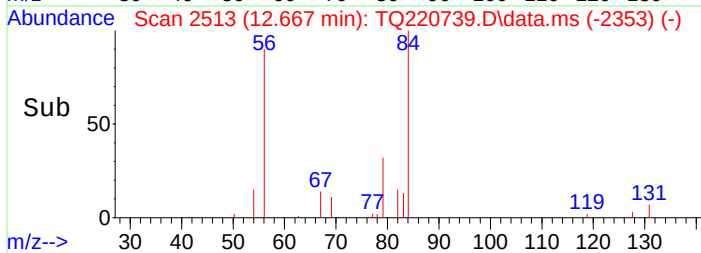
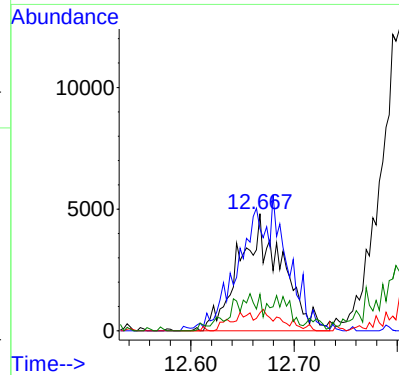
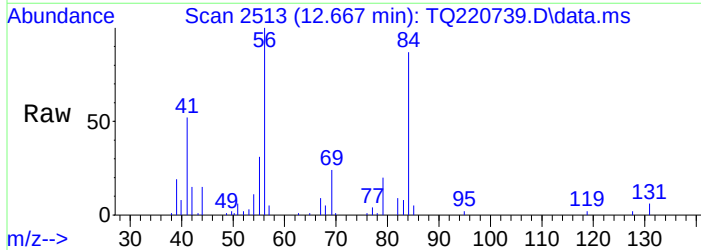
Tgt Ion	42	Resp	24886
Ion Ratio	100		
Lower	35.2		73.0#
Upper	56.6#		53.7#





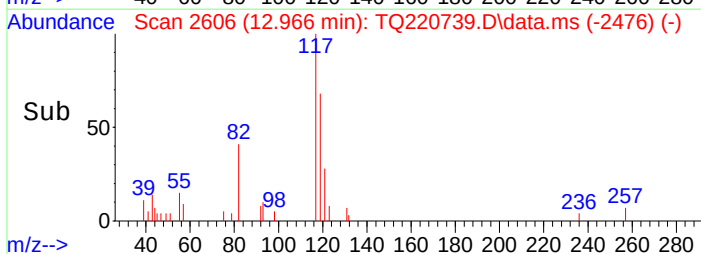
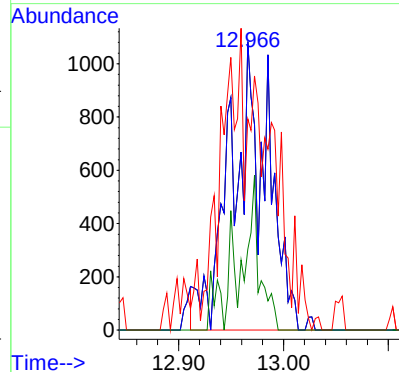
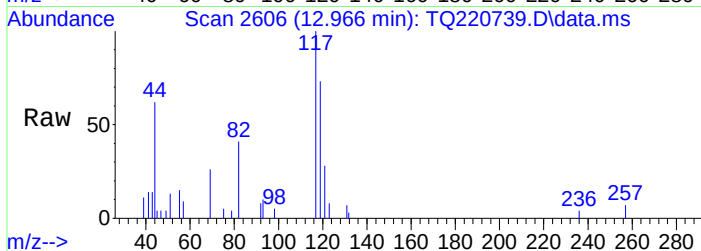
#32
Cyclohexane
Concen: 0.22 ppbv m
RT: 12.667 min Scan# 2513
Delta R.T. 0.013 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

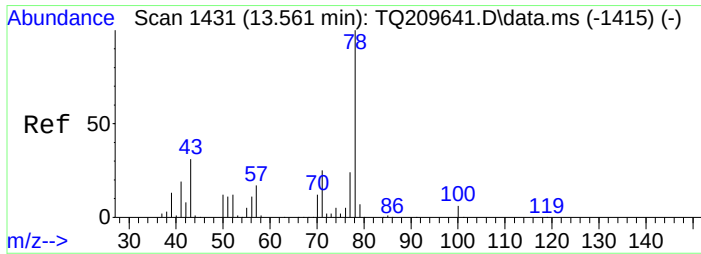
Tgt Ion	Ratio	Resp	Lower	Upper
56	100	13925		
84	60.0	54.1	112.3	
42	0.0	15.3	31.7#	
55	0.0	23.5	48.7#	



#33
Carbon Tetrachloride
Concen: 0.03 ppbv m
RT: 12.966 min Scan# 2606
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

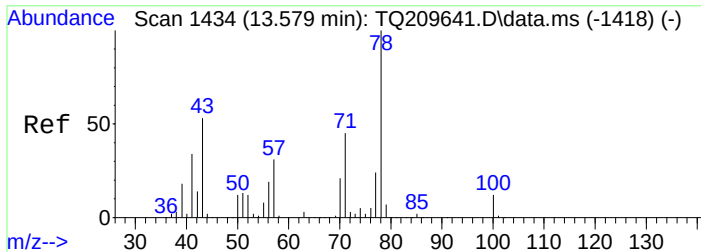
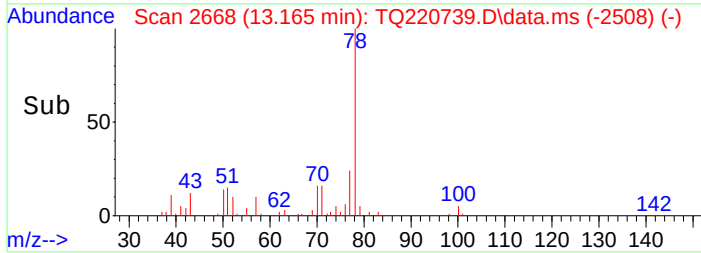
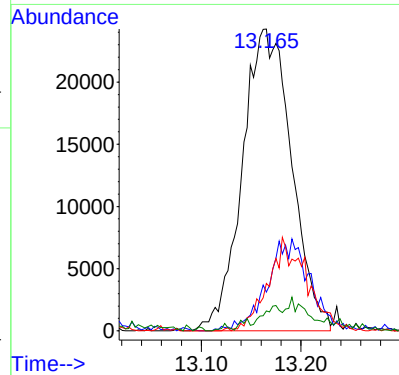
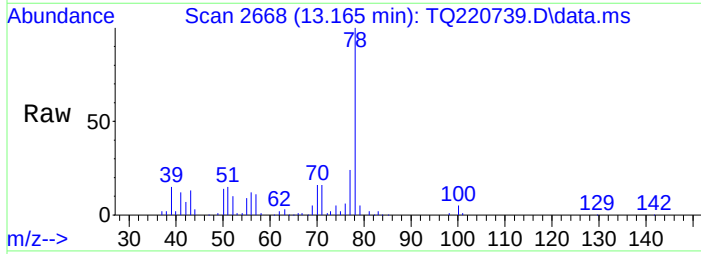
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	2636		
117	30.1	80.0	120.0#	
119	44.5	76.9	115.3#	
121	0.0	21.7	40.3#	





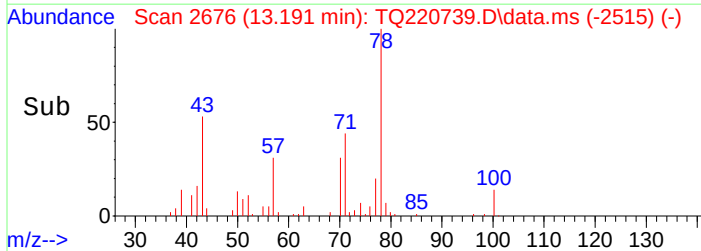
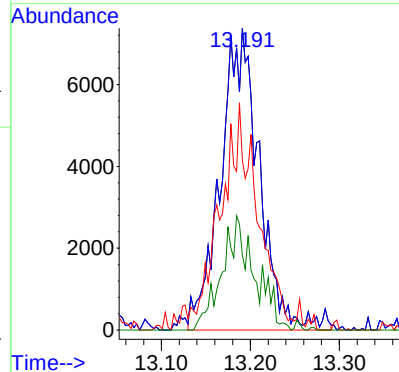
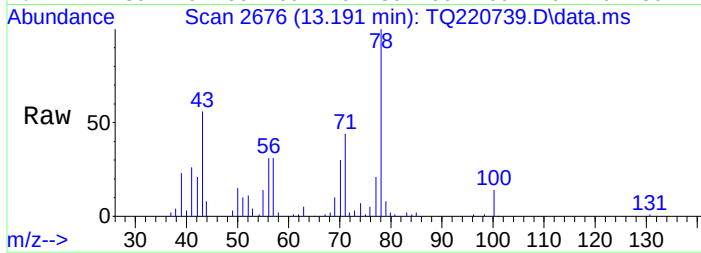
#35
Benzene
Concen: 0.54 ppbv
RT: 13.165 min Scan# 2668
Delta R.T. 0.013 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

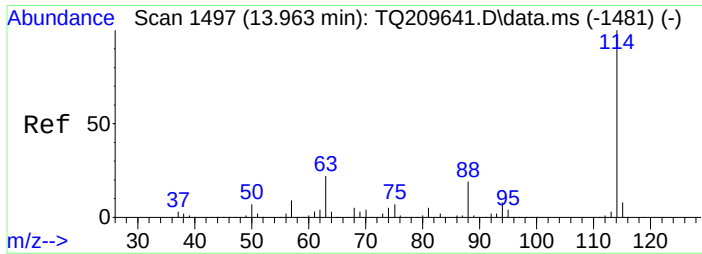
Tgt Ion	Ratio	Lower	Upper
78	100		
43	12.5	37.5	77.9#
71	15.4	22.0	45.8#
42	2.6	8.8	18.4#



#36
n-Heptane
Concen: 0.36 ppbv m
RT: 13.191 min Scan# 2676
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

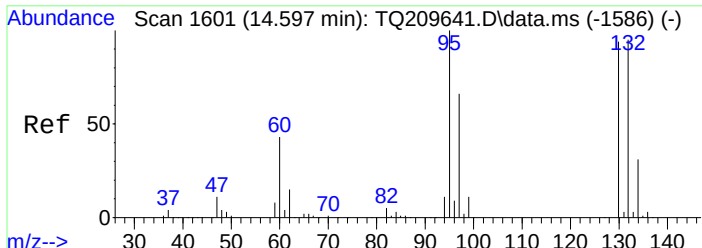
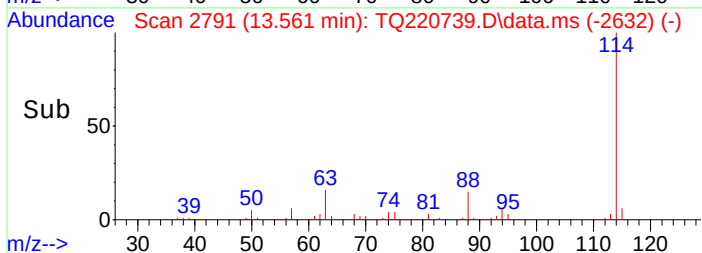
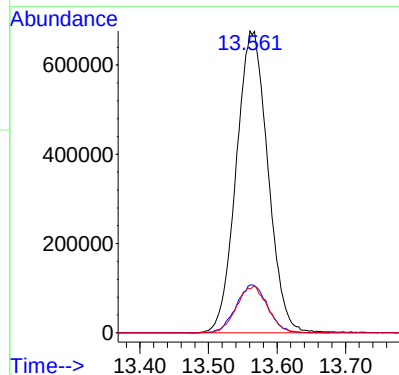
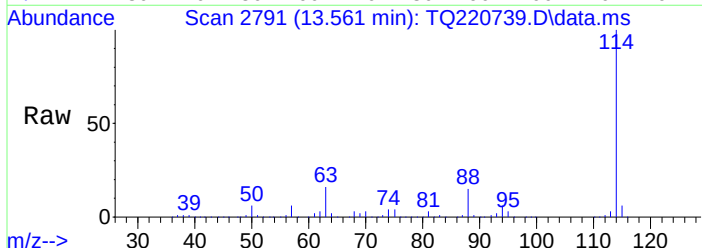
Tgt Ion	Ratio	Lower	Upper
43	100		
43	46.6	80.0	120.0#
57	0.0	42.6	64.0#
100	0.0	13.3	19.9#





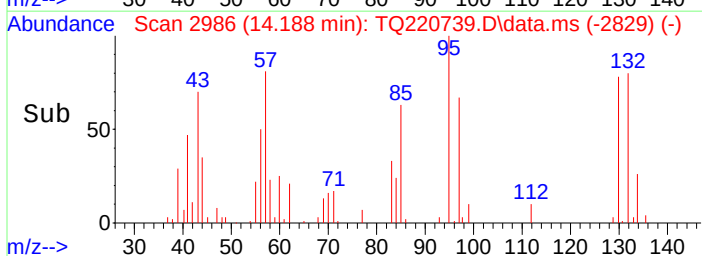
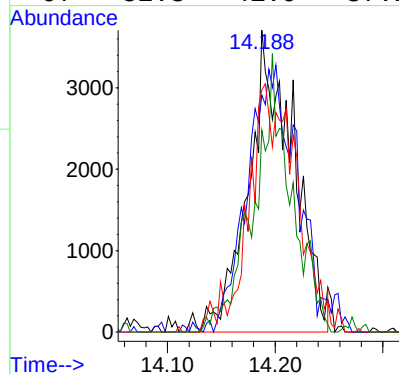
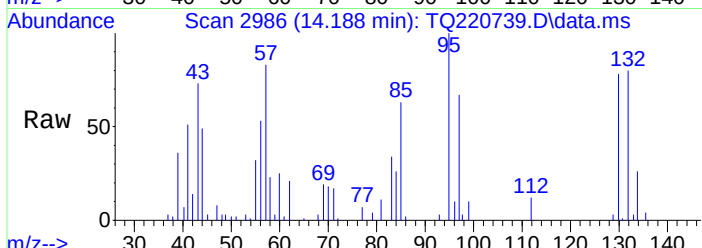
#37
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 13.561 min Scan# 2791
 Delta R.T. 0.013 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

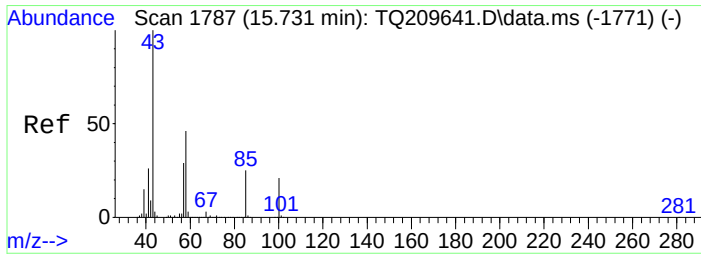
Tgt Ion:	114	Resp:	2166578
Ion Ratio		Lower	Upper
114	100		
63	16.0	12.9	26.9
88	15.2	10.7	22.3



#38
 Trichloroethylene
 Concen: 0.12 ppbv m
 RT: 14.188 min Scan# 2986
 Delta R.T. 0.004 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

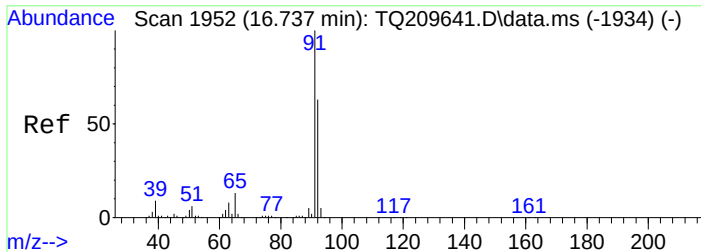
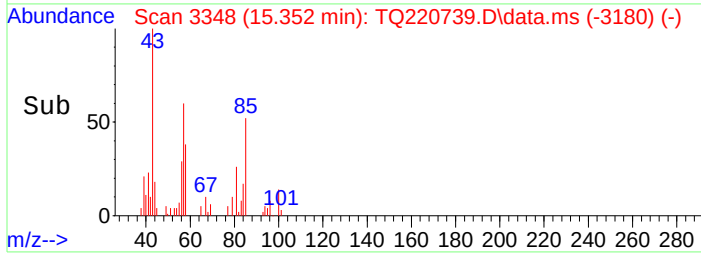
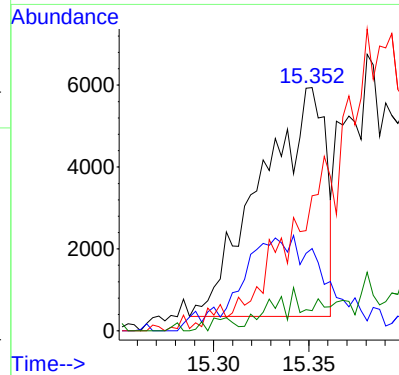
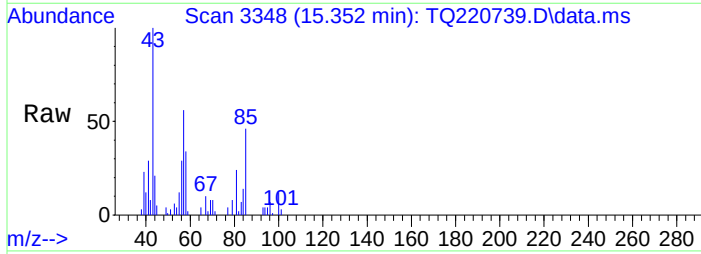
Tgt Ion:	95	Resp:	10757
Ion Ratio		Lower	Upper
95	100		
130	74.0	66.0	137.0
132	35.3	63.3	131.5#
97	52.3	41.9	87.1





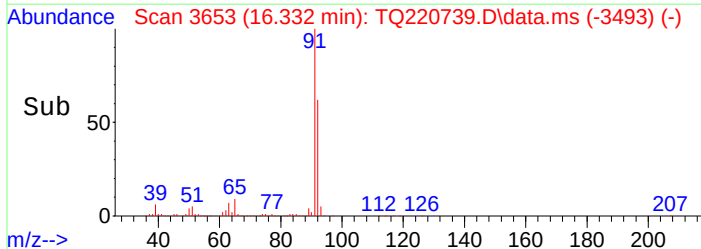
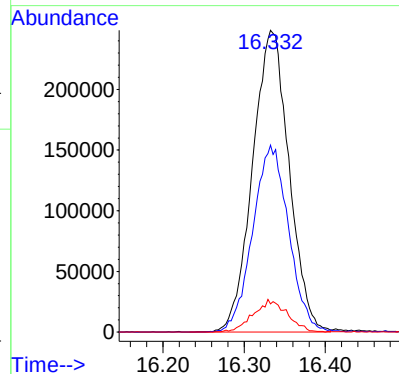
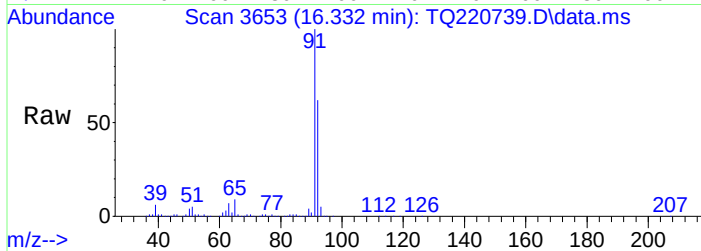
#43
Methyl Isobutyl Ketone
Concen: 0.11 ppbv
RT: 15.352 min Scan# 3348
Delta R.T. 0.039 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

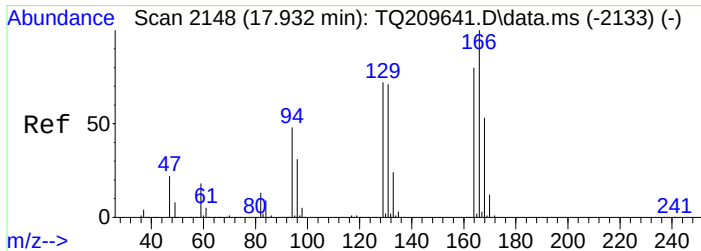
Tgt Ion	Ratio	Lower	Upper
43	100		
58	42.8	25.1	52.1
57	46.8	15.5	32.3#
42	0.0	5.0	15.0#



#45
Toluene
Concen: 3.19 ppbv
RT: 16.332 min Scan# 3653
Delta R.T. 0.013 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

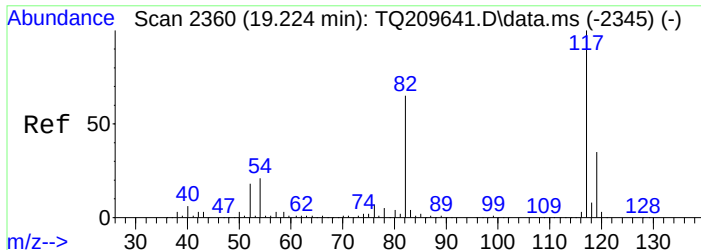
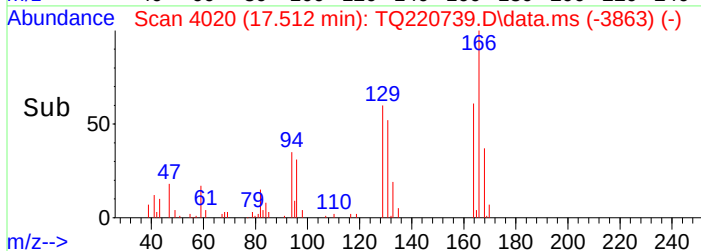
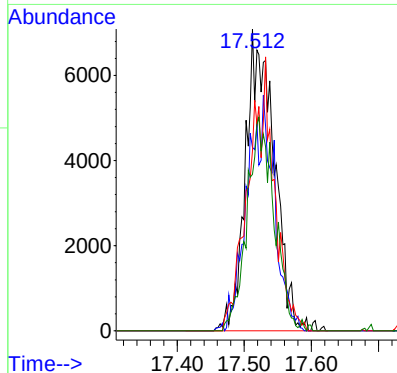
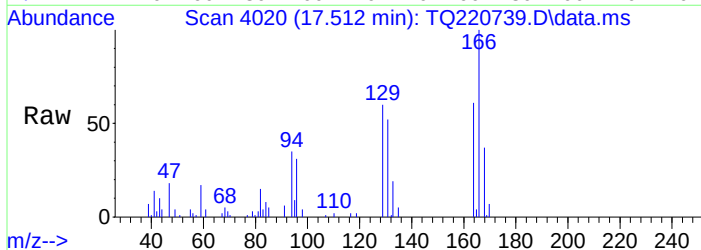
Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.1	38.7	80.3
65	10.0	7.5	15.5





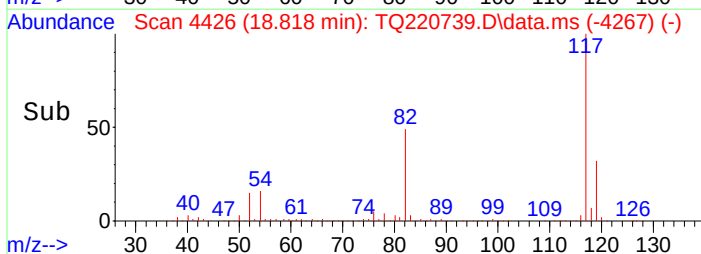
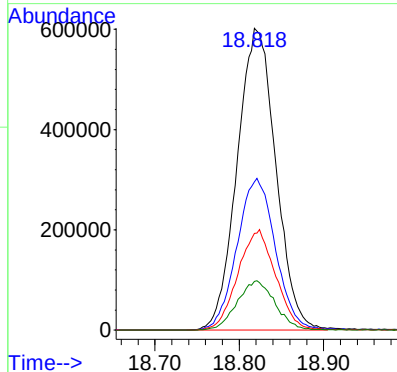
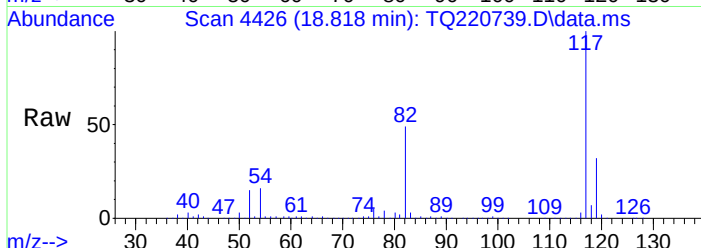
#50
Tetrachloroethylene
Concen: 0.17 ppbv m
RT: 17.512 min Scan# 4020
Delta R.T. 0.006 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

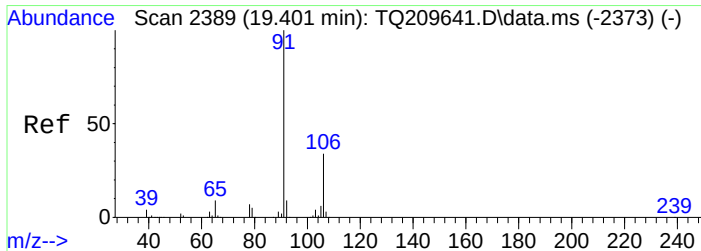
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	20958		
164	28.0		51.0	106.0#
129	42.8		48.1	99.9#
131	0.0		46.3	96.3#



#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.818 min Scan# 4426
Delta R.T. 0.013 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

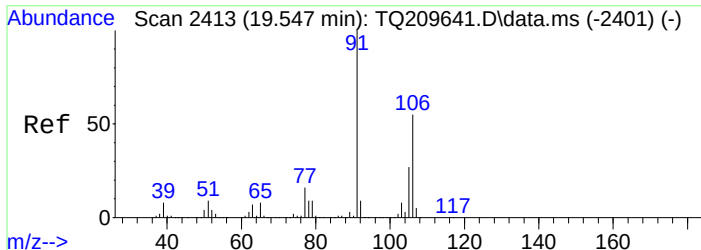
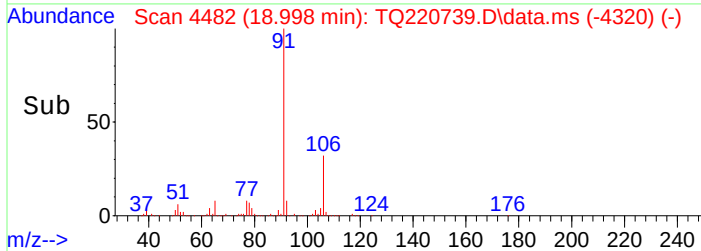
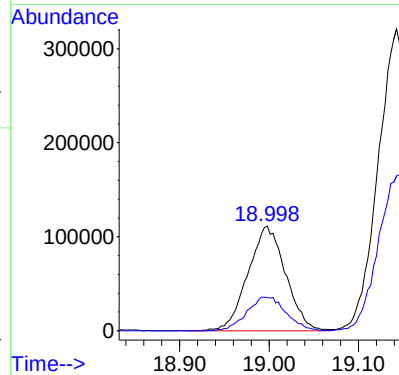
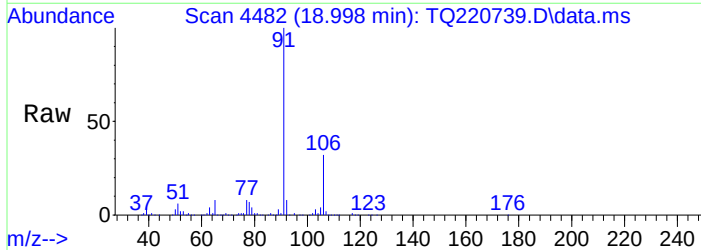
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	1918757		
82	50.1		37.1	77.1
119	32.5		22.1	45.9
54	16.1		13.8	28.6





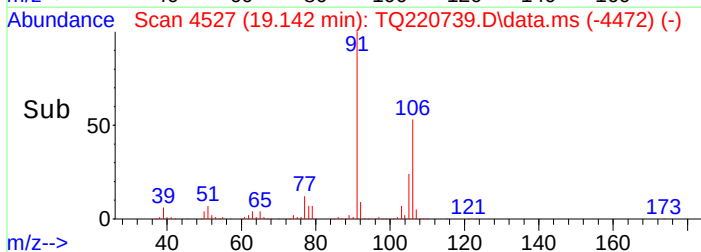
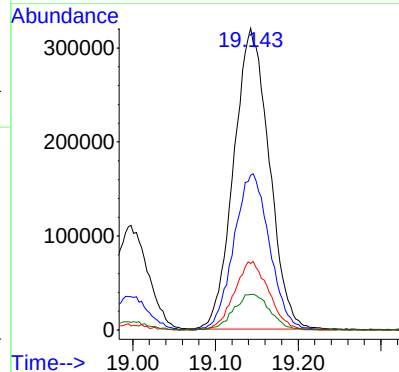
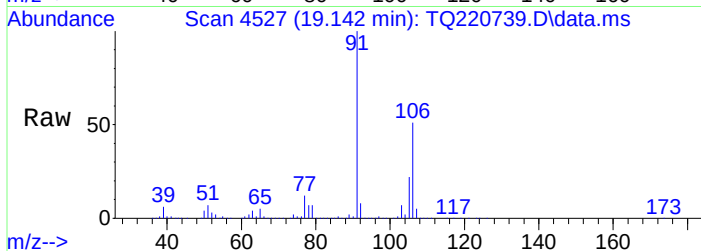
#56
Ethylbenzene
Concen: 1.07 ppbv
RT: 18.998 min Scan# 4482
Delta R.T. 0.020 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

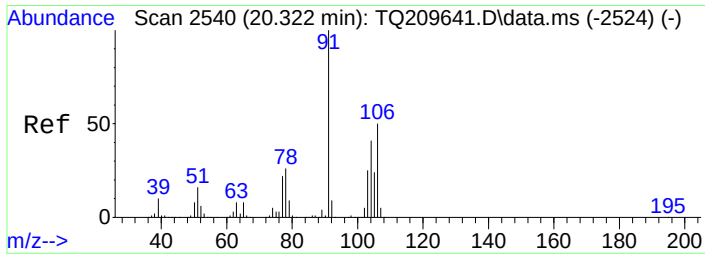
Tgt Ion: 91 Resp: 327937
Ion Ratio Lower Upper
91 100
106 33.6 20.5 42.7



#57
p- & m-Xylenes
Concen: 4.12 ppbv
RT: 19.142 min Scan# 4527
Delta R.T. 0.016 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

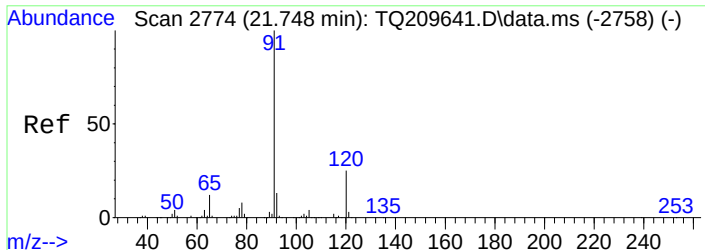
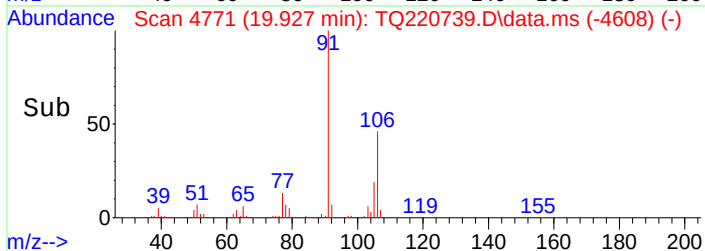
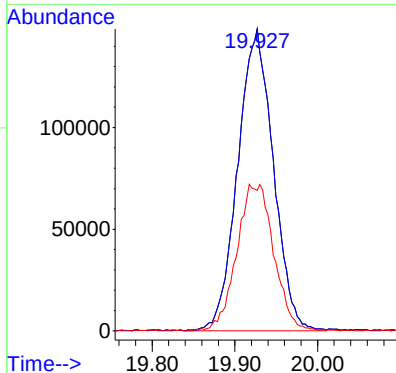
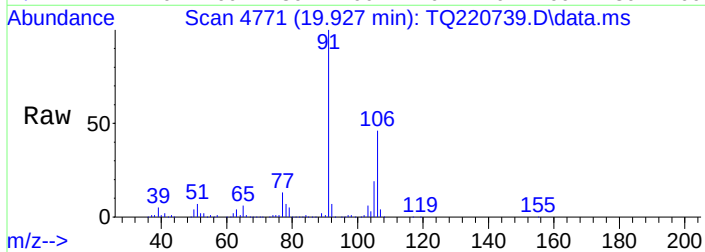
Tgt Ion: 91 Resp: 950948
Ion Ratio Lower Upper
91 100
106 52.2 32.6 67.8
105 22.3 14.5 30.1
77 12.2 8.5 17.7





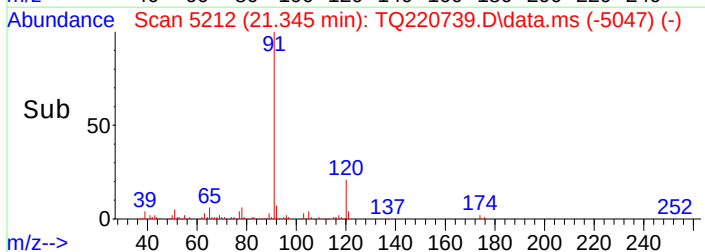
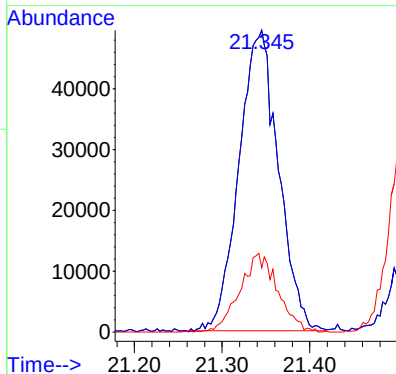
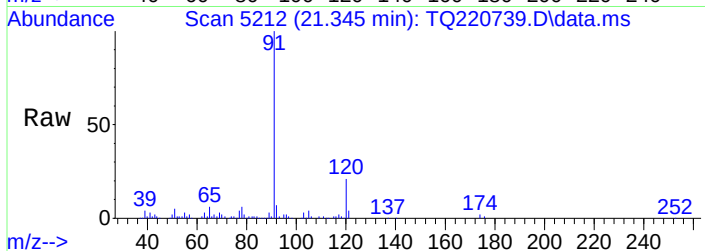
#58
o-Xylene
Concen: 1.82 ppbv
RT: 19.927 min Scan# 4771
Delta R.T. 0.023 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

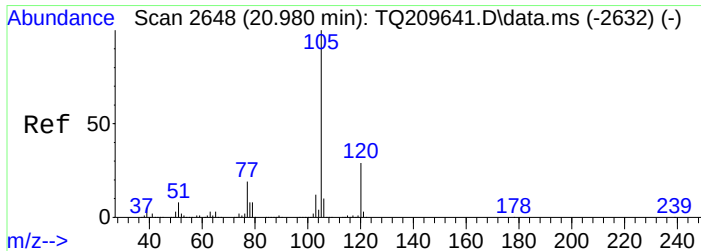
Tgt Ion	91	Resp	442924
Ion Ratio	100	Lower	Upper
91	100.0	80.0	120.0
106	28.8	38.2	57.2#



#61
n-Propylbenzene
Concen: 0.39 ppbv
RT: 21.345 min Scan# 5212
Delta R.T. 0.029 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

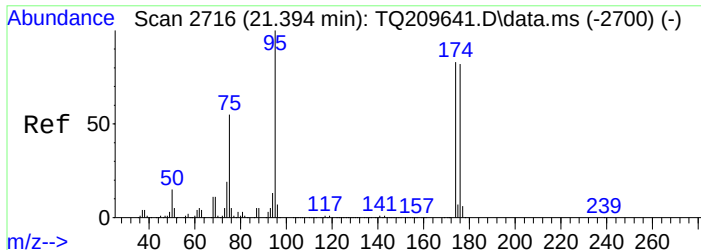
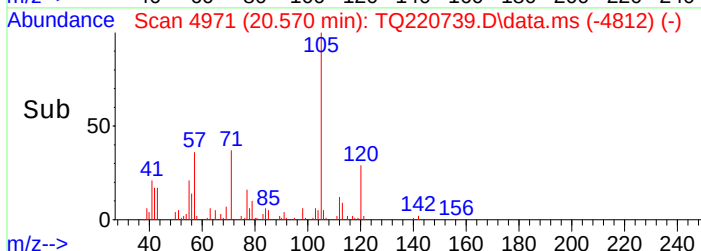
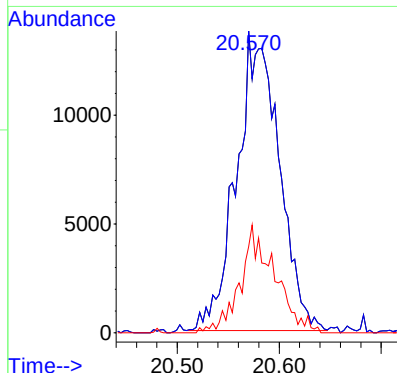
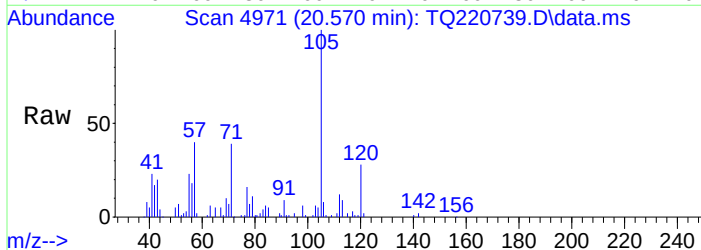
Tgt Ion	91	Resp	154563
Ion Ratio	100	Lower	Upper
91	100.0	80.0	120.0
120	25.0	10.0	30.0





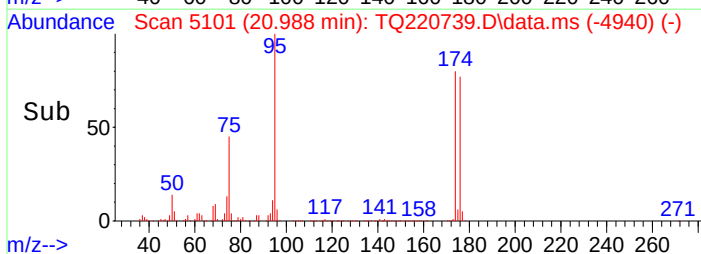
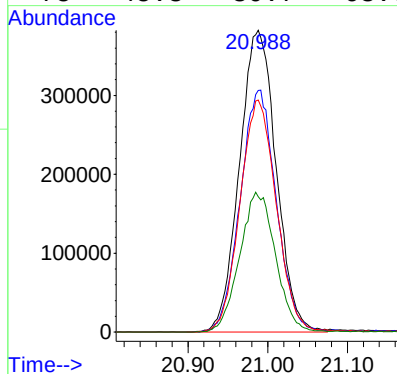
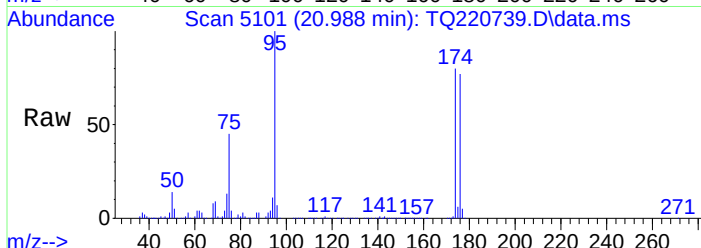
#62
Isopropylbenzene
Concen: 0.12 ppbv
RT: 20.570 min Scan# 4971
Delta R.T. 0.010 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

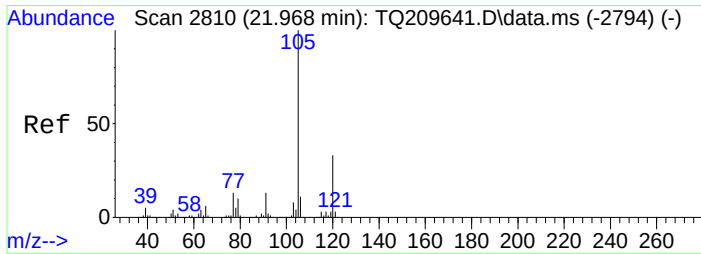
Tgt Ion:	105	Resp:	39740
Ion Ratio	Lower	Upper	
105	100		
105	100.0	80.0	120.0
120	29.2	10.0	30.0



#64
p-Bromofluorobenzene
Concen: 9.76 ppbv
RT: 20.988 min Scan# 5101
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

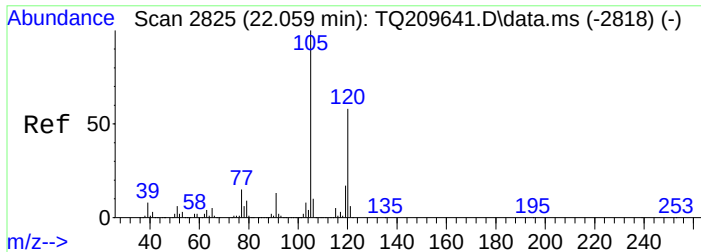
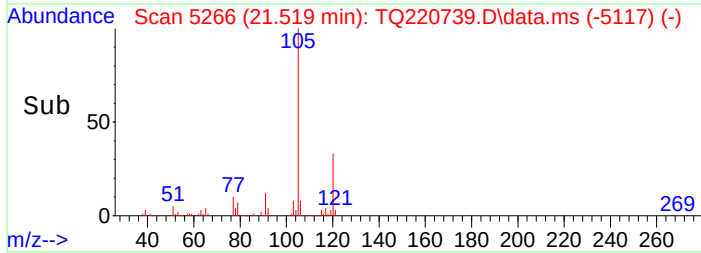
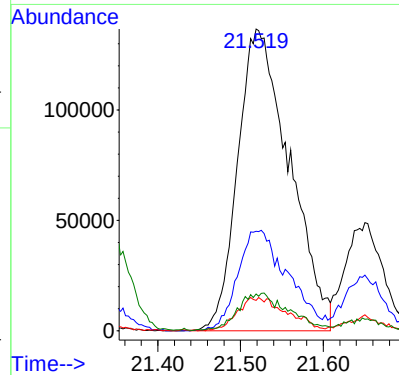
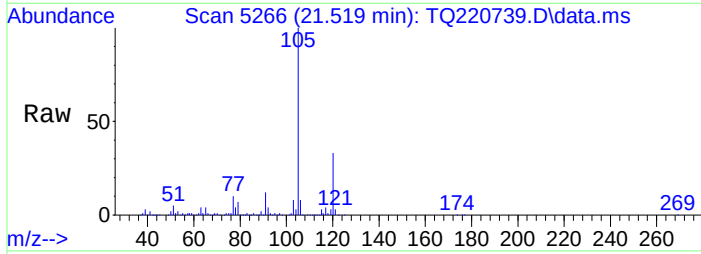
Tgt Ion:	95	Resp:	1225415
Ion Ratio	Lower	Upper	
95	100		
174	78.9	53.2	110.6
176	76.1	51.6	107.2
75	45.3	30.7	63.7





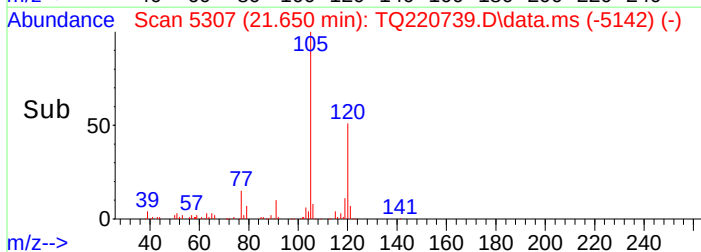
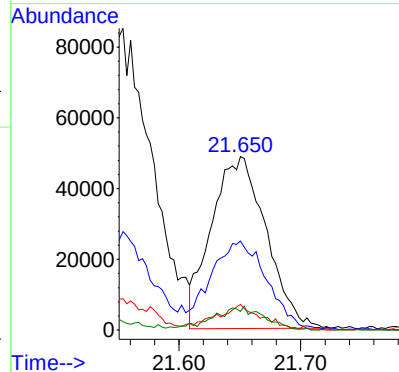
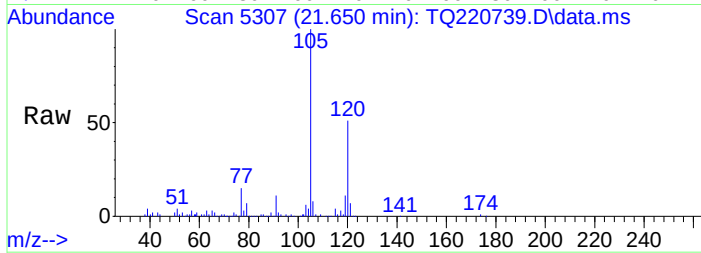
#65
4-Ethyltoluene
Concen: 1.75 ppbv
RT: 21.519 min Scan# 5266
Delta R.T. -0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

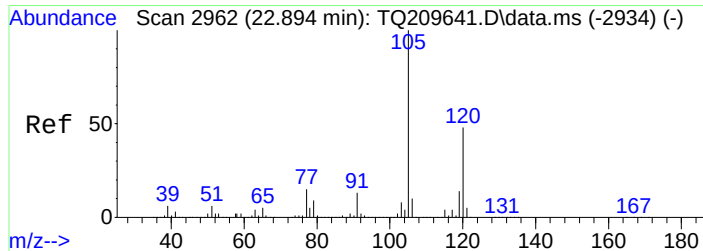
Tgt Ion	105	Ratio	Lower	Upper
105	100			
120	24.5	19.6	40.8	
77	4.0	7.3	15.3#	
91	12.0	7.1	14.7	



#66
1,3,5-Trimethylbenzene
Concen: 0.53 ppbv
RT: 21.650 min Scan# 5307
Delta R.T. 0.029 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

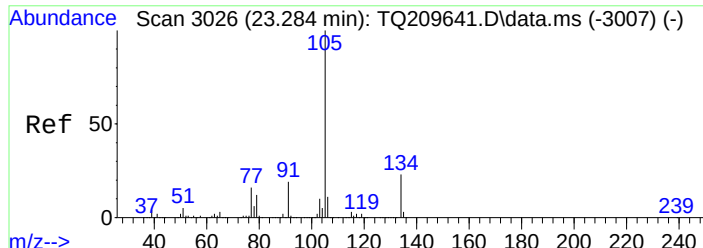
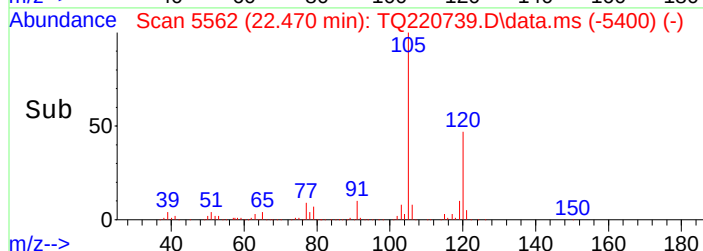
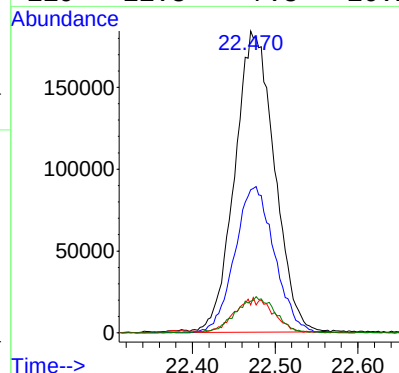
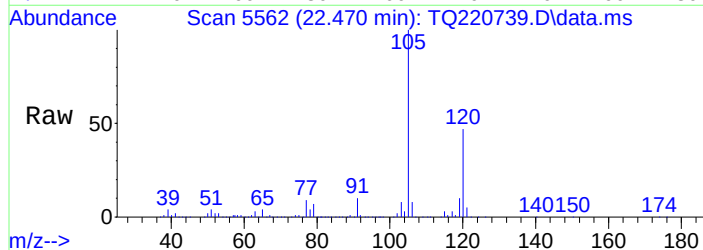
Tgt Ion	105	Ratio	Lower	Upper
105	100			
120	51.6	39.2	58.8	
77	11.7	10.1	15.1	
119	10.7	6.1	18.3	





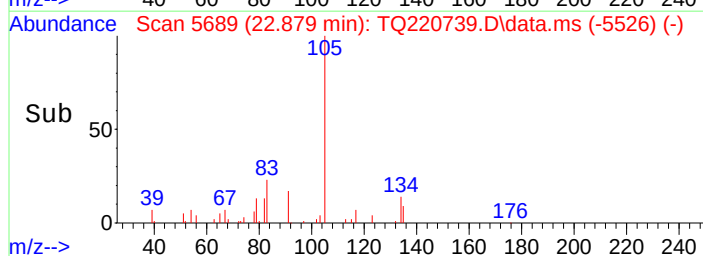
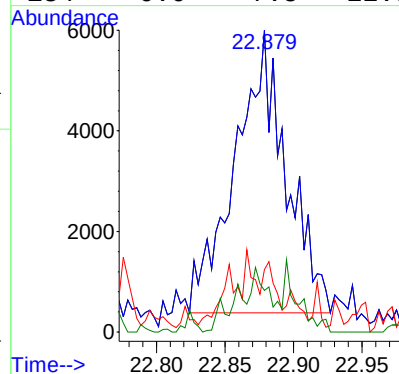
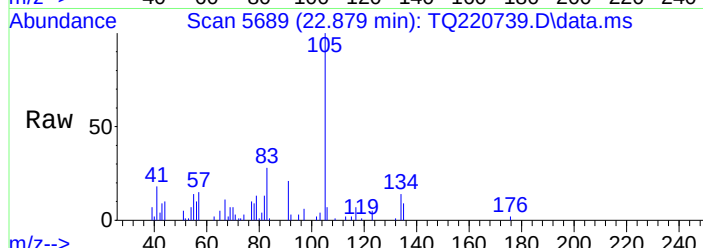
#68
1,2,4-Trimethylbenzene
Concen: 2.10 ppbv
RT: 22.470 min Scan# 5562
Delta R.T. 0.022 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

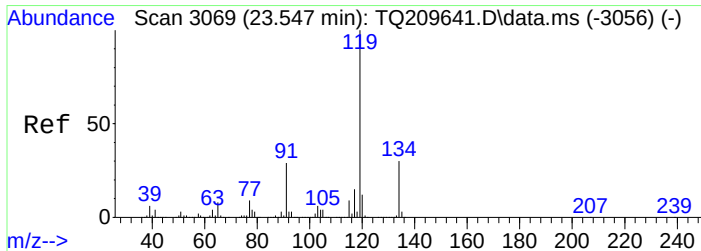
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.5	30.2	62.6
77	4.9	8.1	16.9#
119	11.8	7.8	16.2



#69
sec-Butylbenzene
Concen: 0.03 ppbv
RT: 22.879 min Scan# 5689
Delta R.T. 0.026 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

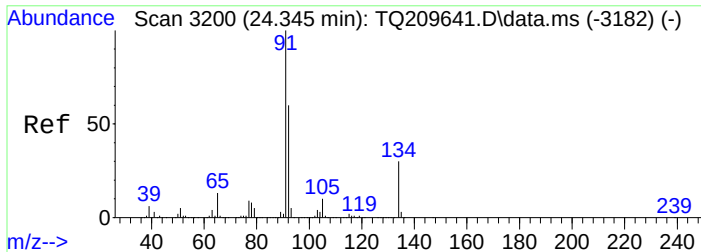
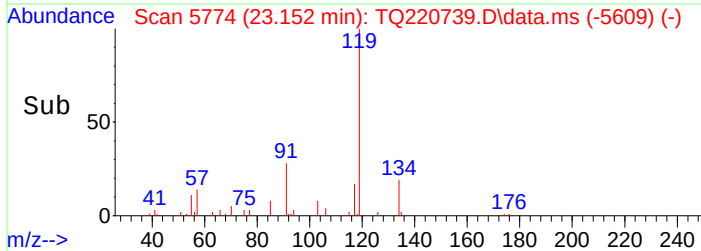
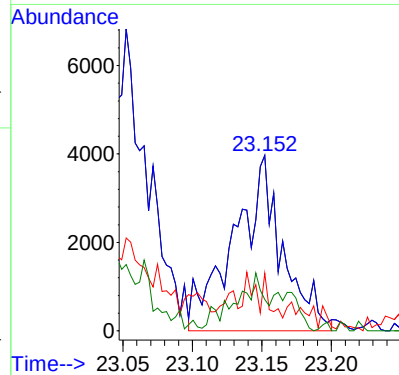
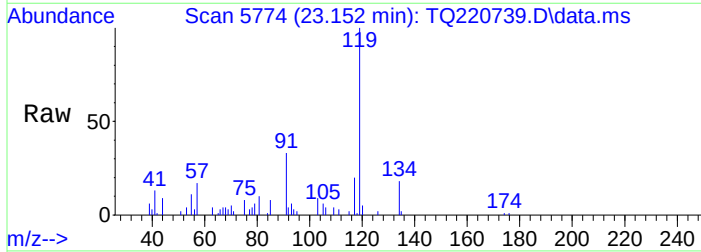
Tgt Ion	Ratio	Lower	Upper
105	100		
105	100.0	80.0	120.0
91	6.8	7.5	22.5#
134	0.0	7.5	22.5#





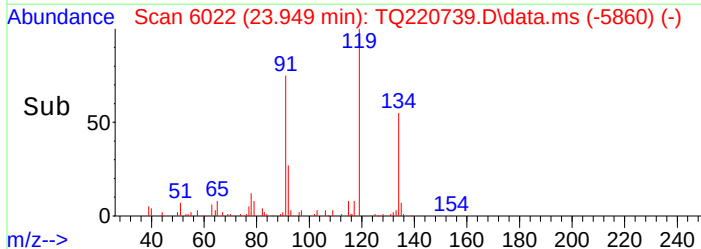
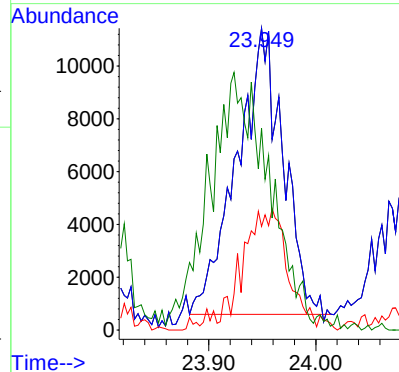
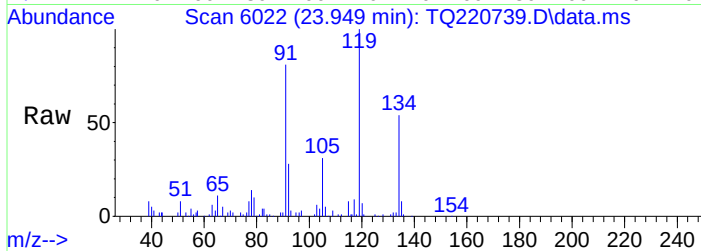
#70
p-Isopropyltoluene
Concen: 0.03 ppbv m
RT: 23.152 min Scan# 5774
Delta R.T. 0.032 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

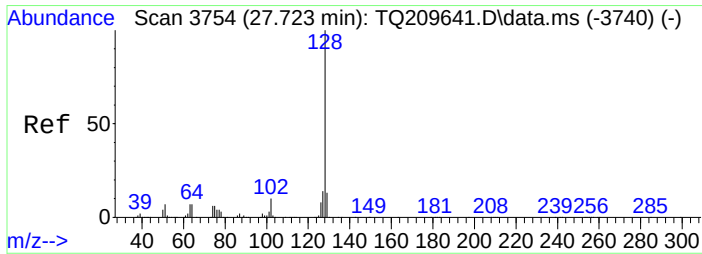
Tgt Ion:	119	Resp:	9613
Ion Ratio	Lower	Upper	
119	100		
119	106.1	80.0	120.0
91	15.3	7.5	52.5
134	41.6	7.5	52.5



#74
n-Butylbenzene
Concen: 0.10 ppbv
RT: 23.949 min Scan# 6022
Delta R.T. 0.019 min
Lab File: TQ220739.D
Acq: 23 Jun 2022 11:10 am

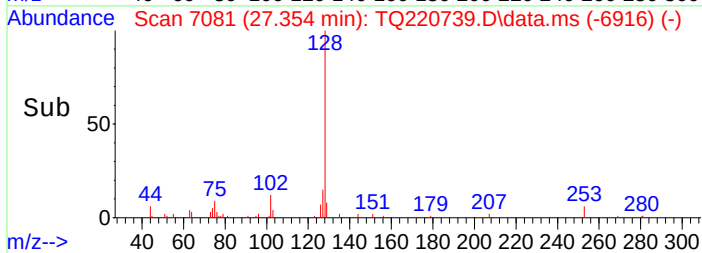
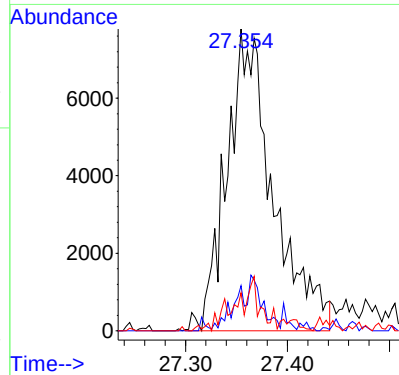
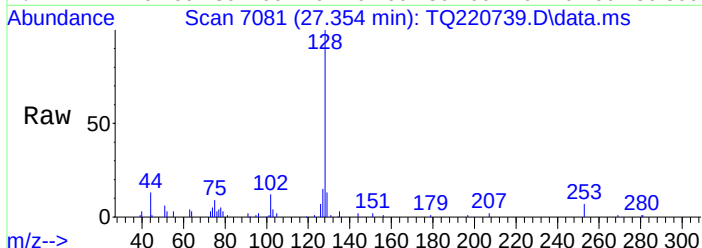
Tgt Ion:	91	Resp:	32600
Ion Ratio	Lower	Upper	
91	100		
91	100.0	80.0	120.0
92	16.6	44.0	66.0#
134	68.9	12.5	37.5#





#78
 Naphthalene
 Concen: 0.06 ppbv m
 RT: 27.354 min Scan# 7081
 Delta R.T. 0.029 min
 Lab File: TQ220739.D
 Acq: 23 Jun 2022 11:10 am

Tgt Ion:	128	Resp:	24421
Ion Ratio		Lower	Upper
128	100		
127	3.8	8.1	16.9#
129	2.1	7.1	14.7#



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

879_V3

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-04 File ID: TQ220740.D
 Sampled: 06/20/22 10:45 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 12:13
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.59	1.1	U
71-55-6	1,1,1-Trichloroethane	1.59	0.87	U
79-34-5	1,1,2,2-Tetrachloroethane	1.59	1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.59	1.2	U
79-00-5	1,1,2-Trichloroethane	1.59	0.87	U
75-34-3	1,1-Dichloroethane	1.59	0.64	U
75-35-4	1,1-Dichloroethylene	1.59	0.16	U
120-82-1	1,2,4-Trichlorobenzene	1.59	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.59	6.1	D
106-93-4	1,2-Dibromoethane	1.59	1.2	U
95-50-1	1,2-Dichlorobenzene	1.59	0.95	U
107-06-2	1,2-Dichloroethane	1.59	0.64	U
78-87-5	1,2-Dichloropropane	1.59	0.73	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.59	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.59	1.7	D
106-99-0	1,3-Butadiene	1.59	1.1	U
541-73-1	1,3-Dichlorobenzene	1.59	0.95	U
142-28-9	1,3-Dichloropropane	1.59	0.73	U
106-46-7	1,4-Dichlorobenzene	1.59	0.95	U
123-91-1	1,4-Dioxane	1.59	1.1	U
78-93-3	2-Butanone	1.59	4.4	D
591-78-6	2-Hexanone	1.59	1.3	U
107-05-1	3-Chloropropene	1.59	2.5	U
108-10-1	4-Methyl-2-pentanone	1.59	0.65	U
67-64-1	Acetone	1.59	8.2	D
107-13-1	Acrylonitrile	1.59	0.34	U
71-43-2	Benzene	1.59	4.0	D
100-44-7	Benzyl chloride	1.59	0.82	U
75-27-4	Bromodichloromethane	1.59	1.1	U
75-25-2	Bromoform	1.59	1.6	U
74-83-9	Bromomethane	1.59	0.62	U
75-15-0	Carbon disulfide	1.59	14	D
56-23-5	Carbon tetrachloride	1.59	0.40	D
108-90-7	Chlorobenzene	1.59	0.73	U
75-00-3	Chloroethane	1.59	0.42	U
67-66-3	Chloroform	1.59	0.78	U
74-87-3	Chloromethane	1.59	1.4	D
156-59-2	cis-1,2-Dichloroethylene	1.59	0.16	U
10061-01-5	cis-1,3-Dichloropropylene	1.59	0.72	U
110-82-7	Cyclohexane	1.59	1.2	D

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

879_V3

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-04 File ID: TQ220740.D
 Sampled: 06/20/22 10:45 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 12:13
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15 AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
124-48-1	Dibromochloromethane	1.59	1.4	U
75-71-8	Dichlorodifluoromethane	1.59	3.0	D
141-78-6	Ethyl acetate	1.59	1.1	U
100-41-4	Ethyl Benzene	1.59	5.3	D
87-68-3	Hexachlorobutadiene	1.59	1.7	U
67-63-0	Isopropanol	1.59	1.5	D
80-62-6	Methyl Methacrylate	1.59	0.65	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1.59	0.57	U
75-09-2	Methylene chloride	1.59	1.1	U
142-82-5	n-Heptane	1.59	2.8	D
110-54-3	n-Hexane	1.59	3.1	D
95-47-6	o-Xylene	1.59	7.7	D
179601-23-1	p- & m- Xylenes	1.59	19	D
622-96-8	p-Ethyltoluene	1.59	5.7	D
115-07-1	Propylene	1.59	2.4	D
100-42-5	Styrene	1.59	0.68	U
127-18-4	Tetrachloroethylene	1.59	1.1	U
109-99-9	Tetrahydrofuran	1.59	5.5	D
108-88-3	Toluene	1.59	20	D
156-60-5	trans-1,2-Dichloroethylene	1.59	0.63	U
10061-02-6	trans-1,3-Dichloropropylene	1.59	0.72	U
79-01-6	Trichloroethylene	1.59	0.21	U
75-69-4	Trichlorofluoromethane (Freon 11)	1.59	2.0	D
108-05-4	Vinyl acetate	1.59	0.56	U
593-60-2	Vinyl bromide	1.59	0.69	U
75-01-4	Vinyl Chloride	1.59	0.20	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	400947	11.979	554760	11.985	
ISTD: 1,4-Difluorobenzene	2275233	13.558	3144562	13.564	
ISTD: d5-Chlorobenzene	2037419	18.821	2743461	18.824	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220740.D
 Acq On : 23 Jun 2022 12:13 pm
 Operator : LLJ
 Sample : 22F1033-04
 Misc : QBT02062322A 1X/400 ML
 ALS Vial : 5 Sample Multiplier: 1.588
 InstName : T015_AIR2

Quant Time: Jun 24 05:12:10 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

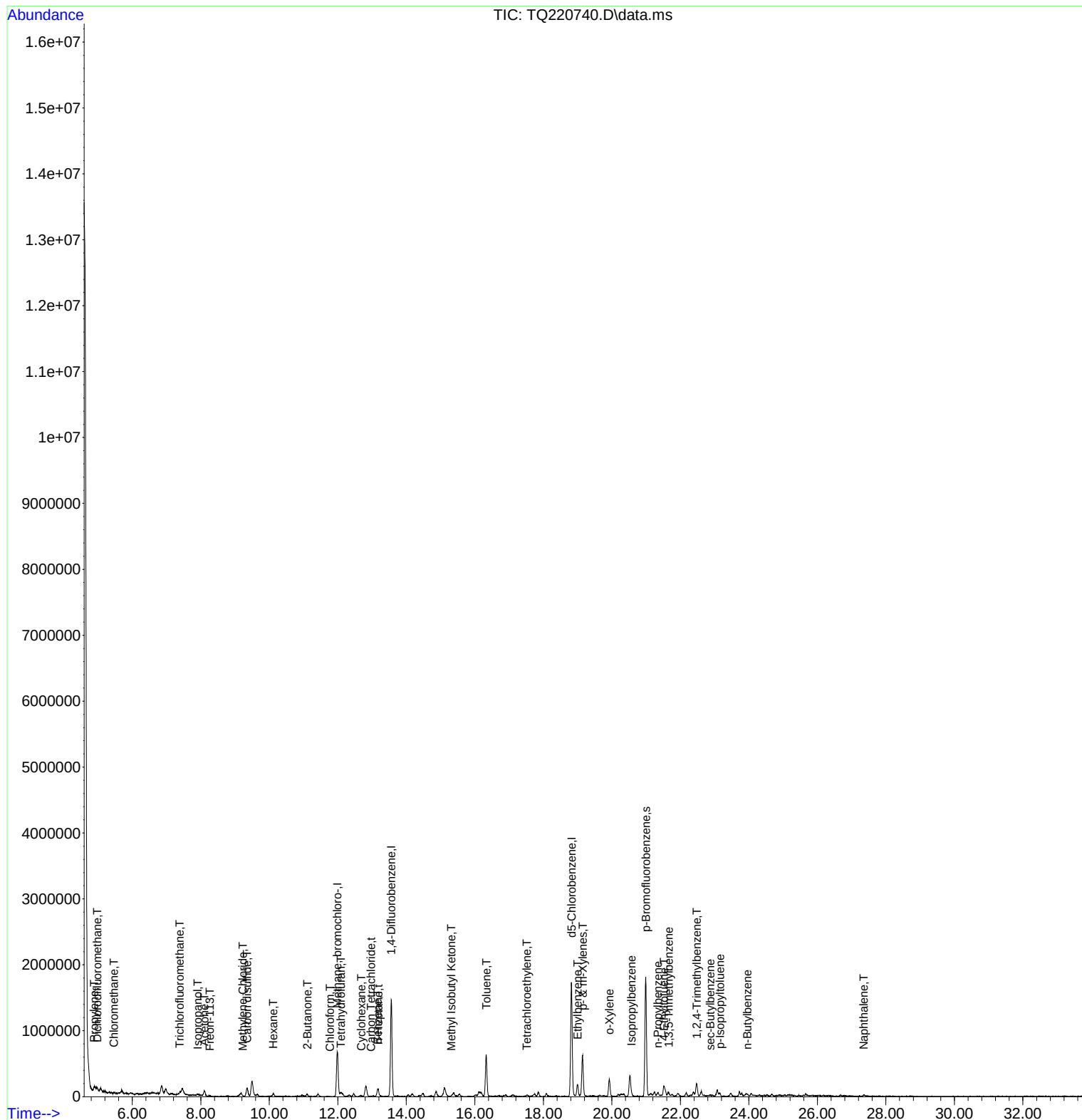
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

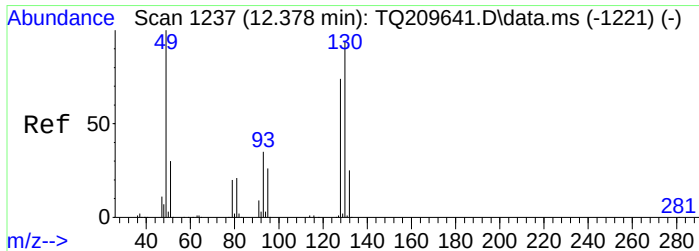
Internal Standards						
1) Methane, bromochloro-	11.979	49	400947	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.558	114	2275233	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.821	117	2037419	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.988	95	1297189	9.73	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.30%	
Target Compounds						
						Qvalue
2) Propylene	4.889	42	16698m	0.86	ppbv	
3) Dichlorodifluoromethane	4.976	85	49106	0.38	ppbv	96
5) Chloromethane	5.461	50	9123m	0.43	ppbv	
11) Trichlorofluoromethane	7.375	101	26465m	0.22	ppbv	
12) Isopropanol	7.912	45	53726m	0.38	ppbv	
14) Acetone	8.101	43	141835	2.18	ppbv	89
15) Freon-113	8.259	101	5369m	0.05	ppbv	
18) Methylene Chloride	9.223	49	4499m	0.10	ppbv	
20) Carbon disulfide	9.346	76	378451	2.90	ppbv	# 79
23) Hexane	10.108	57	35365m	0.56	ppbv	
26) 2-Butanone	11.108	43	69722m	0.93	ppbv	
29) Chloroform	11.767	83	6881m	0.06	ppbv	
30) Tetrahydrofuran	12.088	42	48587	1.18	ppbv	# 79
32) Cyclohexane	12.677	56	14570m	0.22	ppbv	
33) Carbon Tetrachloride	12.963	117	3464m	0.04	ppbv	
35) Benzene	13.159	78	124143	0.78	ppbv	# 56
36) n-Heptane	13.178	43	27587	0.43	ppbv	# 87
43) Methyl Isobutyl Ketone	15.310	43	5420	0.04	ppbv	# 46
45) Toluene	16.329	91	872485	3.41	ppbv	98
50) Tetrachloroethylene	17.512	166	9309m	0.07	ppbv	
56) Ethylbenzene	18.995	91	250076	0.77	ppbv	96
57) p- & m-Xylenes	19.146	91	677455	2.76	ppbv	97
58) o-Xylene	19.927	91	287172	1.11	ppbv	100
61) n-Propylbenzene	21.339	91	74607	0.18	ppbv	99
62) Isopropylbenzene	20.570	105	24155m	0.07	ppbv	
65) 4-Ethyltoluene	21.519	105	264039	0.73	ppbv	# 59
66) 1,3,5-Trimethylbenzene	21.654	105	65567	0.22	ppbv	# 52
68) 1,2,4-Trimethylbenzene	22.477	105	241209	0.78	ppbv	# 93
69) sec-Butylbenzene	22.876	105	10799m	0.02	ppbv	
70) p-Isopropyltoluene	23.155	119	58069m	0.15	ppbv	
74) n-Butylbenzene	23.953	91	15621m	0.05	ppbv	
78) Naphthalene	27.351	128	37584m	0.09	ppbv	

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220740.D
Acq On : 23 Jun 2022 12:13 pm
Operator : LLJ
Sample : 22F1033-04
Misc : QBT02062322A 1X/400 ML
ALS Vial : 5 Sample Multiplier: 1.588
InstName : T015_AIR2

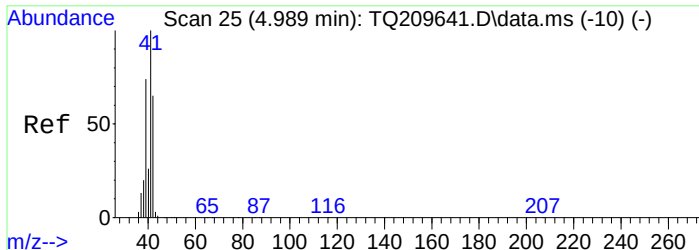
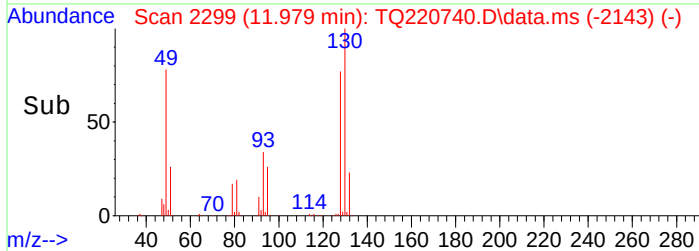
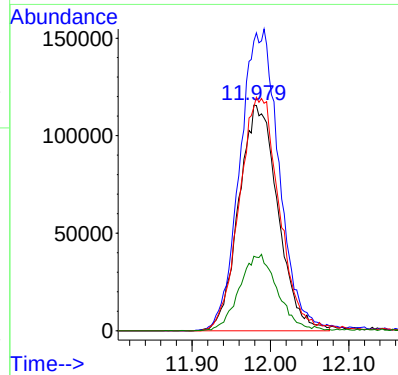
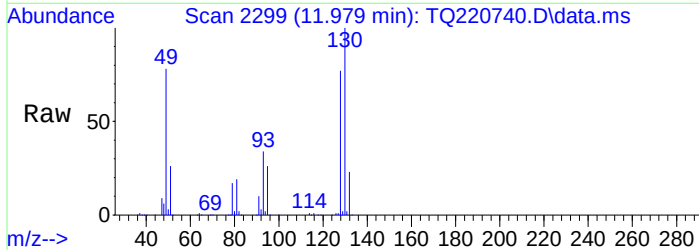
Quant Time: Jun 24 05:12:10 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





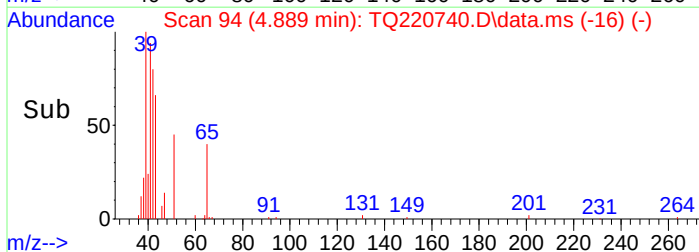
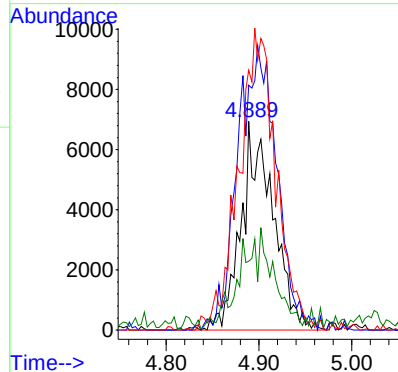
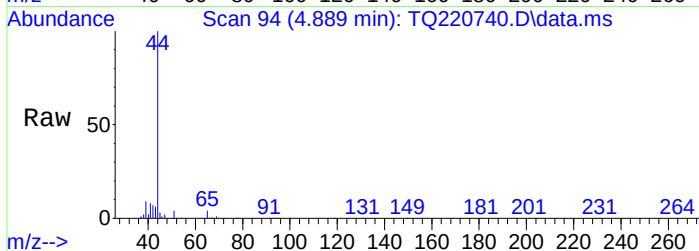
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.979 min Scan# 2299
Delta R.T. 0.003 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

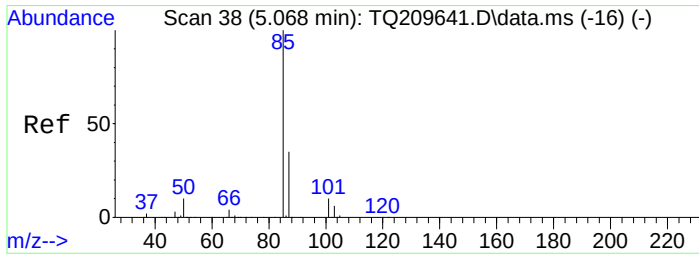
Tgt Ion	Ratio	Lower	Upper
49	100		
130	68.4	48.1	99.9
128	104.7	38.3	79.5#
51	32.8	20.3	42.3



#2
Propylene
Concen: 0.86 ppbv m
RT: 4.889 min Scan# 94
Delta R.T. 0.000 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

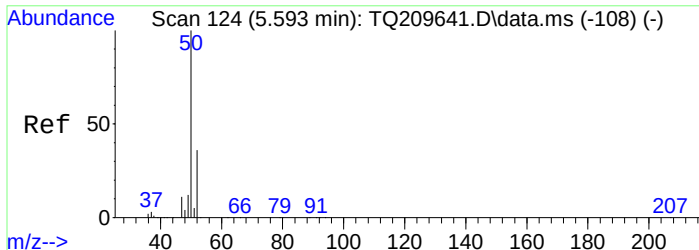
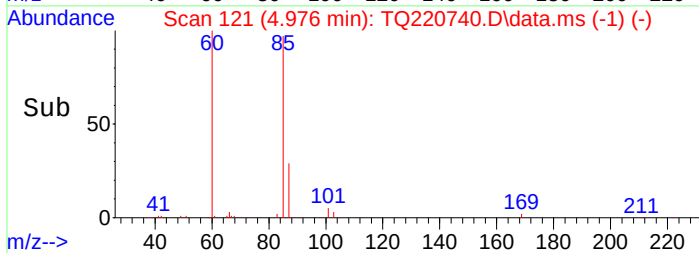
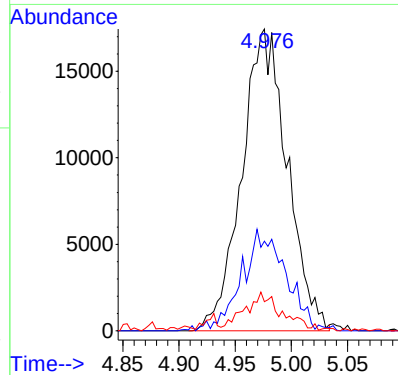
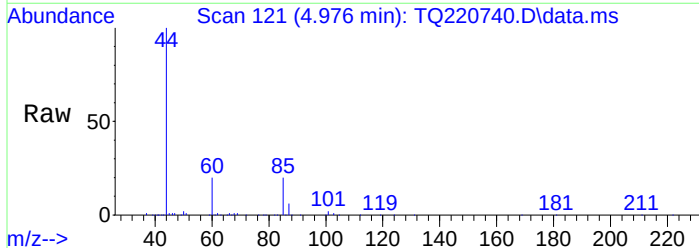
Tgt Ion	Ratio	Lower	Upper
42	100		
41	46.3	90.7	211.7#
39	0.0	54.1	162.3#
40	12.8	18.7	56.1#





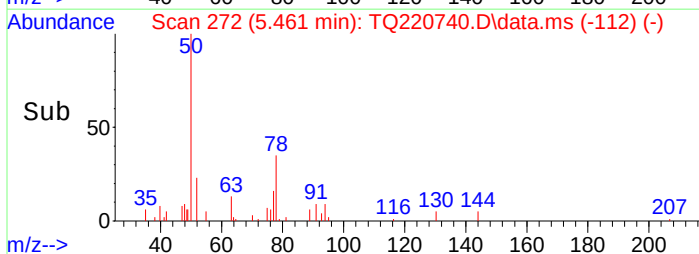
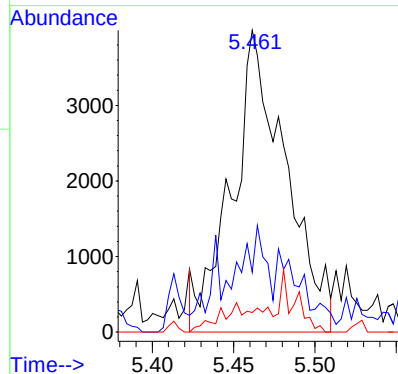
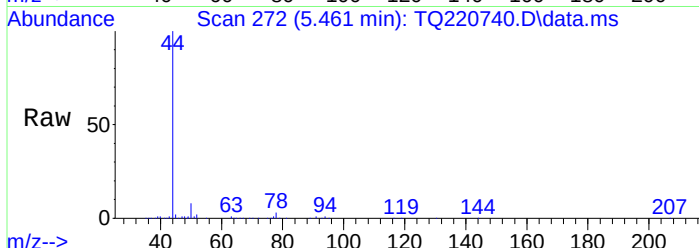
#3
 Dichlorodifluoromethane
 Concen: 0.38 ppbv
 RT: 4.976 min Scan# 121
 Delta R.T. 0.010 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

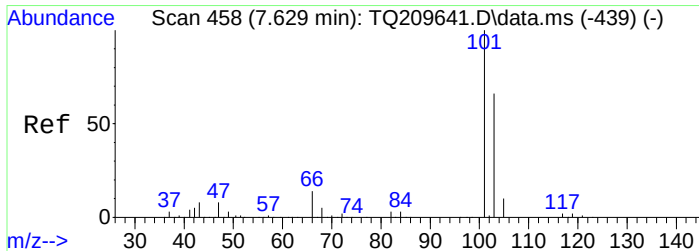
Tgt Ion	Ratio	Lower	Upper
85	100		
87	30.3	20.9	43.5
50	8.8	7.2	15.0



#5
 Chloromethane
 Concen: 0.43 ppbv m
 RT: 5.461 min Scan# 272
 Delta R.T. 0.013 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

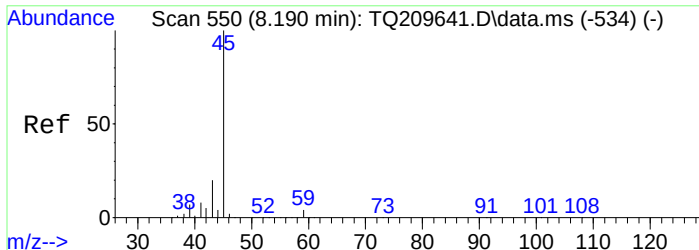
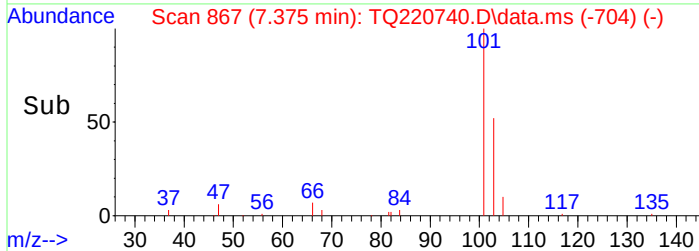
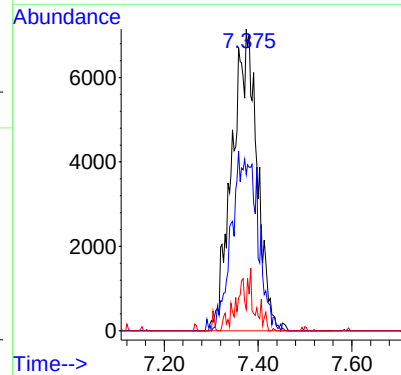
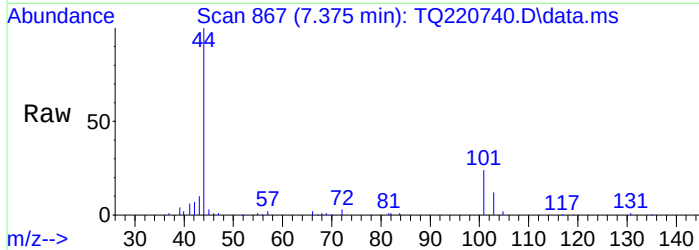
Tgt Ion	Ratio	Lower	Upper
50	100		
52	5.8	0.0	65.2
49	0.0	0.0	19.6





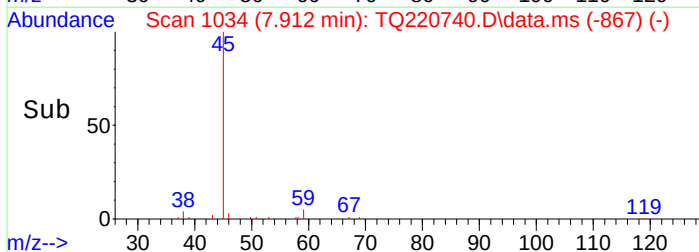
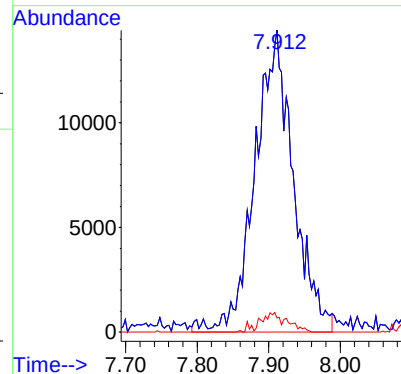
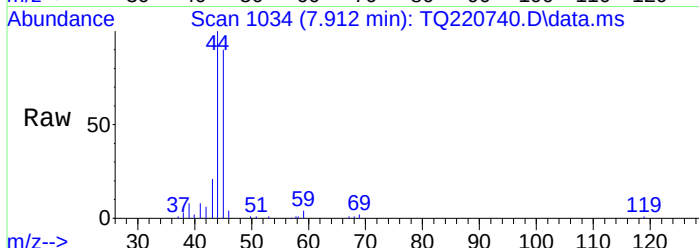
#11
 Trichlorofluoromethane
 Concen: 0.22 ppbv m
 RT: 7.375 min Scan# 867
 Delta R.T. 0.023 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

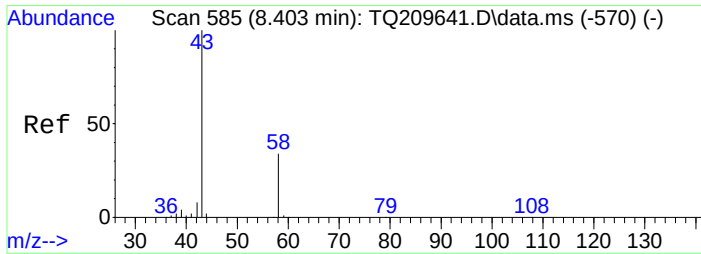
Tgt Ion	Ratio	Lower	Upper
101	100		
103	23.1	42.3	87.8#
66	0.0	7.8	16.2#



#12
 Isopropanol
 Concen: 0.38 ppbv m
 RT: 7.912 min Scan# 1034
 Delta R.T. 0.039 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

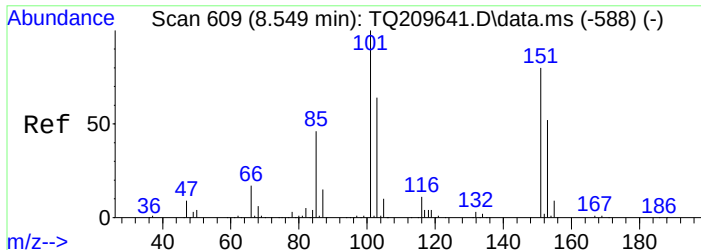
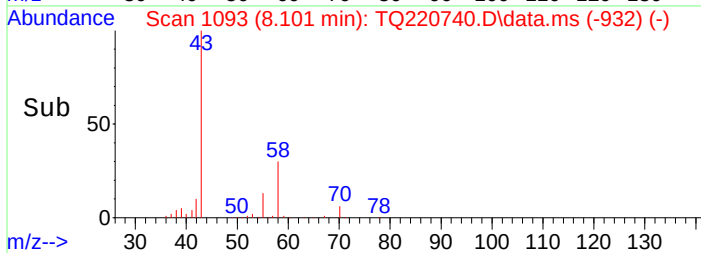
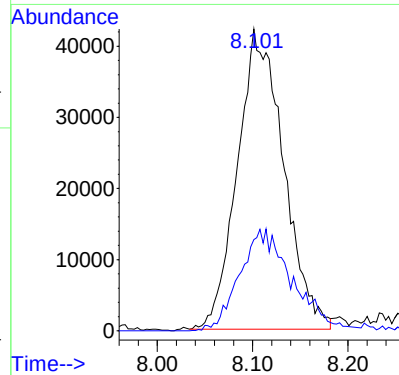
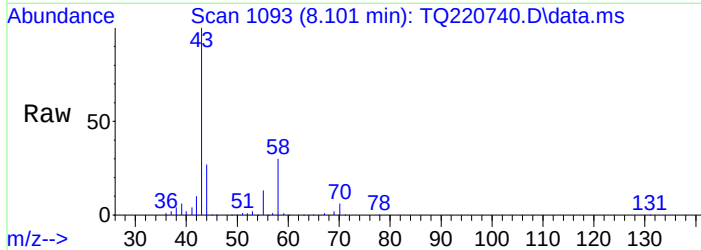
Tgt Ion	Ratio	Lower	Upper
45	100		
45	44.9	65.0	135.0#
59	2.6	0.0	10.0





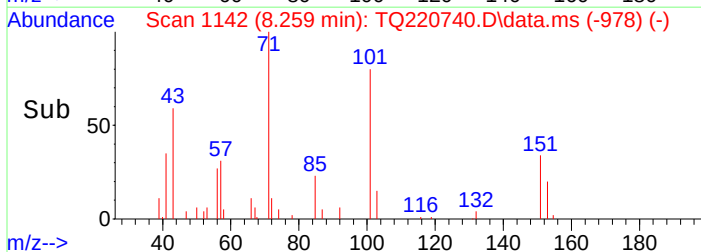
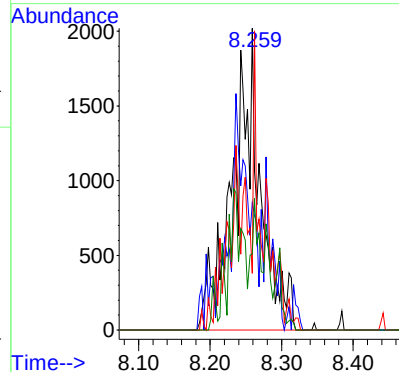
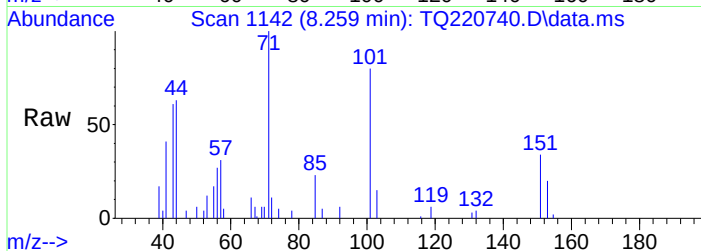
#14
Acetone
Concen: 2.18 ppbv
RT: 8.101 min Scan# 1093
Delta R.T. 0.016 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

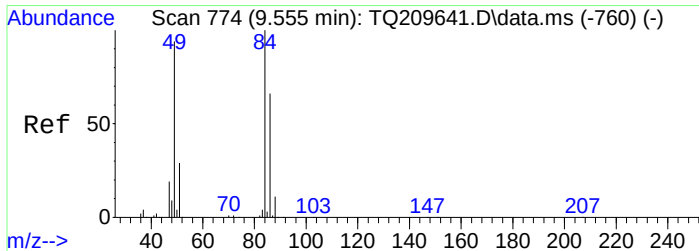
Tgt Ion	Ratio	Lower	Upper
43	100		
58	38.3	20.9	43.3



#15
Freon-113
Concen: 0.05 ppbv m
RT: 8.259 min Scan# 1142
Delta R.T. 0.029 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

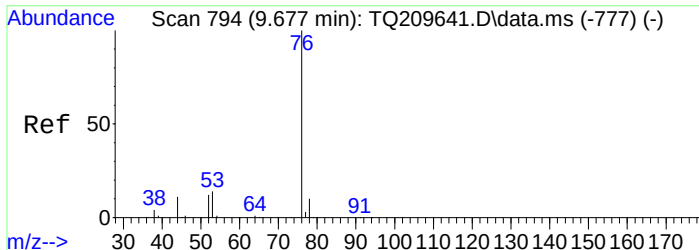
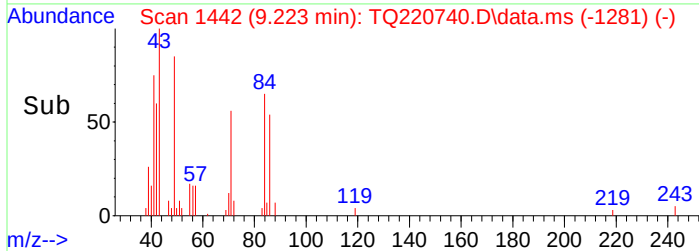
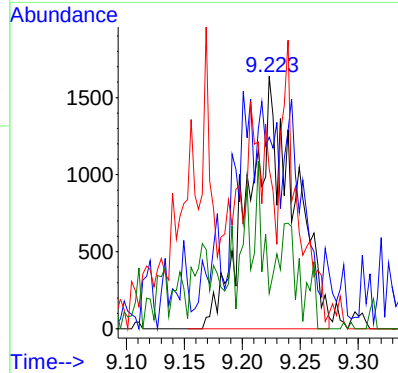
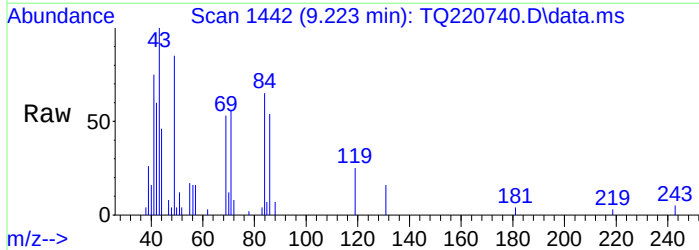
Tgt Ion	Ratio	Lower	Upper
101	100		
151	11.3	50.5	104.9#
103	14.8	42.0	87.2#
153	17.5	32.4	67.4#





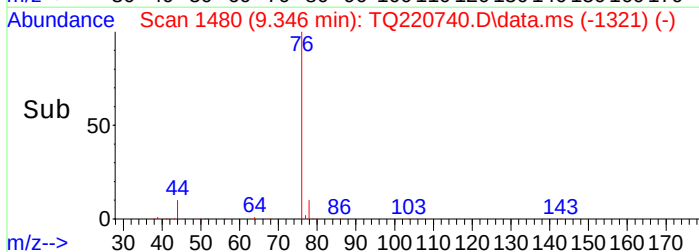
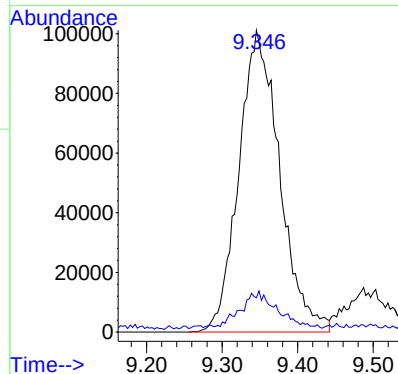
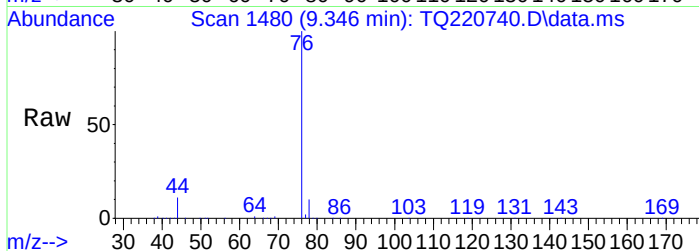
#18
Methylene Chloride
Concen: 0.10 ppbv m
RT: 9.223 min Scan# 1442
Delta R.T. 0.016 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

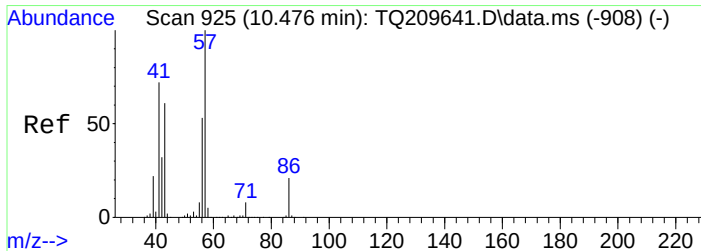
Tgt Ion	Ratio	Lower	Upper
49	100		
84	29.3	49.9	103.5#
86	0.0	31.8	66.0#
51	0.0	20.2	41.9#



#20
Carbon disulfide
Concen: 2.90 ppbv
RT: 9.346 min Scan# 1480
Delta R.T. 0.013 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

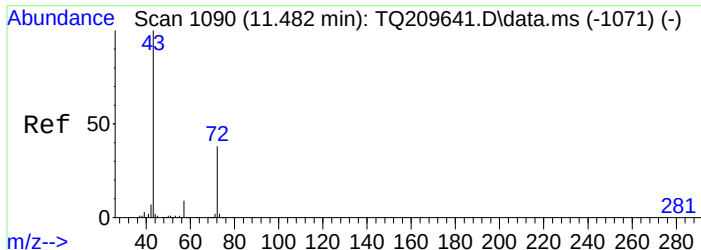
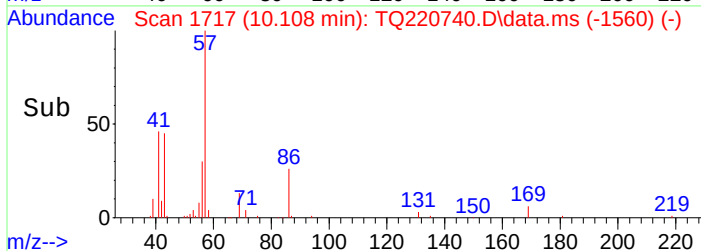
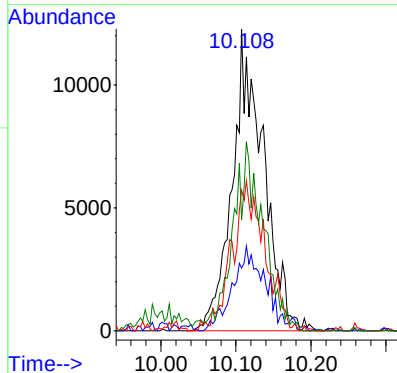
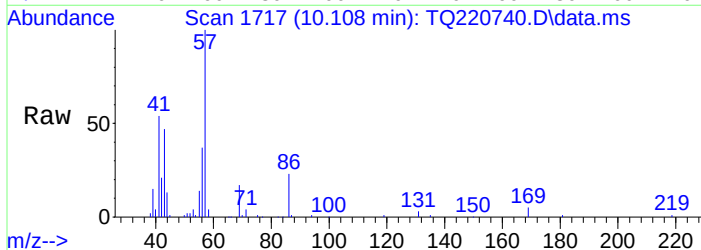
Tgt Ion	Ratio	Lower	Upper
76	100		
44	4.4	8.3	17.3#





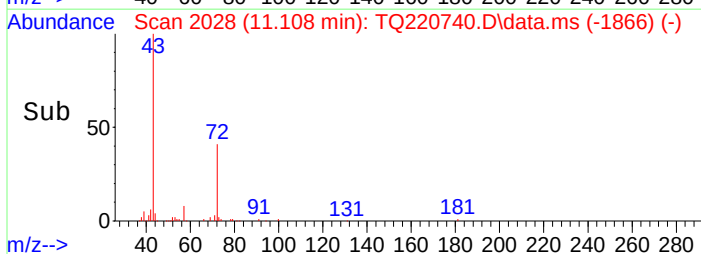
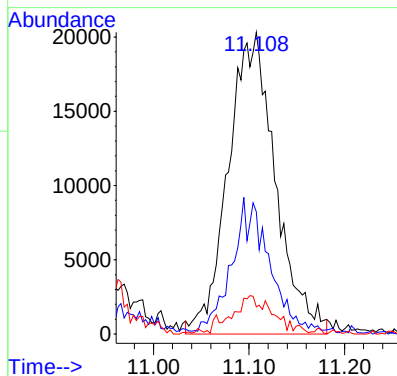
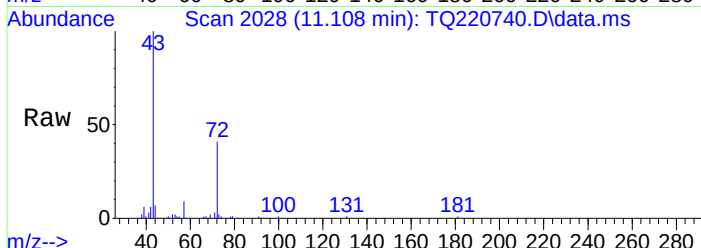
#23
Hexane
Concen: 0.56 ppbv m
RT: 10.108 min Scan# 1717
Delta R.T. 0.004 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

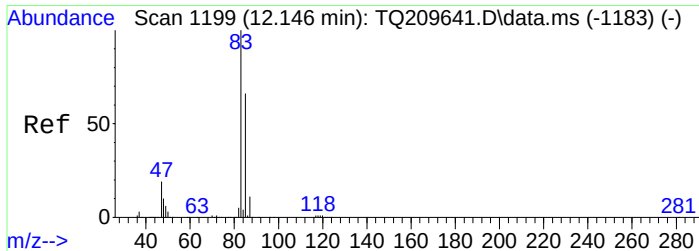
Tgt Ion:	57	Resp:	35365
Ion Ratio	Lower	Upper	
57	100		
42	2.1	21.6	45.0#
43	9.4	42.0	87.2#
56	18.8	33.3	69.1#



#26
2-Butanone
Concen: 0.93 ppbv m
RT: 11.108 min Scan# 2028
Delta R.T. 0.020 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

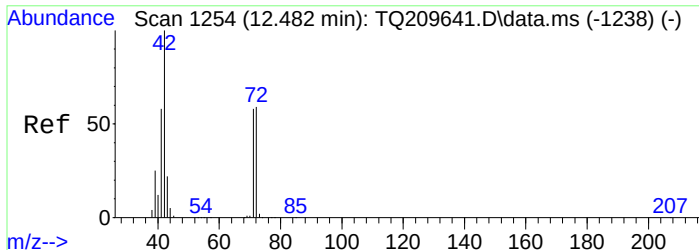
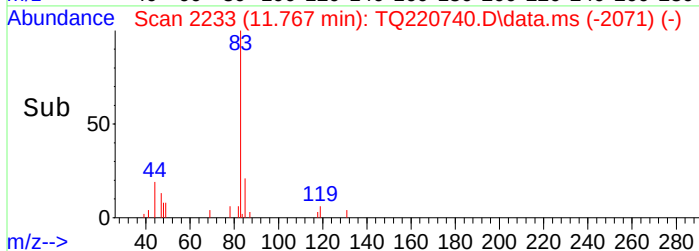
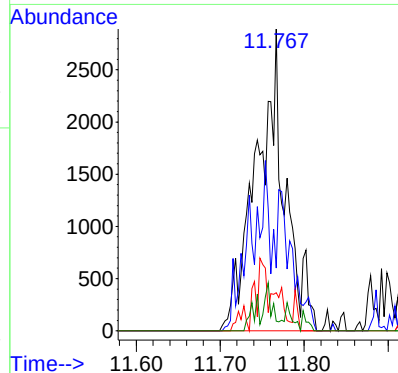
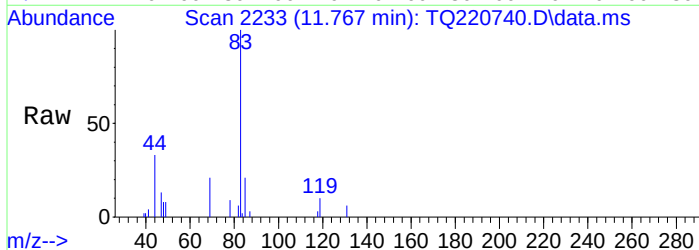
Tgt Ion:	43	Resp:	69722
Ion Ratio	Lower	Upper	
43	100		
72	16.2	16.1	33.5
57	3.9	4.9	10.3#





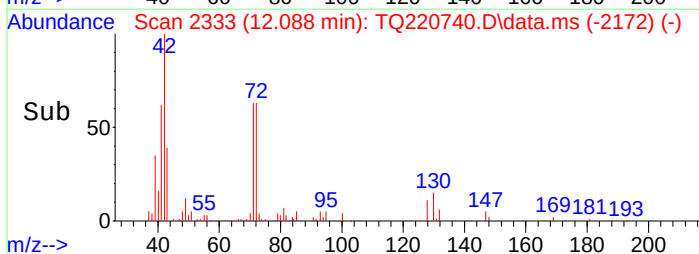
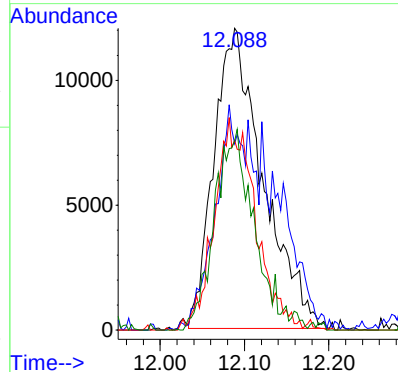
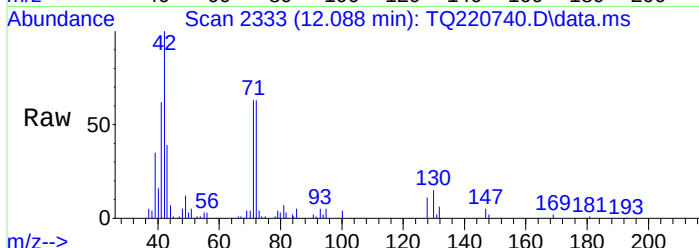
#29
Chloroform
Concen: 0.06 ppbv m
RT: 11.767 min Scan# 2233
Delta R.T. 0.020 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

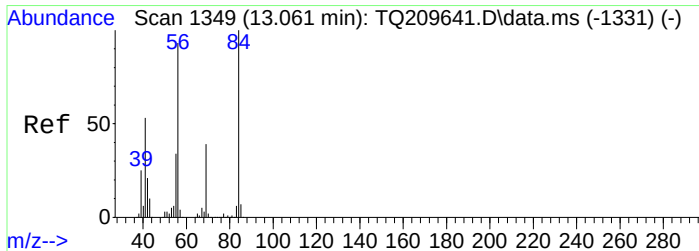
Tgt Ion	Ratio	Lower	Upper
83	100		
85	14.0	41.7	86.7#
47	10.7	15.1	31.5#
87	0.0	6.7	13.9#



#30
Tetrahydrofuran
Concen: 1.18 ppbv
RT: 12.088 min Scan# 2333
Delta R.T. 0.016 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

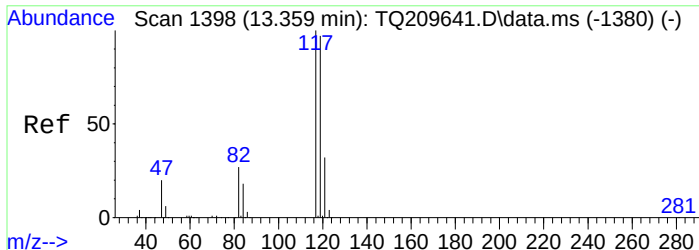
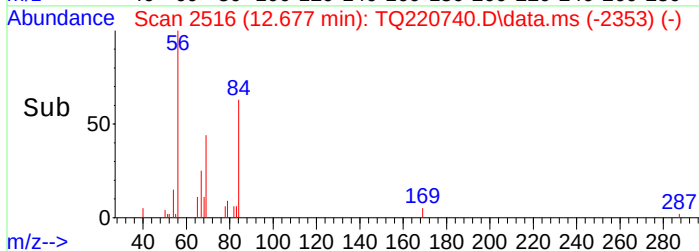
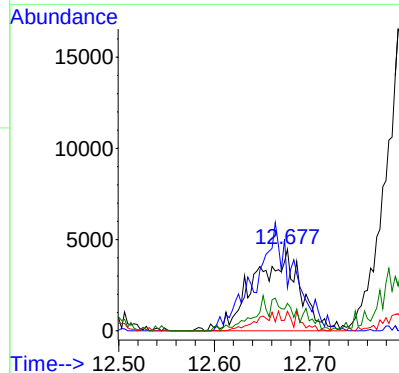
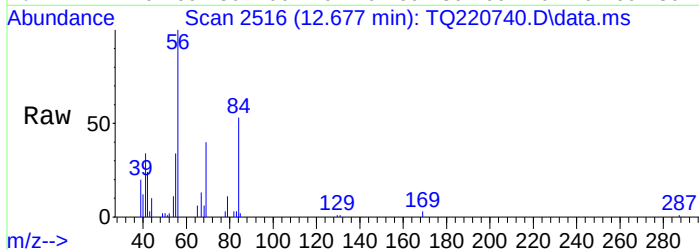
Tgt Ion	Ratio	Lower	Upper
42	100		
41	40.2	35.2	73.0
72	57.0	27.2	56.6#
71	52.5	25.9	53.7





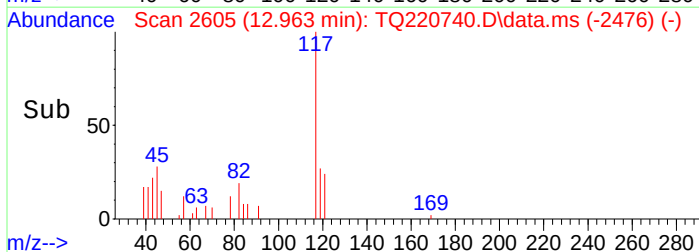
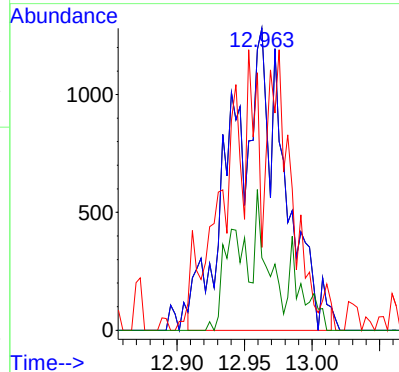
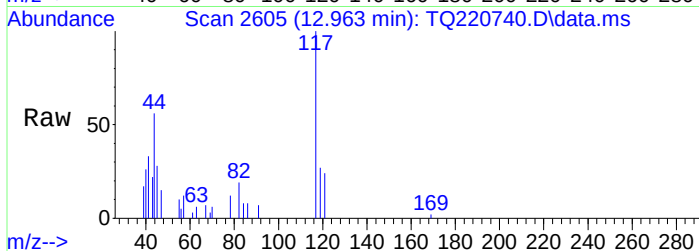
#32
Cyclohexane
Concen: 0.22 ppbv m
RT: 12.677 min Scan# 2516
Delta R.T. 0.023 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

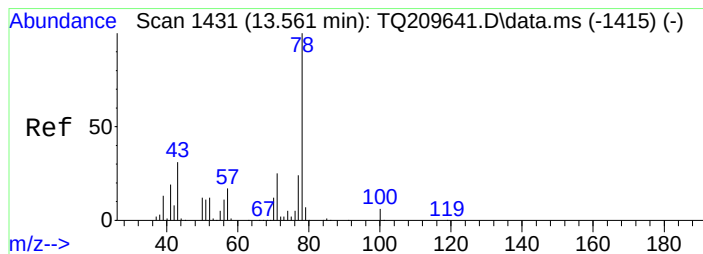
Tgt Ion	Ratio	Lower	Upper
56	100		
84	0.0	54.1	112.3#
42	7.2	15.3	31.7#
55	9.8	23.5	48.7#



#33
Carbon Tetrachloride
Concen: 0.04 ppbv m
RT: 12.963 min Scan# 2605
Delta R.T. 0.016 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

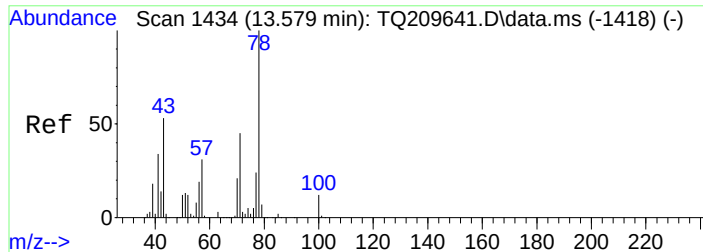
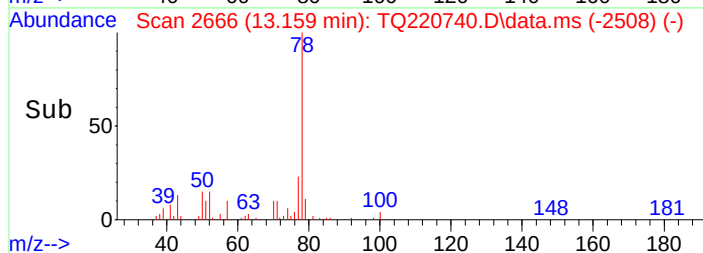
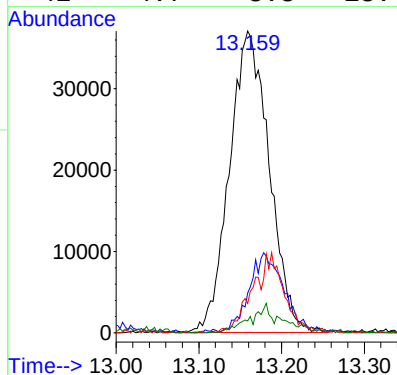
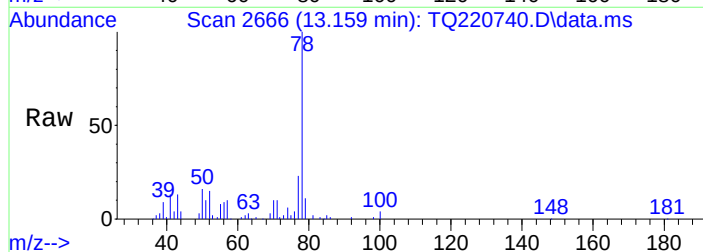
Tgt Ion	Ratio	Lower	Upper
117	100		
117	23.5	80.0	120.0#
119	22.3	76.9	115.3#
121	15.0	21.7	40.3#





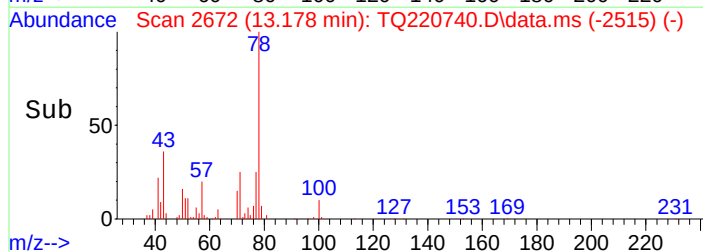
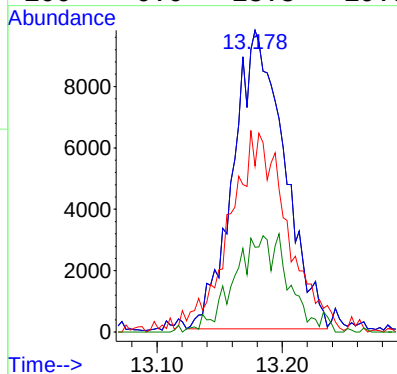
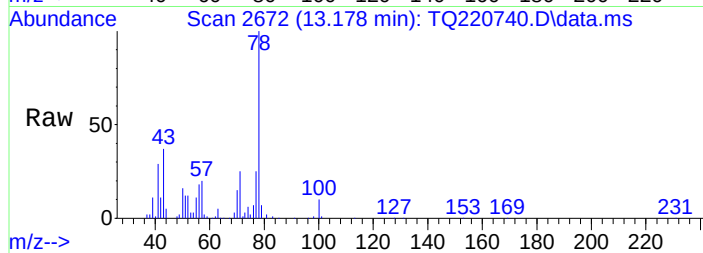
#35
Benzene
Concen: 0.78 ppbv
RT: 13.159 min Scan# 2666
Delta R.T. 0.007 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

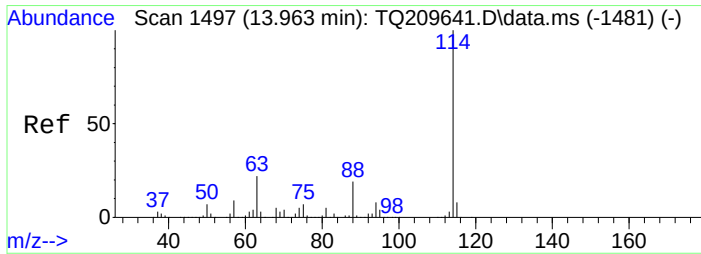
Tgt Ion	Ratio	Lower	Upper
78	100		
43	22.2	37.5	77.9#
71	6.7	22.0	45.8#
42	4.7	8.8	18.4#



#36
n-Heptane
Concen: 0.43 ppbv
RT: 13.178 min Scan# 2672
Delta R.T. 0.006 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

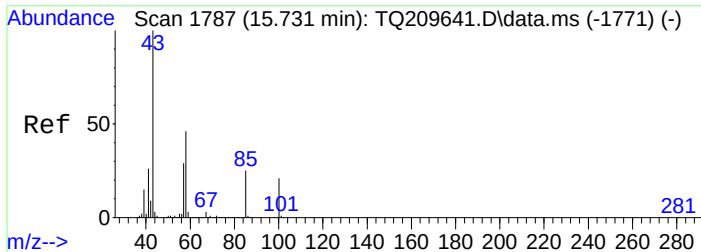
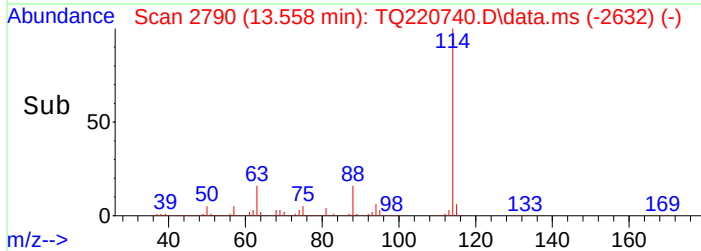
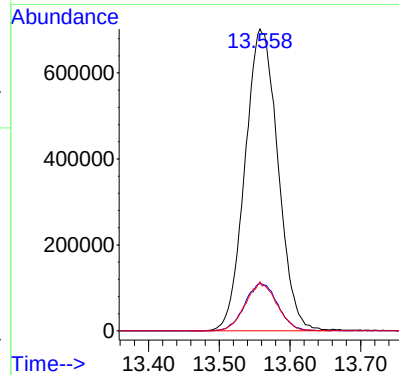
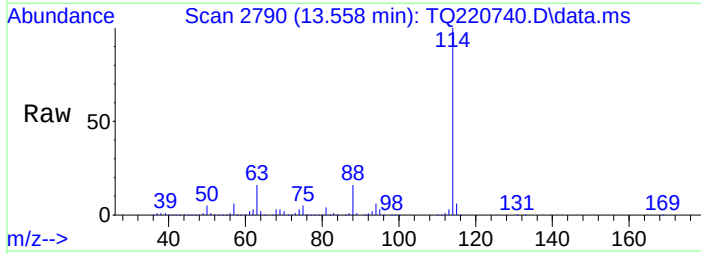
Tgt Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	74.3	42.6	64.0#
100	0.0	13.3	19.9#





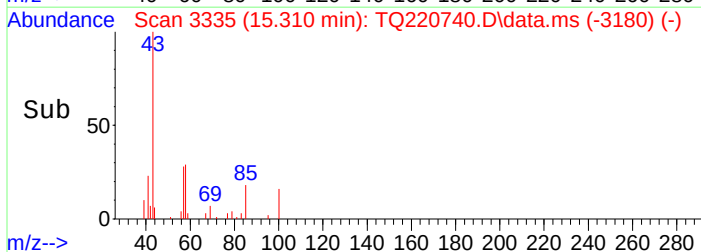
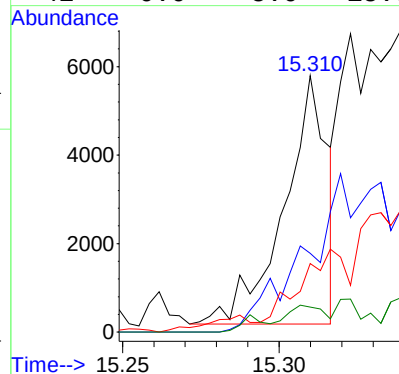
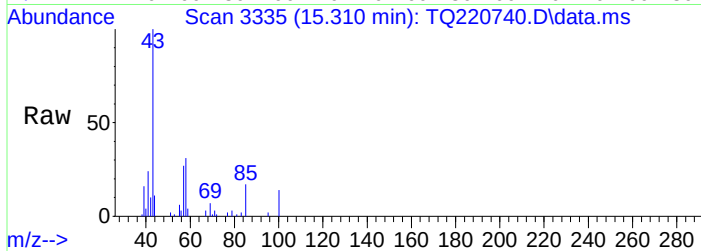
#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.558 min Scan# 2790
Delta R.T. 0.010 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

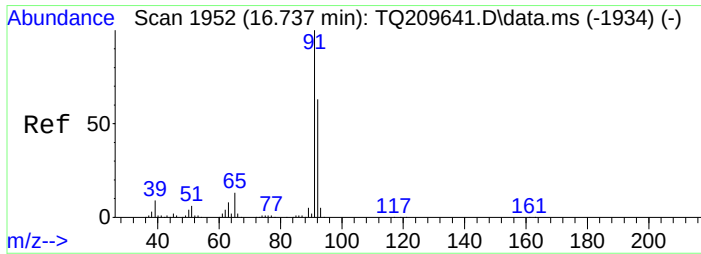
Tgt Ion	Ratio	Lower	Upper
114	100		
63	15.8	12.9	26.9
88	15.3	10.7	22.3



#43
Methyl Isobutyl Ketone
Concen: 0.04 ppbv
RT: 15.310 min Scan# 3335
Delta R.T. -0.003 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

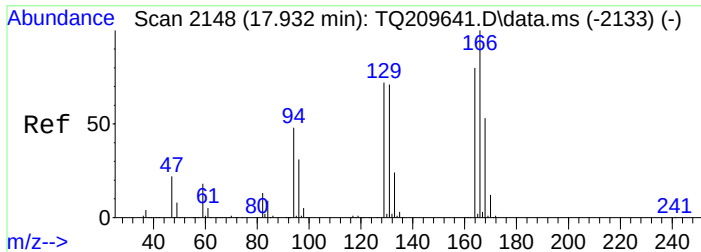
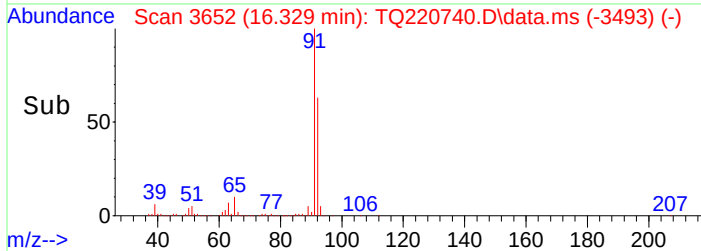
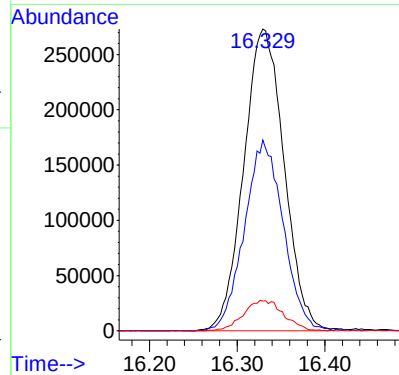
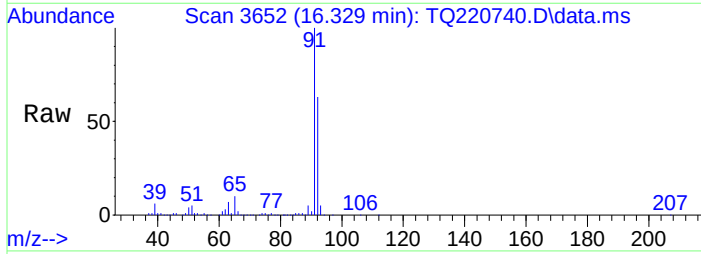
Tgt Ion	Ratio	Lower	Upper
43	100		
58	0.0	25.1	52.1#
57	0.0	15.5	32.3#
42	0.0	5.0	15.0#





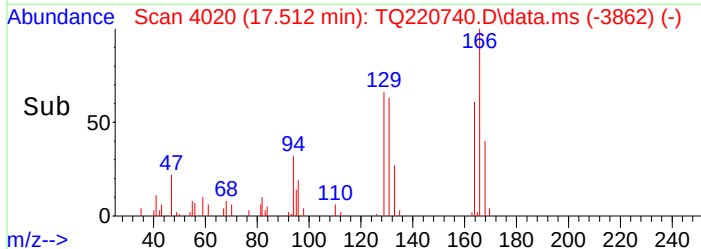
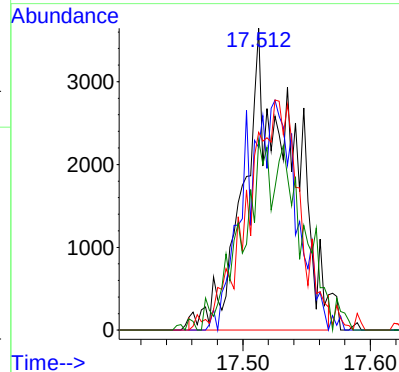
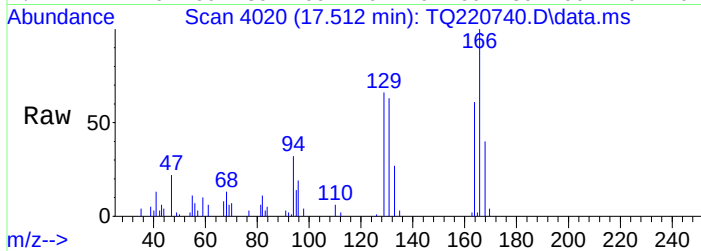
#45
Toluene
Concen: 3.41 ppbv
RT: 16.329 min Scan# 3652
Delta R.T. 0.010 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

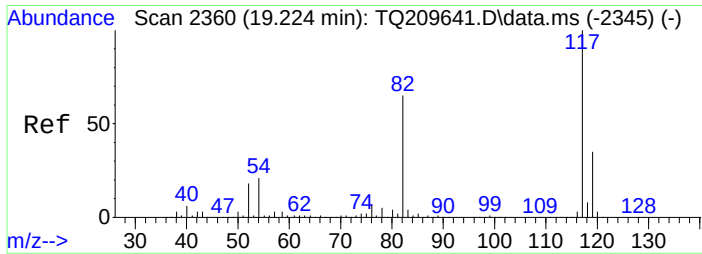
Tgt Ion	Ratio	Lower	Upper
91	100		
92	60.8	38.7	80.3
65	10.1	7.5	15.5



#50
Tetrachloroethylene
Concen: 0.07 ppbv m
RT: 17.512 min Scan# 4020
Delta R.T. 0.006 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

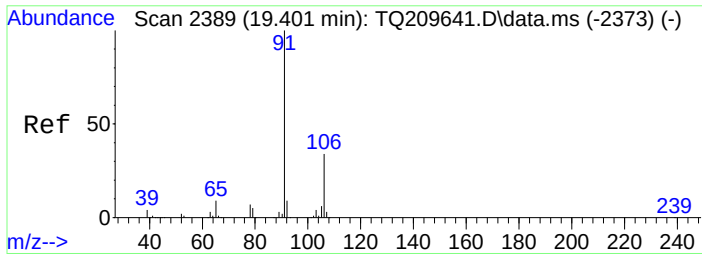
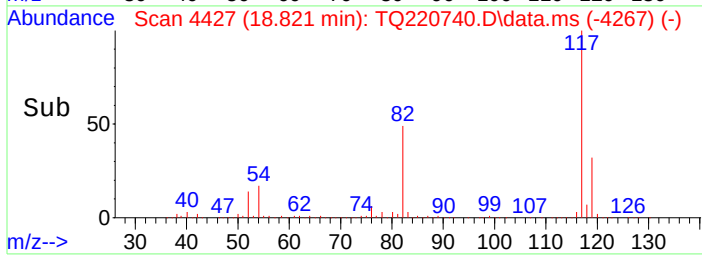
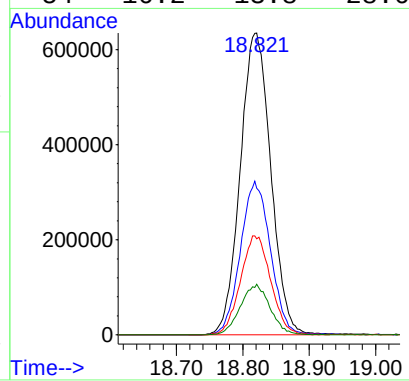
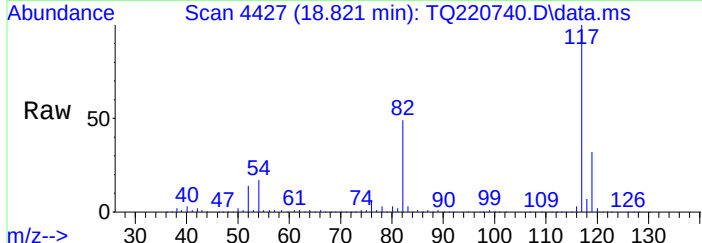
Tgt Ion	Ratio	Lower	Upper
166	100		
164	18.7	51.0	106.0#
129	0.0	48.1	99.9#
131	24.8	46.3	96.3#





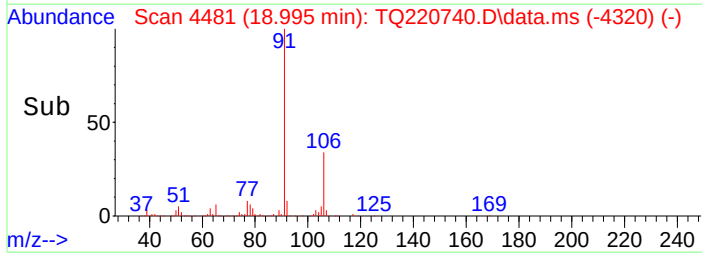
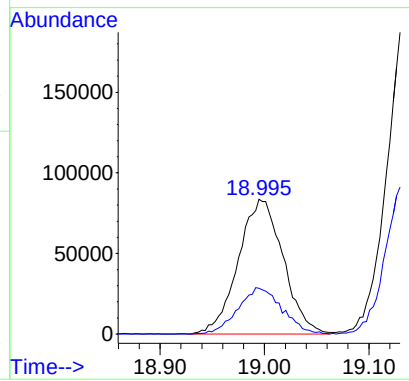
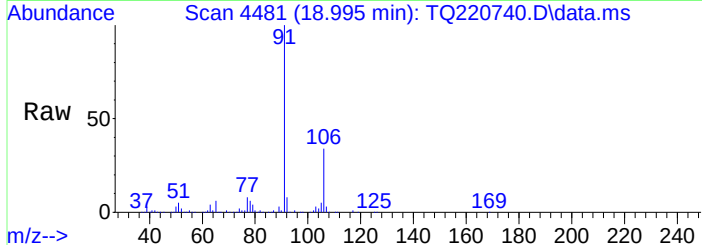
#53
 d5-Chlorobenzene
 Concen: 10.00 ppbv
 RT: 18.821 min Scan# 4427
 Delta R.T. 0.016 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

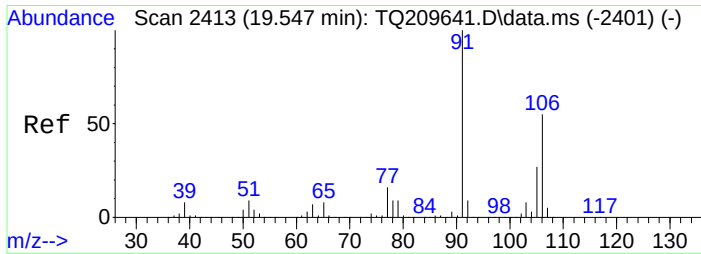
Tgt Ion:	117	Resp:	2037419
Ion	Ratio	Lower	Upper
117	100		
82	49.9	37.1	77.1
119	32.5	22.1	45.9
54	16.2	13.8	28.6



#56
 Ethylbenzene
 Concen: 0.77 ppbv
 RT: 18.995 min Scan# 4481
 Delta R.T. 0.017 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

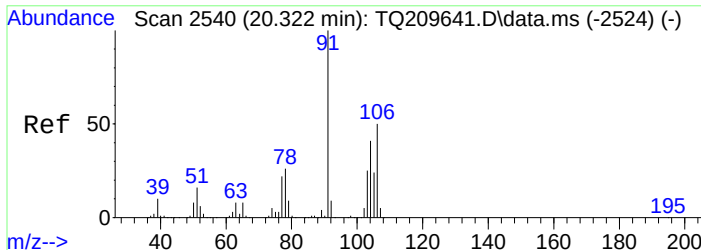
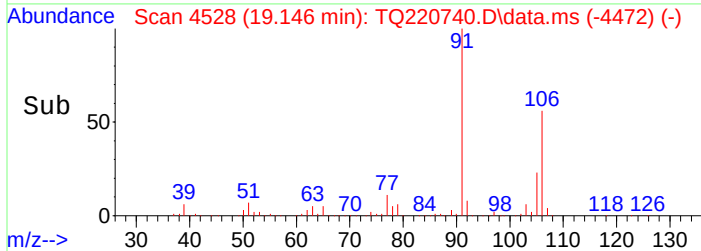
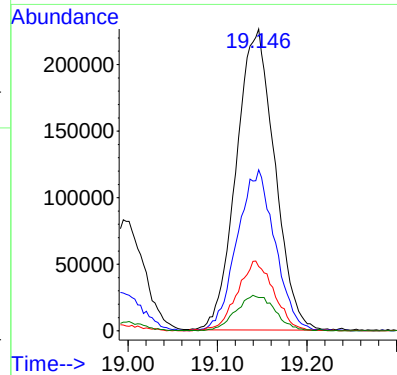
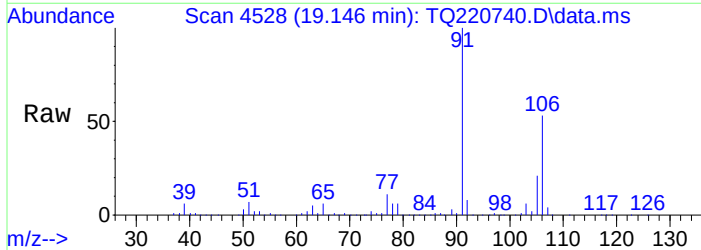
Tgt Ion:	91	Resp:	250076
Ion	Ratio	Lower	Upper
91	100		
106	33.8	20.5	42.7





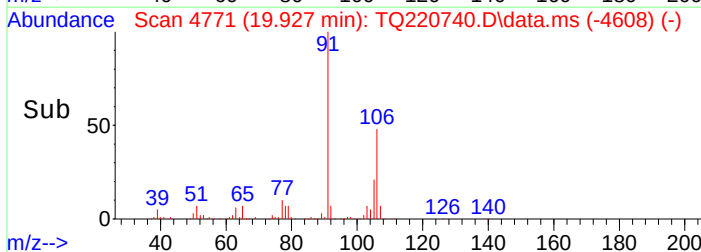
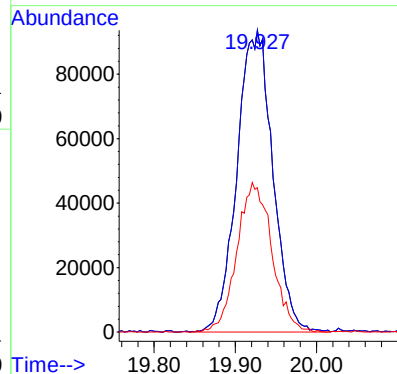
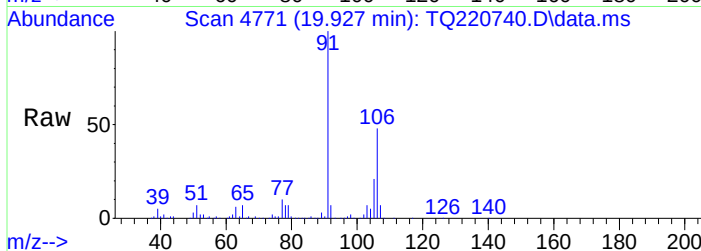
#57
p- & m-Xylenes
Concen: 2.76 ppbv
RT: 19.146 min Scan# 4528
Delta R.T. 0.020 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

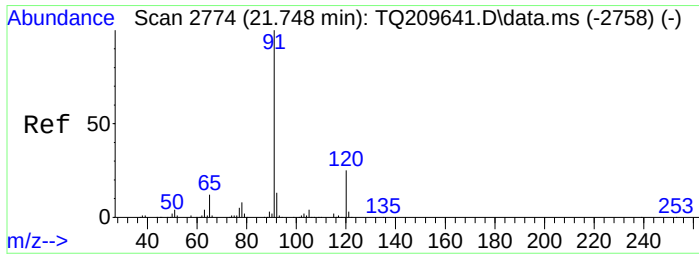
Tgt Ion:	91	Resp:	677455
Ion Ratio	Lower	Upper	
91	100		
106	52.9	32.6	67.8
105	22.2	14.5	30.1
77	12.0	8.5	17.7



#58
o-Xylene
Concen: 1.11 ppbv
RT: 19.927 min Scan# 4771
Delta R.T. 0.023 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

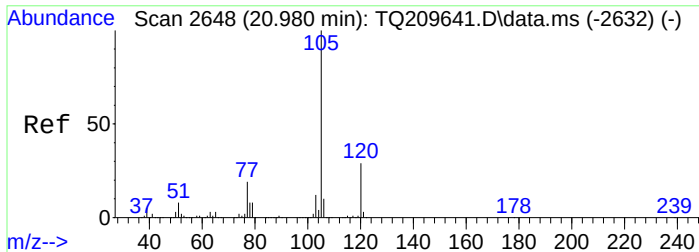
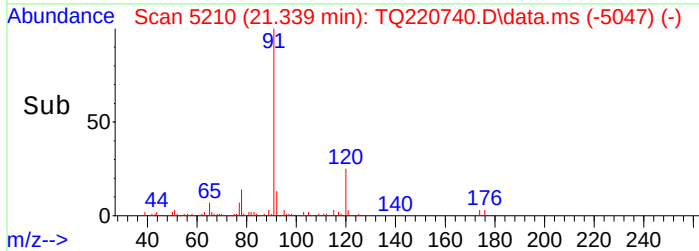
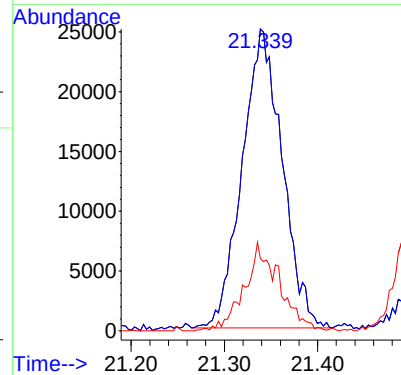
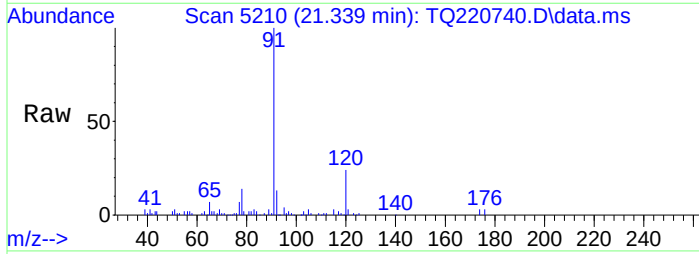
Tgt Ion:	91	Resp:	287172
Ion Ratio	Lower	Upper	
91	100		
91	100.0	80.0	120.0
106	48.1	38.2	57.2





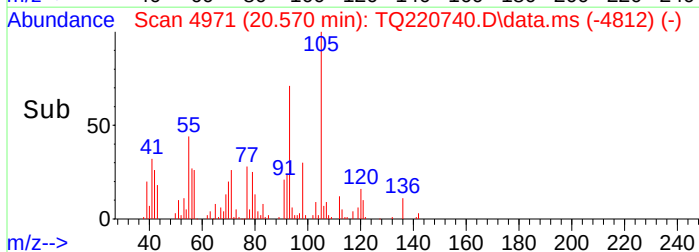
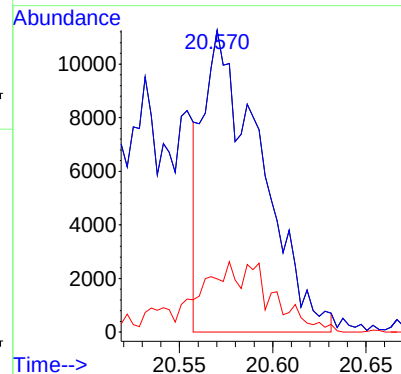
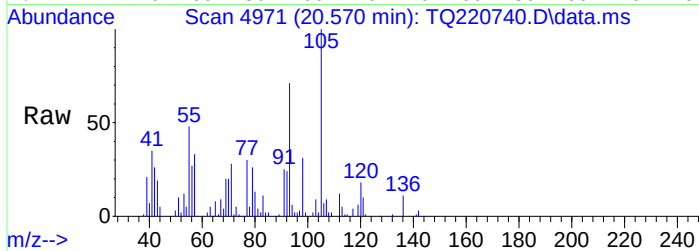
#61
n-Propylbenzene
Concen: 0.18 ppbv
RT: 21.339 min Scan# 5210
Delta R.T. 0.023 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

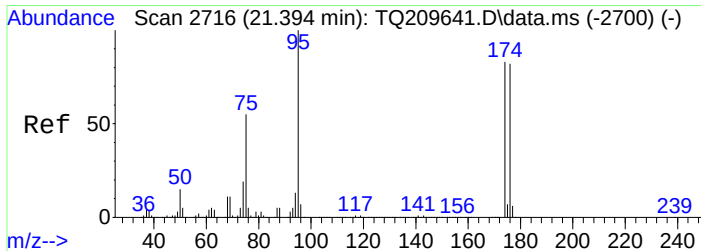
Tgt Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
120	17.9	10.0	30.0



#62
Isopropylbenzene
Concen: 0.07 ppbv m
RT: 20.570 min Scan# 4971
Delta R.T. 0.010 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

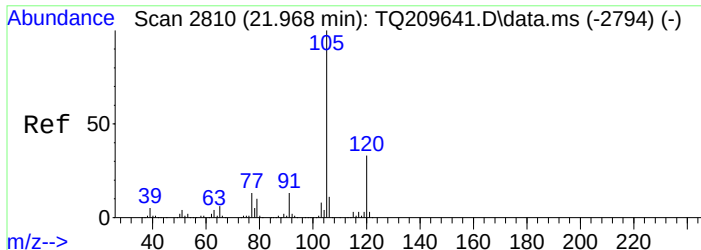
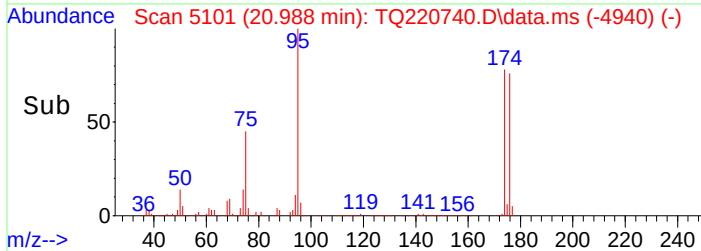
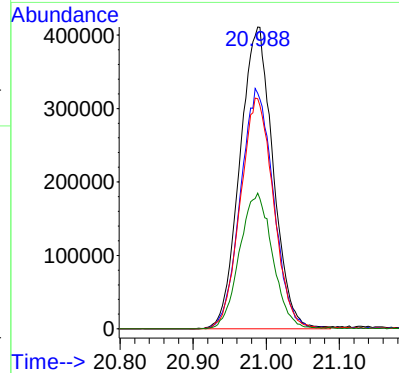
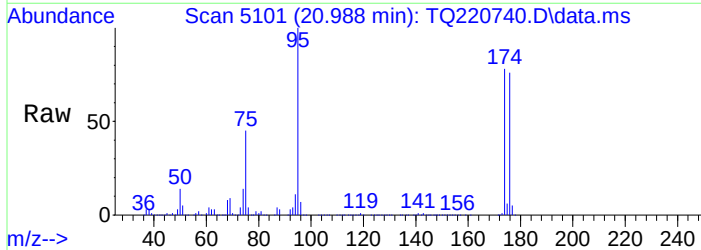
Tgt Ion	Ratio	Lower	Upper
105	100		
105	50.0	80.0	120.0#
120	14.8	10.0	30.0





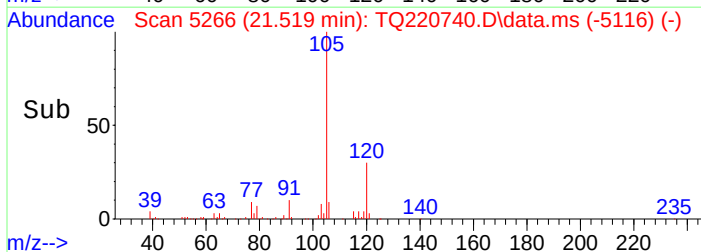
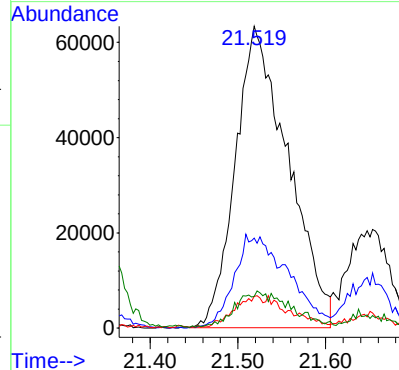
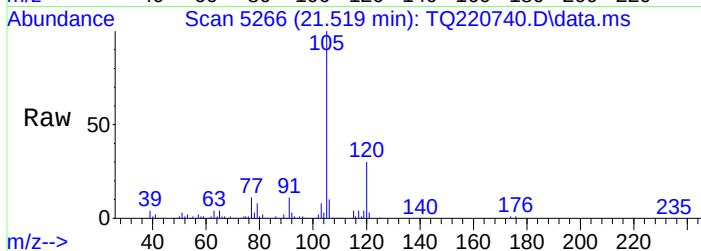
#64
 p-Bromofluorobenzene
 Concen: 9.73 ppbv
 RT: 20.988 min Scan# 5101
 Delta R.T. 0.019 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

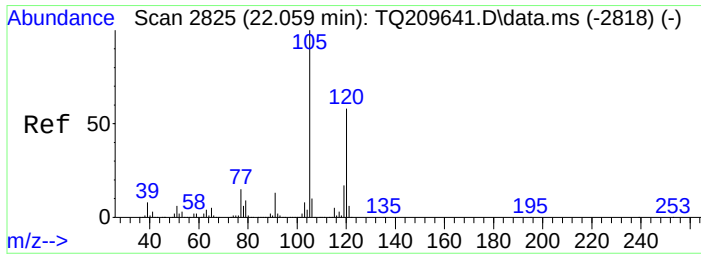
Tgt Ion:	95	Resp:	1297189
Ion Ratio	Lower	Upper	
95	100		
174	79.1	53.2	110.6
176	76.2	51.6	107.2
75	44.7	30.7	63.7



#65
 4-Ethyltoluene
 Concen: 0.73 ppbv
 RT: 21.519 min Scan# 5266
 Delta R.T. -0.019 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

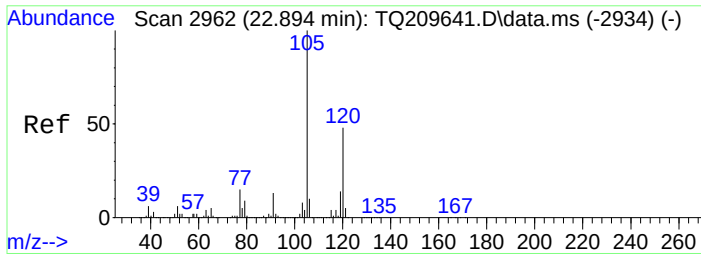
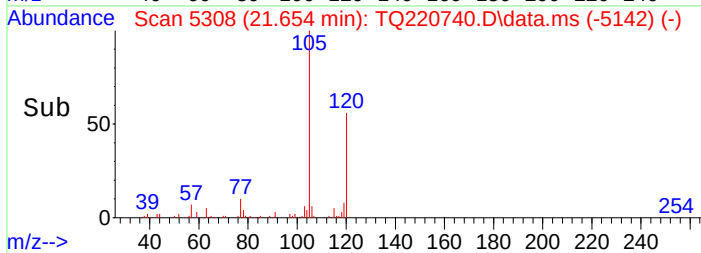
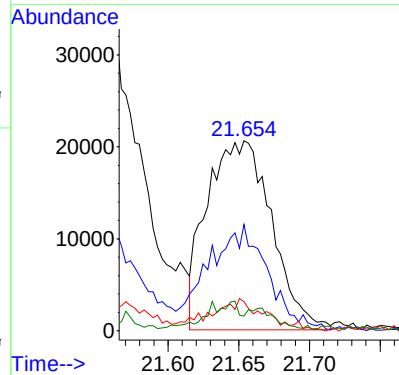
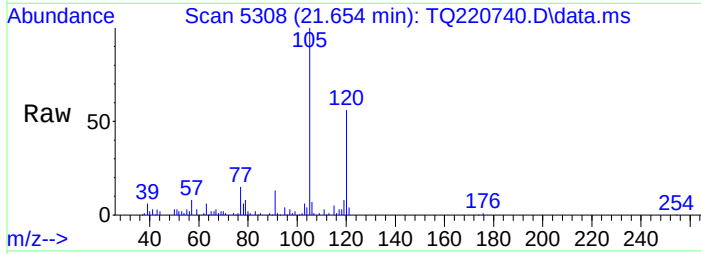
Tgt Ion:	105	Resp:	264039
Ion Ratio	Lower	Upper	
105	100		
120	0.0	19.6	40.8#
77	5.5	7.3	15.3#
91	0.7	7.1	14.7#





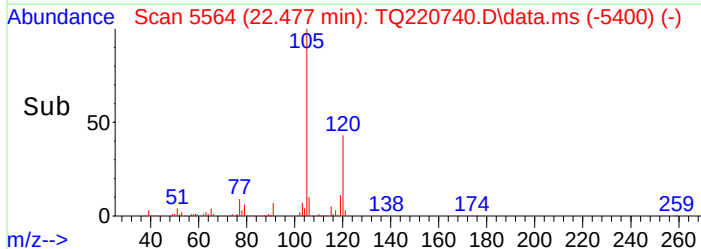
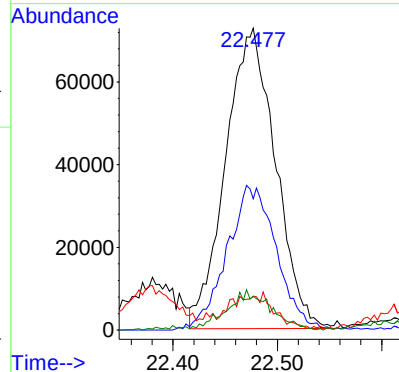
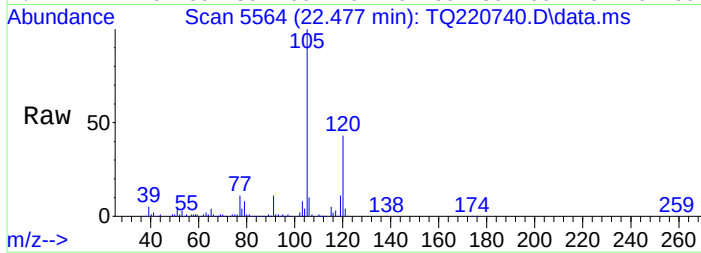
#66
 1,3,5-Trimethylbenzene
 Concen: 0.22 ppbv
 RT: 21.654 min Scan# 5308
 Delta R.T. 0.033 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

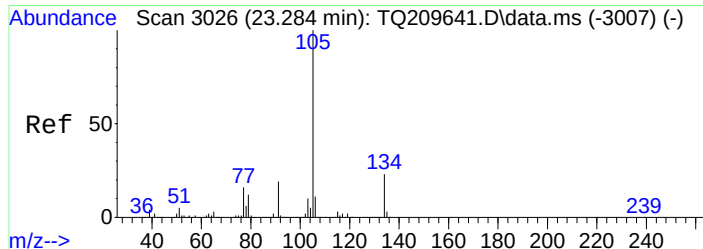
Tgt Ion	105	Resp	65567
Ion Ratio	Lower	Upper	
105	100		
120	3.8	39.2	58.8#
77	12.2	10.1	15.1
119	2.6	6.1	18.3#



#68
 1,2,4-Trimethylbenzene
 Concen: 0.78 ppbv
 RT: 22.477 min Scan# 5564
 Delta R.T. 0.029 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

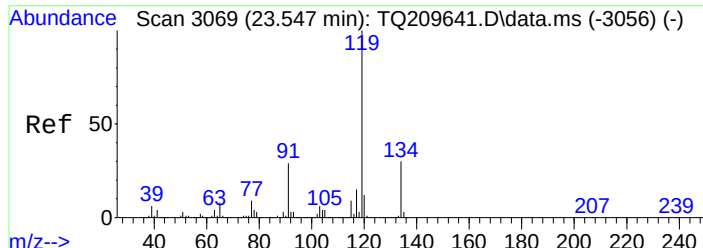
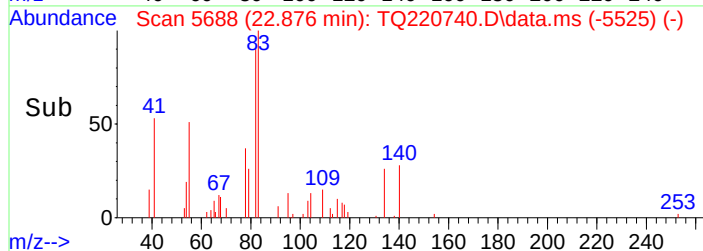
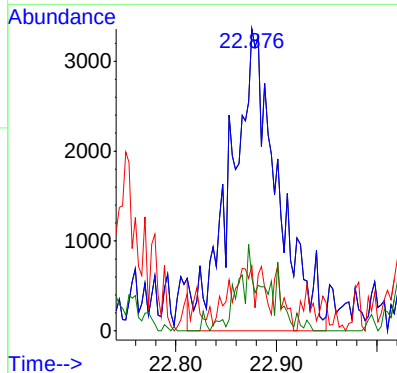
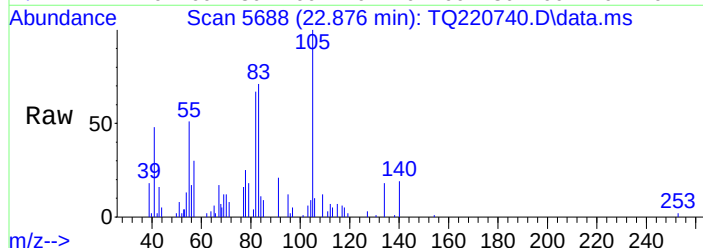
Tgt Ion	105	Resp	241209
Ion Ratio	Lower	Upper	
105	100		
120	47.8	30.2	62.6
77	0.5	8.1	16.9#
119	11.1	7.8	16.2





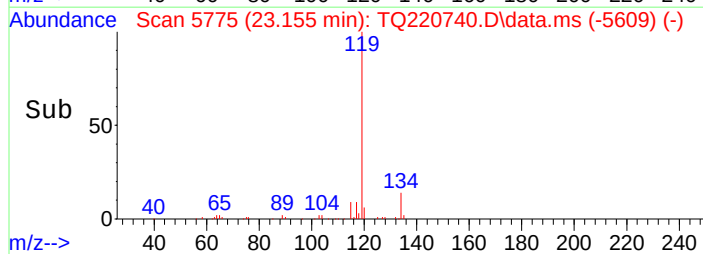
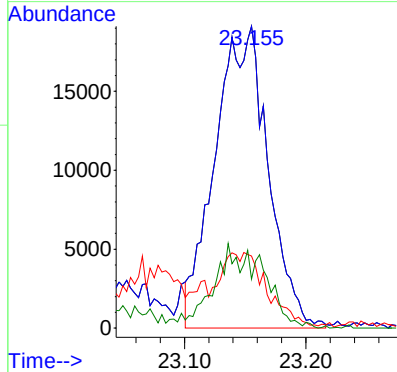
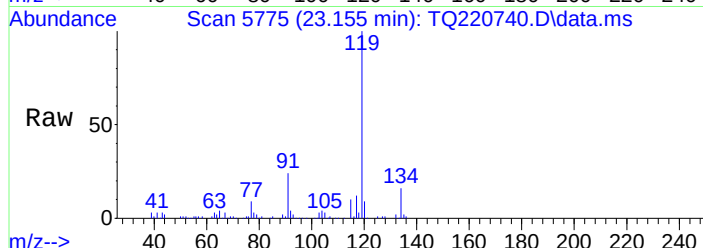
#69
 sec-Butylbenzene
 Concen: 0.02 ppbv m
 RT: 22.876 min Scan# 5688
 Delta R.T. 0.023 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

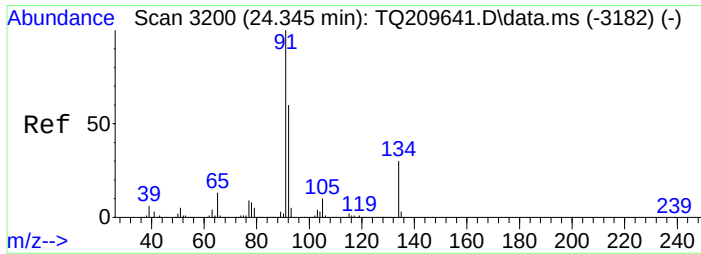
Tgt Ion:	105	Resp:	10799
Ion Ratio	Lower	Upper	
105	100		
105	17.8	80.0	120.0#
91	0.0	7.5	22.5#
134	0.0	7.5	22.5#



#70
 p-Isopropyltoluene
 Concen: 0.15 ppbv m
 RT: 23.155 min Scan# 5775
 Delta R.T. 0.035 min
 Lab File: TQ220740.D
 Acq: 23 Jun 2022 12:13 pm

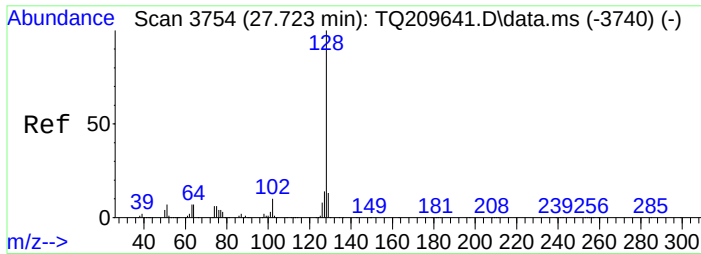
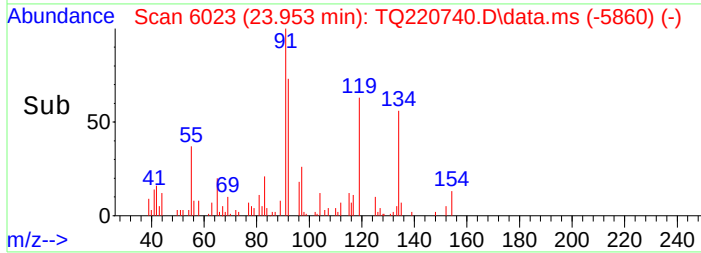
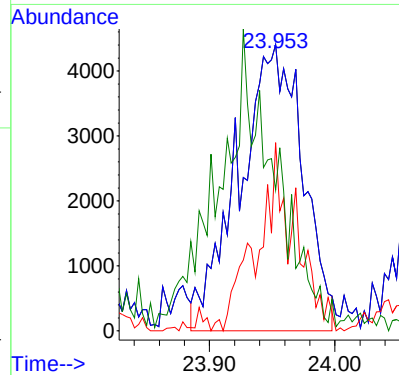
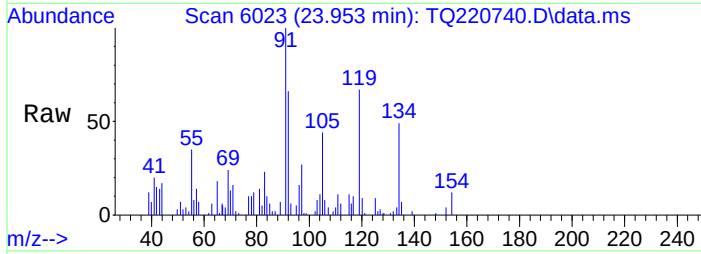
Tgt Ion:	119	Resp:	58069
Ion Ratio	Lower	Upper	
119	100		
119	48.3	80.0	120.0#
91	0.0	7.5	52.5#
134	7.9	7.5	52.5





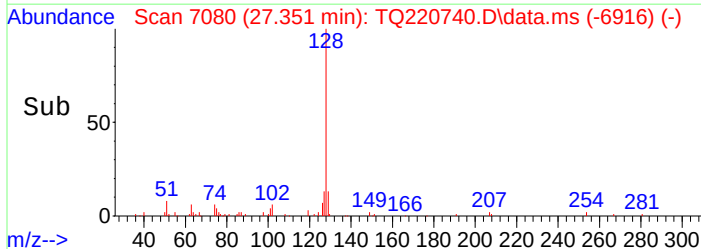
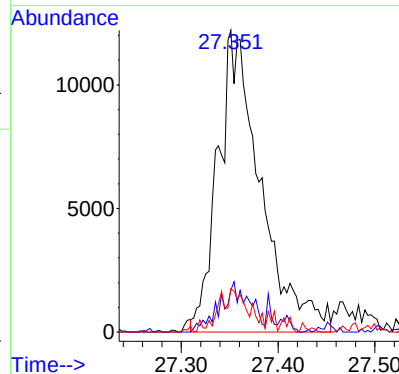
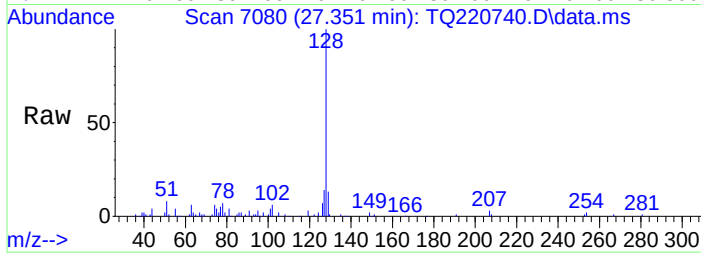
#74
n-Butylbenzene
Concen: 0.05 ppbv m
RT: 23.953 min Scan# 6023
Delta R.T. 0.023 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
91	14.6	80.0	120.0#
92	9.2	44.0	66.0#
134	13.2	12.5	37.5



#78
Naphthalene
Concen: 0.09 ppbv m
RT: 27.351 min Scan# 7080
Delta R.T. 0.026 min
Lab File: TQ220740.D
Acq: 23 Jun 2022 12:13 pm

Tgt Ion	Ratio	Lower	Upper
128	100		
127	11.4	8.1	16.9
129	3.1	7.1	14.7#



FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

880_DUP-1

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-05 File ID: TQ220741.D
 Sampled: 06/20/22 10:45 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 13:16
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15_AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
630-20-6	1,1,1,2-Tetrachloroethane	1.58	1.1	U
71-55-6	1,1,1-Trichloroethane	1.58	0.86	U
79-34-5	1,1,2,2-Tetrachloroethane	1.58	1.1	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.58	1.2	U
79-00-5	1,1,2-Trichloroethane	1.58	0.86	U
75-34-3	1,1-Dichloroethane	1.58	0.64	U
75-35-4	1,1-Dichloroethylene	1.58	0.16	U
120-82-1	1,2,4-Trichlorobenzene	1.58	1.2	U
95-63-6	1,2,4-Trimethylbenzene	1.58	6.4	D
106-93-4	1,2-Dibromoethane	1.58	1.2	U
95-50-1	1,2-Dichlorobenzene	1.58	0.95	U
107-06-2	1,2-Dichloroethane	1.58	0.64	U
78-87-5	1,2-Dichloropropane	1.58	0.73	U
76-14-2	1,2-Dichlorotetrafluoroethane	1.58	1.1	U
108-67-8	1,3,5-Trimethylbenzene	1.58	1.8	D
106-99-0	1,3-Butadiene	1.58	1.1	U
541-73-1	1,3-Dichlorobenzene	1.58	0.95	U
142-28-9	1,3-Dichloropropane	1.58	0.73	U
106-46-7	1,4-Dichlorobenzene	1.58	0.95	U
123-91-1	1,4-Dioxane	1.58	1.1	U
78-93-3	2-Butanone	1.58	4.0	D
591-78-6	2-Hexanone	1.58	1.3	U
107-05-1	3-Chloropropene	1.58	2.5	U
108-10-1	4-Methyl-2-pentanone	1.58	0.71	D
67-64-1	Acetone	1.58	8.0	D
107-13-1	Acrylonitrile	1.58	0.34	U
71-43-2	Benzene	1.58	4.1	D
100-44-7	Benzyl chloride	1.58	0.82	U
75-27-4	Bromodichloromethane	1.58	1.1	U
75-25-2	Bromoform	1.58	1.6	U
74-83-9	Bromomethane	1.58	0.61	U
75-15-0	Carbon disulfide	1.58	13	D
56-23-5	Carbon tetrachloride	1.58	0.40	D
108-90-7	Chlorobenzene	1.58	0.73	U
75-00-3	Chloroethane	1.58	0.42	U
67-66-3	Chloroform	1.58	0.77	U
74-87-3	Chloromethane	1.58	1.5	D
156-59-2	cis-1,2-Dichloroethylene	1.58	0.16	U
10061-01-5	cis-1,3-Dichloropropylene	1.58	0.72	U
110-82-7	Cyclohexane	1.58	1.3	D

FORM I

ORGANIC ANALYSIS DATA SHEET

EPA TO-15

880_DUP-1

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Soil Vapor Laboratory ID: 22F1033-05 File ID: TQ220741.D
 Sampled: 06/20/22 10:45 Prepared: 06/23/22 02:00 Analyzed: 06/23/22 13:16
 Solids: Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018 Instrument: TO15 AIR2

CAS NO.	COMPOUND	DILUTION	CONC. (ug/m ³)	Q
124-48-1	Dibromochloromethane	1.58	1.3	U
75-71-8	Dichlorodifluoromethane	1.58	3.1	D
141-78-6	Ethyl acetate	1.58	1.1	U
100-41-4	Ethyl Benzene	1.58	5.5	D
87-68-3	Hexachlorobutadiene	1.58	1.7	U
67-63-0	Isopropanol	1.58	0.97	D
80-62-6	Methyl Methacrylate	1.58	0.65	U
1634-04-4	Methyl tert-butyl ether (MTBE)	1.58	0.57	U
75-09-2	Methylene chloride	1.58	1.1	U
142-82-5	n-Heptane	1.58	2.9	D
110-54-3	n-Hexane	1.58	3.3	D
95-47-6	o-Xylene	1.58	8.0	D
179601-23-1	p- & m- Xylenes	1.58	20	D
622-96-8	p-Ethyltoluene	1.58	5.9	D
115-07-1	Propylene	1.58	2.6	D
100-42-5	Styrene	1.58	0.67	U
127-18-4	Tetrachloroethylene	1.58	1.1	U
109-99-9	Tetrahydrofuran	1.58	5.9	D
108-88-3	Toluene	1.58	22	D
156-60-5	trans-1,2-Dichloroethylene	1.58	0.63	U
10061-02-6	trans-1,3-Dichloropropylene	1.58	0.72	U
79-01-6	Trichloroethylene	1.58	0.34	D
75-69-4	Trichlorofluoromethane (Freon 11)	1.58	2.0	D
108-05-4	Vinyl acetate	1.58	0.56	U
593-60-2	Vinyl bromide	1.58	0.69	U
75-01-4	Vinyl Chloride	1.58	0.20	U

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Bromochloromethane	403503	11.985	554760	11.985	
ISTD: 1,4-Difluorobenzene	2265314	13.561	3144562	13.564	
ISTD: d5-Chlorobenzene	2024835	18.818	2743461	18.824	

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220741.D
 Acq On : 23 Jun 2022 1:16 pm
 Operator : LLJ
 Sample : 22F1033-05
 Misc : QBT02062322A 1X/400 ML
 ALS Vial : 6 Sample Multiplier: 1.583
 InstName : T015_AIR2

Quant Time: Jun 24 05:20:11 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

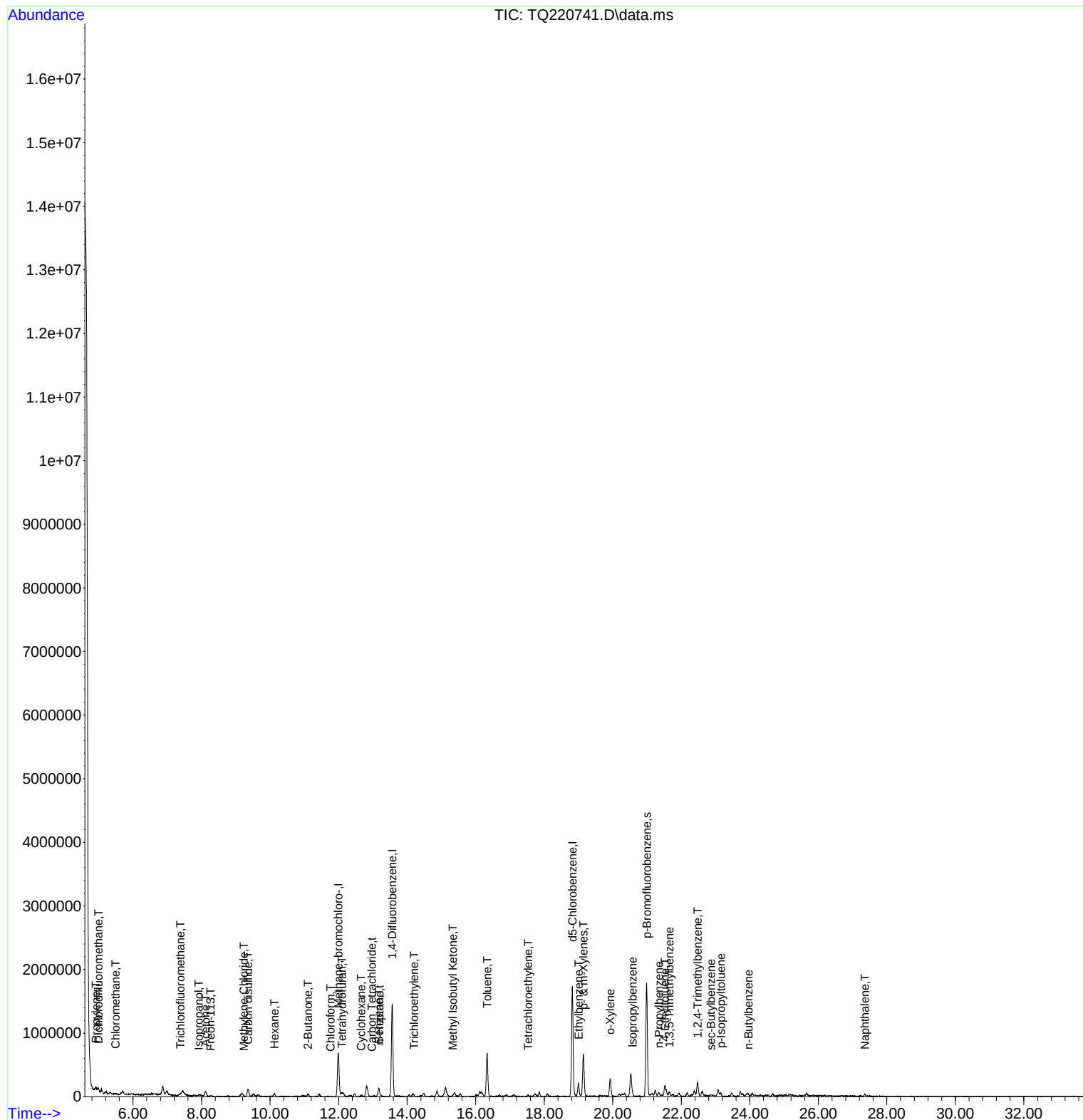
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

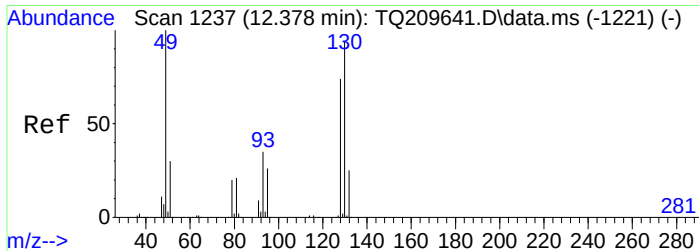
Internal Standards						
1) Methane, bromochloro-	11.985	49	403503	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.561	114	2265314	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.818	117	2024835	10.00	ppbv	0.01
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.988	95	1289864	9.74	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.40%	
Target Compounds						
						Qvalue
2) Propylene	4.911	42	18483	0.95	ppbv	75
3) Dichlorodifluoromethane	4.989	85	51285	0.40	ppbv	# 94
5) Chloromethane	5.484	50	9528m	0.45	ppbv	
11) Trichlorofluoromethane	7.381	101	26859m	0.22	ppbv	
12) Isopropanol	7.918	45	44900m	0.25	ppbv	
14) Acetone	8.114	43	139914	2.13	ppbv	92
15) Freon-113	8.262	101	6002m	0.06	ppbv	
18) Methylene Chloride	9.233	49	5196m	0.11	ppbv	
20) Carbon disulfide	9.352	76	333277	2.54	ppbv	# 81
23) Hexane	10.123	57	37143	0.59	ppbv	# 50
26) 2-Butanone	11.104	43	64568	0.85	ppbv	# 93
29) Chloroform	11.763	83	7143m	0.07	ppbv	
30) Tetrahydrofuran	12.091	42	52408m	1.26	ppbv	
32) Cyclohexane	12.654	56	15529m	0.24	ppbv	
33) Carbon Tetrachloride	12.966	117	4090m	0.04	ppbv	
35) Benzene	13.172	78	132286	0.82	ppbv	# 57
36) n-Heptane	13.188	43	28400	0.44	ppbv	# 90
38) Trichloroethylene	14.194	95	3336m	0.04	ppbv	
43) Methyl Isobutyl Ketone	15.326	43	13367	0.11	ppbv	# 90
45) Toluene	16.332	91	944580	3.71	ppbv	98
50) Tetrachloroethylene	17.525	166	8716m	0.07	ppbv	
56) Ethylbenzene	18.998	91	260777	0.80	ppbv	# 71
57) p- & m-Xylenes	19.142	91	727137	2.98	ppbv	98
58) o-Xylene	19.924	91	298675	1.17	ppbv	99
61) n-Propylbenzene	21.345	91	76370	0.18	ppbv	98
62) Isopropylbenzene	20.580	105	26093m	0.07	ppbv	
65) 4-Ethyltoluene	21.522	105	271103	0.76	ppbv	# 77
66) 1,3,5-Trimethylbenzene	21.650	105	69304	0.23	ppbv	# 89
68) 1,2,4-Trimethylbenzene	22.473	105	253227	0.82	ppbv	# 92
69) sec-Butylbenzene	22.869	105	13861m	0.03	ppbv	
70) p-Isopropyltoluene	23.152	119	66458m	0.18	ppbv	
74) n-Butylbenzene	23.959	91	20370m	0.06	ppbv	
78) Naphthalene	27.361	128	45463	0.11	ppbv	# 72

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220741.D
Acq On : 23 Jun 2022 1:16 pm
Operator : LLJ
Sample : 22F1033-05
Misc : QBT02062322A 1X/400 ML
ALS Vial : 6 Sample Multiplier: 1.583
InstName : T015_AIR2

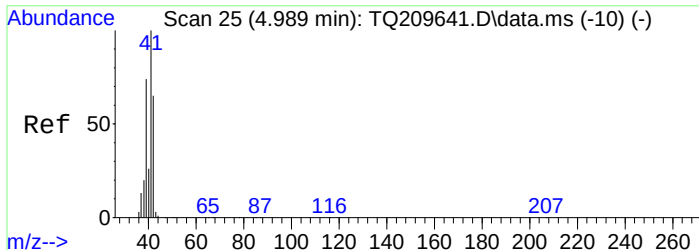
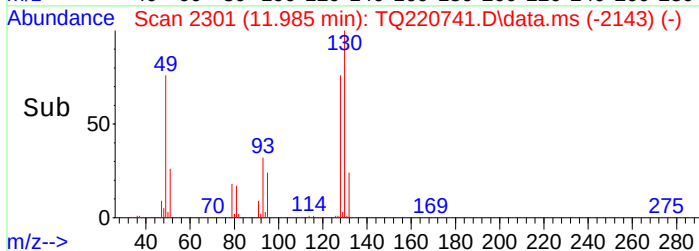
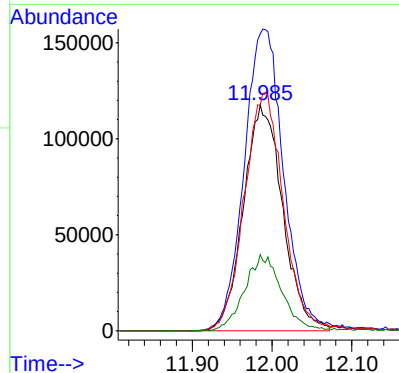
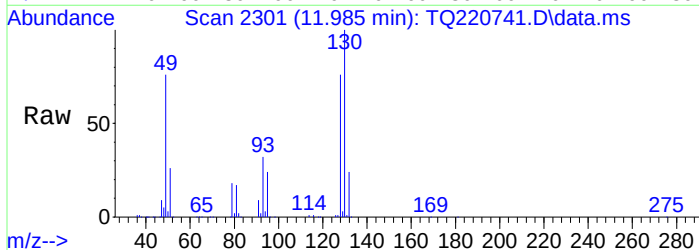
Quant Time: Jun 24 05:20:11 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





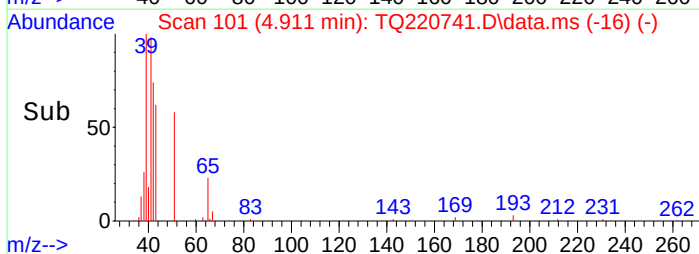
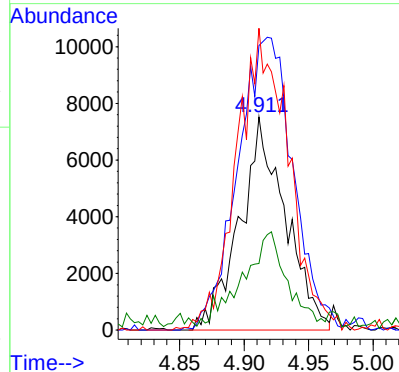
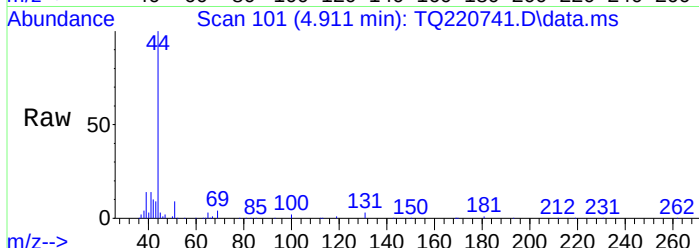
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.985 min Scan# 2301
Delta R.T. 0.009 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

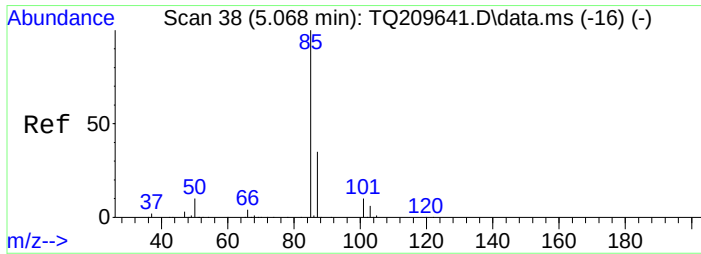
Tgt Ion	Ratio	Lower	Upper
49	100		
130	134.7	48.1	99.9#
128	104.7	38.3	79.5#
51	31.7	20.3	42.3



#2
Propylene
Concen: 0.95 ppbv
RT: 4.911 min Scan# 101
Delta R.T. 0.022 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

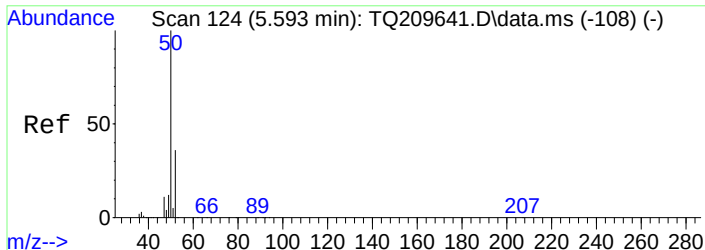
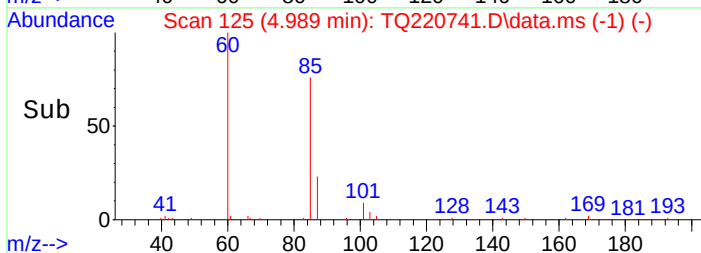
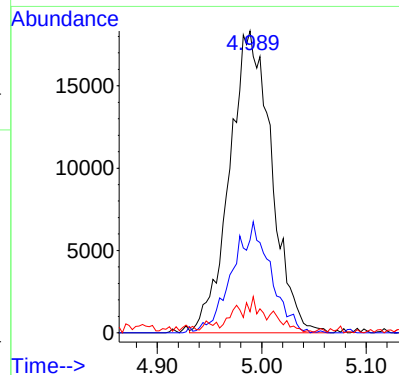
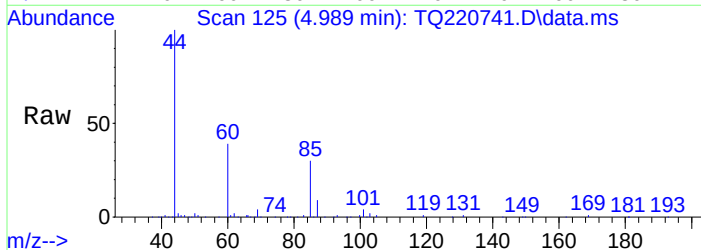
Tgt Ion	Ratio	Lower	Upper
42	100		
41	166.8	90.7	211.7
39	160.1	54.1	162.3
40	42.6	18.7	56.1





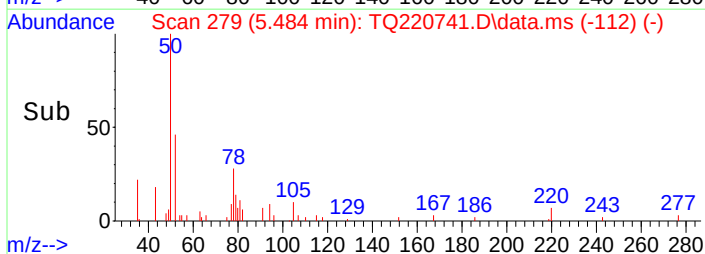
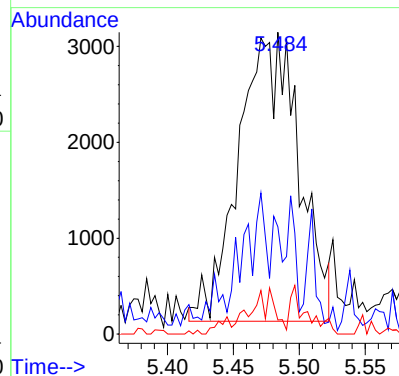
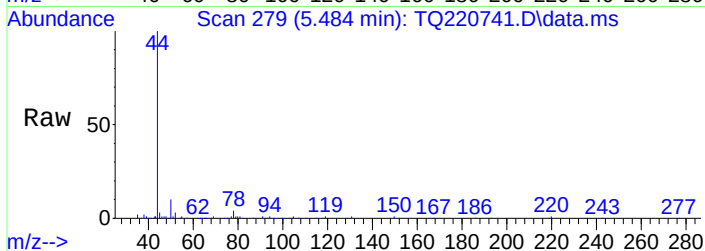
#3
 Dichlorodifluoromethane
 Concen: 0.40 ppbv
 RT: 4.989 min Scan# 125
 Delta R.T. 0.023 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

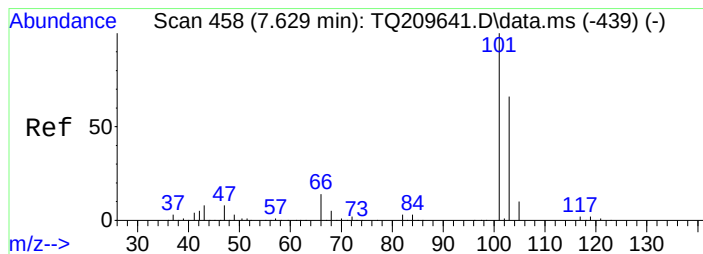
Tgt Ion	Ratio	Lower	Upper
85	100		
87	33.0	20.9	43.5
50	3.2	7.2	15.0#



#5
 Chloromethane
 Concen: 0.45 ppbv m
 RT: 5.484 min Scan# 279
 Delta R.T. 0.036 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

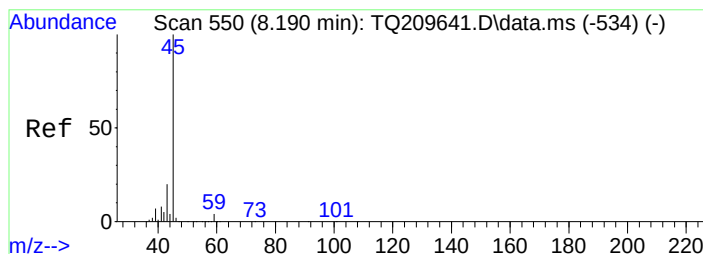
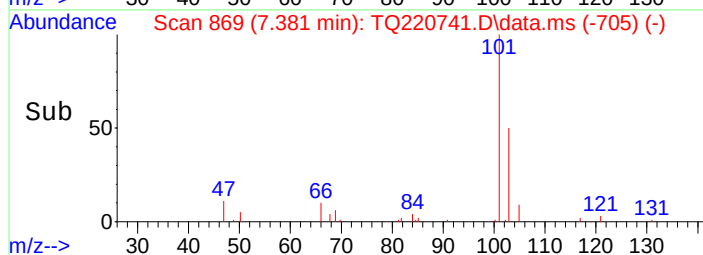
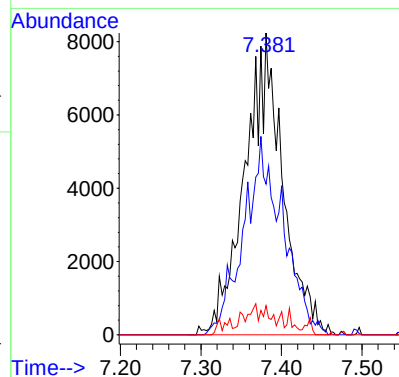
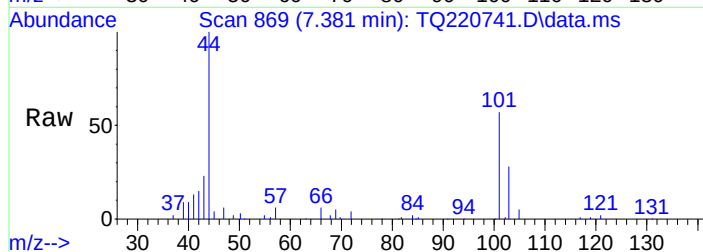
Tgt Ion	Ratio	Lower	Upper
50	100		
52	7.0	0.0	65.2
49	0.0	0.0	19.6





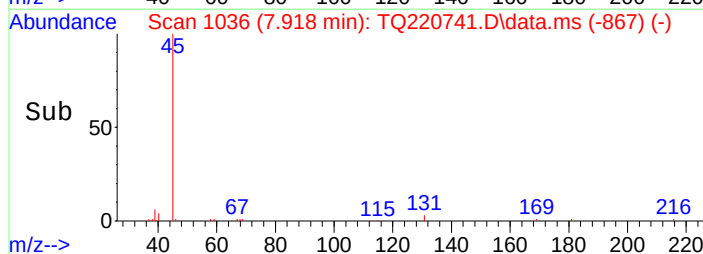
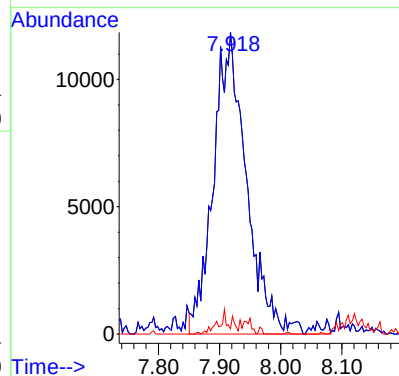
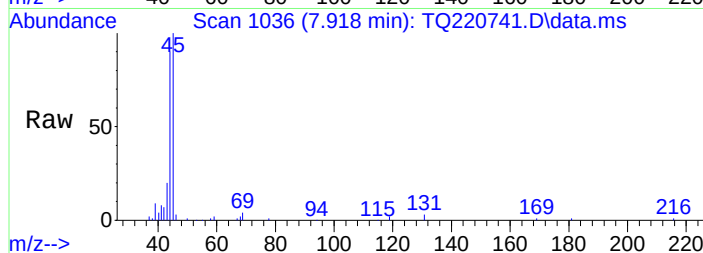
#11
 Trichlorofluoromethane
 Concen: 0.22 ppbv m
 RT: 7.381 min Scan# 869
 Delta R.T. 0.029 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

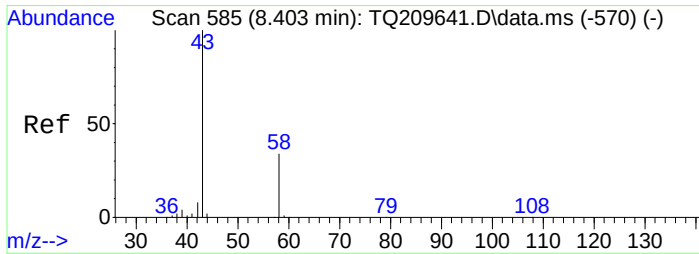
Tgt Ion	Ratio	Lower	Upper
101	100		
103	11.4	42.3	87.8#
66	0.0	7.8	16.2#



#12
 Isopropanol
 Concen: 0.25 ppbv m
 RT: 7.918 min Scan# 1036
 Delta R.T. 0.045 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

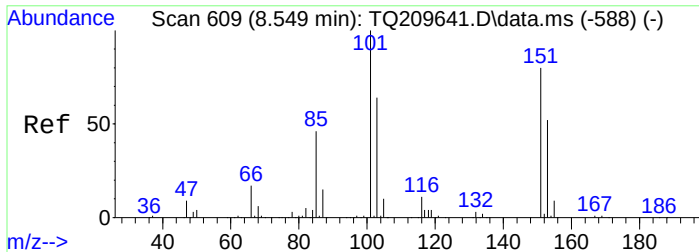
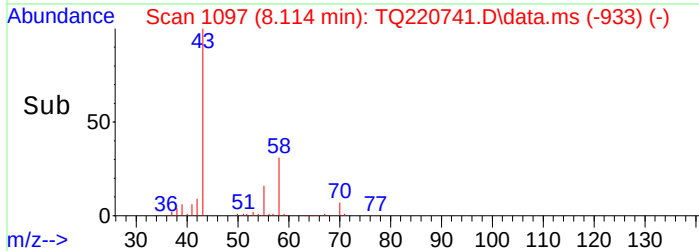
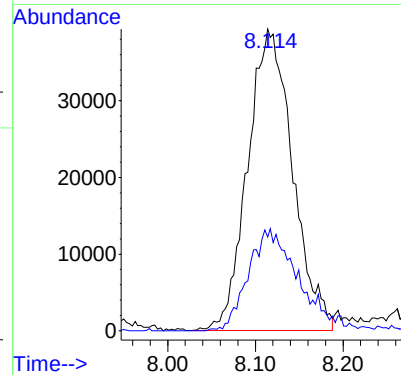
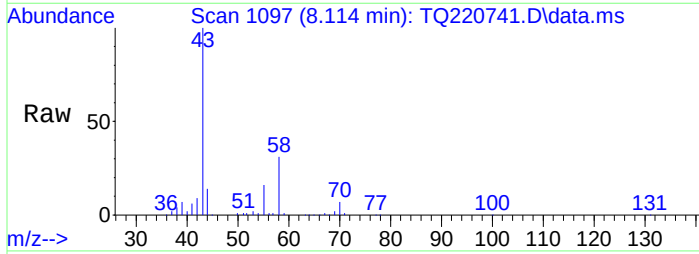
Tgt Ion	Ratio	Lower	Upper
45	100		
45	1.4	65.0	135.0#
59	0.0	0.0	10.0





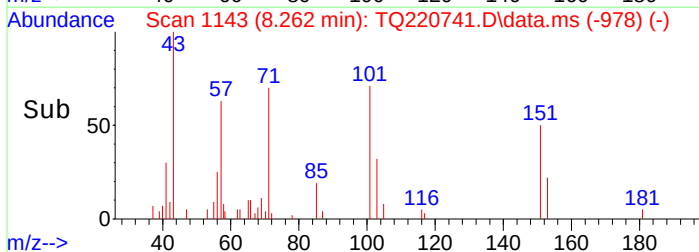
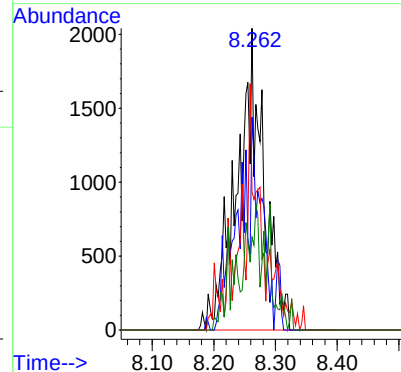
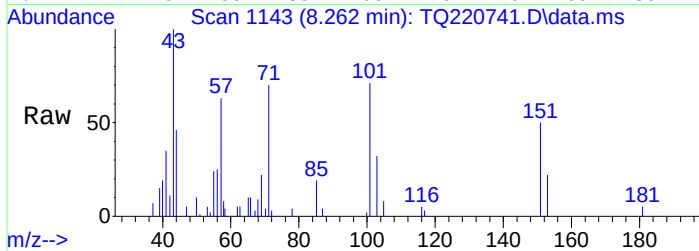
#14
Acetone
Concen: 2.13 ppbv
RT: 8.114 min Scan# 1097
Delta R.T. 0.029 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

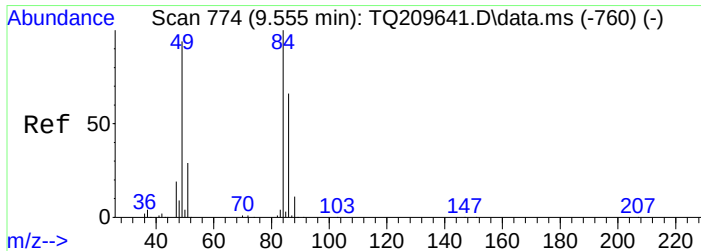
Tgt Ion	Ratio	Lower	Upper
43	100		
58	36.8	20.9	43.3



#15
Freon-113
Concen: 0.06 ppbv m
RT: 8.262 min Scan# 1143
Delta R.T. 0.032 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

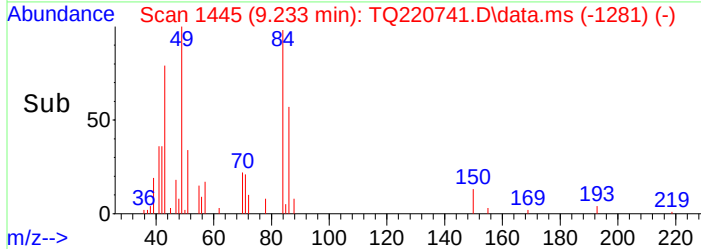
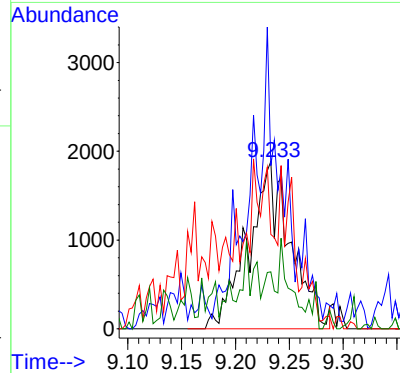
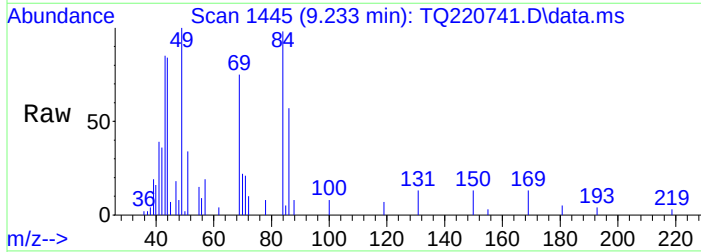
Tgt Ion	Ratio	Lower	Upper
101	100		
151	17.1	50.5	104.9#
103	0.0	42.0	87.2#
153	0.0	32.4	67.4#





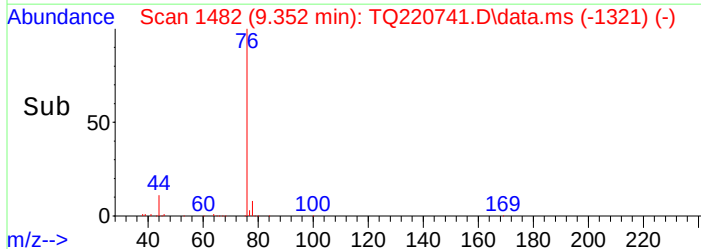
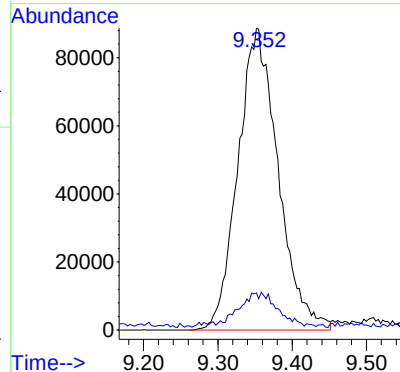
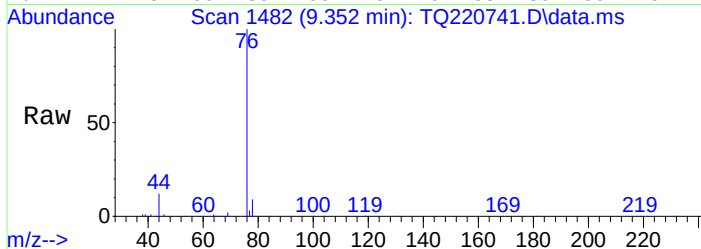
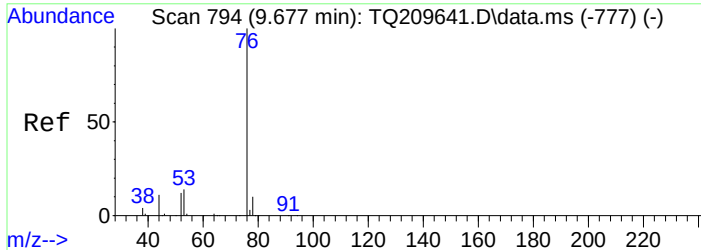
#18
Methylene Chloride
Concen: 0.11 ppbv m
RT: 9.233 min Scan# 1445
Delta R.T. 0.026 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

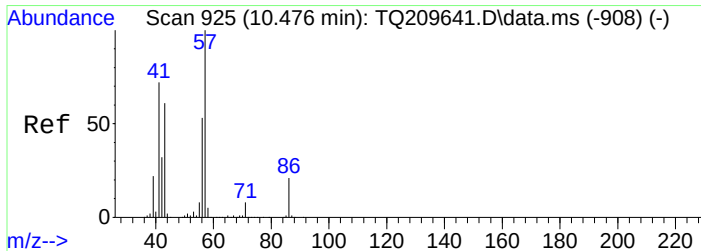
Tgt Ion:	49	Resp:	5196
Ion Ratio	Lower	Upper	
49	100		
84	28.6	49.9	103.5#
86	0.0	31.8	66.0#
51	0.0	20.2	41.9#



#20
Carbon disulfide
Concen: 2.54 ppbv
RT: 9.352 min Scan# 1482
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

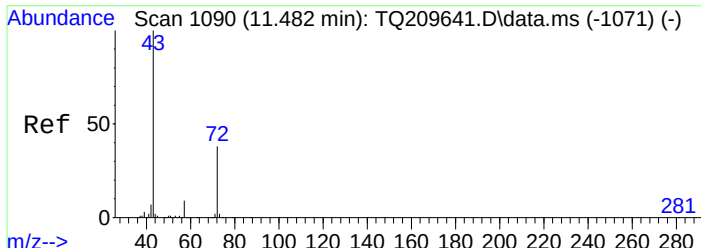
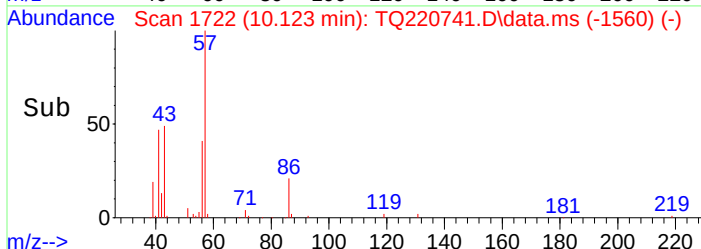
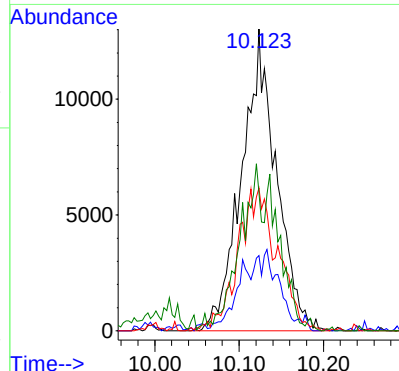
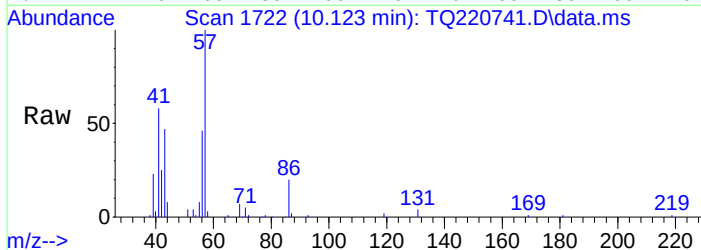
Tgt Ion:	76	Resp:	333277
Ion Ratio	Lower	Upper	
76	100		
44	5.2	8.3	17.3#





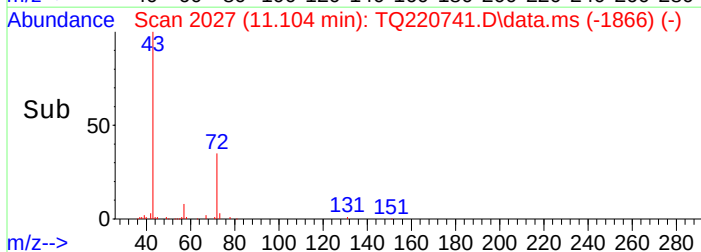
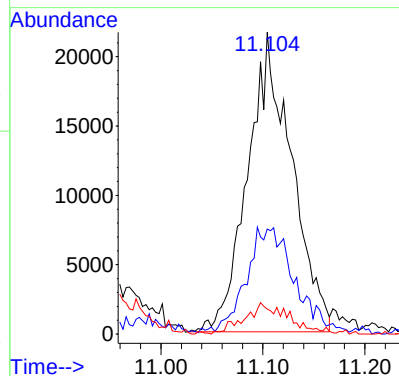
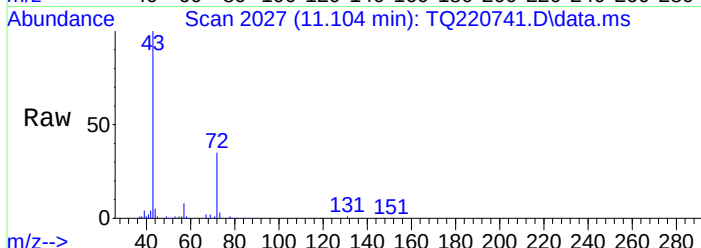
#23
Hexane
Concen: 0.59 ppbv
RT: 10.123 min Scan# 1722
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

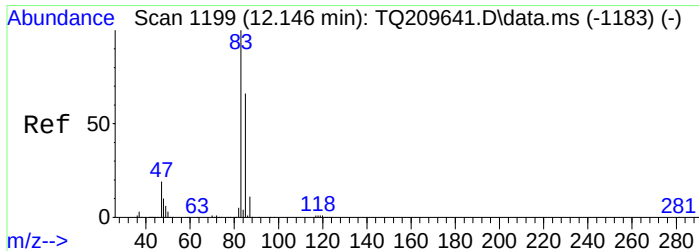
Tgt Ion	Ratio	Lower	Upper
57	100		
42	5.3	21.6	45.0#
43	23.1	42.0	87.2#
56	19.5	33.3	69.1#



#26
2-Butanone
Concen: 0.85 ppbv
RT: 11.104 min Scan# 2027
Delta R.T. 0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

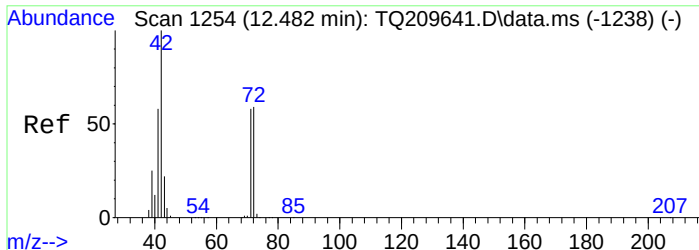
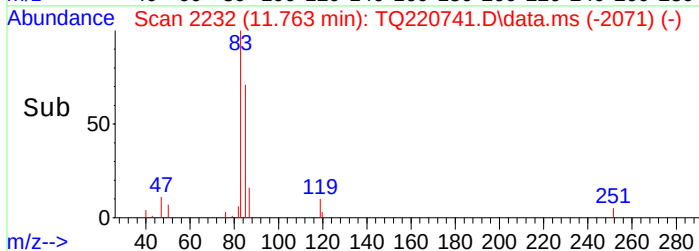
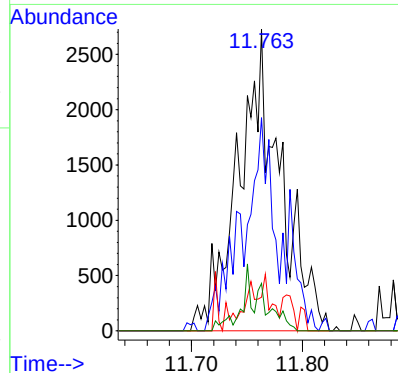
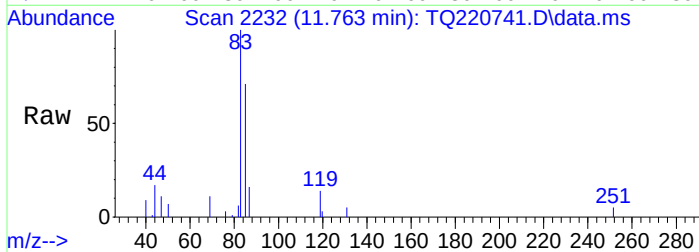
Tgt Ion	Ratio	Lower	Upper
43	100		
72	23.5	16.1	33.5
57	0.0	4.9	10.3#





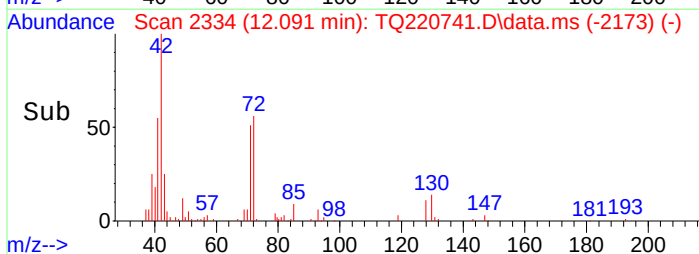
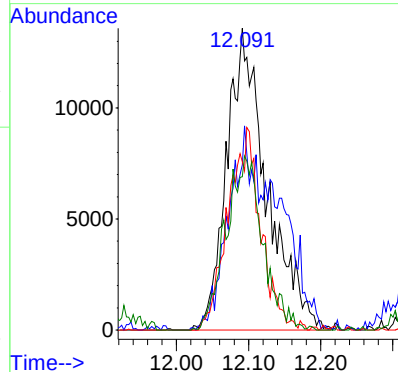
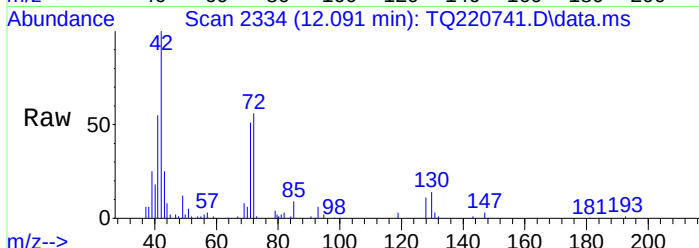
#29
Chloroform
Concen: 0.07 ppbv m
RT: 11.763 min Scan# 2232
Delta R.T. 0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

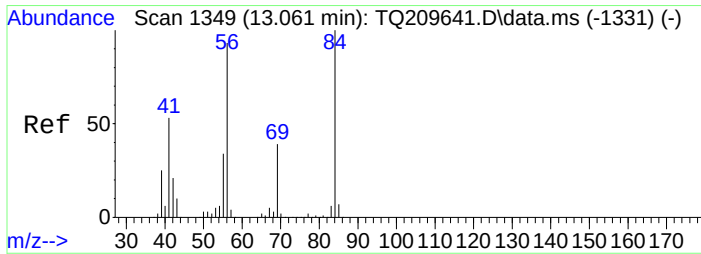
Tgt Ion:	83	Resp:	7143
Ion Ratio	Lower	Upper	
83	100		
85	16.3	41.7	86.7#
47	0.0	15.1	31.5#
87	0.0	6.7	13.9#



#30
Tetrahydrofuran
Concen: 1.26 ppbv m
RT: 12.091 min Scan# 2334
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

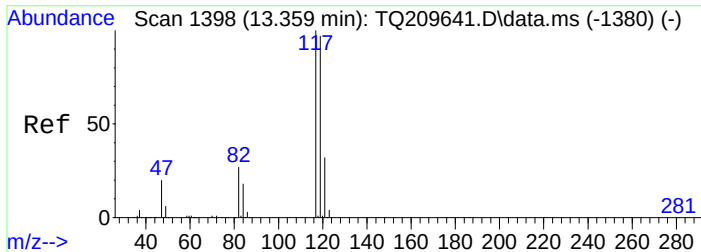
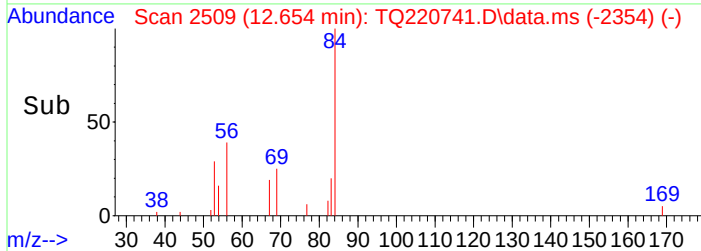
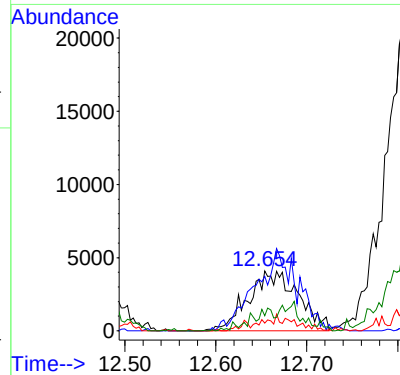
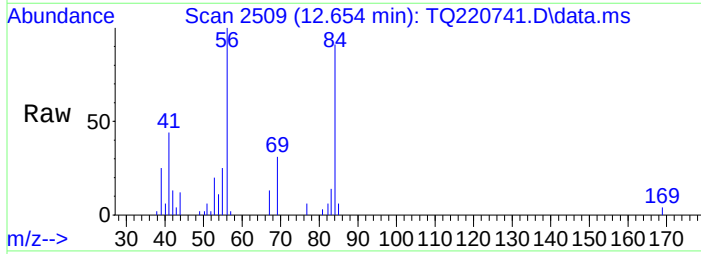
Tgt Ion:	42	Resp:	52408
Ion Ratio	Lower	Upper	
42	100		
41	20.0	35.2	73.0#
72	0.0	27.2	56.6#
71	10.7	25.9	53.7#





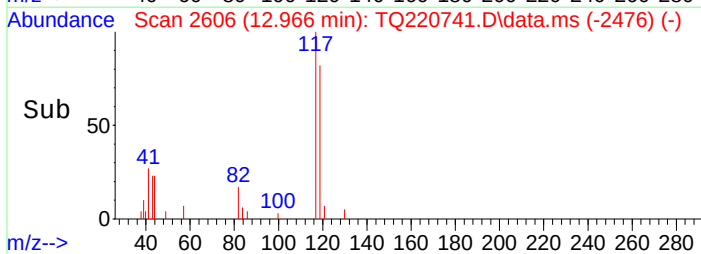
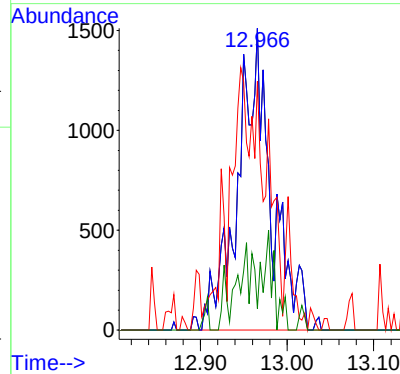
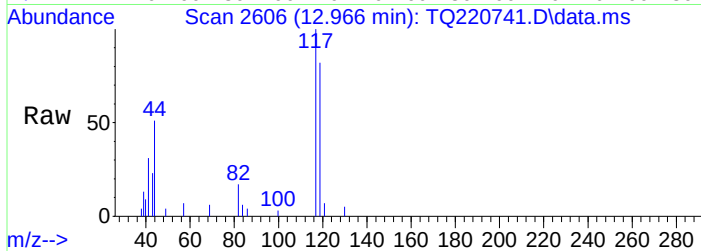
#32
Cyclohexane
Concen: 0.24 ppbv m
RT: 12.654 min Scan# 2509
Delta R.T. -0.000 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

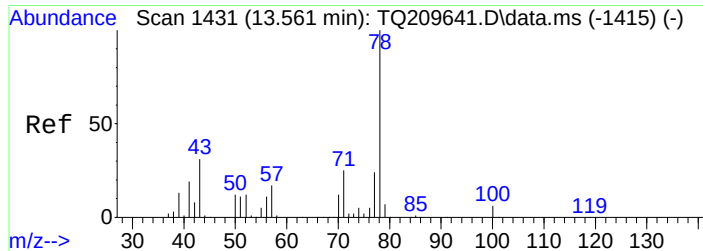
Tgt Ion	Ratio	Lower	Upper
56	100		
84	0.0	54.1	112.3#
42	0.0	15.3	31.7#
55	7.0	23.5	48.7#



#33
Carbon Tetrachloride
Concen: 0.04 ppbv m
RT: 12.966 min Scan# 2606
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

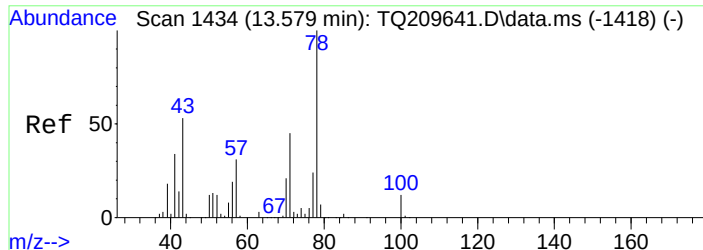
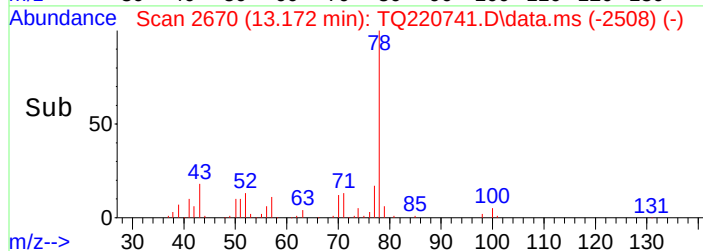
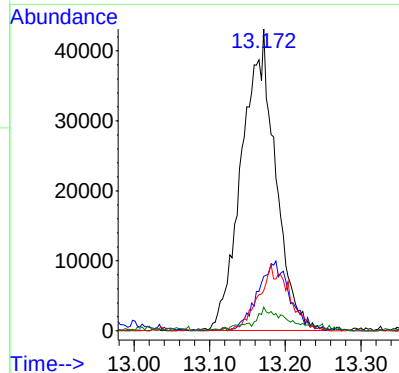
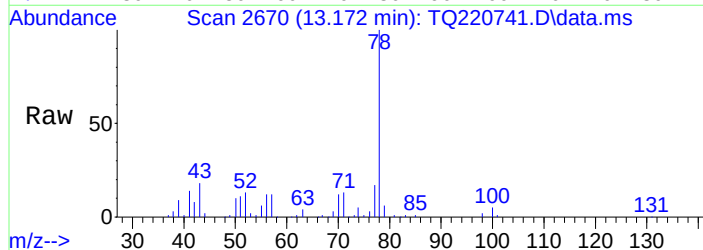
Tgt Ion	Ratio	Lower	Upper
117	100		
117	20.5	80.0	120.0#
119	31.8	76.9	115.3#
121	0.0	21.7	40.3#





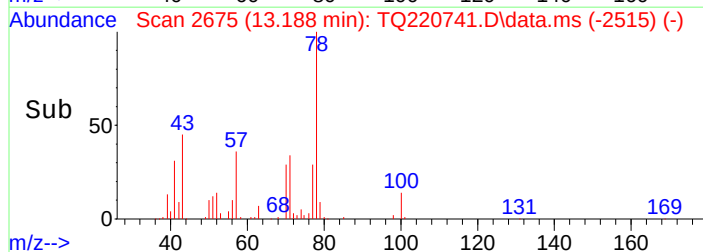
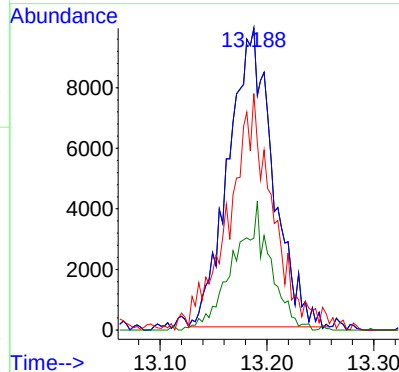
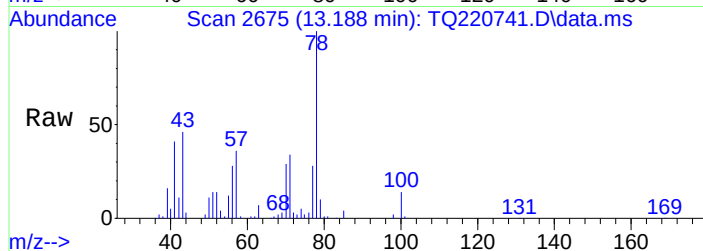
#35
Benzene
Concen: 0.82 ppbv
RT: 13.172 min Scan# 2670
Delta R.T. 0.020 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

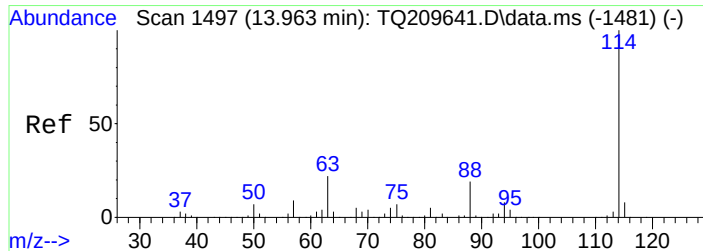
Tgt Ion	Ratio	Lower	Upper
78	100		
43	21.5	37.5	77.9#
71	10.6	22.0	45.8#
42	4.4	8.8	18.4#



#36
n-Heptane
Concen: 0.44 ppbv
RT: 13.188 min Scan# 2675
Delta R.T. 0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

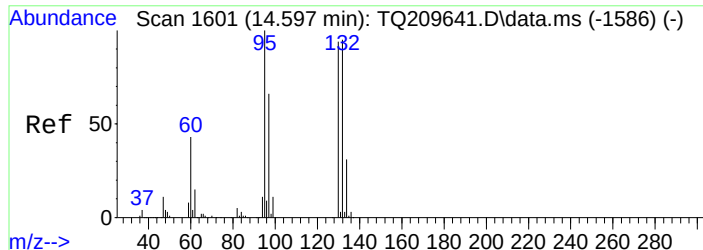
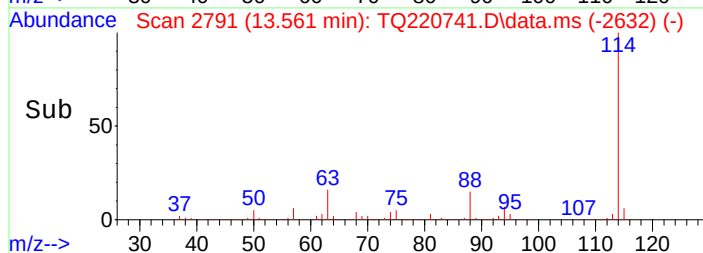
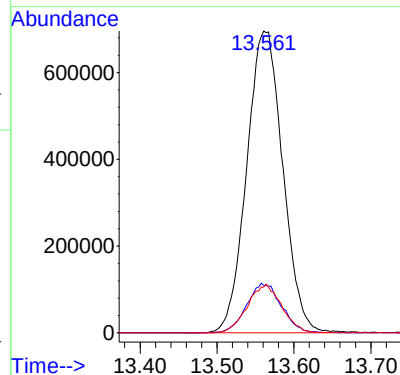
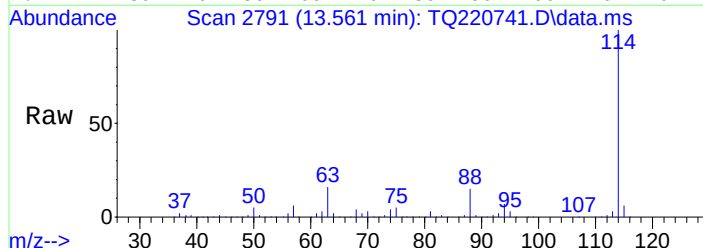
Tgt Ion	Ratio	Lower	Upper
43	100		
43	100.0	80.0	120.0
57	38.4	42.6	64.0#
100	0.0	13.3	19.9#





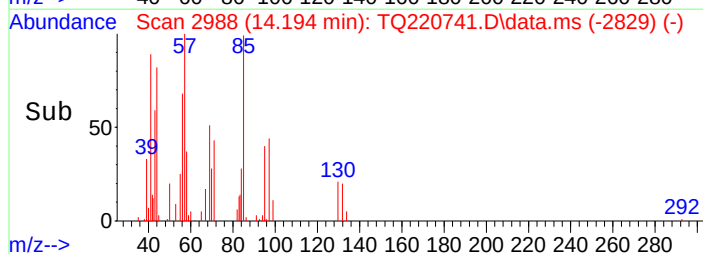
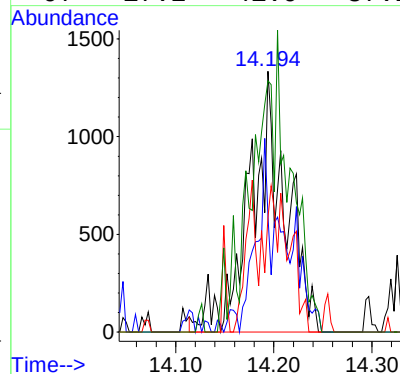
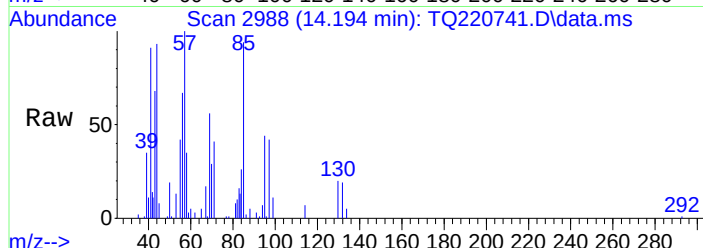
#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.561 min Scan# 2791
Delta R.T. 0.013 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

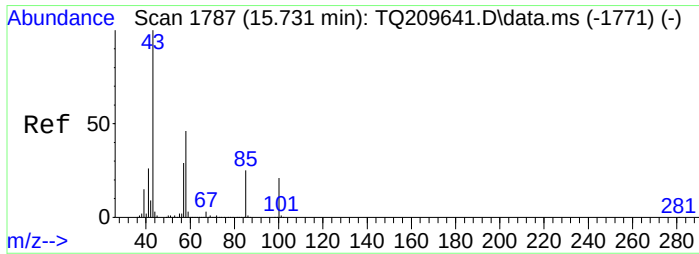
Tgt Ion:	114	Resp:	2265314
Ion Ratio	Lower	Upper	
114	100		
63	15.9	12.9	26.9
88	15.3	10.7	22.3



#38
Trichloroethylene
Concen: 0.04 ppbv m
RT: 14.194 min Scan# 2988
Delta R.T. 0.010 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

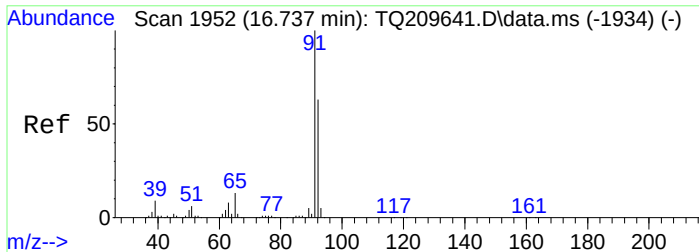
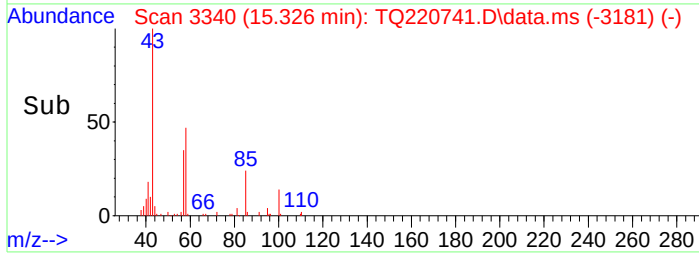
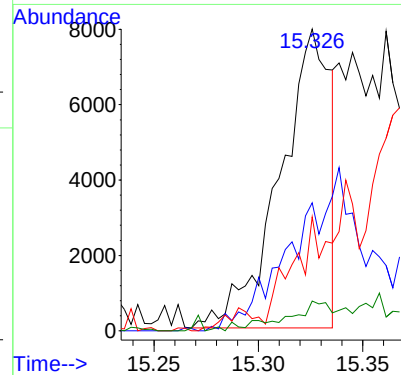
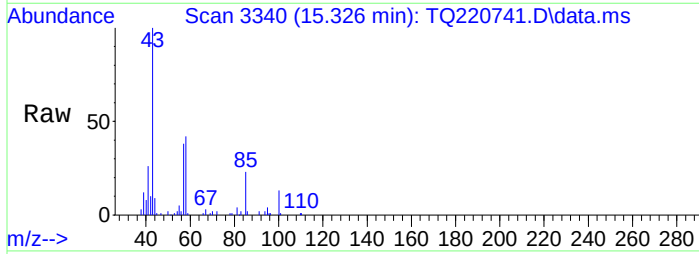
Tgt Ion:	95	Resp:	3336
Ion Ratio	Lower	Upper	
95	100		
130	25.2	66.0	137.0#
132	17.1	63.3	131.5#
97	17.2	41.9	87.1#





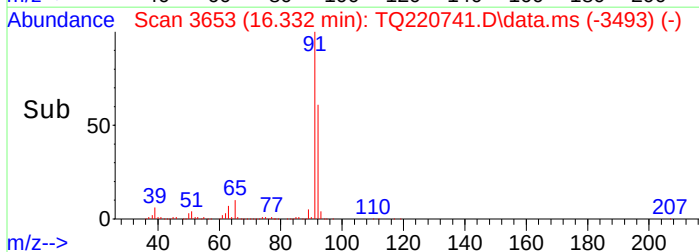
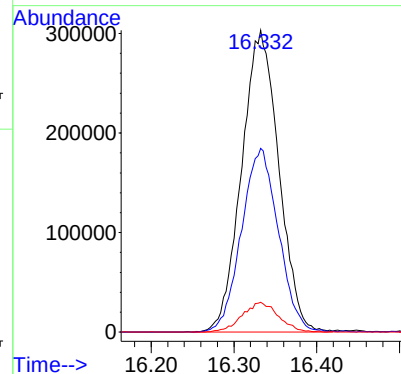
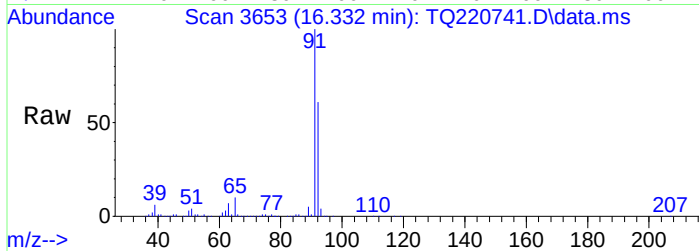
#43
Methyl Isobutyl Ketone
Concen: 0.11 ppbv
RT: 15.326 min Scan# 3340
Delta R.T. 0.013 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

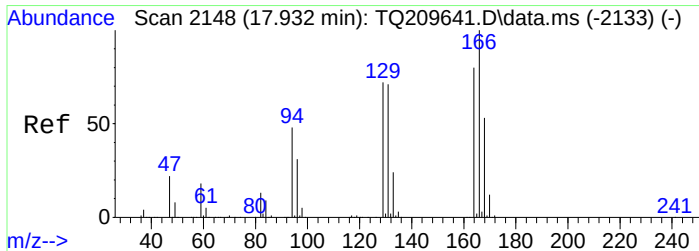
Tgt Ion	43	58	57	42
Ratio	100	34.2	18.4	4.3
Lower		25.1	15.5	5.0
Upper		52.1	32.3	15.0



#45
Toluene
Concen: 3.71 ppbv
RT: 16.332 min Scan# 3653
Delta R.T. 0.013 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

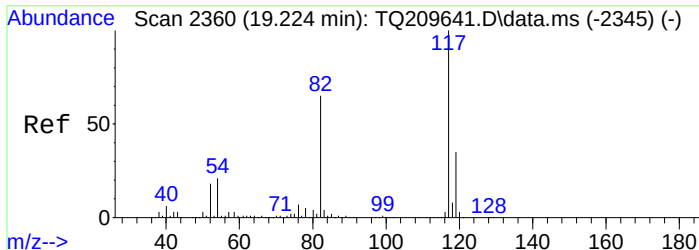
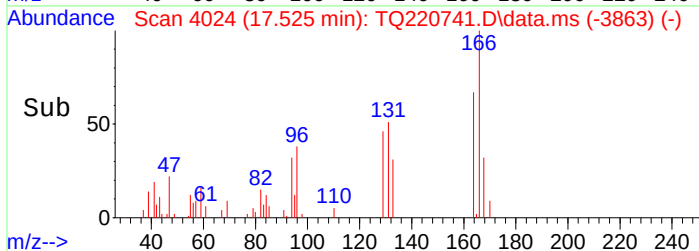
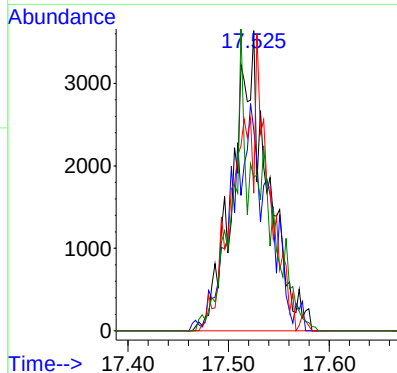
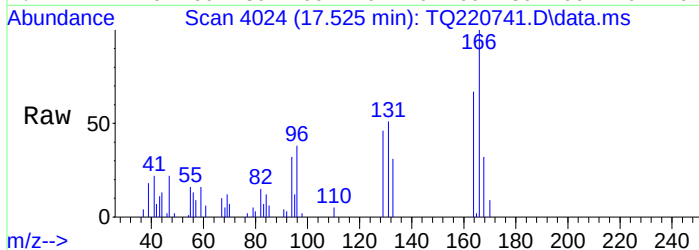
Tgt Ion	91	92	65
Ratio	100	60.7	9.6
Lower		38.7	7.5
Upper		80.3	15.5





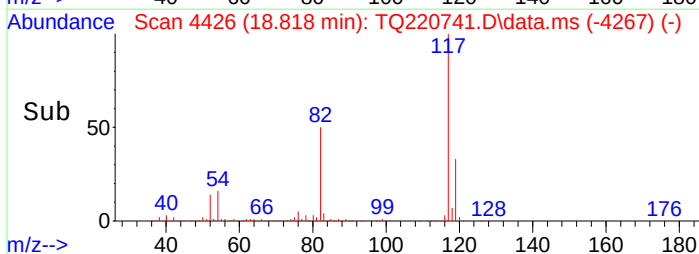
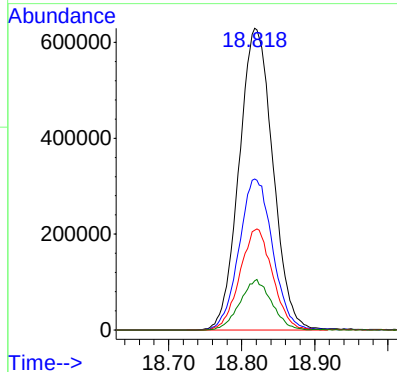
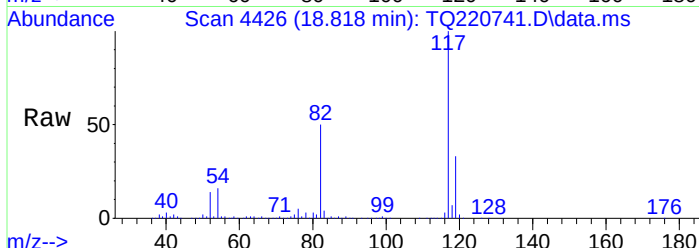
#50
Tetrachloroethylene
Concen: 0.07 ppbv m
RT: 17.525 min Scan# 4024
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

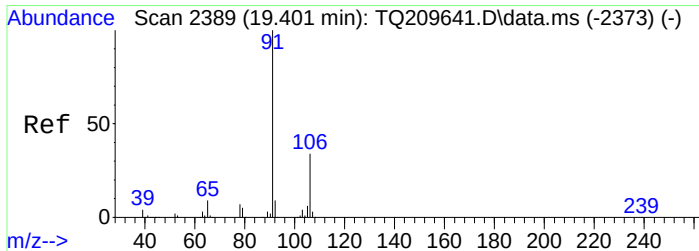
Tgt Ion	Ratio	Lower	Upper
166	100		
164	0.0	51.0	106.0#
129	39.8	48.1	99.9#
131	38.7	46.3	96.3#



#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.818 min Scan# 4426
Delta R.T. 0.013 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

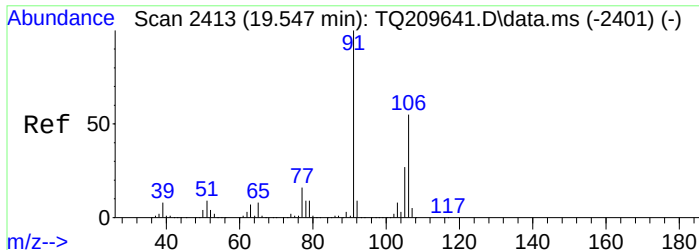
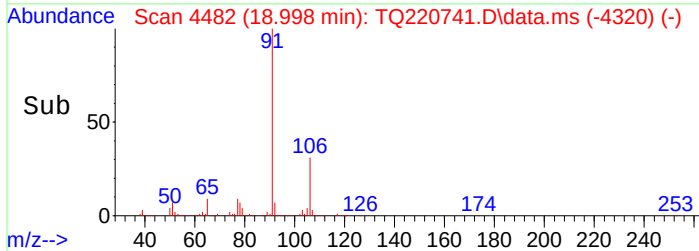
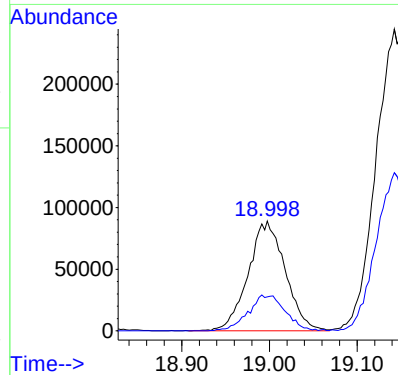
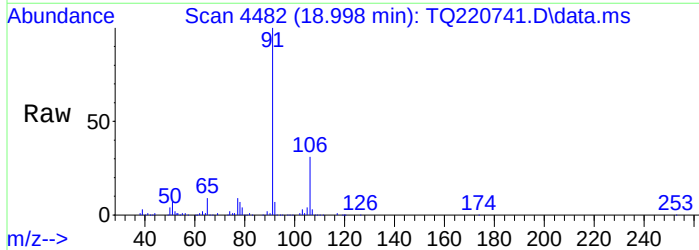
Tgt Ion	Ratio	Lower	Upper
117	100		
82	49.8	37.1	77.1
119	32.5	22.1	45.9
54	15.7	13.8	28.6





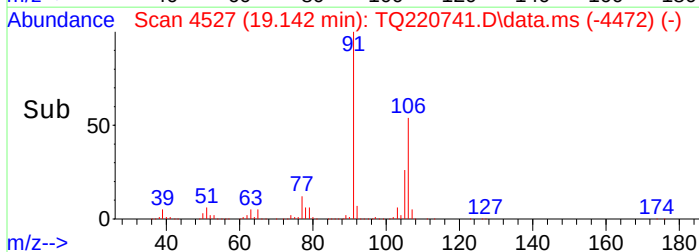
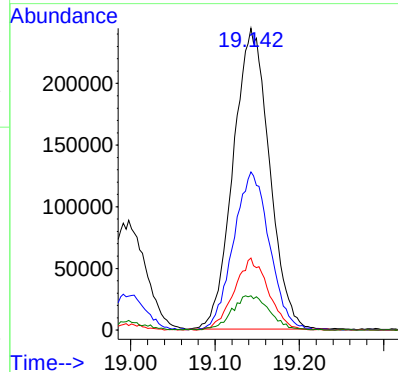
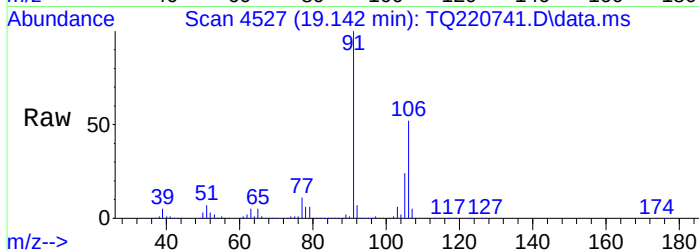
#56
Ethylbenzene
Concen: 0.80 ppbv
RT: 18.998 min Scan# 4482
Delta R.T. 0.020 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

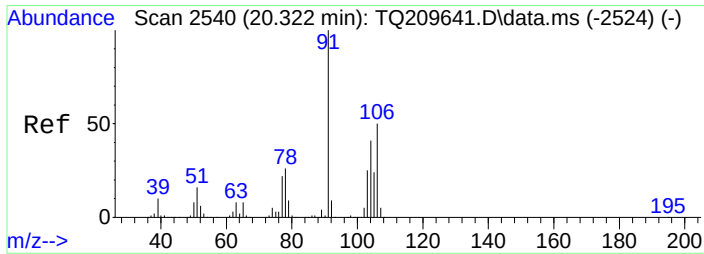
Tgt Ion: 91 Resp: 260777
Ion Ratio Lower Upper
91 100
106 15.5 20.5 42.7#



#57
p- & m-Xylenes
Concen: 2.98 ppbv
RT: 19.142 min Scan# 4527
Delta R.T. 0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

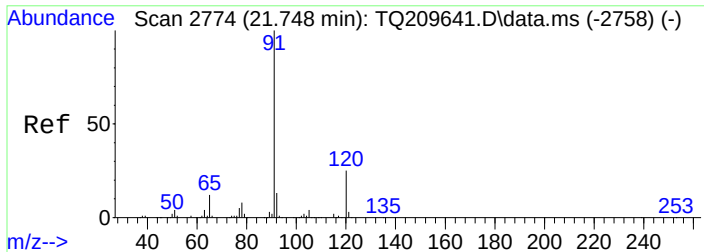
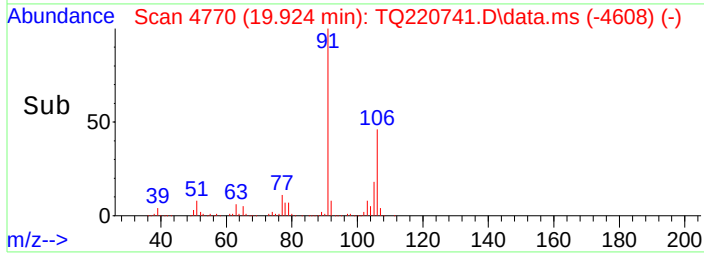
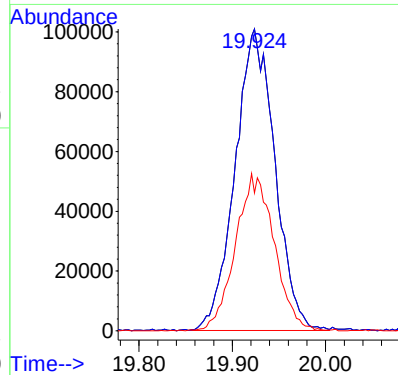
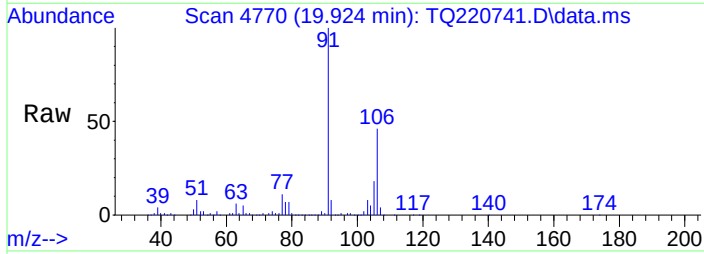
Tgt Ion: 91 Resp: 727137
Ion Ratio Lower Upper
91 100
106 52.1 32.6 67.8
105 22.7 14.5 30.1
77 11.7 8.5 17.7





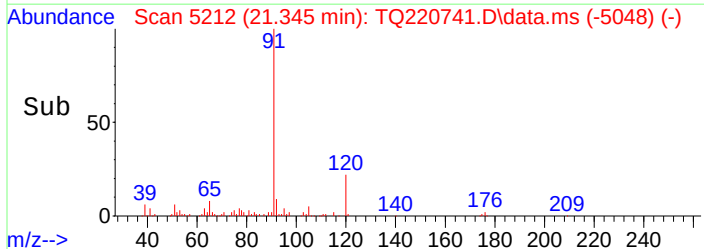
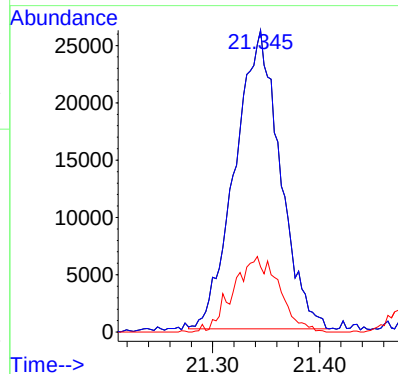
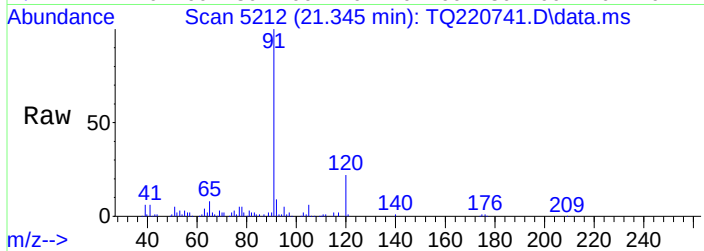
#58
o-Xylene
Concen: 1.17 ppbv
RT: 19.924 min Scan# 4770
Delta R.T. 0.020 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

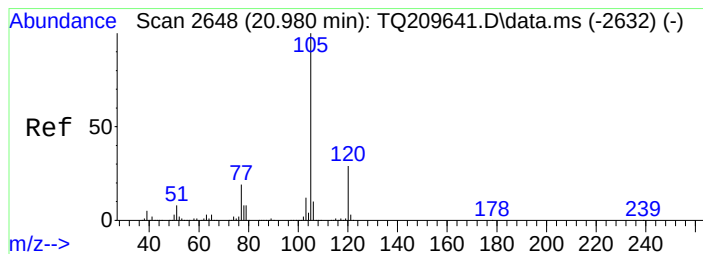
Tgt Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
106	50.7	38.2	57.2



#61
n-Propylbenzene
Concen: 0.18 ppbv
RT: 21.345 min Scan# 5212
Delta R.T. 0.029 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

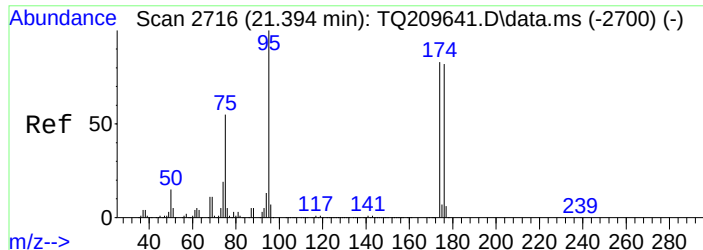
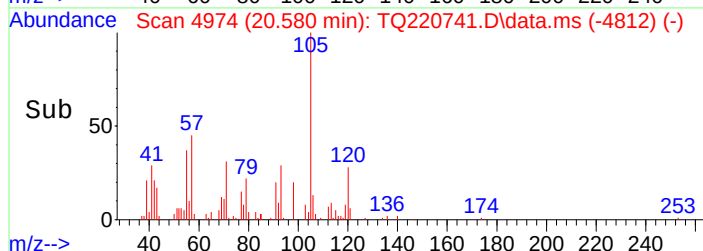
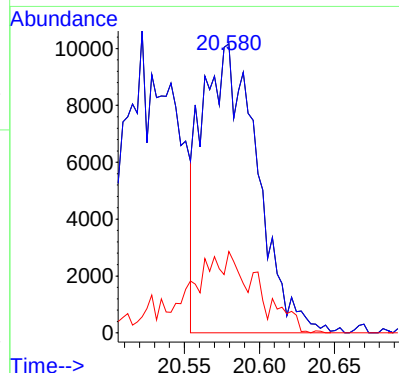
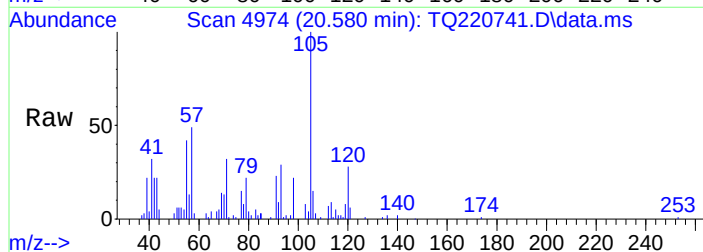
Tgt Ion	Ratio	Lower	Upper
91	100		
91	100.0	80.0	120.0
120	15.8	10.0	30.0





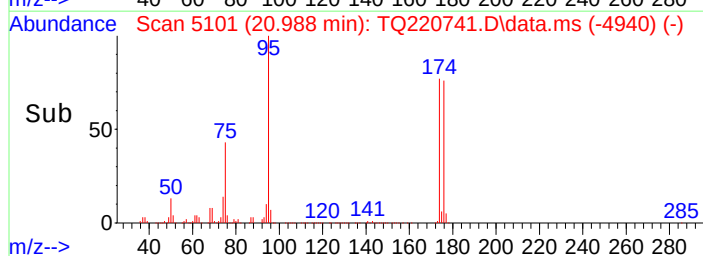
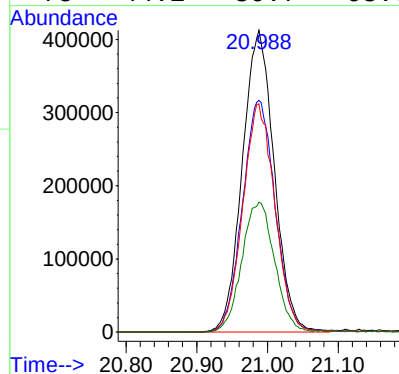
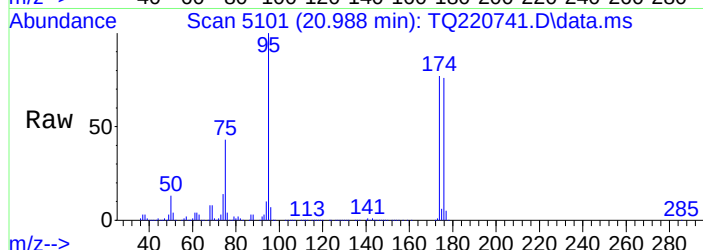
#62
Isopropylbenzene
Concen: 0.07 ppbv m
RT: 20.580 min Scan# 4974
Delta R.T. 0.020 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

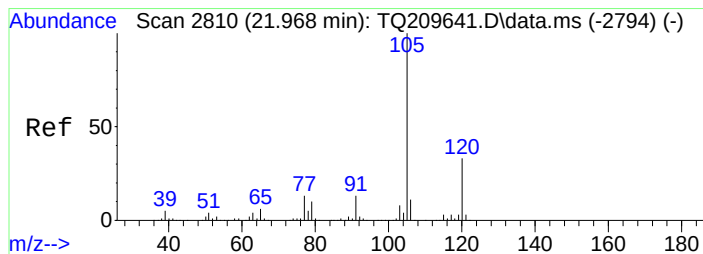
Tgt Ion:	105	Resp:	26093
Ion Ratio	Lower	Upper	
105	100		
105	18.6	80.0	120.0#
120	10.2	10.0	30.0



#64
p-Bromofluorobenzene
Concen: 9.74 ppbv
RT: 20.988 min Scan# 5101
Delta R.T. 0.019 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

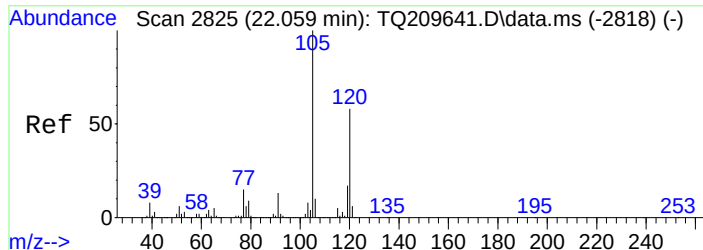
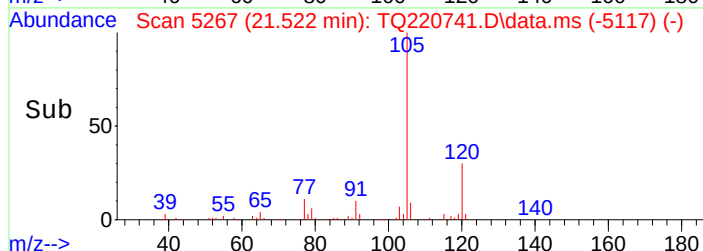
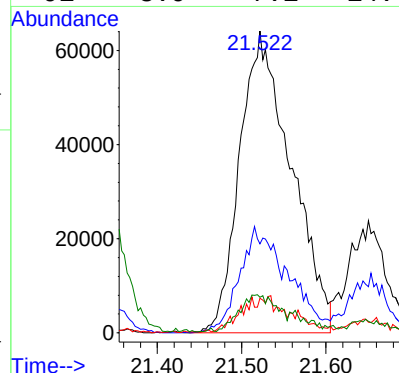
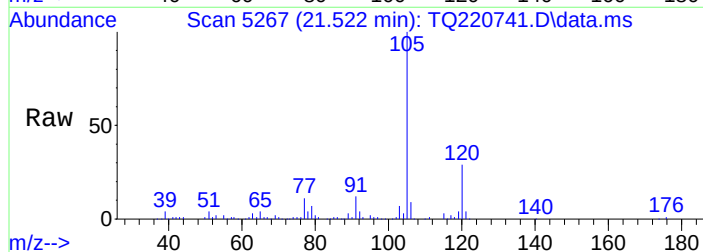
Tgt Ion:	95	Resp:	1289864
Ion Ratio	Lower	Upper	
95	100		
174	78.6	53.2	110.6
176	76.0	51.6	107.2
75	44.2	30.7	63.7





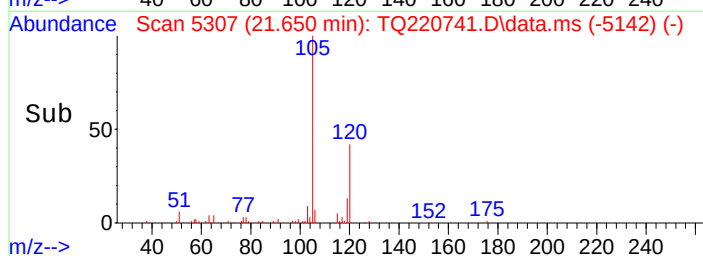
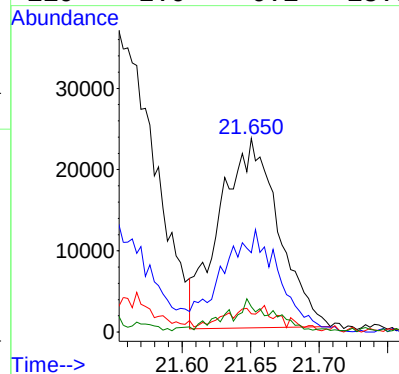
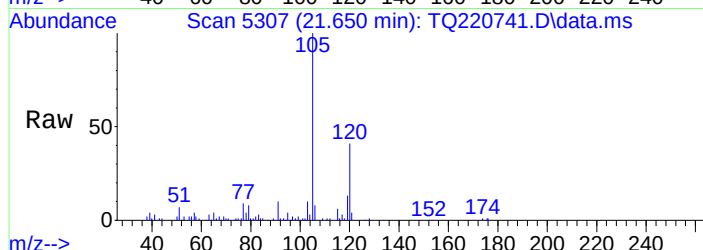
#65
4-Ethyltoluene
Concen: 0.76 ppbv
RT: 21.522 min Scan# 5267
Delta R.T. -0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

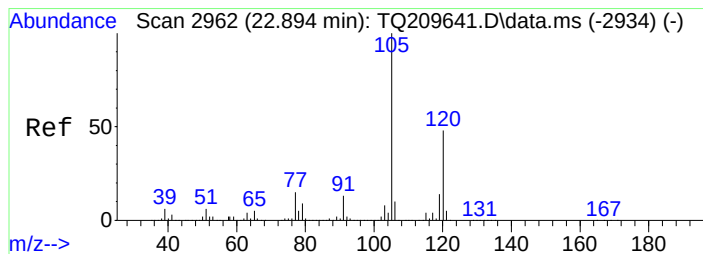
Tgt Ion	105	120	77	91
Ratio	100	14.2	3.2	8.9
Resp	271103	19.6	7.3	7.1
Lower				
Upper		40.8#	15.3#	14.7



#66
1,3,5-Trimethylbenzene
Concen: 0.23 ppbv
RT: 21.650 min Scan# 5307
Delta R.T. 0.029 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

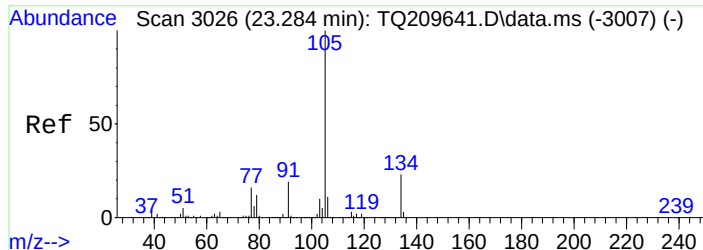
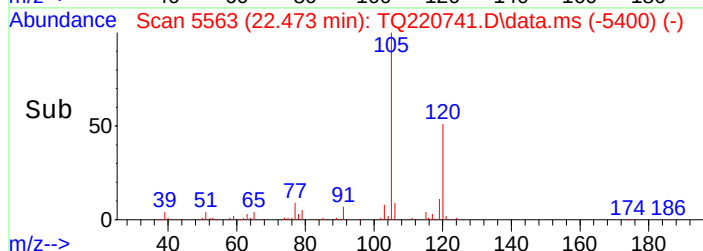
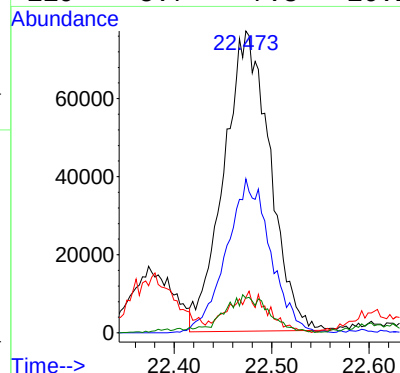
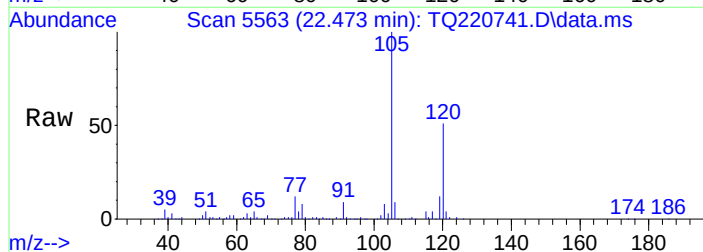
Tgt Ion	105	120	77	119
Ratio	100	52.0	3.2	2.9
Resp	69304	39.2	10.1	6.1
Lower				
Upper		58.8	15.1#	18.3#





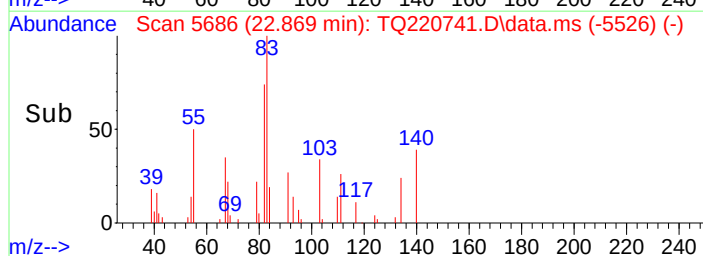
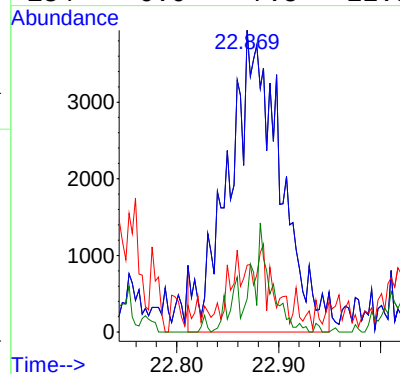
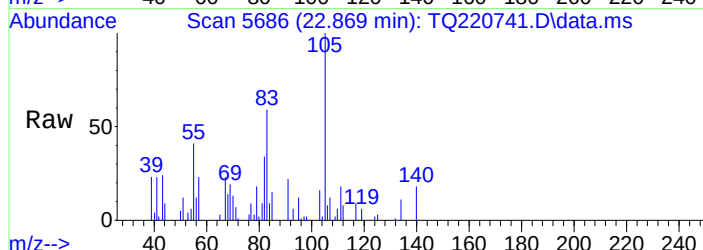
#68
1,2,4-Trimethylbenzene
Concen: 0.82 ppbv
RT: 22.473 min Scan# 5563
Delta R.T. 0.025 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

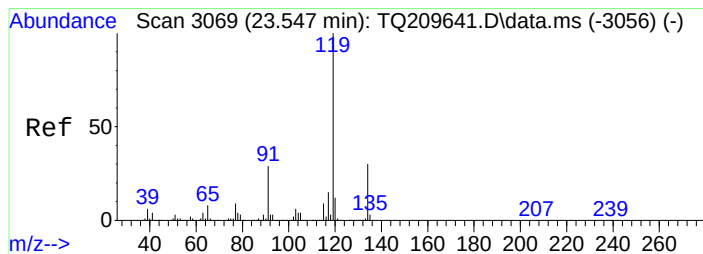
Tgt Ion	Ratio	Lower	Upper
105	100		
120	48.7	30.2	62.6
77	5.4	8.1	16.9#
119	5.7	7.8	16.2#



#69
sec-Butylbenzene
Concen: 0.03 ppbv m
RT: 22.869 min Scan# 5686
Delta R.T. 0.016 min
Lab File: TQ220741.D
Acq: 23 Jun 2022 1:16 pm

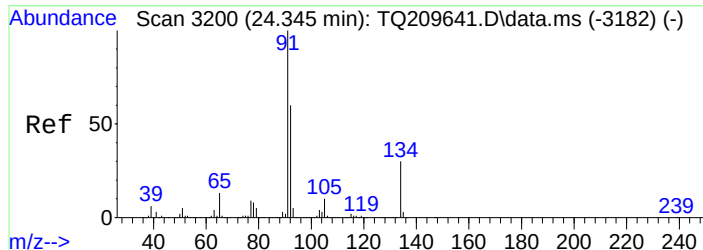
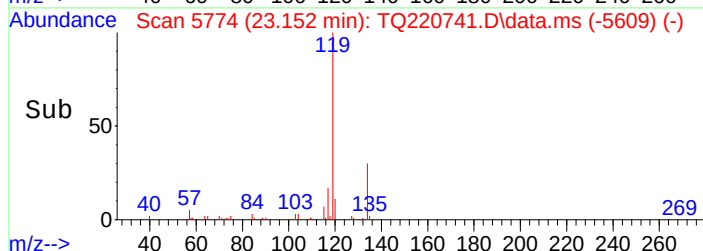
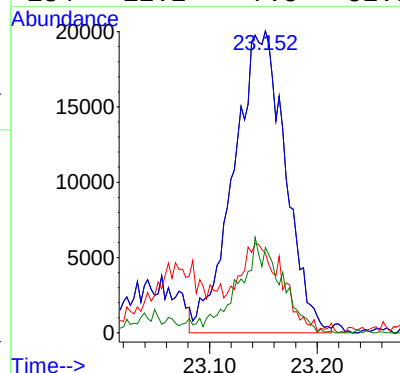
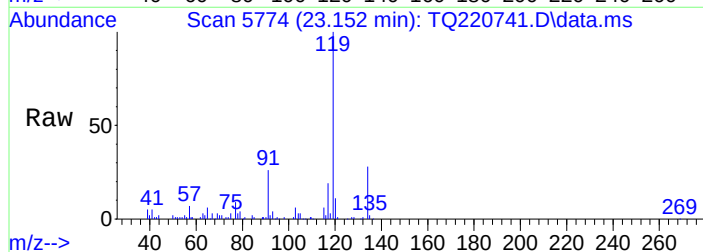
Tgt Ion	Ratio	Lower	Upper
105	100		
105	28.5	80.0	120.0#
91	0.0	7.5	22.5#
134	0.0	7.5	22.5#





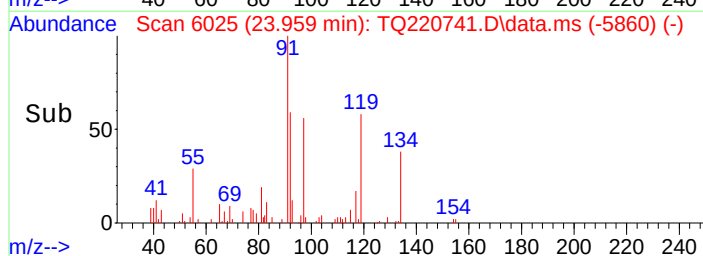
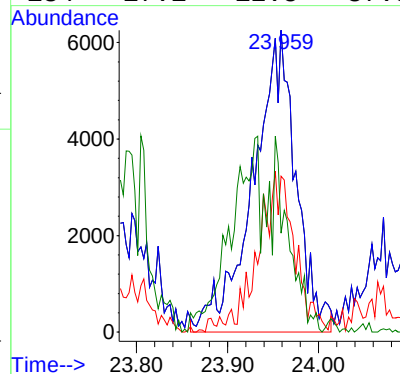
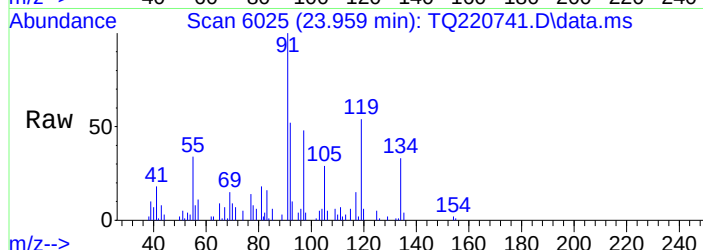
#70
 p-Isopropyltoluene
 Concen: 0.18 ppbv m
 RT: 23.152 min Scan# 5774
 Delta R.T. 0.032 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

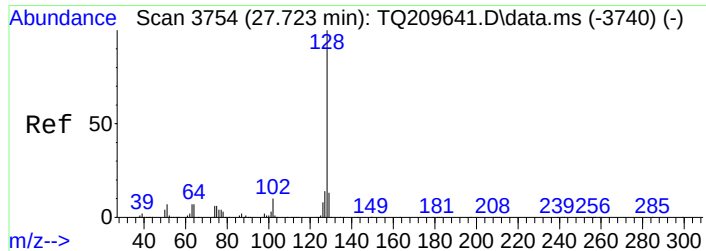
Tgt Ion:	119	Resp:	66458
Ion Ratio	Lower	Upper	
119	100		
119	51.8	80.0	120.0#
91	0.0	7.5	52.5#
134	12.2	7.5	52.5



#74
 n-Butylbenzene
 Concen: 0.06 ppbv m
 RT: 23.959 min Scan# 6025
 Delta R.T. 0.029 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

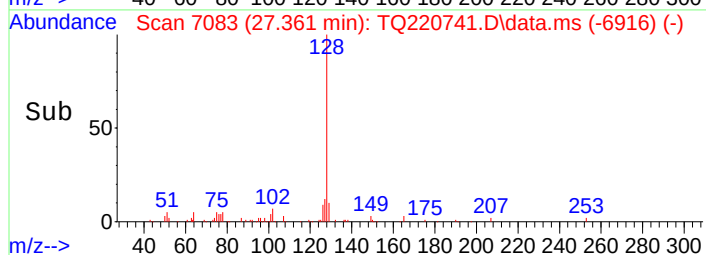
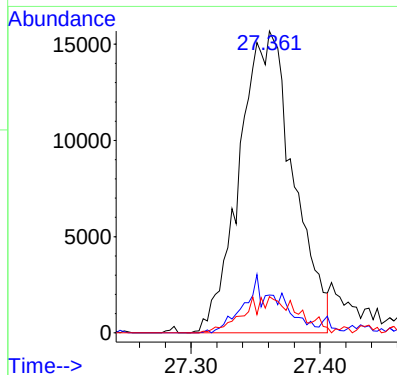
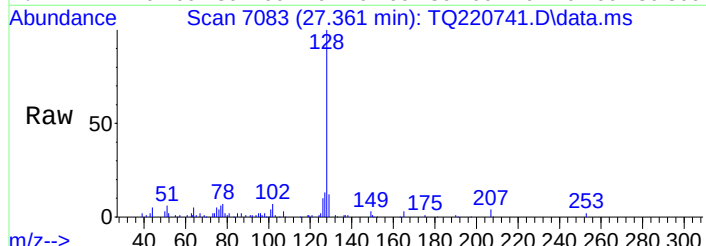
Tgt Ion:	91	Resp:	20370
Ion Ratio	Lower	Upper	
91	100		
91	36.1	80.0	120.0#
92	13.7	44.0	66.0#
134	17.1	12.5	37.5





#78
 Naphthalene
 Concen: 0.11 ppbv
 RT: 27.361 min Scan# 7083
 Delta R.T. 0.036 min
 Lab File: TQ220741.D
 Acq: 23 Jun 2022 1:16 pm

Tgt Ion:	128	Resp:	45463
Ion Ratio		Lower	Upper
128	100		
127	0.0	8.1	16.9#
129	2.0	7.1	14.7#



AIR Standards Data

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15 AIR2Calibration Date: 04/19/22 22:46

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	0.4804226	0.2	0.494883	0.5	0.5046372	3	0.6205963
1,1,1-Trichloroethane	0.025		0.05		0.1	2.95703	0.2	2.706065	0.5	2.678777	3	3.23439
1,1,2,2-Tetrachloroethane	0.025		0.05		0.1	0.894619	0.2	0.8632197	0.5	0.787407	3	1.015944
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.025		0.05		0.1	2.631908	0.2	2.454289	0.5	2.435374	3	2.828854
1,1,2-Trichloroethane	0.025		0.05		0.1	0.351439	0.2	0.3649271	0.5	0.3567242	3	0.4327056
1,1-Dichloroethane	0.025		0.05		0.1	2.131453	0.2	1.970535	0.5	1.983774	3	2.371254
1,1-Dichloroethylene	0.025	2.39009	0.05	2.055777	0.1	1.842649	0.2	1.7123	0.5	1.718696	3	1.994144
1,2,4-Trichlorobenzene	0.025		0.05		0.1	0.6186186	0.2	0.6074351	0.5	0.5848383	3	0.594328
1,2,4-Trimethylbenzene	0.025		0.05		0.1	1.53965	0.2	1.475911	0.5	1.499668	3	1.672427
1,2-Dibromoethane	0.025		0.05		0.1	0.5450074	0.2	0.5370228	0.5	0.5402507	3	0.6634643
1,2-Dichlorobenzene	0.025		0.05		0.1	0.963543	0.2	0.9033009	0.5	0.8494852	3	1.039877
1,2-Dichloroethane	0.025		0.05		0.1	1.758197	0.2	1.670918	0.5	1.657811	3	1.983701
1,2-Dichloropropane	0.025		0.05		0.1	0.2901339	0.2	0.2627425	0.5	0.2619484	3	0.3123409
1,2-Dichlorotetrafluoroethane	0.025		0.05		0.1	2.620787	0.2	2.494481	0.5	2.526495	3	3.013425
1,3,5-Trimethylbenzene	0.025		0.05		0.1	1.533384	0.2	1.541694	0.5	1.471594	3	1.639996
1,3-Butadiene	0.025		0.05		0.1	0.6071496	0.2	0.4813747	0.5	0.4762784	3	0.5122823
1,3-Dichlorobenzene	0.025		0.05		0.1	0.9213793	0.2	0.8325179	0.5	0.837392	3	1.031567
1,3-Dichloropropane	0.025		0.05		0.1	0.4812617	0.2	0.4861735	0.5	0.4806557	3	0.5968131
1,4-Dichlorobenzene	0.025		0.05		0.1	0.9346941	0.2	0.8364918	0.5	0.8422041	3	1.016024
1,4-Dioxane	0.025		0.05		0.1	0.2867463	0.2	0.2761163	0.5	0.2703515	3	0.2410133
2-Butanone	0.025		0.05		0.1	2.241796	0.2	1.928303	0.5	1.837601	3	2.083807
2-Hexanone	0.025		0.05		0.1	0.7467716	0.2	0.674901	0.5	0.7034697	3	0.5176617
3-Chloropropene	0.025		0.05		0.1	1.266256	0.2	1.082732	0.5	0.9773389	3	1.247276
4-Methyl-2-pentanone	0.025		0.05		0.1	0.7849097	0.2	0.6858628	0.5	0.6640509	3	0.560492
Acetone	0.025		0.05		0.1	2.418693	0.2	2.009198	0.5	1.772229	3	1.601622
Acrolein	0.025		0.05		0.1	0.5296485	0.2	0.4448361	0.5	0.4349634	3	0.4439746
Acrylonitrile	0.025		0.05		0.1	0.762673	0.2	0.7371448	0.5	0.6830258	3	0.800857
Benzene	0.025		0.05		0.1	4.870924	0.2	4.173557	0.5	3.951154	3	4.508626
Benzyl chloride	0.025		0.05		0.1	0.9007978	0.2	0.8724709	0.5	0.8775682	3	1.177213
Bromodichloromethane	0.025		0.05		0.1	0.5824534	0.2	0.5518726	0.5	0.555671	3	0.6997964
Bromoform	0.025		0.05		0.1	0.4448728	0.2	0.411409	0.5	0.4596322	3	0.6727668

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15 AIR2Calibration Date: 04/19/22 22:46

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	1.246099	0.2	1.054011	0.5	0.9751989	3	1.16639
Carbon disulfide	0.025		0.05		0.1	3.39267	0.2	3.038991	0.5	3.030041	3	3.718063
Carbon tetrachloride	0.025		0.05	2.22259	0.1	2.332851	0.2	2.36906	0.5	2.092774	3	2.874095
Chlorobenzene	0.025		0.05		0.1	1.080766	0.2	1.03224	0.5	1.03593	3	1.208284
Chloroethane	0.025		0.05		0.1	0.5484156	0.2	0.4985393	0.5	0.4879446	3	0.5454658
Chloroform	0.025		0.05		0.1	2.841821	0.2	2.678873	0.5	2.633562	3	3.093807
Chloromethane	0.025		0.05		0.1	0.6757884	0.2	0.5782444	0.5	0.5307783	3	0.5290286
cis-1,2-Dichloroethylene	0.025	1.946299	0.05	1.682644	0.1	1.724833	0.2	1.447693	0.5	1.41993	3	1.769354
cis-1,3-Dichloropropylene	0.025		0.05		0.1	0.4432328	0.2	0.4218963	0.5	0.4270639	3	0.5352612
Cyclohexane	0.025		0.05		0.1	1.765147	0.2	1.575918	0.5	1.5592	3	1.86168
Dibromochloromethane	0.025		0.05		0.1	0.5053393	0.2	0.4859575	0.5	0.5401413	3	0.739918
Dichlorodifluoromethane	0.025		0.05		0.1	3.540721	0.2	3.20095	0.5	3.171036	3	3.766711
Ethanol	0.025		0.05		0.1		0.2		0.5		3	
Ethyl acetate	0.025		0.05		0.1	2.106604	0.2	2.007668	0.5	1.915503	3	2.271675
Ethyl Benzene	0.025		0.05		0.1	1.680326	0.2	1.583057	0.5	1.590275	3	1.865662
Hexachlorobutadiene	0.025		0.05		0.1	0.8063755	0.2	0.7468433	0.5	0.6898052	3	0.6492475
Isopropanol	0.025		0.05		0.1	5.756278	0.2	4.032331	0.5	2.991038	3	2.102878
Isopropylbenzene	0.025		0.05		0.1	1.750903	0.2	1.727593	0.5	1.785344	3	2.08837
Methyl Methacrylate	0.025		0.05		0.1	0.316215	0.2	0.2648665	0.5	0.2691042	3	0.3310797
Methyl tert-butyl ether (MTBE)	0.025		0.05		0.1	3.506836	0.2	3.39537	0.5	3.387068	3	4.059379
Methylene chloride	0.025		0.05		0.1	1.673919	0.2	1.230501	0.5	1.120716	3	1.175384
Naphthalene	0.025		0.05		0.1	3.163888	0.2	3.1881	0.5	3.228779	3	1.567099
n-Butylbenzene	0.025		0.05		0.1	1.835492	0.2	1.742378	0.5	1.735023	3	1.736391
n-Heptane	0.025		0.05		0.1	1.781829	0.2	1.623333	0.5	1.619188	3	1.866254
n-Hexane	0.025		0.05		0.1	1.670269	0.2	1.577702	0.5	1.524788	3	1.780175
n-Propylbenzene	0.025		0.05		0.1	2.104965	0.2	1.99139	0.5	2.010797	3	2.31981
o-Xylene	0.025		0.05		0.1	1.291584	0.2	1.232881	0.5	1.234652	3	1.459911
p- & m- Xylenes	0.05		0.1		0.2	1.279662	0.4	1.207841	1	1.247232	6	1.415477
p-Ethyltoluene	0.025		0.05		0.1	1.737066	0.2	1.727978	0.5	1.707142	3	1.973861
p-Isopropyltoluene	0.025		0.05		0.1	1.93705	0.2	1.873496	0.5	1.851714	3	2.046863
Propylene	0.025		0.05		0.1	0.6342576	0.2	0.5049973	0.5	0.4325819	3	0.5230801

FORM VI

INITIAL CALIBRATION DATA

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15 AIR2Calibration Date: 04/19/22 22:46

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	2.264439	0.2	2.265442	0.5	2.188583	3	2.459125
Styrene	0.025		0.05		0.1	1.003966	0.2	0.9551757	0.5	0.9616828	3	1.125554
tert-Butylbenzene	0.025		0.05		0.1	1.623412	0.2	1.509134	0.5	1.650875	3	1.855868
Tetrachloroethylene	0.025		0.05		0.1	0.6251448	0.2	0.596764	0.5	0.5796696	3	0.6126946
Tetrahydrofuran	0.025		0.05		0.1	1.148788	0.2	1.031748	0.5	1.012407	3	1.159554
Toluene	0.025		0.05		0.1	1.232623	0.2	1.178048	0.5	1.151454	3	1.256823
trans-1,2-Dichloroethylene	0.025		0.05		0.1	1.622657	0.2	1.551276	0.5	1.527895	3	1.828067
trans-1,3-Dichloropropylene	0.025		0.05		0.1	0.3616019	0.2	0.3616332	0.5	0.3834143	3	0.4855772
Trichloroethylene	0.025	0.5667645	0.05	0.4313102	0.1	0.4065882	0.2	0.3878948	0.5	0.3720643	3	0.4472017
Trichlorofluoromethane (Freon 11)	0.025		0.05		0.1	3.344883	0.2	3.066012	0.5	2.95069	3	3.50292
Vinyl acetate	0.025		0.05		0.1	2.307655	0.2	2.018035	0.5	2.145203	3	2.624899
Vinyl bromide	0.025		0.05		0.1	1.231502	0.2	0.9772798	0.5	1.112156	3	1.284897
Vinyl Chloride	0.025	1.075638	0.05	0.8448678	0.1	0.6799589	0.2	0.6353466	0.5	0.6451969	3	0.7505894

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Calibration: YD20018

Instrument: TO15 AIR2

Calibration Date: 04/19/22 22:46

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	0.5510149	20	0.5208904	30	0.5086056	50	0.4994364				
1,1,1-Trichloroethane	10	2.780862	20	2.623163	30	2.595192	50	2.520103				
1,1,2,2-Tetrachloroethane	10	0.8795099	20	0.8390639	30	0.8256581	50	0.7954875				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10	2.434837	20	2.346891	30	2.361981	50	2.312789				
1,1,2-Trichloroethane	10	0.3828497	20	0.3572985	30	0.3408538	50	0.3267425				
1,1-Dichloroethane	10	2.057629	20	1.935212	30	1.900188	50	1.831438				
1,1-Dichloroethylene	10	1.725909	20	1.62332	30	1.63663	50	1.58996				
1,2,4-Trichlorobenzene	10	0.6938781	20	0.7402563	30	0.7252431	50	0.7211654				
1,2,4-Trimethylbenzene	10	1.511409	20	1.519158	30	1.504022	50	1.439918				
1,2-Dibromoethane	10	0.6150801	20	0.5808878	30	0.5613657	50	0.5422206				
1,2-Dichlorobenzene	10	0.9575066	20	0.9706955	30	0.9777733	50	0.9610227				
1,2-Dichloroethane	10	1.668112	20	1.543836	30	1.481389	50	1.416233				
1,2-Dichloropropane	10	0.270767	20	0.2512304	30	0.2397409	50	0.2269561				
1,2-Dichlorotetrafluoroethane	10	2.680326	20	2.639871	30	2.727047	50	2.538026				
1,3,5-Trimethylbenzene	10	1.473492	20	1.459725	30	1.440119	50	1.370167				
1,3-Butadiene	10	0.472286	20	0.4531676	30	0.4641253	50	0.4591131				
1,3-Dichlorobenzene	10	0.9700981	20	0.9940474	30	1.018738	50	1.011411				
1,3-Dichloropropane	10	0.5328891	20	0.4988418	30	0.4726997	50	0.4522816				
1,4-Dichlorobenzene	10	0.9722367	20	0.9968234	30	1.022337	50	1.012072				
1,4-Dioxane	10	0.2137004	20	0.2064728	30	0.2009267	50	0.1981591				
2-Butanone	10	1.812857	20	1.723776	30	1.713124	50	1.675168				
2-Hexanone	10	0.4532339	20	0.411848	30	0.3868404	50	0.3591557				
3-Chloropropene	10	1.073072	20	1.018827	30	1.031722	50	1.025745				
4-Methyl-2-pentanone	10	0.4879181	20	0.4544304	30	0.4357584	50	0.4157971				
Acetone	10	1.384068	20	1.293276	30	1.272394	50	1.248049				
Acrolein	10	0.4200472	20	0.4154245	30	0.4254064	50	0.4283443				
Acrylonitrile	10	0.7190777	20	0.6955732	30	0.7111332	50	0.7043344				
Benzene	10	3.853791	20	3.596503	30	3.570544	50	3.38102				
Benzyl chloride	10	1.220446	20	1.294933	30	1.313025	50	1.290876				
Bromodichloromethane	10	0.5848664	20	0.5368296	30	0.5149819	50	0.5034123				
Bromoform	10	0.6684899	20	0.6532208	30	0.6182343	50	0.543161				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Calibration: YD20018

Instrument: TO15_AIR2

Calibration Date: 04/19/22 22:46

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	1.035084	20	1.004357	30	1.049408	50	1.072892				
Carbon disulfide	10	3.316804	20	3.172108	30	3.228123	50	3.14751				
Carbon tetrachloride	10	2.429532	20	2.355986	30	2.397163	50	2.368765				
Chlorobenzene	10	1.071616	20	1.027559	30	1.000995	50	0.9593				
Chloroethane	10	0.4928972	20	0.4749742	30	0.4967319	50	0.5031277				
Chloroform	10	2.649262	20	2.527714	30	2.50395	50	2.420885				
Chloromethane	10	0.4831314	20	0.4532747	30	0.4772108	50	0.4803842				
cis-1,2-Dichloroethylene	10	1.520063	20	1.422485	30	1.429563	50	1.399608				
cis-1,3-Dichloropropylene	10	0.4923635	20	0.4643339	30	0.4451725	50	0.4313965				
Cyclohexane	10	1.61428	20	1.545714	30	1.556065	50	1.527217				
Dibromochloromethane	10	0.6764313	20	0.5846924	30	0.5461884	50	0.5306729				
Dichlorodifluoromethane	10	3.262833	20	3.014859	30	2.921083	50	2.729373				
Ethanol	10		20		30		50					
Ethyl acetate	10	2.006413	20	1.914712	30	1.891947	50	1.842298				
Ethyl Benzene	10	1.651427	20	1.562592	30	1.498138	50	1.393185				
Hexachlorobutadiene	10	0.5858501	20	0.5603062	30	0.5394208	50	0.5101703				
Isopropanol	10	1.781029	20	1.67942	30	1.676867	50	1.638682				
Isopropylbenzene	10	1.876595	20	1.799912	30	1.73617	50	1.582465				
Methyl Methacrylate	10	0.302526	20	0.2824477	30	0.2736791	50	0.2616956				
Methyl tert-butyl ether (MTBE)	10	3.530564	20	3.35044	30	3.345256	50	3.24231				
Methylene chloride	10	1.010535	20	0.9491835	30	0.9519025	50	0.9290149				
Naphthalene	10	1.862939	20	1.914007	30	1.815562	50	1.677874				
n-Butylbenzene	10	1.570171	20	1.544922	30	1.493989	50	1.397147				
n-Heptane	10	1.607616	20	1.473471	30	1.441431	50	1.351012				
n-Hexane	10	1.551973	20	1.478242	30	1.486405	50	1.457277				
n-Propylbenzene	10	2.103502	20	2.063548	30	1.99243	50	1.782305				
o-Xylene	10	1.32286	20	1.24872	30	1.205794	50	1.12719				
p- & m- Xylenes	20	1.268539	40	1.174274	60	1.091948	100	0.9453016				
p-Ethyltoluene	10	1.822284	20	1.775467	30	1.757542	50	1.651436				
p-Isopropyltoluene	10	1.803192	20	1.798448	30	1.76197	50	1.649145				
Propylene	10	0.460022	20	0.4377019	30	0.4392295	50	0.432326				

FORM VI**INITIAL CALIBRATION DATA (Continued)****EPA TO-15**Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15_AIR2Calibration Date: 04/19/22 22:46

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	2.1602	20	2.149912	30	2.094401	50	1.920744				
Styrene	10	1.068318	20	1.041032	30	1.023364	50	0.9673739				
tert-Butylbenzene	10	1.639131	20	1.646694	30	1.646968	50	1.591853				
Tetrachloroethylene	10	0.5525026	20	0.5269608	30	0.5160352	50	0.5030458				
Tetrahydrofuran	10	1.011509	20	0.9644523	30	0.9640845	50	0.9526767				
Toluene	10	1.130761	20	1.065253	30	1.0185	50	0.9599143				
trans-1,2-Dichloroethylene	10	1.58822	20	1.507773	30	1.504168	50	1.464249				
trans-1,3-Dichloropropylene	10	0.4582662	20	0.4352453	30	0.4151298	50	0.398716				
Trichloroethylene	10	0.3875444	20	0.3713227	30	0.3609477	50	0.3557272				
Trichlorofluoromethane (Freon 11)	10	2.975733	20	2.780024	30	2.773577	50	2.68373				
Vinyl acetate	10	2.368592	20	2.149262	30	2.120951	50	2.084779				
Vinyl bromide	10	1.141151	20	1.100354	30	1.142926	50	1.149291				
Vinyl Chloride	10	0.6755299	20	0.6433275	30	0.6642687	50	0.6594063				

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15_AIR2Calibration Date: 04/19/22 22:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1,2-Tetrachloroethane	0.5225608	8.562948	18.92112	0.0275769			30	
1,1,1-Trichloroethane	2.761948	8.404844	12.48325	5.925024E-02			30	
1,1,2,2-Tetrachloroethane	0.8626136	8.417117	20.73088	2.333295E-02			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	2.475865	6.978004	8.231125	6.879939E-02			30	
1,1,2-Trichloroethane	0.3641926	8.840227	16.77	2.981372E-02			30	
1,1-Dichloroethane	2.022685	8.315247	10.47475	5.456222E-02			30	
1,1-Dichloroethylene	1.828947	13.71846	8.4564	8.202041E-02			30	
1,2,4-Trichlorobenzene	0.6607203	9.911496	26.93825	1.539712E-02			30	
1,2,4-Trimethylbenzene	1.52027	4.497124	22.44975	1.863014E-02			30	
1,2-Dibromoethane	0.5731624	7.871844	18.07225	2.472036E-02			30	
1,2-Dichlorobenzene	0.9529005	5.863857	24.18888	1.793446E-02			30	
1,2-Dichloroethane	1.647525	10.71605	13.02338	5.825483E-02			30	
1,2-Dichloropropane	0.2644825	10.2986	14.41638	9.696206E-03			30	
1,2-Dichlorotetrafluoroethane	2.655057	6.232263	5.242	0.200754			30	
1,3,5-Trimethylbenzene	1.491271	5.401335	21.623	2.858664E-02			30	
1,3-Butadiene	0.4907221	10.26822	5.807125	0.2005018			30	
1,3-Dichlorobenzene	0.9521438	8.398188	23.29225	1.918243E-02			30	
1,3-Dichloropropane	0.500202	9.065703	17.19563	2.411164E-02			30	
1,4-Dichlorobenzene	0.9541104	7.995296	23.482	2.256344E-02			30	
1,4-Dioxane	0.2366858	15.49664	14.7375	5.222392E-02			30	
2-Butanone	1.877054	10.56352	11.095	7.294426E-02			30	
2-Hexanone	0.5317352	29.11225	16.77962	2.498078E-02			30	
3-Chloropropene	1.090371	9.891241	9.055375	0.1230462			30	
4-Methyl-2-pentanone	0.5611524	24.26775	15.3155	3.337253E-02			30	
Acetone	1.624941	25.84177	8.092625	0.147583			30	
Acrolein	0.4428306	8.269977	7.978875	0.1912109			30	
Acrylonitrile	0.7267274	5.349473	9.29875	9.098654E-02			30	
Benzene	3.988265	12.71593	13.1535	3.191052E-02			30	
Benzyl chloride	1.118416	17.83431	23.63288	9.140158E-03			30	
Bromodichloromethane	0.5662355	10.80552	14.77425	3.829519E-02			30	
Bromoform	0.5589733	19.39225	20.47525	3.222012E-02			30	
Bromomethane	1.07543	8.262501	6.600125	0.1523301			30	

FORM VI

INITIAL CALIBRATION DATA (Continued)

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15_AIR2Calibration Date: 04/19/22 22:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Carbon disulfide	3.255539	6.903854	9.33625	6.506453E-02			30	
Carbon tetrachloride	2.382535	8.868214	12.94933	5.208245E-02			30	
Chlorobenzene	1.052086	7.010271	18.87275	2.334866E-02			30	
Chloroethane	0.506012	5.264119	6.77975	0.1984605			30	
Chloroform	2.668734	8.02208	11.74725	7.008658E-02			30	
Chloromethane	0.5259801	13.78232	5.45325	0.2028036			30	
cis-1,2-Dichloroethylene	1.576247	12.11326	11.4747	7.087928E-02			30	
cis-1,3-Dichloropropylene	0.4575901	8.479898	15.6665	1.989716E-02			30	
Cyclohexane	1.625653	7.465707	12.65025	5.826469E-02			30	
Dibromochloromethane	0.5761676	15.29481	17.70325	1.921471E-02			30	
Dichlorodifluoromethane	3.200946	10.39896	4.96725	0.1882287			30	
Ethanol							30	
Ethyl acetate	1.994603	6.988111	11.39713	4.629581E-02			30	
Ethyl Benzene	1.603083	8.647667	18.97925	0.0255301			30	
Hexachlorobutadiene	0.6539784	15.252	27.20943	8.072138E-03			30	
Isopropanol	2.707315	55.16935	7.882875	0.1645517		0.999882	0.99	
Isopropylbenzene	1.793419	8.106145	20.55987	1.771929E-02			30	
Methyl Methacrylate	0.2877017	8.989548	14.43062	3.711034E-02			30	
Methyl tert-butyl ether (MTBE)	3.477153	7.260362	9.621125	6.637063E-02			30	
Methylene chloride	1.130144	21.85847	9.20875	0.1207584			30	
Naphthalene	2.302281	32.40631	27.324	1.406847E-02		0.9995157	0.99	
n-Butylbenzene	1.631939	9.284772	23.93113	1.055984E-02			30	
n-Heptane	1.595517	10.80162	13.17475	6.448263E-02			30	
n-Hexane	1.565854	7.02213	10.10287	7.638676E-02			30	
n-Propylbenzene	2.046093	7.358667	21.31875	2.267728E-02			30	
o-Xylene	1.265449	7.717153	19.9045	0.0200949			30	
p- & m- Xylenes	1.203784	11.61558	19.125	1.820726E-02			30	
p-Ethyltoluene	1.769097	5.460827	21.54	2.299606E-02			30	
p-Isopropyltoluene	1.840235	6.464565	23.12188	2.365521E-02			30	
Propylene	0.4830245	14.54994	4.893375	0.2201734			30	
sec-Butylbenzene	2.187856	7.075805	22.85425	2.336683E-02			30	
Styrene	1.018308	5.814062	19.92475	1.685623E-02			30	

FORM VI**INITIAL CALIBRATION DATA (Continued)****EPA TO-15**Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Calibration: YD20018Instrument: TO15_AIR2Calibration Date: 04/19/22 22:46

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
tert-Butylbenzene	1.645492	5.913953	22.37825	1.623643E-02			30	
Tetrachloroethylene	0.5641022	8.192141	17.50962	3.443761E-02			30	
Tetrahydrofuran	1.030652	7.879529	12.074	5.604709E-02			30	
Toluene	1.124172	9.187175	16.319	4.038662E-02			30	
trans-1,2-Dichloroethylene	1.574288	7.245236	9.814625	6.280261E-02			30	
trans-1,3-Dichloropropylene	0.412448	10.90974	16.47937	3.422162E-02			30	
Trichloroethylene	0.4087366	15.40633	14.1834	0.0338656			30	
Trichlorofluoromethane (Freon 11)	3.009696	9.549057	7.358875	0.1416002			30	
Vinyl acetate	2.227422	8.861969	10.43187	6.962289E-02			30	
Vinyl bromide	1.142445	7.984181	7.2355	9.448124E-02			30	
Vinyl Chloride	0.727413	18.97463	5.724	0.2076019			30	

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219721.D
 Acq On : 20 Apr 2022 12:38 am
 Operator : AS
 Sample : SEQ-CAL1
 Misc : QBT02041922A 0.025 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 11:59:20 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

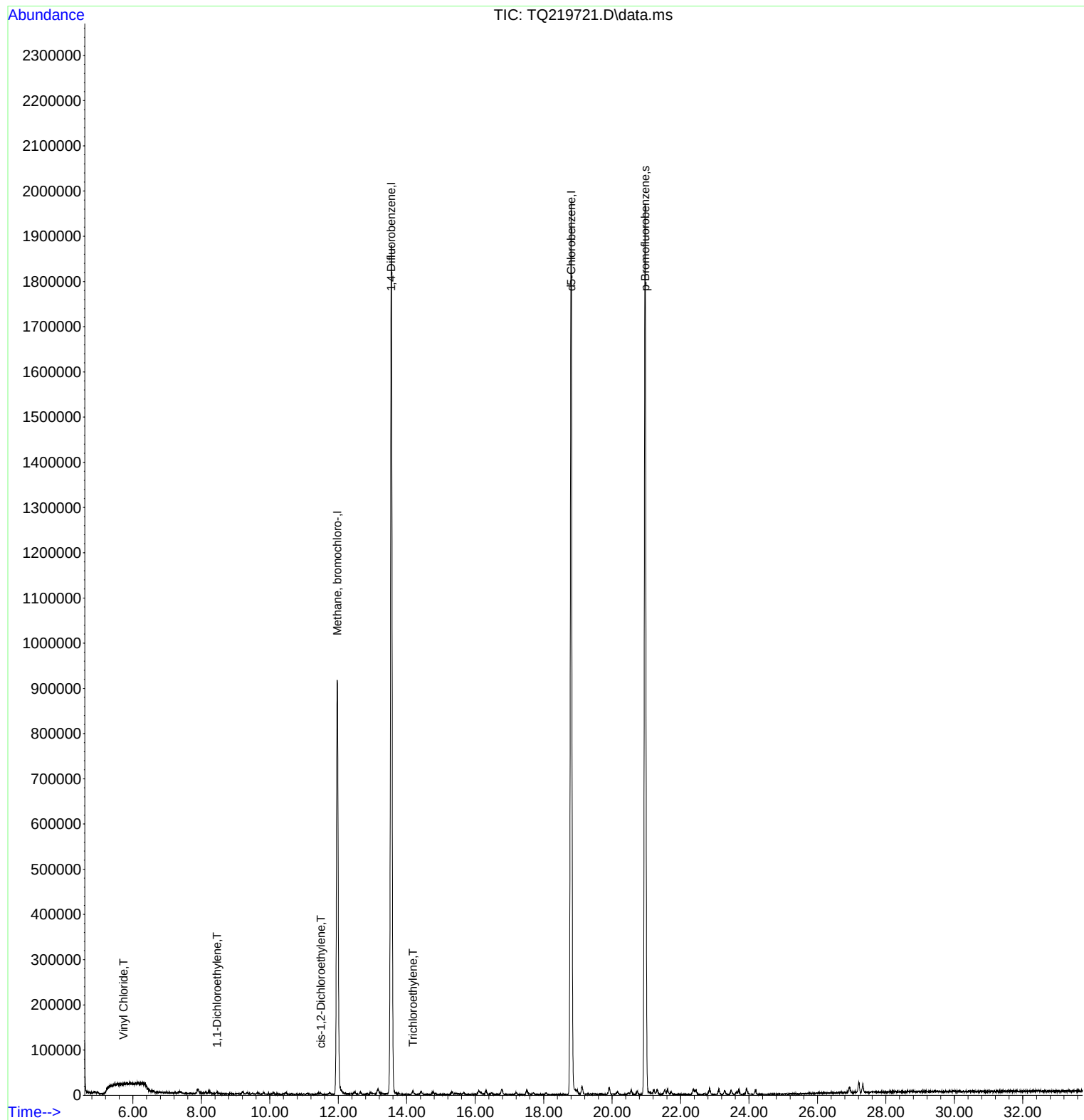
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	11.969	49	614705	10.00	ppbv	#-0.01
37) 1,4-Difluorobenzene	13.548	114	2956431	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.802	117	2321399	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.962	95	1424194	8.50	ppbv	-0.02
Spiked Amount	10.000	Range	70 - 130	Recovery	=	85.00%
Target Compounds						
6) Vinyl Chloride	5.719	62	1653m	0.02	ppbv	Qvalue
16) 1,1-Dichloroethylene	8.455	61	3673m	0.03	ppbv	
28) cis-1,2-Dichloroethylene	11.487	61	2991m	0.03	ppbv	
38) Trichloroethylene	14.178	95	4189m	0.03	ppbv	

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

Data Path : C:\msdchem\1\data\041922\
Data File : TQ219721.D
Acq On : 20 Apr 2022 12:38 am
Operator : AS
Sample : SEQ-CAL1
Misc : QBT02041922A 0.025 PPBV CAL STND
ALS Vial : 92 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Apr 20 11:59:20 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Apr 13 19:30:20 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219722.D
 Acq On : 20 Apr 2022 1:34 am
 Operator : AS
 Sample : SEQ-CAL2
 Misc : QBT02041922A 0.050 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 12:05:36 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

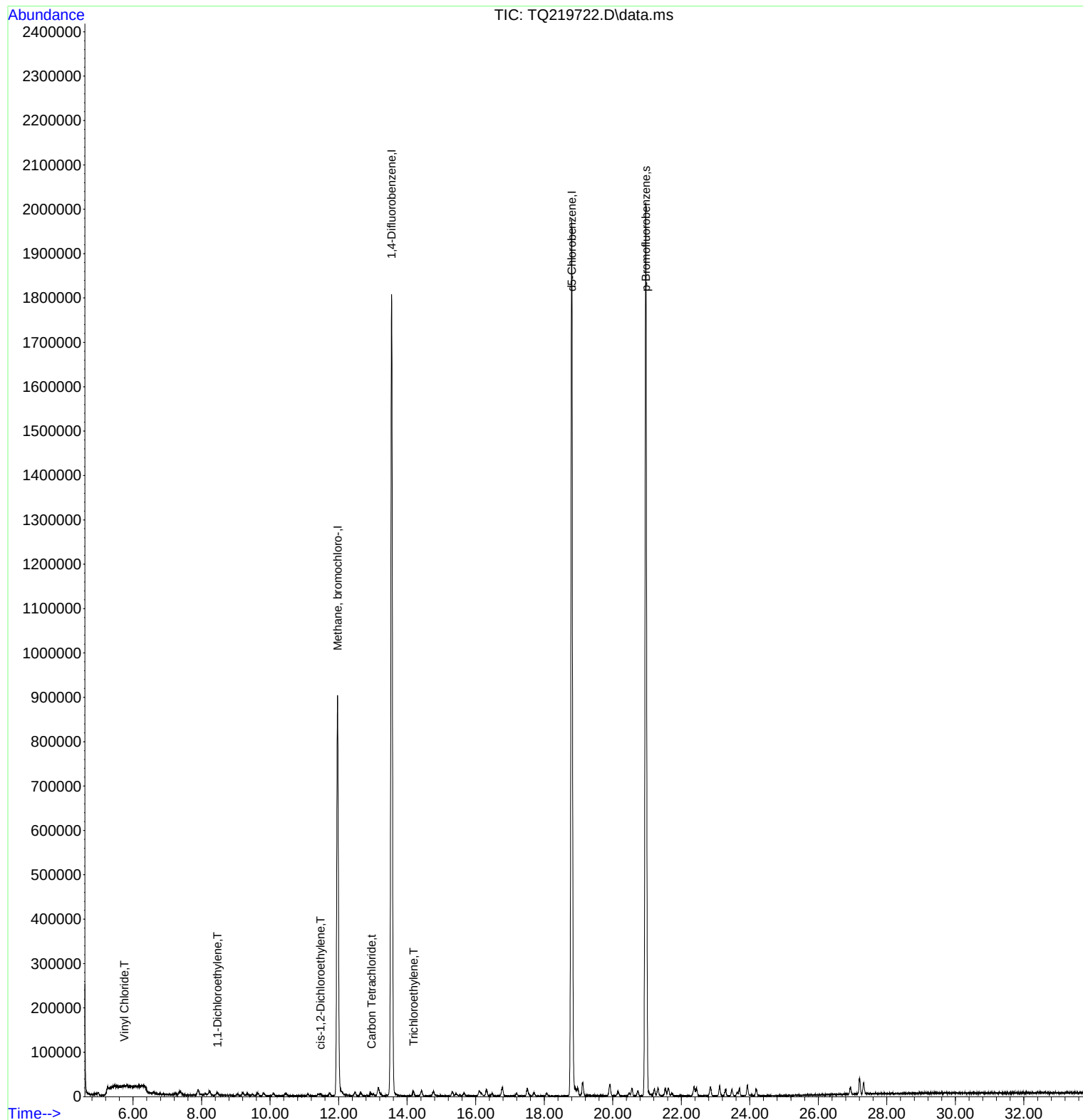
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	11.969	49	592282	10.00	ppbv	#-0.01
37) 1,4-Difluorobenzene	13.548	114	2845748	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.802	117	2325395	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.962	95	1440789	8.59	ppbv	-0.02
Spiked Amount	10.000	Range	70 - 130	Recovery	=	85.90%
Target Compounds						
6) Vinyl Chloride	5.744	62	2502m	0.03	ppbv	Qvalue
16) 1,1-Dichloroethylene	8.461	61	6088m	0.05	ppbv	
28) cis-1,2-Dichloroethylene	11.467	61	4983m	0.05	ppbv	
33) Carbon Tetrachloride	12.956	117	6582m	0.03	ppbv	
38) Trichloroethylene	14.181	95	6137m	0.05	ppbv	

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

Data Path : C:\msdchem\1\data\041922\
Data File : TQ219722.D
Acq On : 20 Apr 2022 1:34 am
Operator : AS
Sample : SEQ-CAL2
Misc : QBT02041922A 0.050 PPBV CAL STND
ALS Vial : 92 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Apr 20 12:05:36 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Apr 13 19:30:20 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219723.D
 Acq On : 20 Apr 2022 2:30 am
 Operator : AS
 Sample : SEQ-CAL3
 Misc : QBT02041922A 0.10 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 12:09:13 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.976	49	575476	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.551	114	2745284	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.799	117	2298185	10.00	ppbv	-0.01
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.962	95	1415419	8.54	ppbv	-0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	85.40%	
Target Compounds						
						Qvalue
2) Propylene	4.902	42	3650m	0.18	ppbv	
3) Dichlorodifluoromethane	4.976	85	20376m	0.09	ppbv	
4) 1,2-Dichlorotetrafluor...	5.259	85	15082m	0.08	ppbv	
5) Chloromethane	5.471	50	3889m	0.08	ppbv	
6) Vinyl Chloride	5.744	62	3913m	0.06	ppbv	
7) 1,3-Butadiene	5.825	54	3494m	0.07	ppbv	
8) Bromomethane	6.619	94	7171m	0.11	ppbv	
9) Chloroethane	6.809	64	3156m	0.11	ppbv	
10) Vinyl Bromide	7.249	106	7087	0.11	ppbv	# 82
11) Trichlorofluoromethane	7.375	101	19249m	0.07	ppbv	
12) Isopropanol	7.902	45	33126m	0.14	ppbv	
13) Acrolein	8.008	56	3048m	0.17	ppbv	
14) Acetone	8.117	43	13919m	0.11	ppbv	
15) Freon-113	8.227	101	15146m	0.09	ppbv	
16) 1,1-Dichloroethylene	8.458	61	10604m	0.09	ppbv	
17) 3-Chloropropene	9.072	41	7287m	0.13	ppbv	
18) Methylene Chloride	9.230	49	9633m	0.14	ppbv	
19) Acrylonitrile	9.294	53	4389m	0.12	ppbv	
20) Carbon disulfide	9.346	76	19524m	0.11	ppbv	
21) Methyl-tert-Butyl Ethe...	9.632	73	20181m	0.10	ppbv	
22) trans-1,2-Dichloroethy...	9.825	61	9338m	0.10	ppbv	
23) Hexane	10.104	57	9612m	0.12	ppbv	
24) Vinyl Acetate	10.445	43	13280m	0.10	ppbv	
25) 1,1-Dichloroethane	10.474	63	12266m	0.10	ppbv	
26) 2-Butanone	11.111	43	12901m	0.12	ppbv	
27) Ethyl Acetate	11.397	43	12123m	0.11	ppbv	
28) cis-1,2-Dichloroethylene	11.481	61	9926m	0.11	ppbv	
29) Chloroform	11.741	83	16354m	0.09	ppbv	
30) Tetrahydrofuran	12.085	42	6611m	0.11	ppbv	
31) 1,1,1-Trichlorethane	12.484	97	17017m	0.08	ppbv	
32) Cyclohexane	12.644	56	10158m	0.13	ppbv	
33) Carbon Tetrachloride	12.956	117	13425	0.07	ppbv	# 97
34) 1,2-Dichloroethane	13.027	62	10118m	0.07	ppbv	
35) Benzene	13.149	78	28031m	0.14	ppbv	
36) n-Heptane	13.185	43	10254m	0.13	ppbv	
38) Trichloroethylene	14.178	95	11162m	0.09	ppbv	
39) 1,2-Dichloropropane	14.419	63	7965m	0.12	ppbv	
40) Methyl Methacrylate	14.426	69	8681m	0.11	ppbv	
41) 1,4-Dioxane	14.754	88	7872m	0.17	ppbv	
42) Bromodichloromethane	14.773	83	15990m	0.07	ppbv	
43) Methyl Isobutyl Ketone	15.323	43	21548	0.17	ppbv	# 86
44) cis-1,3-Dichloropropene	15.667	75	12168m	0.09	ppbv	
45) Toluene	16.323	91	33839	0.12	ppbv	# 94
46) trans-1,3-Dichloropropene	16.490	75	9927m	0.07	ppbv	
47) 1,1,2-Trichlorethane	16.770	97	9648m	0.09	ppbv	
48) 2-Hexanone	16.779	43	20501	0.16	ppbv	# 88
49) 1,3-Dichloropropane	17.188	76	13212m	0.09	ppbv	

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219723.D
 Acq On : 20 Apr 2022 2:30 am
 Operator : AS
 Sample : SEQ-CAL3
 Misc : QBT02041922A 0.10 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

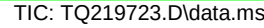
Quant Time: Apr 20 12:09:13 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.500	166	17162m	0.10	ppbv	
51) Dibromchloromethane	17.709	129	13873m	0.07	ppbv	
52) 1,2-Dibromoethane	18.069	107	14962m	0.09	ppbv	
54) Chlorobenzene	18.863	112	24838m	0.10	ppbv	
55) 1,1,1,2-Tetrachloroethane	18.914	131	11041m	0.07	ppbv	
56) Ethylbenzene	18.982	91	38617	0.10	ppbv	99
57) p- & m-Xylenes	19.123	91	58818	0.19	ppbv #	91
58) o-Xylene	19.901	91	29683	0.10	ppbv #	91
59) Styrene	19.921	104	23073m	0.11	ppbv	
60) Bromoform	20.471	173	10224m	0.07	ppbv	
61) n-Propylbenzene	21.319	91	48376	0.10	ppbv	98
62) Isopropylbenzene	20.557	105	40239	0.10	ppbv	99
63) 1,1,2,2-Tetrachloroeth...	20.737	83	20560	0.11	ppbv #	94
65) 4-Ethyltoluene	21.548	105	39921m	0.10	ppbv	
66) 1,3,5-Trimethylbenzene	21.615	105	35240	0.10	ppbv #	66
67) tert-Butylbenzene	22.371	119	37309	0.10	ppbv #	74
68) 1,2,4-Trimethylbenzene	22.451	105	35384	0.10	ppbv #	64
69) sec-Butylbenzene	22.860	105	52041	0.11	ppbv #	94
70) p-Isopropyltoluene	23.123	119	44517	0.11	ppbv #	82
71) 1,3-Dichlorobenzene	23.294	146	21175m	0.10	ppbv	
72) 1,4-Dichlorobenzene	23.483	146	21481	0.10	ppbv #	77
73) Benzyl chloride	23.631	91	20702	0.07	ppbv #	78
74) n-Butylbenzene	23.933	91	42183	0.12	ppbv #	70
75) 1,2-Dichlorobenzene	24.187	146	22144	0.10	ppbv #	75
76) 1,2,4-Trichlorobenzene	26.936	180	14217	0.10	ppbv #	63
77) Hexachlorobutadiene	27.210	225	18532	0.11	ppbv #	83
78) Naphthalene	27.319	128	72712	0.21	ppbv #	92

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

InstName : T015_AIR2

Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219724.D
 Acq On : 20 Apr 2022 3:29 am
 Operator : AS
 Sample : SEQ-CAL4
 Misc : QBT02041922A 0.20 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:02:38 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.966	49	588419	10.00	ppbv	#-0.02
37) 1,4-Difluorobenzene	13.542	114	2777815	10.00	ppbv	-0.02
53) d5-Chlorobenzene	18.799	117	2340250	10.00	ppbv	-0.01
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.962	95	1455426	8.62	ppbv	-0.02
Spiked Amount 10.000	Range 70	- 130	Recovery	=	86.20%	
Target Compounds						
					Qvalue	
2) Propylene	4.912	42	5943m	0.29	ppbv	
3) Dichlorodifluoromethane	4.982	85	37670	0.15	ppbv	# 93
4) 1,2-Dichlorotetrafluor...	5.252	85	29356	0.15	ppbv	# 87
5) Chloromethane	5.458	50	6805m	0.13	ppbv	
6) Vinyl Chloride	5.725	62	7477m	0.10	ppbv	
7) 1,3-Butadiene	5.822	54	5665m	0.11	ppbv	
8) Bromomethane	6.603	94	12404m	0.18	ppbv	
9) Chloroethane	6.783	64	5867m	0.19	ppbv	
10) Vinyl Bromide	7.233	106	11501	0.17	ppbv	# 77
11) Trichlorofluoromethane	7.359	101	36082	0.13	ppbv	# 95
12) Isopropanol	7.892	45	47454m	0.19	ppbv	
13) Acrolein	7.992	56	5235m	0.29	ppbv	
14) Acetone	8.085	43	23645m	0.19	ppbv	
15) Freon-113	8.233	101	28883	0.18	ppbv	# 19
16) 1,1-Dichloroethylene	8.445	61	20151m	0.17	ppbv	
17) 3-Chloropropene	9.037	41	12742m	0.22	ppbv	
18) Methylene Chloride	9.198	49	14481m	0.21	ppbv	
19) Acrylonitrile	9.294	53	8675m	0.24	ppbv	
20) Carbon disulfide	9.336	76	35764	0.20	ppbv	# 72
21) Methyl-tert-Butyl Ethe...	9.625	73	39958m	0.19	ppbv	
22) trans-1,2-Dichloroethy...	9.812	61	18256m	0.18	ppbv	
23) Hexane	10.092	57	18567m	0.23	ppbv	
24) Vinyl Acetate	10.426	43	23749	0.18	ppbv	# 98
25) 1,1-Dichloroethane	10.474	63	23190m	0.18	ppbv	
26) 2-Butanone	11.095	43	22693m	0.21	ppbv	
27) Ethyl Acetate	11.403	43	23627m	0.20	ppbv	
28) cis-1,2-Dichloroethylene	11.461	61	17037m	0.18	ppbv	
29) Chloroform	11.738	83	31526	0.17	ppbv	# 66
30) Tetrahydrofuran	12.069	42	12142m	0.20	ppbv	
31) 1,1,1-Trichlorethane	12.474	97	31846	0.14	ppbv	# 52
32) Cyclohexane	12.641	56	18546m	0.24	ppbv	
33) Carbon Tetrachloride	12.940	117	27880m	0.14	ppbv	
34) 1,2-Dichloroethane	13.014	62	19664	0.14	ppbv	# 93
35) Benzene	13.153	78	49116	0.24	ppbv	# 76
36) n-Heptane	13.175	43	19104	0.23	ppbv	# 86
38) Trichloroethylene	14.181	95	21550	0.18	ppbv	# 88
39) 1,2-Dichloropropane	14.416	63	14597m	0.21	ppbv	
40) Methyl Methacrylate	14.432	69	14715m	0.19	ppbv	
41) 1,4-Dioxane	14.741	88	15340	0.33	ppbv	# 100
42) Bromodichloromethane	14.767	83	30660	0.14	ppbv	# 90
43) Methyl Isobutyl Ketone	15.313	43	38104m	0.30	ppbv	
44) cis-1,3-Dichloropropene	15.667	75	23439	0.17	ppbv	# 73
45) Toluene	16.310	91	65448	0.22	ppbv	# 93
46) trans-1,3-Dichloropropene	16.474	75	20091m	0.14	ppbv	
47) 1,1,2-Trichlorethane	16.770	97	20274m	0.20	ppbv	
48) 2-Hexanone	16.779	43	37495	0.29	ppbv	# 73
49) 1,3-Dichloropropane	17.201	76	27010m	0.18	ppbv	

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219724.D
 Acq On : 20 Apr 2022 3:29 am
 Operator : AS
 Sample : SEQ-CAL4
 Misc : QBT02041922A 0.20 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

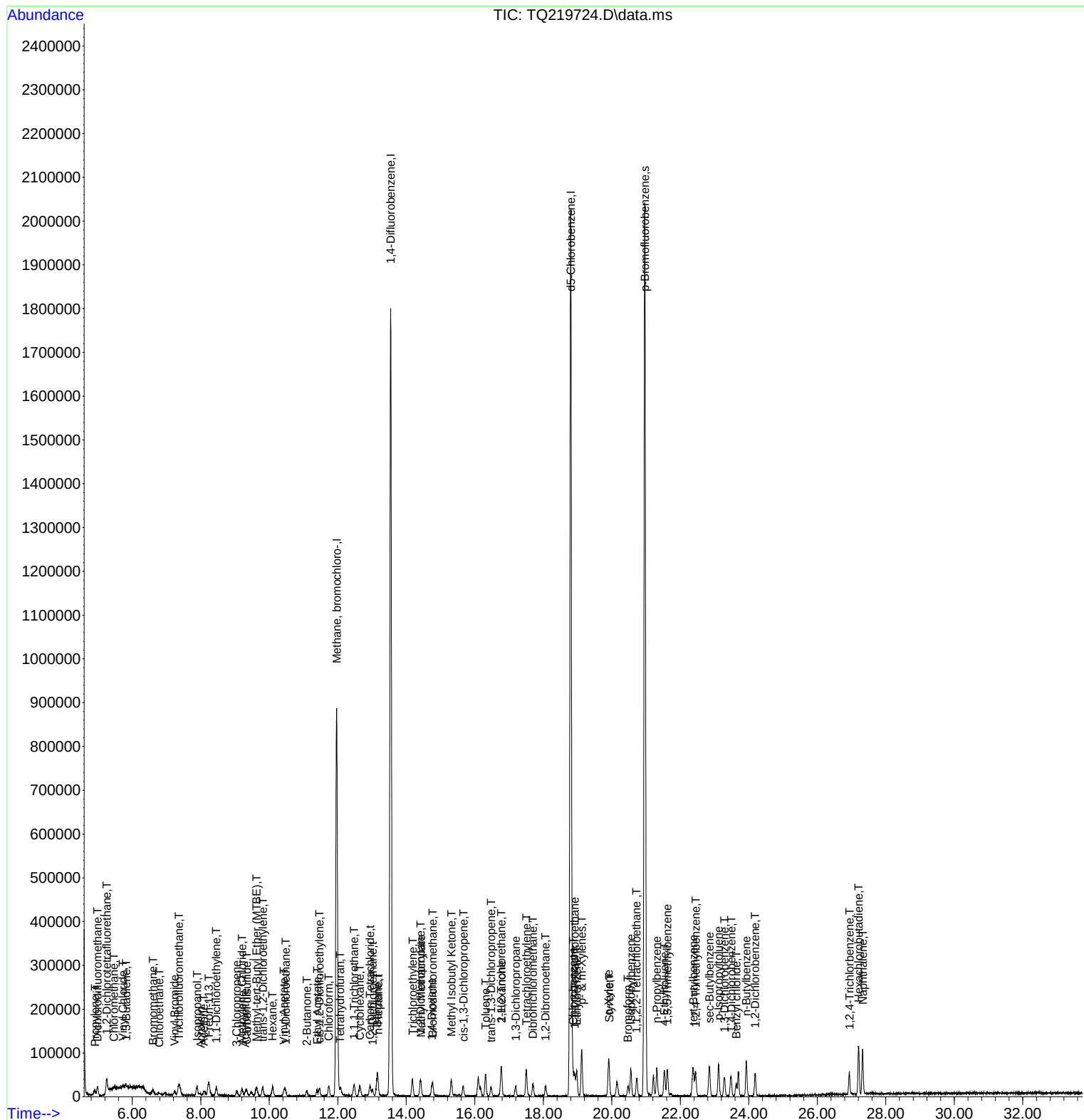
Quant Time: Apr 20 13:02:38 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.506	166	33154	0.19	ppbv	# 74
51) Dibromchloromethane	17.696	129	26998	0.13	ppbv	# 90
52) 1,2-Dibromoethane	18.065	107	29835	0.18	ppbv	98
54) Chlorobenzene	18.873	112	48314m	0.20	ppbv	
55) 1,1,1,2-Tetrachloroethane	18.918	131	23163m	0.15	ppbv	
56) Ethylbenzene	18.975	91	74095	0.19	ppbv	# 71
57) p- & m-Xylenes	19.123	91	113066	0.36	ppbv	# 93
58) o-Xylene	19.905	91	57705	0.20	ppbv	99
59) Styrene	19.927	104	44707	0.22	ppbv	# 100
60) Bromoform	20.464	173	19256m	0.13	ppbv	
61) n-Propylbenzene	21.313	91	93207	0.19	ppbv	98
62) Isopropylbenzene	20.557	105	80860	0.20	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.721	83	40403	0.21	ppbv	# 36
65) 4-Ethyltoluene	21.535	105	80878	0.20	ppbv	# 88
66) 1,3,5-Trimethylbenzene	21.618	105	72159m	0.20	ppbv	
67) tert-Butylbenzene	22.380	119	70635m	0.19	ppbv	
68) 1,2,4-Trimethylbenzene	22.448	105	69080	0.19	ppbv	# 85
69) sec-Butylbenzene	22.856	105	106034m	0.22	ppbv	
70) p-Isopropyltoluene	23.117	119	87689	0.22	ppbv	# 87
71) 1,3-Dichlorobenzene	23.284	146	38966	0.17	ppbv	# 65
72) 1,4-Dichlorobenzene	23.483	146	39152	0.17	ppbv	# 58
73) Benzyl chloride	23.631	91	40836	0.14	ppbv	# 67
74) n-Butylbenzene	23.927	91	81552	0.23	ppbv	99
75) 1,2-Dichlorobenzene	24.184	146	42279	0.18	ppbv	# 66
76) 1,2,4-Trichlorobenzene	26.943	180	28431	0.20	ppbv	# 94
77) Hexachlorobutadiene	27.207	225	34956	0.20	ppbv	99
78) Naphthalene	27.326	128	149219	0.42	ppbv	100

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

Data Path : C:\msdchem\1\data\041922\
Data File : TQ219724.D
Acq On : 20 Apr 2022 3:29 am
Operator : AS
Sample : SEQ-CAL4
Misc : QBT02041922A 0.20 PPBV CAL STND
ALS Vial : 92 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Apr 20 13:02:38 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Apr 13 19:30:20 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219725.D
 Acq On : 20 Apr 2022 4:31 am
 Operator : AS
 Sample : SEQ-CAL5
 Misc : QBT02041922A 0.50 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:05:29 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.969	49	579451	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.551	114	2741838	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.802	117	2381513	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.966	95	1501865	8.74	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	87.40%	
Target Compounds						
						Qvalue
2) Propylene	4.899	42	12533	0.62	ppbv	# 53
3) Dichlorodifluoromethane	4.966	85	91873m	0.38	ppbv	
4) 1,2-Dichlorotetrafluor...	5.243	85	73199	0.37	ppbv	# 85
5) Chloromethane	5.461	50	15378m	0.31	ppbv	
6) Vinyl Chloride	5.719	62	18693m	0.26	ppbv	
7) 1,3-Butadiene	5.802	54	13799m	0.28	ppbv	
8) Bromomethane	6.603	94	28254	0.42	ppbv	# 30
9) Chloroethane	6.777	64	14137m	0.47	ppbv	
10) Vinyl Bromide	7.233	106	32222m	0.48	ppbv	
11) Trichlorofluoromethane	7.368	101	85489m	0.32	ppbv	
12) Isopropanol	7.889	45	86658m	0.35	ppbv	
13) Acrolein	7.976	56	12602m	0.71	ppbv	
14) Acetone	8.098	43	51346m	0.42	ppbv	
15) Freon-113	8.227	101	70559m	0.44	ppbv	
16) 1,1-Dichloroethylene	8.452	61	49795m	0.42	ppbv	
17) 3-Chloropropene	9.053	41	28316	0.50	ppbv	# 70
18) Methylene Chloride	9.204	49	32470m	0.48	ppbv	
19) Acrylonitrile	9.304	53	19789m	0.55	ppbv	
20) Carbon disulfide	9.336	76	87788	0.50	ppbv	# 81
21) Methyl-tert-Butyl Ethe...	9.619	73	98132m	0.47	ppbv	
22) trans-1,2-Dichloroethy...	9.815	61	44267	0.45	ppbv	# 80
23) Hexane	10.104	57	44177	0.55	ppbv	# 66
24) Vinyl Acetate	10.429	43	62152	0.48	ppbv	# 99
25) 1,1-Dichloroethane	10.474	63	57475	0.45	ppbv	# 9
26) 2-Butanone	11.098	43	53240	0.50	ppbv	92
27) Ethyl Acetate	11.397	43	55497m	0.48	ppbv	
28) cis-1,2-Dichloroethylene	11.468	61	41139	0.44	ppbv	# 82
29) Chloroform	11.747	83	76301m	0.41	ppbv	
30) Tetrahydrofuran	12.082	42	29332m	0.48	ppbv	
31) 1,1,1-Trichlorethane	12.477	97	77611	0.36	ppbv	# 72
32) Cyclohexane	12.641	56	45174m	0.59	ppbv	
33) Carbon Tetrachloride	12.943	117	60633	0.30	ppbv	# 91
34) 1,2-Dichloroethane	13.014	62	48031	0.34	ppbv	# 91
35) Benzene	13.152	78	114475	0.57	ppbv	# 74
36) n-Heptane	13.159	43	46912	0.57	ppbv	# 92
38) Trichloroethylene	14.181	95	51007	0.43	ppbv	# 74
39) 1,2-Dichloropropane	14.419	63	35911m	0.53	ppbv	
40) Methyl Methacrylate	14.429	69	36892	0.49	ppbv	93
41) 1,4-Dioxane	14.734	88	37063	0.82	ppbv	# 100
42) Bromodichloromethane	14.770	83	76178	0.36	ppbv	# 71
43) Methyl Isobutyl Ketone	15.316	43	91036	0.73	ppbv	# 87
44) cis-1,3-Dichloropropene	15.660	75	58547	0.44	ppbv	# 56
45) Toluene	16.313	91	157855	0.54	ppbv	# 94
46) trans-1,3-Dichloropropene	16.477	75	52563	0.36	ppbv	# 89
47) 1,1,2-Trichlorethane	16.763	97	48904	0.48	ppbv	95
48) 2-Hexanone	16.783	43	96440	0.76	ppbv	95
49) 1,3-Dichloropropane	17.191	76	65894	0.45	ppbv	# 71

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219725.D
 Acq On : 20 Apr 2022 4:31 am
 Operator : AS
 Sample : SEQ-CAL5
 Misc : QBT02041922A 0.50 PPBV CAL STND
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

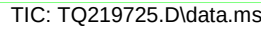
Quant Time: Apr 20 13:05:29 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.516	166	79468m	0.46	ppbv	
51) Dibromchloromethane	17.702	129	74049	0.37	ppbv #	95
52) 1,2-Dibromoethane	18.069	107	74064	0.45	ppbv	97
54) Chlorobenzene	18.872	112	123354	0.49	ppbv #	86
55) 1,1,1,2-Tetrachloroethane	18.914	131	60090	0.38	ppbv	97
56) Ethylbenzene	18.972	91	189363	0.48	ppbv	97
57) p- & m-Xylenes	19.120	91	297030	0.94	ppbv #	91
58) o-Xylene	19.901	91	147017	0.49	ppbv	99
59) Styrene	19.921	104	114513	0.55	ppbv #	100
60) Bromoform	20.471	173	54731m	0.35	ppbv	
61) n-Propylbenzene	21.316	91	239437	0.48	ppbv	98
62) Isopropylbenzene	20.557	105	212591	0.51	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.728	83	93761	0.48	ppbv	95
65) 4-Ethyltoluene	21.535	105	203279	0.49	ppbv #	96
66) 1,3,5-Trimethylbenzene	21.618	105	175231	0.48	ppbv #	71
67) tert-Butylbenzene	22.380	119	196579	0.53	ppbv #	88
68) 1,2,4-Trimethylbenzene	22.448	105	178574	0.48	ppbv #	91
69) sec-Butylbenzene	22.847	105	260607	0.53	ppbv #	94
70) p-Isopropyltoluene	23.113	119	220494	0.54	ppbv #	86
71) 1,3-Dichlorobenzene	23.290	146	99713	0.43	ppbv #	69
72) 1,4-Dichlorobenzene	23.474	146	100286	0.44	ppbv	97
73) Benzyl chloride	23.634	91	104497	0.36	ppbv	96
74) n-Butylbenzene	23.933	91	206599	0.58	ppbv #	93
75) 1,2-Dichlorobenzene	24.187	146	101153	0.43	ppbv #	91
76) 1,2,4-Trichlorobenzene	26.936	180	69640	0.49	ppbv	96
77) Hexachlorobutadiene	27.210	225	82139	0.47	ppbv	97
78) Naphthalene	27.322	128	384469	1.06	ppbv	99

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

InstName : T015_AIR2

Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219726.D
 Acq On : 20 Apr 2022 5:29 am
 Operator : AS
 Sample : SEQ-CAL6
 Misc : QBT02041922A 3.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:06:30 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.975	49	582218	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.551	114	2735686	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.802	117	2404553	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.965	95	1563032	9.01	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	90.10%	
Target Compounds						
						Qvalue
2) Propylene	4.892	42	91364	4.52	ppbv	97
3) Dichlorodifluoromethane	4.969	85	657914	2.73	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.243	85	526341	2.67	ppbv	98
5) Chloromethane	5.452	50	92403m	1.83	ppbv	
6) Vinyl Chloride	5.718	62	131102	1.84	ppbv	99
7) 1,3-Butadiene	5.796	54	89478	1.82	ppbv	93
8) Bromomethane	6.590	94	203728	3.00	ppbv	# 96
9) Chloroethane	6.773	64	95274	3.18	ppbv	# 94
10) Vinyl Bromide	7.233	106	224427	3.32	ppbv	100
11) Trichlorofluoromethane	7.345	101	611839	2.25	ppbv	99
12) Isopropanol	7.863	45	367300	1.48	ppbv	100
13) Acrolein	7.972	56	77547	4.33	ppbv	# 72
14) Acetone	8.088	43	279748	2.26	ppbv	98
15) Freon-113	8.226	101	494103	3.03	ppbv	# 89
16) 1,1-Dichloroethylene	8.451	61	348308	2.90	ppbv	# 84
17) 3-Chloropropene	9.050	41	217856	3.86	ppbv	86
18) Methylene Chloride	9.197	49	205299	3.04	ppbv	# 77
19) Acrylonitrile	9.291	53	139882	3.87	ppbv	# 93
20) Carbon disulfide	9.332	76	649417	3.71	ppbv	94
21) Methyl-tert-Butyl Ethe...	9.615	73	709033	3.37	ppbv	93
22) trans-1,2-Dichloroethy...	9.805	61	319300	3.26	ppbv	88
23) Hexane	10.094	57	310935	3.88	ppbv	# 81
24) Vinyl Acetate	10.429	43	458479	3.55	ppbv	# 99
25) 1,1-Dichloroethane	10.467	63	414176	3.20	ppbv	79
26) 2-Butanone	11.088	43	363969	3.42	ppbv	86
27) Ethyl Acetate	11.390	43	396783	3.41	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.474	61	309045m	3.29	ppbv	
29) Chloroform	11.741	83	540381	2.87	ppbv	96
30) Tetrahydrofuran	12.065	42	202534	3.30	ppbv	# 82
31) 1,1,1-Trichlorethane	12.477	97	564936	2.60	ppbv	96
32) Cyclohexane	12.651	56	325171	4.24	ppbv	# 79
33) Carbon Tetrachloride	12.943	117	502005	2.46	ppbv	100
34) 1,2-Dichloroethane	13.024	62	346484	2.47	ppbv	# 98
35) Benzene	13.149	78	787501	3.87	ppbv	86
36) n-Heptane	13.172	43	325970	3.94	ppbv	# 73
38) Trichloroethylene	14.181	95	367021	3.11	ppbv	96
39) 1,2-Dichloropropane	14.413	63	256340	3.78	ppbv	90
40) Methyl Methacrylate	14.426	69	271719	3.61	ppbv	93
41) 1,4-Dioxane	14.737	88	197801m	4.37	ppbv	
42) Bromodichloromethane	14.773	83	574327	2.69	ppbv	97
43) Methyl Isobutyl Ketone	15.310	43	459999	3.71	ppbv	89
44) cis-1,3-Dichloropropene	15.670	75	439292	3.32	ppbv	95
45) Toluene	16.316	91	1031482	3.55	ppbv	97
46) trans-1,3-Dichloropropene	16.477	75	398516	2.77	ppbv	95
47) 1,1,2-Trichlorethane	16.769	97	355124	3.48	ppbv	93
48) 2-Hexanone	16.773	43	424848	3.37	ppbv	95
49) 1,3-Dichloropropane	17.197	76	489808	3.35	ppbv	92

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219726.D
 Acq On : 20 Apr 2022 5:29 am
 Operator : AS
 Sample : SEQ-CAL6
 Misc : QBT02041922A 3.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:06:30 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.506	166	502842	2.89	ppbv	99
51) Dibromchloromethane	17.702	129	607255	3.06	ppbv	98
52) 1,2-Dibromoethane	18.075	107	544509	3.32	ppbv	97
54) Chlorobenzene	18.872	112	871615	3.44	ppbv #	100
55) 1,1,1,2-Tetrachloroethane	18.921	131	447677	2.78	ppbv	94
56) Ethylbenzene	18.978	91	1345825	3.35	ppbv	96
57) p- & m-Xylenes	19.123	91	2042153	6.39	ppbv	97
58) o-Xylene	19.901	91	1053130	3.47	ppbv	98
59) Styrene	19.924	104	811936	3.83	ppbv #	100
60) Bromoform	20.473	173	485311	3.11	ppbv	100
61) n-Propylbenzene	21.319	91	1673432	3.29	ppbv	98
62) Isopropylbenzene	20.557	105	1506479	3.60	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.731	83	732867	3.75	ppbv	98
65) 4-Ethyltoluene	21.535	105	1423876	3.38	ppbv	97
66) 1,3,5-Trimethylbenzene	21.625	105	1183037	3.18	ppbv	95
67) tert-Butylbenzene	22.374	119	1338760	3.55	ppbv #	78
68) 1,2,4-Trimethylbenzene	22.444	105	1206432	3.21	ppbv #	91
69) sec-Butylbenzene	22.850	105	1773929	3.56	ppbv #	94
70) p-Isopropyltoluene	23.120	119	1476537	3.58	ppbv	96
71) 1,3-Dichlorobenzene	23.290	146	744137	3.20	ppbv	99
72) 1,4-Dichlorobenzene	23.480	146	732925	3.18	ppbv	98
73) Benzyl chloride	23.631	91	849201	2.93	ppbv	95
74) n-Butylbenzene	23.927	91	1252573	3.45	ppbv	98
75) 1,2-Dichlorobenzene	24.184	146	750132	3.16	ppbv	98
76) 1,2,4-Trichlorobenzene	26.933	180	428728	2.96	ppbv	99
77) Hexachlorobutadiene	27.206	225	468345	2.65	ppbv	100
78) Naphthalene	27.322	128	1130452	3.09	ppbv	99

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

Data Path : C:\msdchem\1\data\041922\

Data File : TQ219726.D

Acq On : 20 Apr 2022 5:29 am

Operator : AS

Sample : SEQ-CAL6

Misc : QBT02041922A 3.0 PPBV CAL STND

ALS Vial : 93 Sample Multiplier: 1

InstName : T015_AIR2

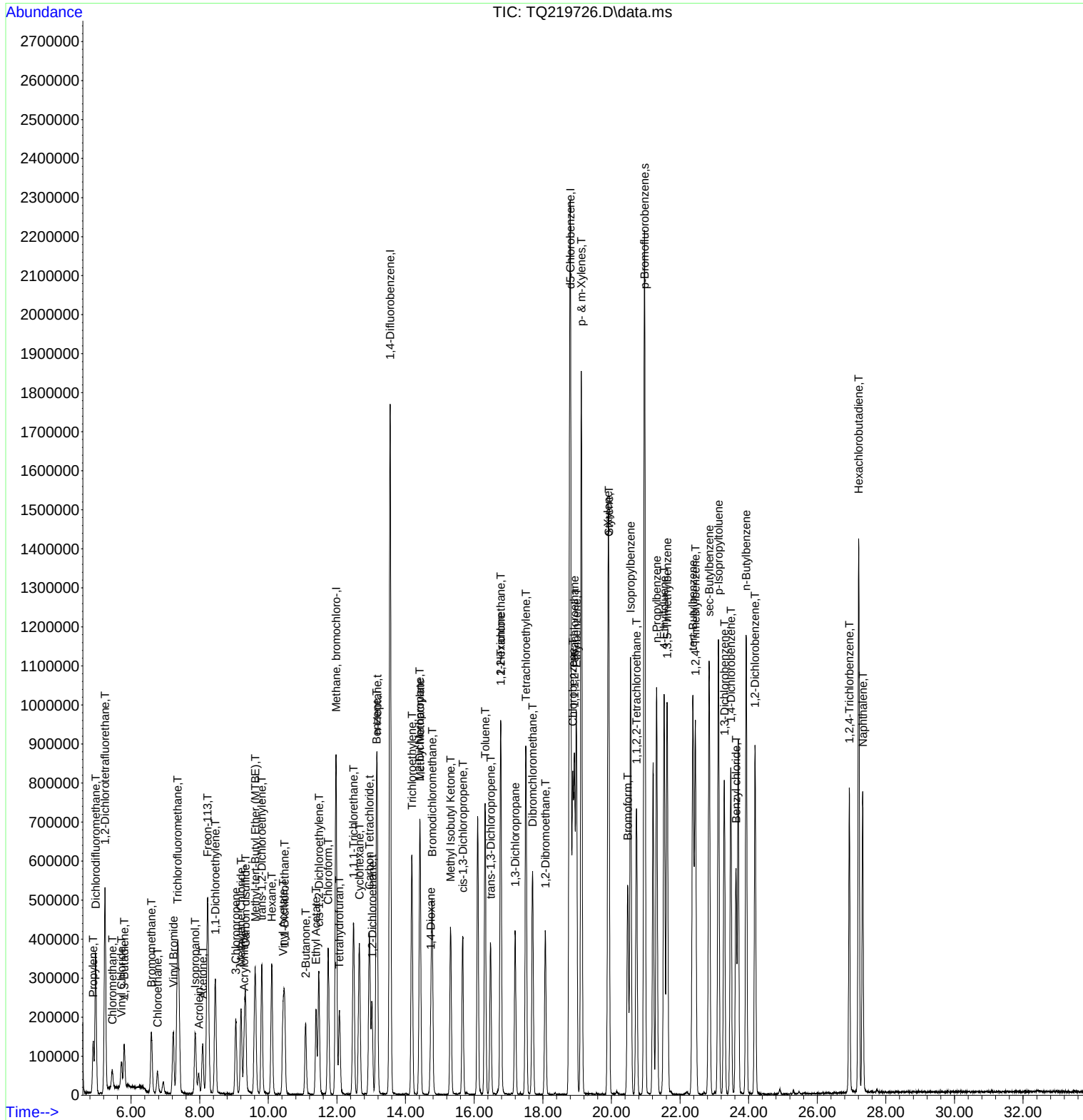
Quant Time: Apr 20 13:06:30 2022

Quant Method : C:\msdchem\1\methods\AIR-2-0057.M

Quant Title : T015 VOC Analysis

QLast Update : Wed Apr 20 13:03:23 2022

Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219727.D
 Acq On : 20 Apr 2022 6:27 am
 Operator : AS
 Sample : SEQ-CAL7
 Misc : QBT02041922A 10.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:03:03 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.976	49	625244	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.548	114	2917121	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.805	117	2637328	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.969	95	1802512	9.47	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	94.70%	
Target Compounds						
						Qvalue
2) Propylene	4.889	42	287626	13.26	ppbv	97
3) Dichlorodifluoromethane	4.966	85	2040067	7.89	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.233	85	1675858	7.93	ppbv	97
5) Chloromethane	5.448	50	302075	5.56	ppbv	98
6) Vinyl Chloride	5.722	62	422371	5.53	ppbv	98
7) 1,3-Butadiene	5.799	54	295294	5.58	ppbv	98
8) Bromomethane	6.600	94	647180	8.87	ppbv #	94
9) Chloroethane	6.770	64	308181	9.58	ppbv #	87
10) Vinyl Bromide	7.233	106	713498	9.84	ppbv	100
11) Trichlorofluoromethane	7.352	101	1860559	6.36	ppbv #	97
12) Isopropanol	7.873	45	1113578	4.18	ppbv	100
13) Acrolein	7.966	56	262632	13.64	ppbv #	86
14) Acetone	8.085	43	865380	6.52	ppbv	97
15) Freon-113	8.230	101	1522367	8.70	ppbv	99
16) 1,1-Dichloroethylene	8.461	61	1079114	8.36	ppbv	89
17) 3-Chloropropene	9.056	41	670932	11.07	ppbv	88
18) Methylene Chloride	9.207	49	631831	8.72	ppbv #	75
19) Acrylonitrile	9.300	53	449599	11.60	ppbv	97
20) Carbon disulfide	9.333	76	2073812	11.04	ppbv	93
21) Methyl-tert-Butyl Ethe...	9.615	73	2207464	9.77	ppbv	94
22) trans-1,2-Dichloroethy...	9.812	61	993025	9.45	ppbv	87
23) Hexane	10.104	57	970362	11.28	ppbv	92
24) Vinyl Acetate	10.426	43	1480948	10.67	ppbv #	99
25) 1,1-Dichloroethane	10.474	63	1286520	9.24	ppbv	82
26) 2-Butanone	11.088	43	1133478	9.92	ppbv #	84
27) Ethyl Acetate	11.397	43	1254498	10.05	ppbv #	46
28) cis-1,2-Dichloroethylene	11.471	61	950410	9.43	ppbv #	69
29) Chloroform	11.747	83	1656435	8.20	ppbv	97
30) Tetrahydrofuran	12.072	42	632440	9.59	ppbv #	82
31) 1,1,1-Trichlorethane	12.487	97	1738717	7.44	ppbv	96
32) Cyclohexane	12.654	56	1009319	12.25	ppbv	84
33) Carbon Tetrachloride	12.947	117	1519050	6.94	ppbv #	51
34) 1,2-Dichloroethane	13.020	62	1042977	6.91	ppbv #	98
35) Benzene	13.152	78	2409560	11.03	ppbv	87
36) n-Heptane	13.172	43	1005152	11.32	ppbv #	94
38) Trichloroethylene	14.184	95	1130514	8.99	ppbv	95
39) 1,2-Dichloropropane	14.416	63	789860	10.92	ppbv #	86
40) Methyl Methacrylate	14.429	69	882505	11.00	ppbv #	39
41) 1,4-Dioxane	14.728	88	623390	12.91	ppbv #	100
42) Bromodichloromethane	14.773	83	1706126	7.50	ppbv #	94
43) Methyl Isobutyl Ketone	15.313	43	1423316	10.77	ppbv	86
44) cis-1,3-Dichloropropene	15.667	75	1436284	10.17	ppbv	95
45) Toluene	16.319	91	3298566	10.63	ppbv	97
46) trans-1,3-Dichloropropene	16.477	75	1336818	8.72	ppbv	96
47) 1,1,2-Trichlorethane	16.766	97	1116819	10.27	ppbv	93
48) 2-Hexanone	16.776	43	1322138	9.83	ppbv #	93
49) 1,3-Dichloropropane	17.194	76	1554502	9.97	ppbv #	72

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219727.D
 Acq On : 20 Apr 2022 6:27 am
 Operator : AS
 Sample : SEQ-CAL7
 Misc : QBT02041922A 10.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:03:03 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 13 19:30:20 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.506	166	1611717	8.68	ppbv	99
51) Dibromchloromethane	17.699	129	1973232	9.32	ppbv	98
52) 1,2-Dibromoethane	18.072	107	1794263	10.27	ppbv	99
54) Chlorobenzene	18.872	112	2826202	10.16	ppbv #	86
55) 1,1,1,2-Tetrachloroethane	18.921	131	1453207	8.22	ppbv	94
56) Ethylbenzene	18.978	91	4355355	9.89	ppbv	96
57) p- & m-Xylenes	19.126	91	6691105	19.10	ppbv	96
58) o-Xylene	19.904	91	3488816	10.47	ppbv	98
59) Styrene	19.924	104	2817505	12.12	ppbv #	100
60) Bromoform	20.477	173	1763027	10.31	ppbv	99
61) n-Propylbenzene	21.316	91	5547625	9.96	ppbv	98
62) Isopropylbenzene	20.560	105	4949196	10.79	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.728	83	2319556	10.82	ppbv	99
65) 4-Ethyltoluene	21.538	105	4805960	10.40	ppbv	98
66) 1,3,5-Trimethylbenzene	21.621	105	3886081	9.52	ppbv	96
67) tert-Butylbenzene	22.377	119	4322926	10.45	ppbv #	78
68) 1,2,4-Trimethylbenzene	22.448	105	3986080	9.66	ppbv #	90
69) sec-Butylbenzene	22.853	105	5697156	10.42	ppbv	98
70) p-Isopropyltoluene	23.120	119	4755608	10.52	ppbv	96
71) 1,3-Dichlorobenzene	23.290	146	2558467	10.02	ppbv	98
72) 1,4-Dichlorobenzene	23.480	146	2564107	10.15	ppbv	98
73) Benzyl chloride	23.631	91	3218716	10.11	ppbv	95
74) n-Butylbenzene	23.930	91	4141056	10.41	ppbv	98
75) 1,2-Dichlorobenzene	24.187	146	2525259	9.71	ppbv	98
76) 1,2,4-Trichlorobenzene	26.936	180	1829984	11.53	ppbv	98
77) Hexachlorobutadiene	27.210	225	1545079	7.96	ppbv	99
78) Naphthalene	27.325	128	4913181	12.25	ppbv	99

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

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219728.D
 Acq On : 20 Apr 2022 7:27 am
 Operator : AS
 Sample : SEQ-CAL8
 Misc : QBT02041922A 20.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:07:38 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.976	49	700776	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.551	114	3266575	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.805	117	2888649	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.966	95	2007355	9.63	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.30%	
Target Compounds						
						Qvalue
2) Propylene	4.879	42	613462	25.23	ppbv	97
3) Dichlorodifluoromethane	4.957	85	4225482	14.59	ppbv	98
4) 1,2-Dichlorotetrafluor...	5.230	85	3699916	15.61	ppbv	95
5) Chloromethane	5.439	50	635288	10.44	ppbv	98
6) Vinyl Chloride	5.712	62	901657	10.54	ppbv	99
7) 1,3-Butadiene	5.799	54	635138	10.71	ppbv	# 92
8) Bromomethane	6.590	94	1407658	17.22	ppbv	100
9) Chloroethane	6.767	64	665701	18.46	ppbv	96
10) Vinyl Bromide	7.230	106	1542203	18.97	ppbv	100
11) Trichlorofluoromethane	7.352	101	3896348	11.89	ppbv	99
12) Isopropanol	7.873	45	2353795	7.88	ppbv	100
13) Acrolein	7.963	56	582239	26.99	ppbv	# 85
14) Acetone	8.082	43	1812594	12.18	ppbv	95
15) Freon-113	8.233	101	3289290	16.77	ppbv	98
16) 1,1-Dichloroethylene	8.455	61	2275167	15.73	ppbv	86
17) 3-Chloropropene	9.050	41	1427939	21.03	ppbv	86
18) Methylene Chloride	9.207	49	1330330	16.38	ppbv	# 72
19) Acrylonitrile	9.291	53	974882	22.43	ppbv	97
20) Carbon disulfide	9.333	76	4445875	21.12	ppbv	92
21) Methyl-tert-Butyl Ethe...	9.616	73	4695816	18.55	ppbv	93
22) trans-1,2-Dichloroethy...	9.815	61	2113222	17.94	ppbv	85
23) Hexane	10.104	57	2071833	21.48	ppbv	91
24) Vinyl Acetate	10.429	43	3012302	19.36	ppbv	# 99
25) 1,1-Dichloroethane	10.471	63	2712300	17.38	ppbv	79
26) 2-Butanone	11.088	43	2415962	18.87	ppbv	# 83
27) Ethyl Acetate	11.394	43	2683569	19.19	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.477	61	1993687	17.64	ppbv	# 66
29) Chloroform	11.747	83	3542723	15.65	ppbv	96
30) Tetrahydrofuran	12.069	42	1351730	18.29	ppbv	# 80
31) 1,1,1-Trichlorethane	12.484	97	3676499	14.04	ppbv	95
32) Cyclohexane	12.654	56	2166399	23.46	ppbv	83
33) Carbon Tetrachloride	12.947	117	3302037	13.46	ppbv	100
34) 1,2-Dichloroethane	13.024	62	2163767	12.79	ppbv	# 98
35) Benzene	13.156	78	5040686	20.58	ppbv	86
36) n-Heptane	13.172	43	2065146	20.75	ppbv	# 73
38) Trichloroethylene	14.188	95	2425907	17.23	ppbv	94
39) 1,2-Dichloropropane	14.413	63	1641326	20.26	ppbv	86
40) Methyl Methacrylate	14.429	69	1845273	20.54	ppbv	# 91
41) 1,4-Dioxane	14.734	88	1348918	24.94	ppbv	# 100
42) Bromodichloromethane	14.773	83	3507188	13.76	ppbv	96
43) Methyl Isobutyl Ketone	15.310	43	2968862	20.05	ppbv	85
44) cis-1,3-Dichloropropene	15.664	75	3033563	19.17	ppbv	95
45) Toluene	16.319	91	6959455	20.03	ppbv	97
46) trans-1,3-Dichloropropene	16.477	75	2843523	16.57	ppbv	95
47) 1,1,2-Trichlorethane	16.770	97	2334285	19.18	ppbv	92
48) 2-Hexanone	16.779	43	2690665	17.86	ppbv	# 93
49) 1,3-Dichloropropane	17.197	76	3259008	18.66	ppbv	# 72

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219728.D
 Acq On : 20 Apr 2022 7:27 am
 Operator : AS
 Sample : SEQ-CAL8
 Misc : QBT02041922A 20.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

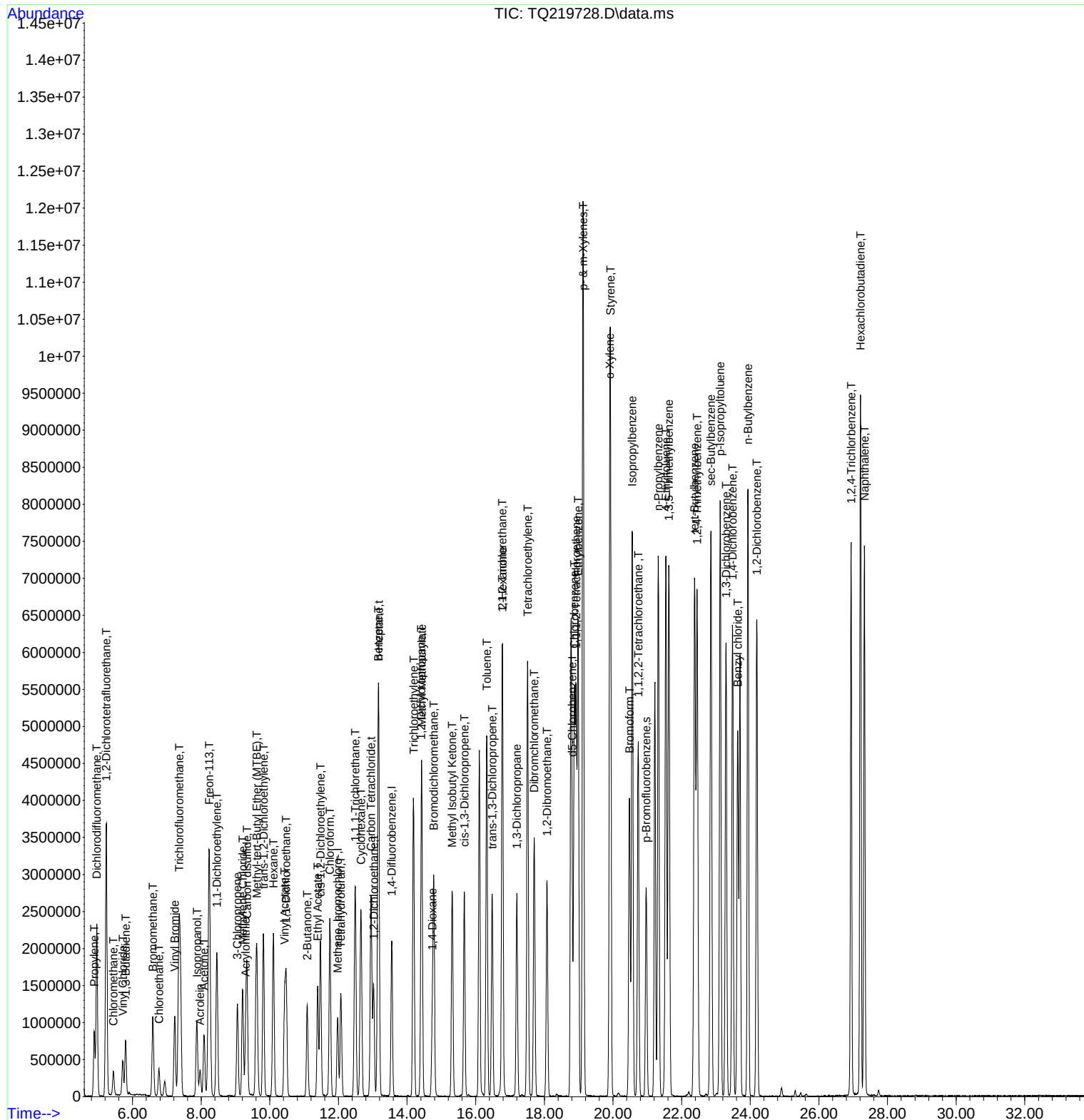
Quant Time: Apr 20 13:07:38 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.512	166	3442714	16.56	ppbv	99
51) Dibromchloromethane	17.705	129	3819883	16.12	ppbv	98
52) 1,2-Dibromoethane	18.075	107	3795027	19.40	ppbv	98
54) Chlorobenzene	18.876	112	5936515	19.48	ppbv #	86
55) 1,1,1,2-Tetrachloroethane	18.927	131	3009339	15.54	ppbv	94
56) Ethylbenzene	18.982	91	9027557	18.71	ppbv	95
57) p- & m-Xylenes	19.130	91	13568255	35.35	ppbv	95
58) o-Xylene	19.905	91	7214226	19.77	ppbv	98
59) Styrene	19.924	104	6014352	23.63	ppbv #	100
60) Bromoform	20.480	173	3773851	20.15	ppbv	99
61) n-Propylbenzene	21.319	91	11921731	19.53	ppbv	98
62) Isopropylbenzene	20.560	105	10398629	20.69	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.734	83	4847522	20.64	ppbv	99
65) 4-Ethyltoluene	21.541	105	10257401	20.26	ppbv	96
66) 1,3,5-Trimethylbenzene	21.625	105	8433268	18.87	ppbv	94
67) tert-Butylbenzene	22.377	119	9513442	21.00	ppbv	93
68) 1,2,4-Trimethylbenzene	22.451	105	8776626	19.42	ppbv #	89
69) sec-Butylbenzene	22.853	105	12420682	20.75	ppbv #	94
70) p-Isopropyltoluene	23.123	119	10390172	20.98	ppbv	96
71) 1,3-Dichlorobenzene	23.293	146	5742908	20.53	ppbv	98
72) 1,4-Dichlorobenzene	23.480	146	5758946	20.82	ppbv	98
73) Benzyl chloride	23.631	91	7481211	21.46	ppbv	94
74) n-Butylbenzene	23.930	91	8925475	20.49	ppbv #	92
75) 1,2-Dichlorobenzene	24.191	146	5607997	19.70	ppbv	98
76) 1,2,4-Trichlorobenzene	26.940	180	4276681	24.60	ppbv	98
77) Hexachlorobutadiene	27.210	225	3237056	15.22	ppbv	99
78) Naphthalene	27.325	128	11057788	25.17	ppbv	99

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

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219728.D
 Acq On : 20 Apr 2022 7:27 am
 Operator : AS
 Sample : SEQ-CAL8
 Misc : QBT02041922A 20.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:07:38 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219729.D
 Acq On : 20 Apr 2022 8:30 am
 Operator : AS
 Sample : SEQ-CAL9
 Misc : QBT02041922A 30.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:08:19 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.979	49	759672	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.554	114	3635030	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.808	117	3128886	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.969	95	2199200	9.74	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.40%	
Target Compounds						
						Qvalue
2) Propylene	4.882	42	1001011	37.98	ppbv	97
3) Dichlorodifluoromethane	4.953	85	6657196	21.20	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.230	85	6214983	24.19	ppbv	94
5) Chloromethane	5.439	50	1087571	16.49	ppbv	98
6) Vinyl Chloride	5.709	62	1513879	16.32	ppbv	99
7) 1,3-Butadiene	5.799	54	1057749	16.46	ppbv	98
8) Bromomethane	6.590	94	2391617	26.98	ppbv	99
9) Chloroethane	6.773	64	1132060	28.96	ppbv	# 82
10) Vinyl Bromide	7.230	106	2604747	29.56	ppbv	100
11) Trichlorofluoromethane	7.352	101	6321026	17.80	ppbv	99
12) Isopropanol	7.879	45	3821607	11.80	ppbv	100
13) Acrolein	7.969	56	969508	41.45	ppbv	# 85
14) Acetone	8.085	43	2899806	17.98	ppbv	92
15) Freon-113	8.230	101	5382992	25.31	ppbv	97
16) 1,1-Dichloroethylene	8.455	61	3729906	23.79	ppbv	84
17) 3-Chloropropene	9.056	41	2351312	31.94	ppbv	84
18) Methylene Chloride	9.207	49	2169401	24.64	ppbv	# 70
19) Acrylonitrile	9.300	53	1620684	34.40	ppbv	98
20) Carbon disulfide	9.329	76	7356945	32.24	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.619	73	7623892	27.78	ppbv	93
22) trans-1,2-Dichloroethy...	9.812	61	3428023	26.85	ppbv	83
23) Hexane	10.104	57	3387541	32.40	ppbv	91
24) Vinyl Acetate	10.429	43	4833682	28.66	ppbv	# 99
25) 1,1-Dichloroethane	10.477	63	4330559	25.60	ppbv	79
26) 2-Butanone	11.091	43	3904237	28.13	ppbv	# 82
27) Ethyl Acetate	11.393	43	4311777	28.44	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.477	61	3257997	26.59	ppbv	# 65
29) Chloroform	11.754	83	5706543	23.26	ppbv	96
30) Tetrahydrofuran	12.072	42	2197164	27.42	ppbv	# 80
31) 1,1,1-Trichlorethane	12.487	97	5914483	20.83	ppbv	95
32) Cyclohexane	12.657	56	3546296	35.43	ppbv	83
33) Carbon Tetrachloride	12.953	117	5463173	20.54	ppbv	# 92
34) 1,2-Dichloroethane	13.027	62	3376110	18.41	ppbv	# 98
35) Benzene	13.155	78	8137327	30.65	ppbv	86
36) n-Heptane	13.178	43	3285044	30.45	ppbv	# 92
38) Trichloroethylene	14.191	95	3936167	25.12	ppbv	93
39) 1,2-Dichloropropane	14.416	63	2614396	29.00	ppbv	85
40) Methyl Methacrylate	14.432	69	2984495	29.85	ppbv	# 91
41) 1,4-Dioxane	14.734	88	2191124	36.41	ppbv	# 100
42) Bromodichloromethane	14.779	83	5615924	19.80	ppbv	95
43) Methyl Isobutyl Ketone	15.316	43	4751985	28.84	ppbv	85
44) cis-1,3-Dichloropropene	15.667	75	4854646	27.57	ppbv	94
45) Toluene	16.323	91	11106834	28.73	ppbv	97
46) trans-1,3-Dichloropropene	16.480	75	4527028	23.71	ppbv	94
47) 1,1,2-Trichlorethane	16.773	97	3717041	27.44	ppbv	91
48) 2-Hexanone	16.782	43	4218529	25.17	ppbv	# 92
49) 1,3-Dichloropropane	17.197	76	5154833	26.52	ppbv	# 84

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219729.D
 Acq On : 20 Apr 2022 8:30 am
 Operator : AS
 Sample : SEQ-CAL9
 Misc : QBT02041922A 30.0 PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

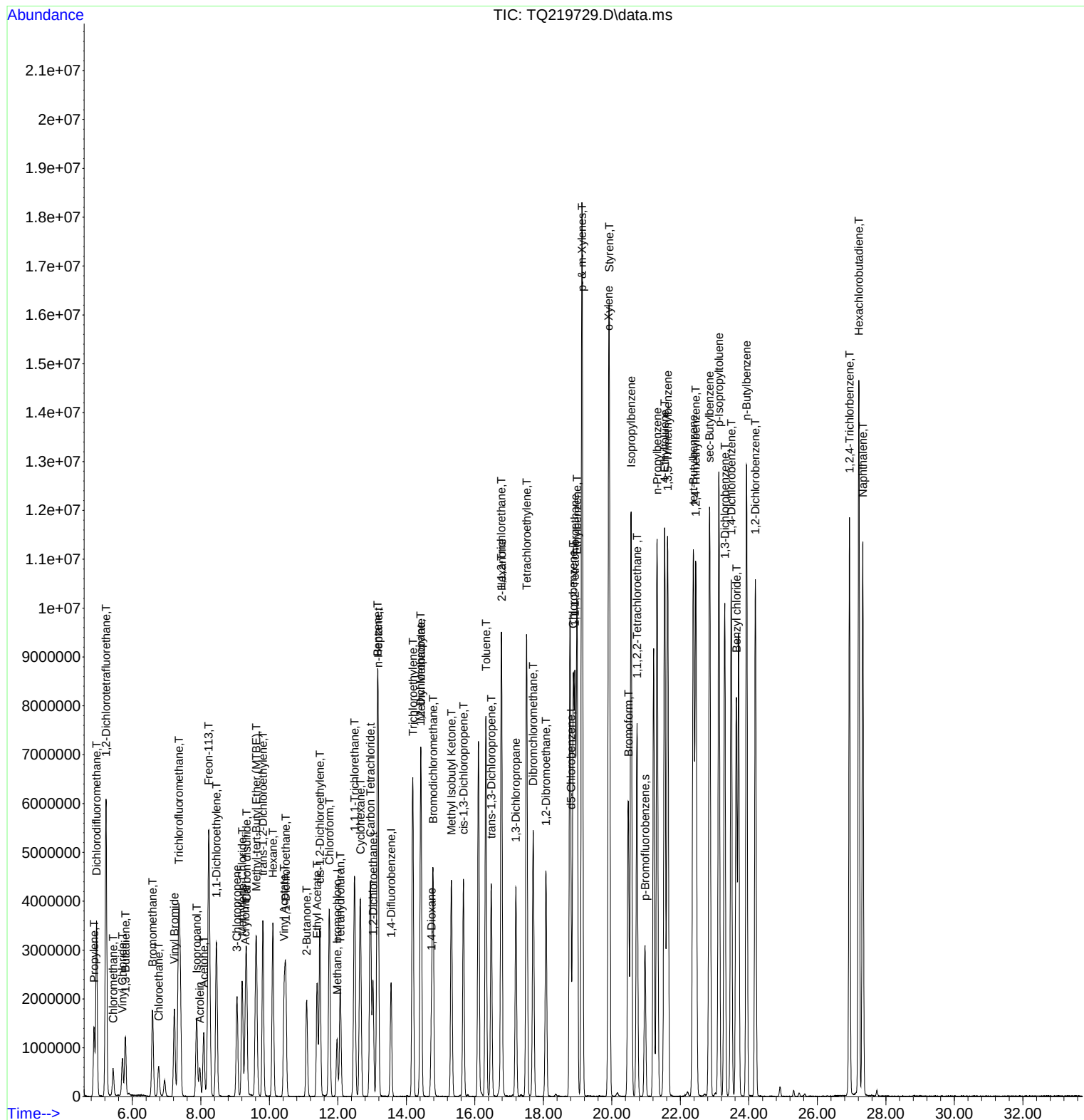
Quant Time: Apr 20 13:08:19 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.512	166	5627410	24.32	ppbv	99
51) Dibromchloromethane	17.705	129	5956234	22.59	ppbv	98
52) 1,2-Dibromoethane	18.075	107	6121744	28.12	ppbv	99
54) Chlorobenzene	18.875	112	9395995	28.47	ppbv #	100
55) 1,1,1,2-Tetrachloroethane	18.924	131	4774107	22.76	ppbv	93
56) Ethylbenzene	18.982	91	14062507	26.91	ppbv	93
57) p- & m-Xylenes	19.129	91	20499484	49.31	ppbv	93
58) o-Xylene	19.908	91	11318383	28.64	ppbv	98
59) Styrene	19.924	104	9605970	34.84	ppbv #	100
60) Bromoform	20.483	173	5803154	28.60	ppbv	99
61) n-Propylbenzene	21.322	91	18702264	28.29	ppbv	97
62) Isopropylbenzene	20.564	105	16296829	29.94	ppbv	96
63) 1,1,2,2-Tetrachloroeth...	20.734	83	7750170	30.46	ppbv	98
65) 4-Ethyltoluene	21.544	105	16497453	30.08	ppbv	96
66) 1,3,5-Trimethylbenzene	21.628	105	13517904	27.92	ppbv	93
67) tert-Butylbenzene	22.380	119	15459532	31.51	ppbv #	87
68) 1,2,4-Trimethylbenzene	22.451	105	14117743	28.83	ppbv #	89
69) sec-Butylbenzene	22.856	105	19659431	30.32	ppbv #	94
70) p-Isopropyltoluene	23.126	119	16539007	30.82	ppbv #	89
71) 1,3-Dichlorobenzene	23.297	146	9562543	31.56	ppbv	98
72) 1,4-Dichlorobenzene	23.486	146	9596326	32.03	ppbv	98
73) Benzyl chloride	23.637	91	12324917	32.64	ppbv	93
74) n-Butylbenzene	23.933	91	14023560	29.72	ppbv	97
75) 1,2-Dichlorobenzene	24.194	146	9178024	29.76	ppbv	98
76) 1,2,4-Trichlorobenzene	26.939	180	6807609	36.15	ppbv	97
77) Hexachlorobutadiene	27.213	225	5063359	21.98	ppbv	99
78) Naphthalene	27.328	128	17042058	35.81	ppbv	98

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

Data Path : C:\msdchem\1\data\041922\
Data File : TQ219729.D
Acq On : 20 Apr 2022 8:30 am
Operator : AS
Sample : SEQ-CAL9
Misc : QBT02041922A 30.0 PPBV CAL STND
ALS Vial : 93 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Apr 20 13:08:19 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Wed Apr 20 13:03:23 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219730.D
 Acq On : 20 Apr 2022 9:38 am
 Operator : AS
 Sample : SEQ-CALA
 Misc : QBT02041922A 50PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:10:02 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.985	49	810463	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.561	114	3868285	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.811	117	3280934	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.972	95	2321494	9.81	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.10%	
Target Compounds						
						Qvalue
2) Propylene	4.892	42	1751921	62.31	ppbv	97
3) Dichlorodifluoromethane	4.969	85	11060275	33.01	ppbv	96
4) 1,2-Dichlorotetrafluor...	5.246	85	10284879	37.53	ppbv	91
5) Chloromethane	5.458	50	1946668	27.66	ppbv	98
6) Vinyl Chloride	5.728	62	2672122	27.01	ppbv	98
7) 1,3-Butadiene	5.815	54	1860471	27.14	ppbv	99
8) Bromomethane	6.606	94	4347696	45.97	ppbv	99
9) Chloroethane	6.786	64	2038832	48.90	ppbv	95
10) Vinyl Bromide	7.243	106	4657289	49.54	ppbv	100
11) Trichlorofluoromethane	7.368	101	10875318	28.70	ppbv	99
12) Isopropanol	7.892	45	6640458	19.22	ppbv	100
13) Acrolein	7.985	56	1735786	69.57	ppbv	# 85
14) Acetone	8.101	43	5057488	29.39	ppbv	91
15) Freon-113	8.243	101	9372150	41.31	ppbv	95
16) 1,1-Dichloroethylene	8.471	61	6443020	38.52	ppbv	82
17) 3-Chloropropene	9.069	41	4156642	52.93	ppbv	# 83
18) Methylene Chloride	9.220	49	3764661	40.08	ppbv	# 68
19) Acrylonitrile	9.316	53	2854185	56.79	ppbv	98
20) Carbon disulfide	9.345	76	12754698	52.39	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.628	73	13138860	44.87	ppbv	93
22) trans-1,2-Dichloroethy...	9.821	61	5933599	43.56	ppbv	81
23) Hexane	10.117	57	5905345	52.94	ppbv	91
24) Vinyl Acetate	10.442	43	8448183	46.96	ppbv	# 99
25) 1,1-Dichloroethane	10.487	63	7421562	41.13	ppbv	80
26) 2-Butanone	11.101	43	6788307	45.84	ppbv	# 80
27) Ethyl Acetate	11.406	43	7465572	46.15	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.484	61	5671653	43.39	ppbv	# 63
29) Chloroform	11.763	83	9810189	37.48	ppbv	95
30) Tetrahydrofuran	12.078	42	3860546	45.16	ppbv	# 80
31) 1,1,1-Trichlorethane	12.496	97	10212248	33.72	ppbv	94
32) Cyclohexane	12.660	56	6188765	57.96	ppbv	82
33) Carbon Tetrachloride	12.959	117	9598980	33.83	ppbv	# 92
34) 1,2-Dichloroethane	13.037	62	5739021	29.33	ppbv	# 99
35) Benzene	13.162	78	13700956	48.38	ppbv	85
36) n-Heptane	13.185	43	5474728	47.56	ppbv	# 92
38) Trichloroethylene	14.191	95	6880271	41.26	ppbv	93
39) 1,2-Dichloropropane	14.419	63	4389654	45.76	ppbv	85
40) Methyl Methacrylate	14.442	69	5061566	47.58	ppbv	# 89
41) 1,4-Dioxane	14.738	88	3832679	59.85	ppbv	# 100
42) Bromodichloromethane	14.786	83	9736711	32.27	ppbv	95
43) Methyl Isobutyl Ketone	15.323	43	8042109	45.87	ppbv	# 83
44) cis-1,3-Dichloropropene	15.670	75	8343824	44.53	ppbv	93
45) Toluene	16.329	91	18566110	45.13	ppbv	95
46) trans-1,3-Dichloropropene	16.483	75	7711736	37.95	ppbv	93
47) 1,1,2-Trichlorethane	16.779	97	6319665	43.85	ppbv	90
48) 2-Hexanone	16.786	43	6946583	38.95	ppbv	# 73
49) 1,3-Dichloropropane	17.200	76	8747771	42.29	ppbv	91

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219730.D
 Acq On : 20 Apr 2022 9:38 am
 Operator : AS
 Sample : SEQ-CALA
 Misc : QBT02041922A 50PPBV CAL STND
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 13:10:02 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:03:23 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.519	166	9729622	39.51	ppbv	99
51) Dibromchloromethane	17.708	129	10263972	36.58	ppbv	98
52) 1,2-Dibromoethane	18.078	107	10487319	45.26	ppbv	98
54) Chlorobenzene	18.879	112	15736997	45.47	ppbv #	99
55) 1,1,1,2-Tetrachloroethane	18.930	131	8193090	37.26	ppbv	93
56) Ethylbenzene	18.985	91	22854744	41.70	ppbv	89
57) p- & m-Xylenes	19.126	91	31014725m	71.15	ppbv	
58) o-Xylene	19.911	91	18491175	44.62	ppbv	97
59) Styrene	19.933	104	15869451	54.89	ppbv #	100
60) Bromoform	20.483	173	8910377	41.88	ppbv	98
61) n-Propylbenzene	21.326	91	29238134	42.18	ppbv #	96
62) Isopropylbenzene	20.567	105	25959817	45.48	ppbv #	95
63) 1,1,2,2-Tetrachloroeth...	20.734	83	13049707	48.91	ppbv	97
65) 4-Ethyltoluene	21.544	105	27091256	47.11	ppbv	93
66) 1,3,5-Trimethylbenzene	21.634	105	22477127	44.27	ppbv	91
67) tert-Butylbenzene	22.387	119	26113821	50.75	ppbv #	79
68) 1,2,4-Trimethylbenzene	22.457	105	23621384	46.01	ppbv #	78
69) sec-Butylbenzene	22.859	105	31509174	46.34	ppbv #	93
70) p-Isopropyltoluene	23.133	119	27053679	48.08	ppbv #	79
71) 1,3-Dichlorobenzene	23.300	146	16591857	52.22	ppbv	96
72) 1,4-Dichlorobenzene	23.490	146	16602703	52.85	ppbv	96
73) Benzyl chloride	23.637	91	21176387	53.48	ppbv	92
74) n-Butylbenzene	23.936	91	22919727	46.32	ppbv	95
75) 1,2-Dichlorobenzene	24.197	146	15765260	48.75	ppbv	96
76) 1,2,4-Trichlorobenzene	26.943	180	11830482	59.92	ppbv	96
77) Hexachlorobutadiene	27.213	225	8369175	34.65	ppbv	98
78) Naphthalene	27.325	128	27524971m	55.15	ppbv	

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

Data Path : C:\msdchem\1\data\041922\

Data File : TQ219730.D

Acq On : 20 Apr 2022 9:38 am

Operator : AS

Sample : SEQ-CALA

Misc : QBT02041922A 50PPBV CAL STND

ALS Vial : 93 Sample Multiplier: 1

InstName : T015_AIR2

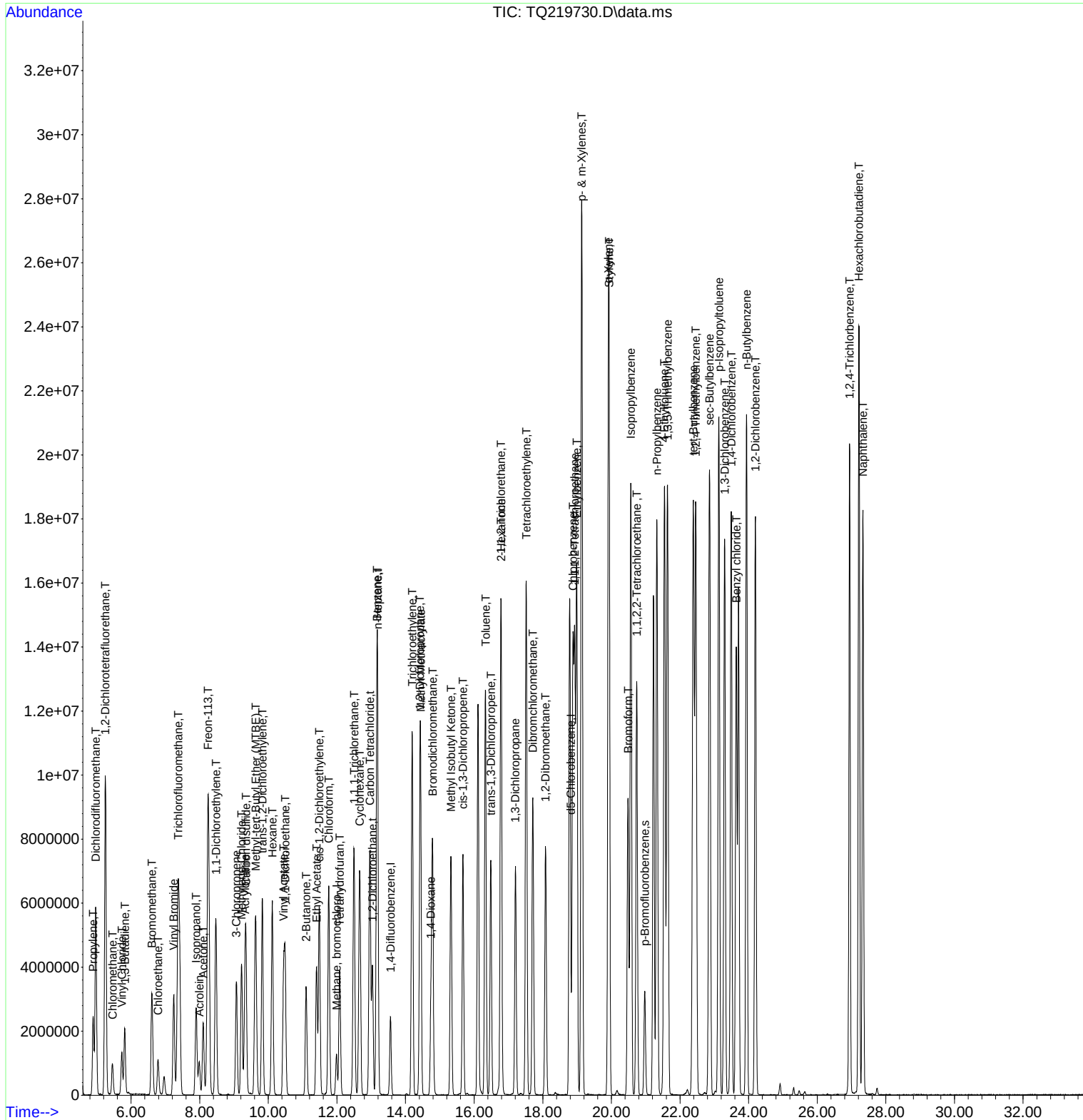
Quant Time: Apr 20 13:10:02 2022

Quant Method : C:\msdchem\1\methods\AIR-2-0057.M

Quant Title : T015 VOC Analysis

QLast Update : Wed Apr 20 13:03:23 2022

Response via : Initial Calibration



SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Calibration: YD20018

Laboratory ID: Y2D2240-SCV1

Sequence: Y2D2240

Standard ID: Y22D231

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
1,1,1,2-Tetrachloroethane	10.0	10.4	3.8	30.00
1,1,1-Trichloroethane	10.0	9.71	-2.9	30.00
1,1,2,2-Tetrachloroethane	10.0	9.87	-1.3	30.00
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.0	10.2	2.1	30.00
1,1,2-Trichloroethane	10.0	10.1	0.7	30.00
1,1-Dichloroethane	10.0	10.0	0.4	30.00
1,1-Dichloroethylene	10.0	9.17	-8.3	30.00
1,2,4-Trichlorobenzene	10.0	9.22	-7.8	30.00
1,2,4-Trimethylbenzene	10.0	9.59	-4.1	30.00
1,2-Dibromoethane	10.0	10.1	1.3	30.00
1,2-Dichlorobenzene	10.0	9.70	-3.0	30.00
1,2-Dichloroethane	10.0	9.17	-8.3	30.00
1,2-Dichloropropane	10.0	9.97	-0.3	30.00
1,2-Dichlorotetrafluoroethane	10.0	10.2	1.9	30.00
1,3,5-Trimethylbenzene	10.0	9.56	-4.4	30.00
1,3-Butadiene	10.0	9.70	-3.0	30.00
1,3-Dichlorobenzene	10.0	9.86	-1.4	30.00
1,3-Dichloropropane	10.0	9.85	-1.5	30.00
1,4-Dichlorobenzene	10.0	9.90	-1.0	30.00
1,4-Dioxane	10.0	8.94	-10.6	30.00
2-Butanone	10.0	9.57	-4.3	30.00
2-Hexanone	10.0	7.96	-20.4	30.00
3-Chloropropene	10.0	9.95	-0.5	30.00
4-Methyl-2-pentanone	10.0	8.19	-18.1	30.00
Acetone	10.0	8.05	-19.5	30.00
Acrylonitrile	10.0	10.2	2.3	30.00
Benzene	10.0	9.90	-1.0	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Calibration: YD20018

Laboratory ID: Y2D2240-SCV1

Sequence: Y2D2240

Standard ID: Y22D231

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Benzyl chloride	10.0	10.4	3.8	30.00
Bromodichloromethane	10.0	9.69	-3.1	30.00
Bromoform	10.0	11.8	18.0	30.00
Bromomethane	10.0	10.4	3.7	30.00
Carbon disulfide	10.0	10.5	5.2	30.00
Carbon tetrachloride	10.0	9.87	-1.3	30.00
Chlorobenzene	10.0	10.0	0.5	30.00
Chloroethane	10.0	10.4	3.8	30.00
Chloroform	10.0	9.84	-1.6	30.00
Chloromethane	10.0	9.09	-9.1	30.00
cis-1,2-Dichloroethylene	10.0	9.47	-5.3	30.00
cis-1,3-Dichloropropylene	10.0	10.2	1.7	30.00
Cyclohexane	10.0	10.3	3.3	30.00
Dibromochloromethane	10.0	11.2	11.5	30.00
Dichlorodifluoromethane	10.0	9.44	-5.6	30.00
Ethyl acetate	10.0	10.0	0.3	30.00
Ethyl Benzene	10.0	10.1	1.0	30.00
Hexachlorobutadiene	10.0	8.75	-12.5	30.00
Isopropanol	10.0	10.1	1.1	30.00
Methyl Methacrylate	10.0	10.3	2.6	30.00
Methyl tert-butyl ether (MTBE)	10.0	10.1	0.6	30.00
Methylene chloride	10.0	8.99	-10.1	30.00
n-Heptane	10.0	10.1	0.6	30.00
n-Hexane	10.0	10.2	2.5	30.00
o-Xylene	10.0	10.1	1.3	30.00
p- & m- Xylenes	20.0	20.3	1.4	30.00
p-Ethyltoluene	10.0	9.91	-0.9	30.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.

SDG: 22F1033

Client: Langan Engineering & Environmental Services (NJ)

Project: 100287505

Calibration: YD20018

Laboratory ID: Y2D2240-SCV1

Sequence: Y2D2240

Standard ID: Y22D231

ANALYTE	EXPECTED (ppbv)	FOUND (ppbv)	% DIFF	QC LIMIT
Propylene	10.0	9.51	-4.9	30.00
Styrene	10.0	10.3	2.6	30.00
Tetrachloroethylene	10.0	9.50	-5.0	30.00
Tetrahydrofuran	10.0	10.0	0.3	30.00
Toluene	10.0	9.60	-4.0	30.00
trans-1,2-Dichloroethylene	10.0	9.97	-0.3	30.00
trans-1,3-Dichloropropylene	10.0	10.2	2.3	30.00
Trichloroethylene	10.0	9.30	-7.0	30.00
Trichlorofluoromethane (Freon 11)	10.0	9.62	-3.8	30.00
Vinyl acetate	10.0	10.6	5.6	30.00
Vinyl bromide	10.0	10.6	5.5	30.00
Vinyl Chloride	10.0	9.42	-5.8	30.00

* Values outside of QC limits

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219733.D
 Acq On : 20 Apr 2022 1:51 pm
 Operator : AS
 Sample : SEQ-SCV1
 Misc : QBT02041922A 10.0 PPBV ICV
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 15:03:01 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:23:24 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.982	49	831276	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.554	114	4001569	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.808	117	3457469	10.00	ppbv	0.00
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.969	95	2274128	10.06	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.60%	
Target Compounds						
						Qvalue
2) Propylene	4.911	42	381945	9.51	ppbv	97
3) Dichlorodifluoromethane	4.985	85	2511774	9.44	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.255	85	2248340	10.19	ppbv	94
5) Chloromethane	5.468	50	397307	9.09	ppbv	97
6) Vinyl Chloride	5.735	62	569470	9.42	ppbv	99
7) 1,3-Butadiene	5.825	54	395742	9.70	ppbv	98
8) Bromomethane	6.612	94	927203	10.37	ppbv	99
9) Chloroethane	6.789	64	436693	10.38	ppbv	# 83
10) Vinyl Bromide	7.249	106	1001486	10.55	ppbv	100
11) Trichlorofluoromethane	7.368	101	2407742	9.62	ppbv	99
12) Isopropanol	7.886	45	1468604	10.11	ppbv	100
13) Acrolein	7.982	56	362058	9.84	ppbv	# 86
14) Acetone	8.101	43	1087333	8.05	ppbv	92
15) Freon-113	8.249	101	2102107	10.21	ppbv	97
16) 1,1-Dichloroethylene	8.474	61	1394875	9.17	ppbv	83
17) 3-Chloropropene	9.066	41	901699	9.95	ppbv	83
18) Methylene Chloride	9.217	49	844428	8.99	ppbv	# 71
19) Acrylonitrile	9.307	53	617845	10.23	ppbv	98
20) Carbon disulfide	9.345	76	2847228	10.52	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.625	73	2909135	10.06	ppbv	92
22) trans-1,2-Dichloroethy...	9.821	61	1305283	9.97	ppbv	82
23) Hexane	10.111	57	1333931	10.25	ppbv	91
24) Vinyl Acetate	10.432	43	1955293	10.56	ppbv	# 98
25) 1,1-Dichloroethane	10.487	63	1687327	10.04	ppbv	82
26) 2-Butanone	11.098	43	1493958	9.57	ppbv	# 82
27) Ethyl Acetate	11.397	43	1662252	10.03	ppbv	# 46
28) cis-1,2-Dichloroethylene	11.480	61	1241421	9.47	ppbv	# 64
29) Chloroform	11.757	83	2183975	9.84	ppbv	96
30) Tetrahydrofuran	12.075	42	859173	10.03	ppbv	# 83
31) 1,1,1-Trichlorethane	12.490	97	2229696	9.71	ppbv	95
32) Cyclohexane	12.657	56	1396219	10.33	ppbv	# 80
33) Carbon Tetrachloride	12.953	117	1985563	9.87	ppbv	# 92
34) 1,2-Dichloroethane	13.027	62	1255794	9.17	ppbv	# 85
35) Benzene	13.159	78	3283141	9.90	ppbv	86
36) n-Heptane	13.175	43	1333772	10.06	ppbv	# 73
38) Trichloroethylene	14.188	95	1521069	9.30	ppbv	93
39) 1,2-Dichloropropane	14.416	63	1054987	9.97	ppbv	86
40) Methyl Methacrylate	14.429	69	1180982	10.26	ppbv	# 90
41) 1,4-Dioxane	14.734	88	846712	8.94	ppbv	# 100
42) Bromodichloromethane	14.776	83	2195106	9.69	ppbv	96
43) Methyl Isobutyl Ketone	15.316	43	1839050	8.19	ppbv	85
44) cis-1,3-Dichloropropene	15.670	75	1862965	10.17	ppbv	94
45) Toluene	16.323	91	4318424	9.60	ppbv	97
46) trans-1,3-Dichloropropene	16.480	75	1688289	10.23	ppbv	94
47) 1,1,2-Trichlorethane	16.773	97	1466927	10.07	ppbv	91
48) 2-Hexanone	16.782	43	1694483	7.96	ppbv	# 73
49) 1,3-Dichloropropane	17.200	76	1972487	9.85	ppbv	# 83

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219733.D
 Acq On : 20 Apr 2022 1:51 pm
 Operator : AS
 Sample : SEQ-SCV1
 Misc : QBT02041922A 10.0 PPBV ICV
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

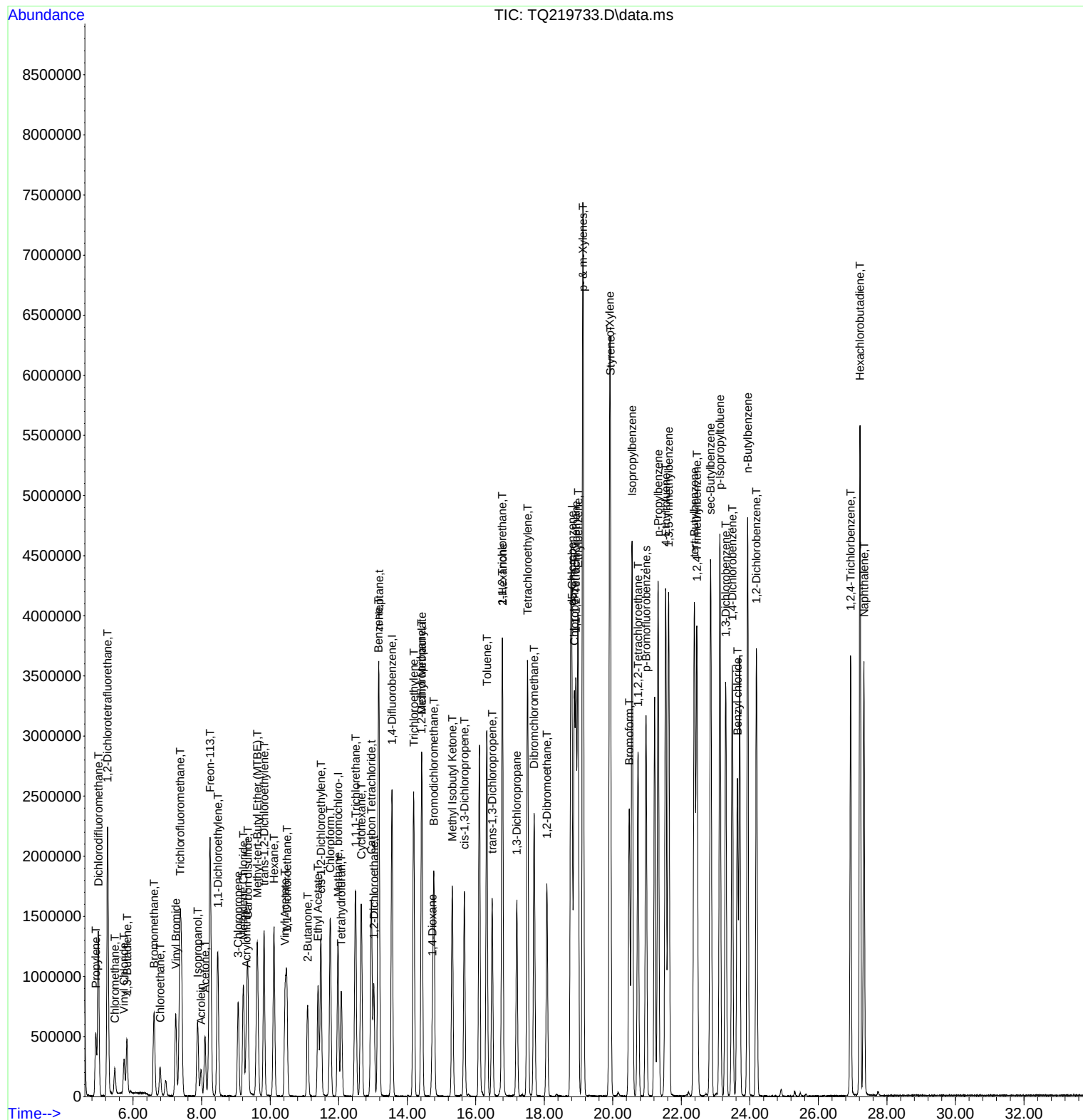
Quant Time: Apr 20 15:03:01 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:23:24 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.512	166	2144648	9.50	ppbv	99
51) Dibromchloromethane	17.705	129	2570533	11.15	ppbv	98
52) 1,2-Dibromoethane	18.078	107	2323358	10.13	ppbv	99
54) Chlorobenzene	18.879	112	3656758	10.05	ppbv #	100
55) 1,1,1,2-Tetrachloroethane	18.924	131	1876161	10.38	ppbv	94
56) Ethylbenzene	18.985	91	5600679	10.10	ppbv	95
57) p- & m-Xylenes	19.129	91	8439551	20.28	ppbv	95
58) o-Xylene	19.911	91	4432198	10.13	ppbv	98
59) Styrene	19.930	104	3611292	10.26	ppbv #	100
60) Bromoform	20.480	173	2280894	11.80	ppbv	99
61) n-Propylbenzene	21.326	91	7019316	9.92	ppbv	98
62) Isopropylbenzene	20.564	105	6347650	10.24	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.734	83	2942559	9.87	ppbv	98
65) 4-Ethyltoluene	21.547	105	6062385	9.91	ppbv	96
66) 1,3,5-Trimethylbenzene	21.631	105	4928167	9.56	ppbv	94
67) tert-Butylbenzene	22.383	119	5546942	9.75	ppbv #	78
68) 1,2,4-Trimethylbenzene	22.454	105	5042903	9.59	ppbv #	90
69) sec-Butylbenzene	22.856	105	7219237	9.54	ppbv	98
70) p-Isopropyltoluene	23.129	119	6027227	9.47	ppbv #	79
71) 1,3-Dichlorobenzene	23.293	146	3246178	9.86	ppbv	98
72) 1,4-Dichlorobenzene	23.486	146	3265703	9.90	ppbv	97
73) Benzyl chloride	23.641	91	4013515	10.38	ppbv	94
74) n-Butylbenzene	23.936	91	5156315	9.14	ppbv	98
75) 1,2-Dichlorobenzene	24.194	146	3194322	9.70	ppbv	97
76) 1,2,4-Trichlorobenzene	26.943	180	2107296	9.22	ppbv	97
77) Hexachlorobutadiene	27.216	225	1924605	8.75	ppbv	98
78) Naphthalene	27.332	128	5457588	8.07	ppbv	100

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

Data Path : C:\msdchem\1\data\041922\
 Data File : TQ219733.D
 Acq On : 20 Apr 2022 1:51 pm
 Operator : AS
 Sample : SEQ-SCV1
 Misc : QBT02041922A 10.0 PPBV ICV
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Apr 20 15:03:01 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Wed Apr 20 13:23:24 2022
 Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Instrument ID: TO15_AIR2Calibration: YD20018Lab File ID: TQ220717.DCalibration Date: 04/19/22 22:46Sequence: Y2F2411Injection Date: 06/22/22Lab Sample ID: Y2F2411-CCV1Injection Time: 06:51

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,1,2-Tetrachloroethane	A	10.0	8.76	0.5225608	0.4575546		-12.4	30
1,1,1-Trichloroethane	A	10.0	10.2	2.761948	2.810861		1.8	30
1,1,2,2-Tetrachloroethane	A	10.0	8.04	0.8626136	0.6931939		-19.6	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	10.0	10.1	2.475865	2.506197		1.2	30
1,1,2-Trichloroethane	A	10.0	8.43	0.3641926	0.3070471		-15.7	30
1,1-Dichloroethane	A	10.0	9.10	2.022685	1.840634		-9.0	30
1,1-Dichloroethylene	A	10.0	8.65	1.828947	1.581877		-13.5	30
1,2,4-Trichlorobenzene	A	10.0	5.72	0.6607203	0.378042		-42.8	30 *
1,2,4-Trimethylbenzene	A	10.0	8.16	1.52027	1.24006		-18.4	30
1,2-Dibromoethane	A	10.0	8.53	0.5731624	0.4887991		-14.7	30
1,2-Dichlorobenzene	A	10.0	7.76	0.9529005	0.7392303		-22.4	30
1,2-Dichloroethane	A	10.0	9.29	1.647525	1.5308		-7.1	30
1,2-Dichloropropane	A	10.0	7.63	0.2644825	0.201719		-23.7	30
1,2-Dichlorotetrafluoroethane	A	10.0	11.1	2.655057	2.938376		10.7	30
1,3,5-Trimethylbenzene	A	10.0	8.18	1.491271	1.220093		-18.2	30
1,3-Butadiene	A	10.0	7.24	0.4907221	0.3551287		-27.6	30
1,3-Dichlorobenzene	A	10.0	7.97	0.9521438	0.7585303		-20.3	30
1,3-Dichloropropane	A	10.0	8.06	0.500202	0.4030905		-19.4	30
1,4-Dichlorobenzene	A	10.0	7.87	0.9541104	0.7512614		-21.3	30
1,4-Dioxane	A	10.0	7.30	0.2366858	0.1727497		-27.0	30
2-Butanone	A	10.0	7.76	1.877054	1.45608		-22.4	30
2-Hexanone	A	10.0	5.62	0.5317352	0.2988719		-43.8	30 *
3-Chloropropene	A	10.0	7.77	1.090371	0.8474979		-22.3	30
4-Methyl-2-pentanone	A	10.0	5.80	0.5611524	0.325421		-42.0	30 *
Acetone	A	10.0	7.02	1.624941	1.141238		-29.8	30
Acrylonitrile	A	10.0	7.72	0.7267274	0.5606935		-22.8	30
Benzene	A	10.0	9.12	3.988265	3.636066		-8.8	30
Benzyl chloride	A	10.0	7.56	1.118416	0.8453578		-24.4	30
Bromodichloromethane	A	10.0	8.36	0.5662355	0.4731749		-16.4	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Instrument ID: TO15_AIR2Calibration: YD20018Lab File ID: TQ220717.DCalibration Date: 04/19/22 22:46Sequence: Y2F2411Injection Date: 06/22/22Lab Sample ID: Y2F2411-CCV1Injection Time: 06:51

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Bromoform	A	10.0	9.08	0.5589733	0.5073656		-9.2	30
Bromomethane	A	10.0	10.2	1.07543	1.094078		1.7	30
Carbon disulfide	A	10.0	9.49	3.255539	3.089899		-5.1	30
Carbon tetrachloride	A	10.0	9.51	2.382535	2.301725		-3.4	30
Chlorobenzene	A	10.0	8.36	1.052086	0.880038		-16.4	30
Chloroethane	A	10.0	9.02	0.506012	0.4564789		-9.8	30
Chloroform	A	10.0	9.87	2.668734	2.634392		-1.3	30
Chloromethane	A	10.0	7.32	0.5259801	0.385212		-26.8	30
cis-1,2-Dichloroethylene	A	10.0	8.64	1.576247	1.361592		-13.6	30
cis-1,3-Dichloropropylene	A	10.0	8.16	0.4575901	0.3733286		-18.4	30
Cyclohexane	A	10.0	8.81	1.625653	1.432123		-11.9	30
Dibromochloromethane	A	10.0	9.38	0.5761676	0.5407028		-6.2	30
Dichlorodifluoromethane	A	10.0	10.0	3.200946	3.212941		0.4	30
Ethyl acetate	A	10.0	8.18	1.994603	1.631095		-18.2	30
Ethyl Benzene	A	10.0	8.50	1.603083	1.36254		-15.0	30
Hexachlorobutadiene	A	10.0	5.99	0.6539784	0.3809212		-41.8	30 *
Isopropanol	Q	10.0	8.41	2.707315	1.482894		-15.9	30
Methyl Methacrylate	A	10.0	7.75	0.2877017	0.2228967		-22.5	30
Methyl tert-butyl ether (MTBE)	A	10.0	9.47	3.477153	3.2913		-5.3	30
Methylene chloride	A	10.0	7.65	1.130144	0.8651118		-23.5	30
n-Heptane	A	10.0	8.23	1.595517	1.313021		-17.7	30
n-Hexane	A	10.0	8.77	1.565854	1.373648		-12.3	30
o-Xylene	A	10.0	8.47	1.265449	1.071284		-15.3	30
p- & m- Xylenes	A	20.0	17.1	1.203784	1.031113		-14.3	30
p-Ethyltoluene	A	10.0	8.39	1.769097	1.483905		-16.1	30
Propylene	A	10.0	7.77	0.4830245	0.3755248		-22.3	30
Styrene	A	10.0	8.17	1.018308	0.8319181		-18.3	30
Tetrachloroethylene	A	10.0	7.93	0.5641022	0.4474602		-20.7	30
Tetrahydrofuran	A	10.0	7.96	1.030652	0.8201629		-20.4	30

FORM VII**CONTINUING CALIBRATION CHECK****EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Instrument ID: TO15_AIR2 Calibration: YD20018
Lab File ID: TQ220717.D Calibration Date: 04/19/22 22:46
Sequence: Y2F2411 Injection Date: 06/22/22
Lab Sample ID: Y2F2411-CCV1 Injection Time: 06:51

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Toluene	A	10.0	8.13	1.124172	0.9137327		-18.7	30
trans-1,2-Dichloroethylene	A	10.0	8.89	1.574288	1.399231		-11.1	30
trans-1,3-Dichloropropylene	A	10.0	8.16	0.412448	0.3367534		-18.4	30
Trichloroethylene	A	10.0	7.99	0.4087366	0.3264274		-20.1	30
Trichlorofluoromethane (Freon 11)	A	10.0	10.3	3.009696	3.086627		2.6	30
Vinyl acetate	A	10.0	7.24	2.227422	1.613582		-27.6	30
Vinyl bromide	A	10.0	10.2	1.142445	1.169324		2.4	30
Vinyl Chloride	A	10.0	7.23	0.727413	0.5260853		-27.7	30

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

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220717.D
 Acq On : 22 Jun 2022 6:51 am
 Operator : AS
 Sample : SEQ-CCV1
 Misc : QBT02062222A CCV
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 22 16:46:20 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.979	49	679348	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.558	114	3753147	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.824	117	3277670	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	2215709	10.34	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	103.40%	
Target Compounds						
						Qvalue
2) Propylene	4.870	42	255112	7.77	ppbv	97
3) Dichlorodifluoromethane	4.947	85	2182705	10.04	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.227	85	1996180	11.07	ppbv	98
5) Chloromethane	5.439	50	261693m	7.32	ppbv	
6) Vinyl Chloride	5.706	62	357395	7.23	ppbv	98
7) 1,3-Butadiene	5.789	54	241256	7.24	ppbv	# 67
8) Bromomethane	6.587	94	743260	10.17	ppbv	# 96
9) Chloroethane	6.760	64	310108	9.02	ppbv	# 59
10) Vinyl Bromide	7.220	106	794378	10.24	ppbv	100
11) Trichlorofluoromethane	7.349	101	2096894	10.26	ppbv	# 97
12) Isopropanol	7.879	45	1007401	8.41	ppbv	100
13) Acrolein	7.969	56	229557	7.63	ppbv	# 86
14) Acetone	8.088	43	775298	7.02	ppbv	92
15) Freon-113	8.227	101	1702580	10.12	ppbv	97
16) 1,1-Dichloroethylene	8.448	61	1074645	8.65	ppbv	# 81
17) 3-Chloropropene	9.050	41	575746	7.77	ppbv	# 84
18) Methylene Chloride	9.207	49	587712	7.65	ppbv	# 61
19) Acrylonitrile	9.297	53	380906	7.72	ppbv	97
20) Carbon disulfide	9.333	76	2099117	9.49	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.619	73	2235938	9.47	ppbv	91
22) trans-1,2-Dichloroethy...	9.812	61	950565	8.89	ppbv	# 78
23) Hexane	10.104	57	933185	8.77	ppbv	89
24) Vinyl Acetate	10.432	43	1096184	7.24	ppbv	# 98
25) 1,1-Dichloroethane	10.477	63	1250431	9.10	ppbv	# 64
26) 2-Butanone	11.088	43	989185m	7.76	ppbv	
27) Ethyl Acetate	11.400	43	1108081	8.18	ppbv	# 44
28) cis-1,2-Dichloroethylene	11.477	61	924995	8.64	ppbv	# 60
29) Chloroform	11.754	83	1789669	9.87	ppbv	96
30) Tetrahydrofuran	12.078	42	557176	7.96	ppbv	# 72
31) 1,1,1-Trichlorethane	12.493	97	1909553	10.18	ppbv	94
32) Cyclohexane	12.654	56	972910	8.81	ppbv	# 77
33) Carbon Tetrachloride	12.956	117	1563672	9.51	ppbv	# 58
34) 1,2-Dichloroethane	13.030	62	1039946	9.29	ppbv	100
35) Benzene	13.159	78	2470154	9.12	ppbv	# 82
36) n-Heptane	13.185	43	891998	8.23	ppbv	# 73
38) Trichloroethylene	14.197	95	1225130	7.99	ppbv	95
39) 1,2-Dichloropropane	14.426	63	757081	7.63	ppbv	87
40) Methyl Methacrylate	14.442	69	836564	7.75	ppbv	# 90
41) 1,4-Dioxane	14.744	88	648355	7.30	ppbv	# 100
42) Bromodichloromethane	14.789	83	1775895	8.36	ppbv	95
43) Methyl Isobutyl Ketone	15.329	43	1221353m	5.80	ppbv	
44) cis-1,3-Dichloropropene	15.680	75	1401157	8.16	ppbv	93
45) Toluene	16.332	91	3429373	8.13	ppbv	98
46) trans-1,3-Dichloropropene	16.496	75	1263885	8.16	ppbv	94
47) 1,1,2-Trichlorethane	16.786	97	1152393	8.43	ppbv	91
48) 2-Hexanone	16.795	43	1121710	5.62	ppbv	# 73
49) 1,3-Dichloropropane	17.210	76	1512858	8.06	ppbv	90

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220717.D
 Acq On : 22 Jun 2022 6:51 am
 Operator : AS
 Sample : SEQ-CCV1
 Misc : QBT02062222A CCV
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

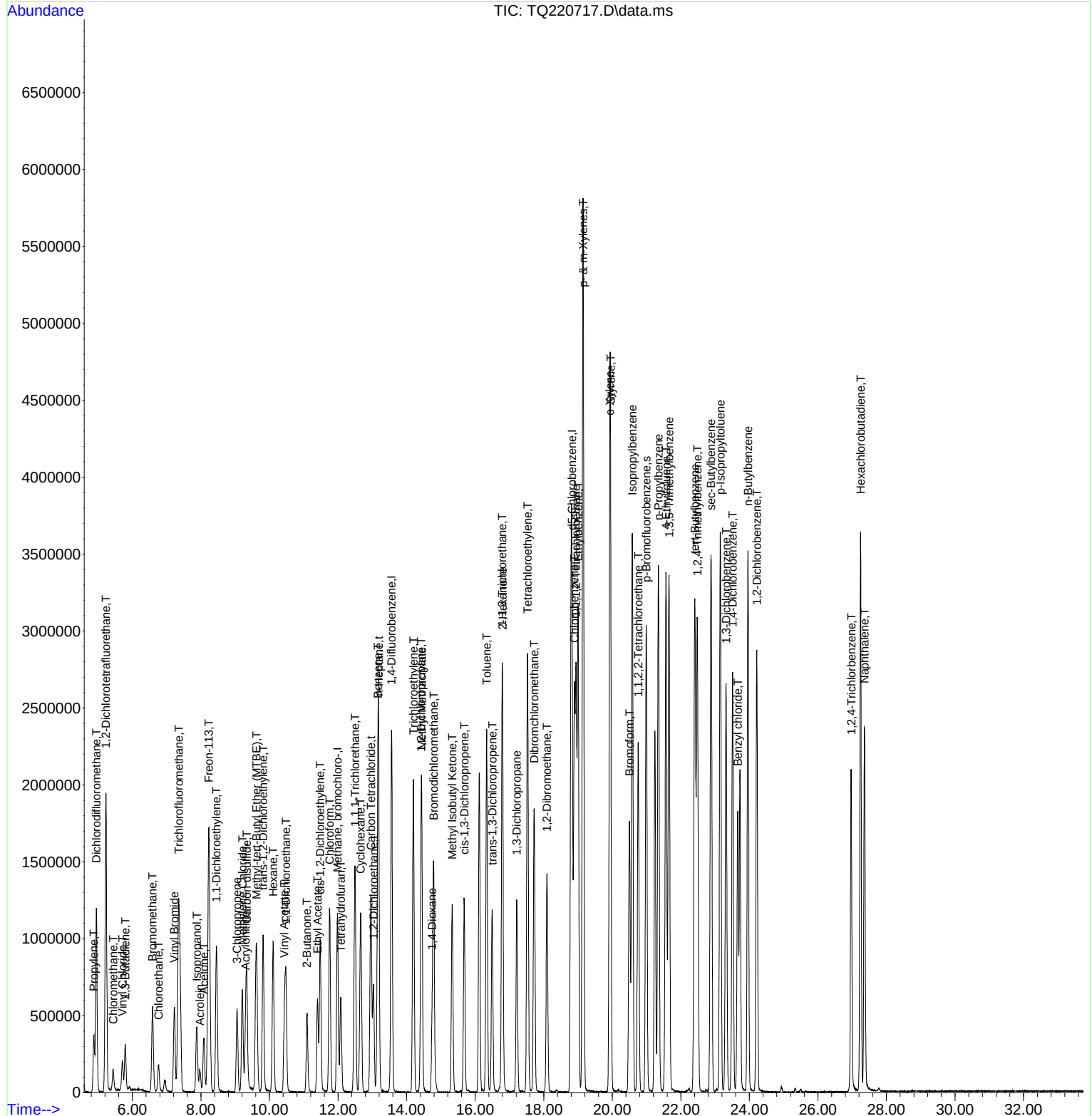
Quant Time: Jun 22 16:46:20 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.522	166	1679384	7.93	ppbv	99
51) Dibromchloromethane	17.721	129	2029337	9.38	ppbv	98
52) 1,2-Dibromoethane	18.091	107	1834535	8.53	ppbv	98
54) Chlorobenzene	18.892	112	2884474	8.36	ppbv #	86
55) 1,1,1,2-Tetrachloroethane	18.943	131	1499713	8.76	ppbv	94
56) Ethylbenzene	19.001	91	4465957	8.50	ppbv	96
57) p- & m-Xylenes	19.146	91	6759298	17.13	ppbv	97
58) o-Xylene	19.924	91	3511316	8.47	ppbv	99
59) Styrene	19.950	104	2726753	8.17	ppbv #	100
60) Bromoform	20.496	173	1662977	9.08	ppbv	99
61) n-Propylbenzene	21.345	91	5667754	8.45	ppbv	98
62) Isopropylbenzene	20.586	105	5053649	8.60	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.757	83	2272061	8.04	ppbv	98
65) 4-Ethyltoluene	21.567	105	4863752	8.39	ppbv	97
66) 1,3,5-Trimethylbenzene	21.657	105	3999063	8.18	ppbv	96
67) tert-Butylbenzene	22.406	119	4420606	8.20	ppbv #	87
68) 1,2,4-Trimethylbenzene	22.480	105	4064509	8.16	ppbv #	91
69) sec-Butylbenzene	22.879	105	5707210	7.96	ppbv	98
70) p-Isopropyltoluene	23.155	119	4688359	7.77	ppbv #	79
71) 1,3-Dichlorobenzene	23.322	146	2486212	7.97	ppbv	98
72) 1,4-Dichlorobenzene	23.509	146	2462387	7.87	ppbv	98
73) Benzyl chloride	23.657	91	2770804	7.56	ppbv	95
74) n-Butylbenzene	23.959	91	3850720	7.20	ppbv	98
75) 1,2-Dichlorobenzene	24.216	146	2422953	7.76	ppbv	98
76) 1,2,4-Trichlorobenzene	26.972	180	1239097	5.72	ppbv	98
77) Hexachlorobutadiene	27.245	225	1248534	5.99	ppbv	99
78) Naphthalene	27.358	128	3685953	5.70	ppbv	99

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

Data Path : C:\msdchem\1\data\062222\
Data File : TQ220717.D
Acq On : 22 Jun 2022 6:51 am
Operator : AS
Sample : SEQ-CCV1
Misc : QBT02062222A CCV
ALS Vial : 93 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Jun 22 16:46:20 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration



FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Instrument ID: TO15_AIR2Calibration: YD20018Lab File ID: TQ220732.DCalibration Date: 04/19/22 22:46Sequence: Y2F2413Injection Date: 06/23/22Lab Sample ID: Y2F2413-CCV1Injection Time: 03:41

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1,1,2-Tetrachloroethane	A	10.0	9.72	0.5225608	0.5079412		-2.8	30
1,1,1-Trichloroethane	A	10.0	11.7	2.761948	3.2286		16.9	30
1,1,2,2-Tetrachloroethane	A	10.0	8.65	0.8626136	0.7462734		-13.5	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	A	10.0	11.7	2.475865	2.890816		16.8	30
1,1,2-Trichloroethane	A	10.0	9.17	0.3641926	0.3340704		-8.3	30
1,1-Dichloroethane	A	10.0	10.2	2.022685	2.062586		2.0	30
1,1-Dichloroethylene	A	10.0	9.81	1.828947	1.794147		-1.9	30
1,2,4-Trichlorobenzene	A	10.0	6.39	0.6607203	0.4221041		-36.1	30 *
1,2,4-Trimethylbenzene	A	10.0	8.69	1.52027	1.321068		-13.1	30
1,2-Dibromoethane	A	10.0	9.24	0.5731624	0.5298719		-7.6	30
1,2-Dichlorobenzene	A	10.0	8.17	0.9529005	0.7782002		-18.3	30
1,2-Dichloroethane	A	10.0	10.8	1.647525	1.772224		7.6	30
1,2-Dichloropropane	A	10.0	8.09	0.2644825	0.2139312		-19.1	30
1,2-Dichlorotetrafluoroethane	A	10.0	11.4	2.655057	3.022934		13.9	30
1,3,5-Trimethylbenzene	A	10.0	8.99	1.491271	1.340846		-10.1	30
1,3-Butadiene	A	10.0	8.23	0.4907221	0.4040612		-17.7	30
1,3-Dichlorobenzene	A	10.0	8.33	0.9521438	0.7929265		-16.7	30
1,3-Dichloropropane	A	10.0	8.75	0.500202	0.4377096		-12.5	30
1,4-Dichlorobenzene	A	10.0	8.21	0.9541104	0.7832056		-17.9	30
1,4-Dioxane	A	10.0	7.58	0.2366858	0.1793665		-24.2	30
2-Butanone	A	10.0	8.50	1.877054	1.595461		-15.0	30
2-Hexanone	A	10.0	5.75	0.5317352	0.3058063		-42.5	30 *
3-Chloropropene	A	10.0	8.41	1.090371	0.9165837		-15.9	30
4-Methyl-2-pentanone	A	10.0	6.04	0.5611524	0.338866		-39.6	30 *
Acetone	A	10.0	8.09	1.624941	1.313952		-19.1	30
Acrylonitrile	A	10.0	8.60	0.7267274	0.6249856		-14.0	30
Benzene	A	10.0	10.0	3.988265	4.007355		0.5	30
Benzyl chloride	A	10.0	8.09	1.118416	0.9049434		-19.1	30
Bromodichloromethane	A	10.0	9.25	0.5662355	0.5234904		-7.5	30

FORM VII

CONTINUING CALIBRATION CHECK

EPA TO-15

Laboratory: York Analytical Laboratories, Inc.SDG: 22F1033Client: Langan Engineering & Environmental Services (NJ)Project: 100287505Instrument ID: TO15_AIR2Calibration: YD20018Lab File ID: TQ220732.DCalibration Date: 04/19/22 22:46Sequence: Y2F2413Injection Date: 06/23/22Lab Sample ID: Y2F2413-CCV1Injection Time: 03:41

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Bromoform	A	10.0	9.91	0.5589733	0.55404		-0.9	30
Bromomethane	A	10.0	11.8	1.07543	1.267357		17.8	30
Carbon disulfide	A	10.0	10.6	3.255539	3.468478		6.5	30
Carbon tetrachloride	A	10.0	10.4	2.382535	2.52275		5.9	30
Chlorobenzene	A	10.0	9.18	1.052086	0.9659292		-8.2	30
Chloroethane	A	10.0	10.4	0.506012	0.523877		3.5	30
Chloroform	A	10.0	11.2	2.668734	2.998605		12.4	30
Chloromethane	A	10.0	8.22	0.5259801	0.4325853		-17.8	30
cis-1,2-Dichloroethylene	A	10.0	9.60	1.576247	1.513359		-4.0	30
cis-1,3-Dichloropropylene	A	10.0	8.93	0.4575901	0.4084585		-10.7	30
Cyclohexane	A	10.0	9.51	1.625653	1.546279		-4.9	30
Dibromochloromethane	A	10.0	10.4	0.5761676	0.5974072		3.7	30
Dichlorodifluoromethane	A	10.0	11.5	3.200946	3.676141		14.8	30
Ethyl acetate	A	10.0	8.97	1.994603	1.789026		-10.3	30
Ethyl Benzene	A	10.0	9.31	1.603083	1.491957		-6.9	30
Hexachlorobutadiene	A	10.0	6.24	0.6539784	0.3970507		-39.3	30 *
Isopropanol	Q	10.0	9.12	2.707315	1.60133		-8.8	30
Methyl Methacrylate	A	10.0	8.32	0.2877017	0.2393558		-16.8	30
Methyl tert-butyl ether (MTBE)	A	10.0	10.6	3.477153	3.675739		5.7	30
Methylene chloride	A	10.0	8.49	1.130144	0.9598998		-15.1	30
n-Heptane	A	10.0	8.72	1.595517	1.391757		-12.8	30
n-Hexane	A	10.0	9.58	1.565854	1.500119		-4.2	30
o-Xylene	A	10.0	9.38	1.265449	1.18645		-6.2	30
p- & m- Xylenes	A	20.0	18.9	1.203784	1.136696		-5.6	30
p-Ethyltoluene	A	10.0	9.03	1.769097	1.597231		-9.7	30
Propylene	A	10.0	7.97	0.4830245	0.3849322		-20.3	30
Styrene	A	10.0	8.89	1.018308	0.9051465		-11.1	30
Tetrachloroethylene	A	10.0	8.51	0.5641022	0.4803092		-14.9	30
Tetrahydrofuran	A	10.0	8.53	1.030652	0.8793586		-14.7	30

FORM VII**CONTINUING CALIBRATION CHECK****EPA TO-15**

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Instrument ID: TO15_AIR2 Calibration: YD20018
Lab File ID: TQ220732.D Calibration Date: 04/19/22 22:46
Sequence: Y2F2413 Injection Date: 06/23/22
Lab Sample ID: Y2F2413-CCV1 Injection Time: 03:41

COMPOUND	TYPE	CONC. (ppbv)		RESPONSE FACTOR			% DIFF / DRIFT	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Toluene	A	10.0	8.83	1.124172	0.9929081		-11.7	30
trans-1,2-Dichloroethylene	A	10.0	10.1	1.574288	1.586919		0.8	30
trans-1,3-Dichloropropylene	A	10.0	9.04	0.412448	0.3726716		-9.6	30
Trichloroethylene	A	10.0	8.69	0.4087366	0.3551623		-13.1	30
Trichlorofluoromethane (Freon 11)	A	10.0	12.2	3.009696	3.679811		22.3	30
Vinyl acetate	A	10.0	8.08	2.227422	1.800195		-19.2	30
Vinyl bromide	A	10.0	11.8	1.142445	1.347165		17.9	30
Vinyl Chloride	A	10.0	8.18	0.727413	0.5948212		-18.2	30

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

* Values outside of QC limits

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220732.D
 Acq On : 23 Jun 2022 3:41 am
 Operator : LLJ
 Sample : SEQ-CCV1
 Misc : QBT02062322A CCV
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 23 04:43:49 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.985	49	554760	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.564	114	3144562	10.00	ppbv	0.02
53) d5-Chlorobenzene	18.824	117	2743461	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1851272	10.32	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	103.20%	
Target Compounds						
						Qvalue
2) Propylene	4.889	42	213545	7.97	ppbv	96
3) Dichlorodifluoromethane	4.973	85	2039376	11.48	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.246	85	1677003	11.39	ppbv	99
5) Chloromethane	5.461	50	239981	8.22	ppbv	98
6) Vinyl Chloride	5.728	62	329983	8.18	ppbv	99
7) 1,3-Butadiene	5.809	54	224157	8.23	ppbv	# 91
8) Bromomethane	6.603	94	703079	11.78	ppbv	# 96
9) Chloroethane	6.783	64	290626	10.35	ppbv	# 94
10) Vinyl Bromide	7.236	106	747353	11.79	ppbv	# 75
11) Trichlorofluoromethane	7.362	101	2041412	12.23	ppbv	99
12) Isopropanol	7.882	45	888354	9.12	ppbv	100
13) Acrolein	7.979	56	204372	8.32	ppbv	# 85
14) Acetone	8.088	43	728928	8.09	ppbv	94
15) Freon-113	8.239	101	1603709	11.68	ppbv	98
16) 1,1-Dichloroethylene	8.458	61	995321	9.81	ppbv	# 82
17) 3-Chloropropene	9.059	41	508484	8.41	ppbv	# 87
18) Methylene Chloride	9.214	49	532514	8.49	ppbv	# 59
19) Acrylonitrile	9.310	53	346717	8.60	ppbv	98
20) Carbon disulfide	9.342	76	1924173	10.65	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.622	73	2039153	10.57	ppbv	91
22) trans-1,2-Dichloroethy...	9.818	61	880359	10.08	ppbv	# 79
23) Hexane	10.111	57	832206	9.58	ppbv	88
24) Vinyl Acetate	10.439	43	998676	8.08	ppbv	# 98
25) 1,1-Dichloroethane	10.480	63	1144240	10.20	ppbv	# 64
26) 2-Butanone	11.098	43	885098	8.50	ppbv	# 76
27) Ethyl Acetate	11.403	43	992480	8.97	ppbv	# 38
28) cis-1,2-Dichloroethylene	11.480	61	839551	9.60	ppbv	# 59
29) Chloroform	11.757	83	1663506	11.24	ppbv	95
30) Tetrahydrofuran	12.078	42	487833	8.53	ppbv	# 69
31) 1,1,1-Trichlorethane	12.493	97	1791098	11.69	ppbv	94
32) Cyclohexane	12.664	56	857814	9.51	ppbv	# 75
33) Carbon Tetrachloride	12.956	117	1399521	10.42	ppbv	# 92
34) 1,2-Dichloroethane	13.033	62	983159	10.76	ppbv	99
35) Benzene	13.162	78	2223120	10.05	ppbv	# 81
36) n-Heptane	13.181	43	772091	8.72	ppbv	# 90
38) Trichloroethylene	14.194	95	1116830	8.69	ppbv	95
39) 1,2-Dichloropropane	14.422	63	672720	8.09	ppbv	86
40) Methyl Methacrylate	14.438	69	752669	8.32	ppbv	# 90
41) 1,4-Dioxane	14.750	88	564029	7.58	ppbv	# 100
42) Bromodichloromethane	14.789	83	1646148	9.25	ppbv	95
43) Methyl Isobutyl Ketone	15.326	43	1065585	6.04	ppbv	# 82
44) cis-1,3-Dichloropropene	15.676	75	1284423	8.93	ppbv	94
45) Toluene	16.332	91	3122261	8.83	ppbv	99
46) trans-1,3-Dichloropropene	16.490	75	1171889	9.04	ppbv	94
47) 1,1,2-Trichlorethane	16.786	97	1050505	9.17	ppbv	91
48) 2-Hexanone	16.798	43	961627	5.75	ppbv	# 92
49) 1,3-Dichloropropane	17.210	76	1376405	8.75	ppbv	90

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220732.D
 Acq On : 23 Jun 2022 3:41 am
 Operator : LLJ
 Sample : SEQ-CCV1
 Misc : QBT02062322A CCV
 ALS Vial : 93 Sample Multiplier: 1
 InstName : T015_AIR2

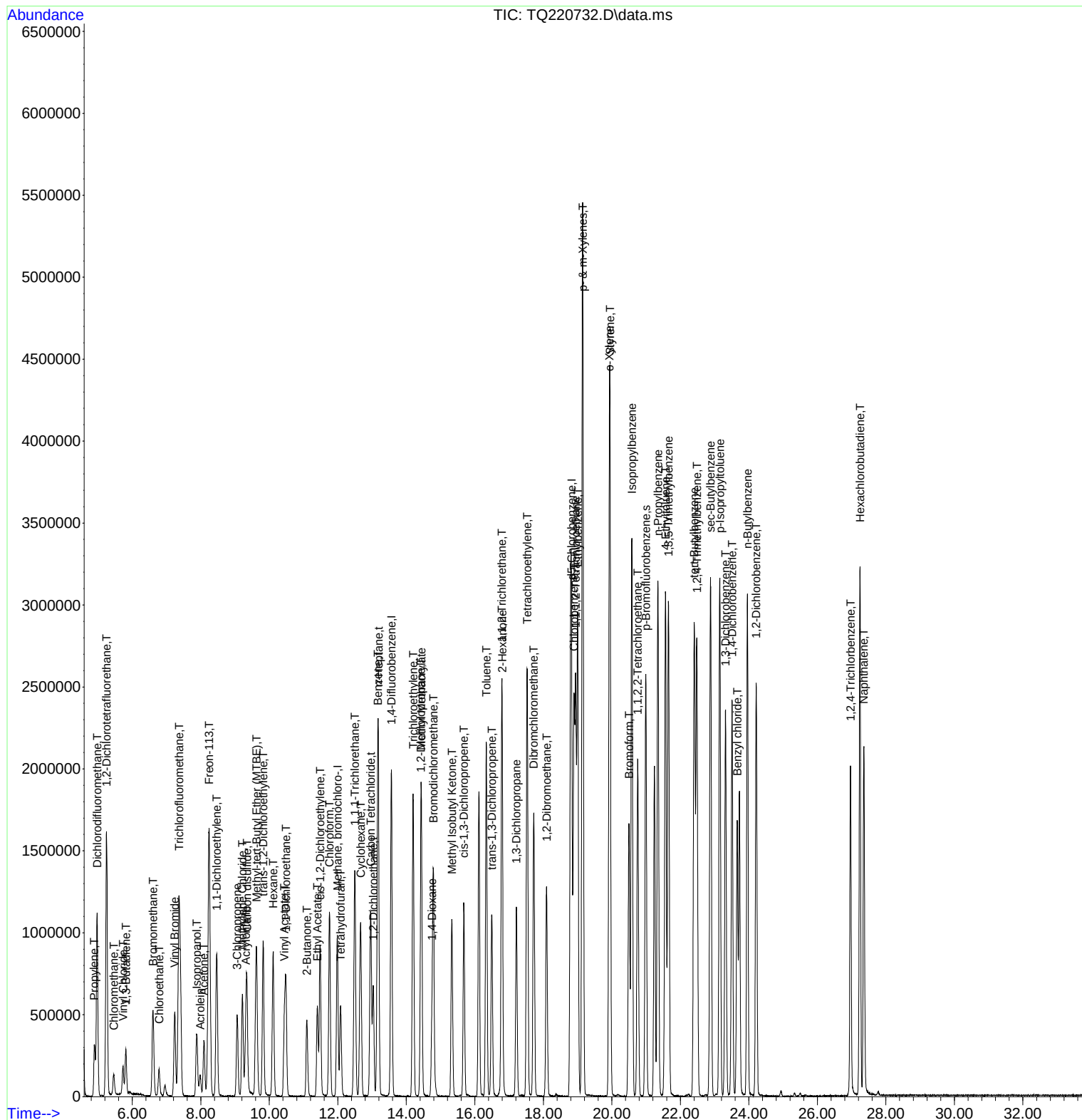
Quant Time: Jun 23 04:43:49 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.525	166	1510362	8.51	ppbv	98
51) Dibromchloromethane	17.718	129	1878584	10.37	ppbv	99
52) 1,2-Dibromoethane	18.094	107	1666215	9.24	ppbv	99
54) Chlorobenzene	18.892	112	2649989	9.18	ppbv #	100
55) 1,1,1,2-Tetrachloroethane	18.940	131	1393517	9.72	ppbv	93
56) Ethylbenzene	18.998	91	4093126	9.31	ppbv	96
57) p- & m-Xylenes	19.146	91	6236962	18.89	ppbv	98
58) o-Xylene	19.927	91	3254979	9.38	ppbv	99
59) Styrene	19.943	104	2483234	8.89	ppbv #	100
60) Bromoform	20.499	173	1519987	9.91	ppbv	100
61) n-Propylbenzene	21.345	91	5193207	9.25	ppbv	98
62) Isopropylbenzene	20.583	105	4663077	9.48	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.753	83	2047372	8.65	ppbv	98
65) 4-Ethyltoluene	21.567	105	4381941	9.03	ppbv	98
66) 1,3,5-Trimethylbenzene	21.650	105	3678560	8.99	ppbv	97
67) tert-Butylbenzene	22.403	119	3938144	8.72	ppbv #	89
68) 1,2,4-Trimethylbenzene	22.480	105	3624298	8.69	ppbv #	83
69) sec-Butylbenzene	22.879	105	5038936	8.40	ppbv #	96
70) p-Isopropyltoluene	23.152	119	4094557	8.11	ppbv #	88
71) 1,3-Dichlorobenzene	23.316	146	2175363	8.33	ppbv	97
72) 1,4-Dichlorobenzene	23.509	146	2148694	8.21	ppbv	98
73) Benzyl chloride	23.660	91	2482677	8.09	ppbv	95
74) n-Butylbenzene	23.956	91	3350043	7.48	ppbv	99
75) 1,2-Dichlorobenzene	24.213	146	2134962	8.17	ppbv	98
76) 1,2,4-Trichlorobenzene	26.968	180	1158026	6.39	ppbv	98
77) Hexachlorobutadiene	27.242	225	1089293	6.24	ppbv	99
78) Naphthalene	27.354	128	3321476	6.15	ppbv	100

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220732.D
Acq On : 23 Jun 2022 3:41 am
Operator : LLJ
Sample : SEQ-CCV1
Misc : QBT02062322A CCV
ALS Vial : 93 Sample Multiplier: 1
InstName : T015_AIR2

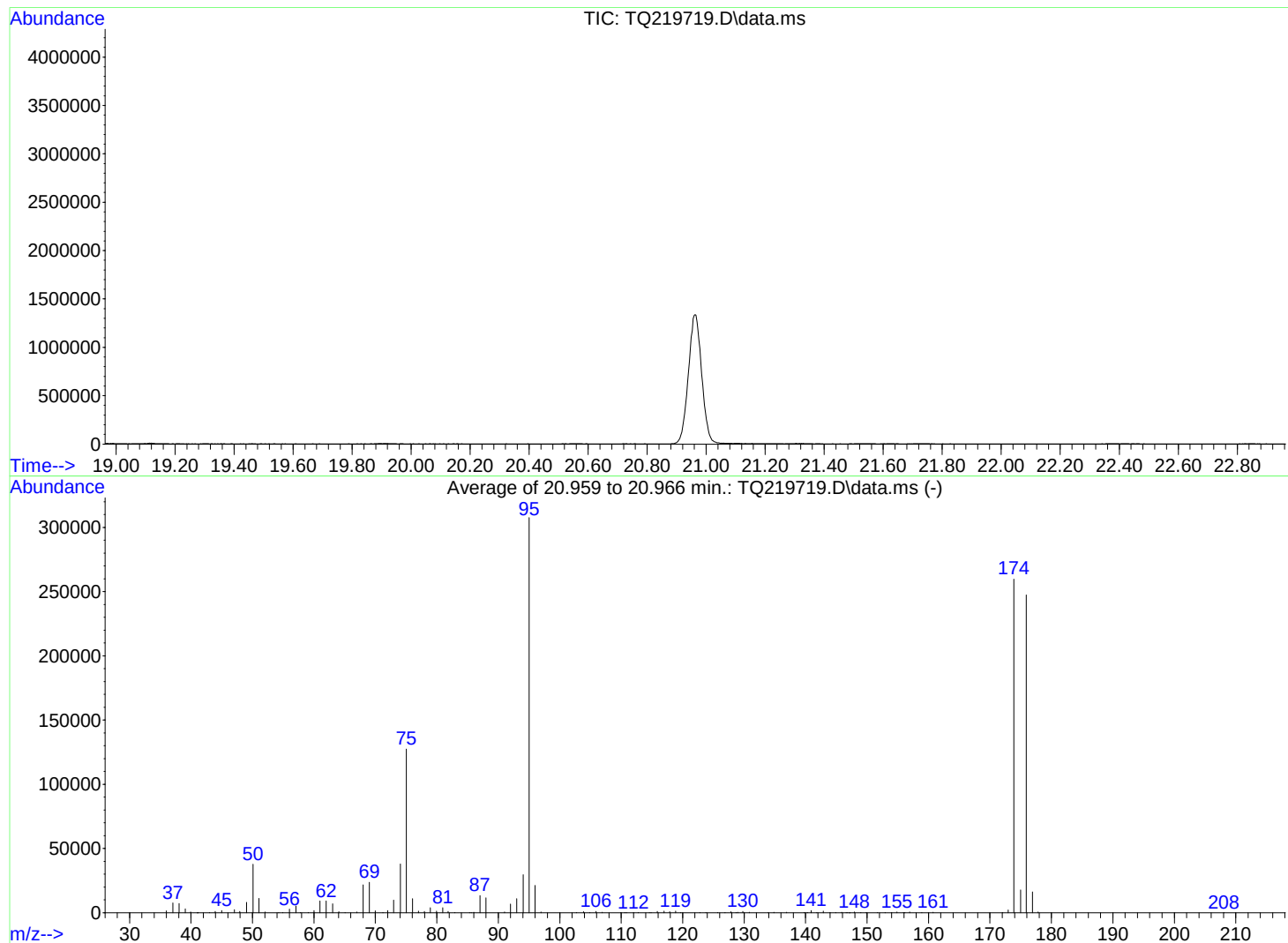
Quant Time: Jun 23 04:43:49 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration



Data Path : C:\msdchem\1\data\041922-ICAL-AIR-VPH\
 Data File : TQ219719.D
 Acq On : 19 Apr 2022 10:46 pm
 Operator : AS
 Sample : SEQ-TUN1
 Misc : QBT02041922A TUNE
 ALS Vial : 1 Sample Multiplier: 1
 InstName : T015_AIR2

Integration File: rteint1.p

Method : C:\msdchem\1\methods\AIRVPH_Sys2-11.M
 Title : VPH Method
 Last Update : Wed Jan 05 15:06:37 2022



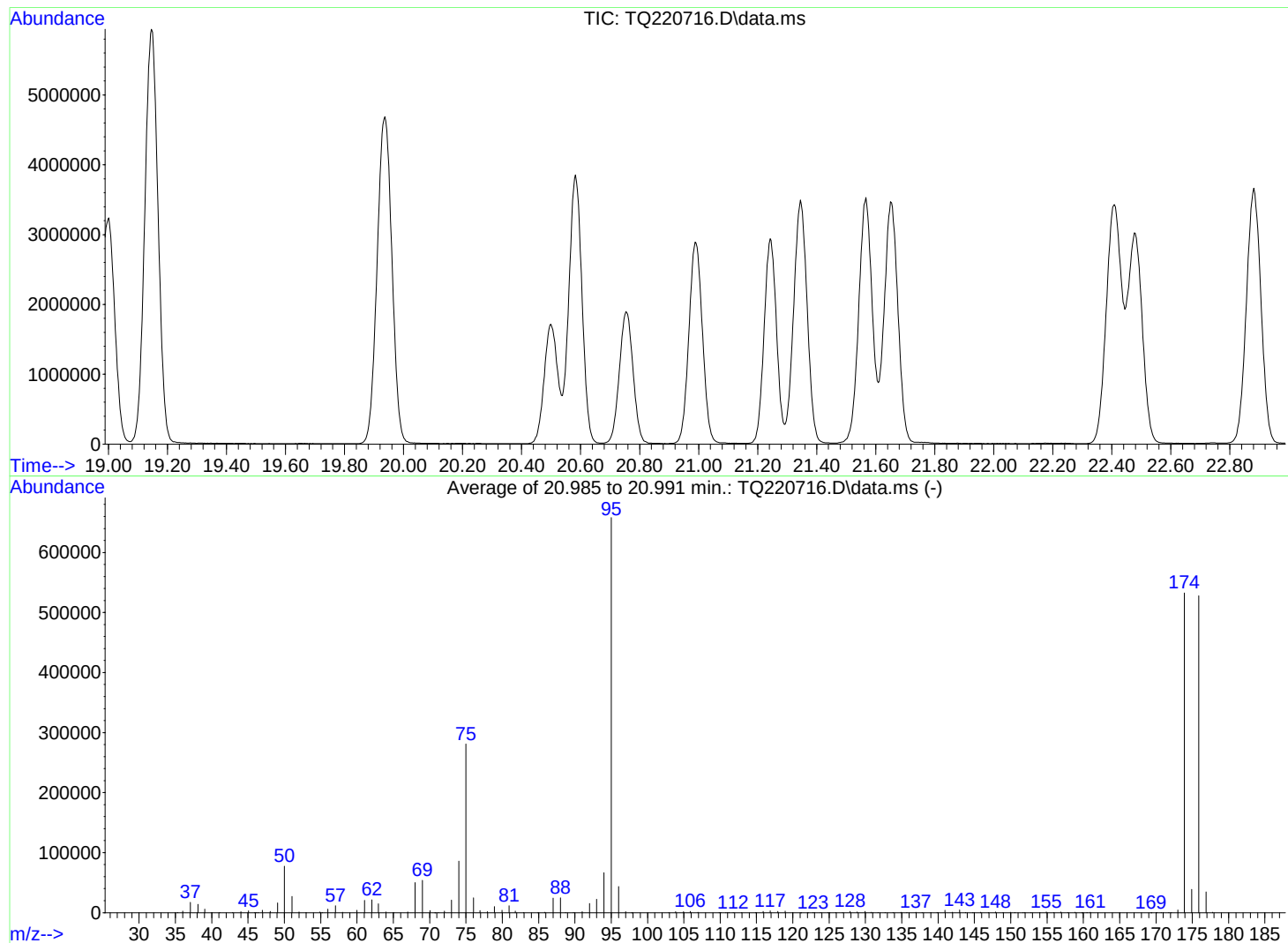
Spectrum Information: Average of 20.959 to 20.966 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	10	40	12.3	37819	PASS
75	95	30	80	41.4	127437	PASS
95	95	100	100	100.0	307797	PASS
96	95	5	9	6.9	21165	PASS
173	174	0.00	2	0.8	2045	PASS
174	95	40	100	84.4	259883	PASS
175	174	3	10	6.8	17741	PASS
176	174	92	110	95.2	247509	PASS
177	176	5	9	6.5	16196	PASS

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220716.D
 Acq On : 22 Jun 2022 5:53 am
 Operator : AS
 Sample : SEQ-TUN1
 Misc : QBT02062222A TUNE
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Integration File: rteint.p

Method : C:\msdchem\1\methods\AIR-2-0057.M
 Title : T015 VOC Analysis
 Last Update : Thu May 05 10:30:04 2022



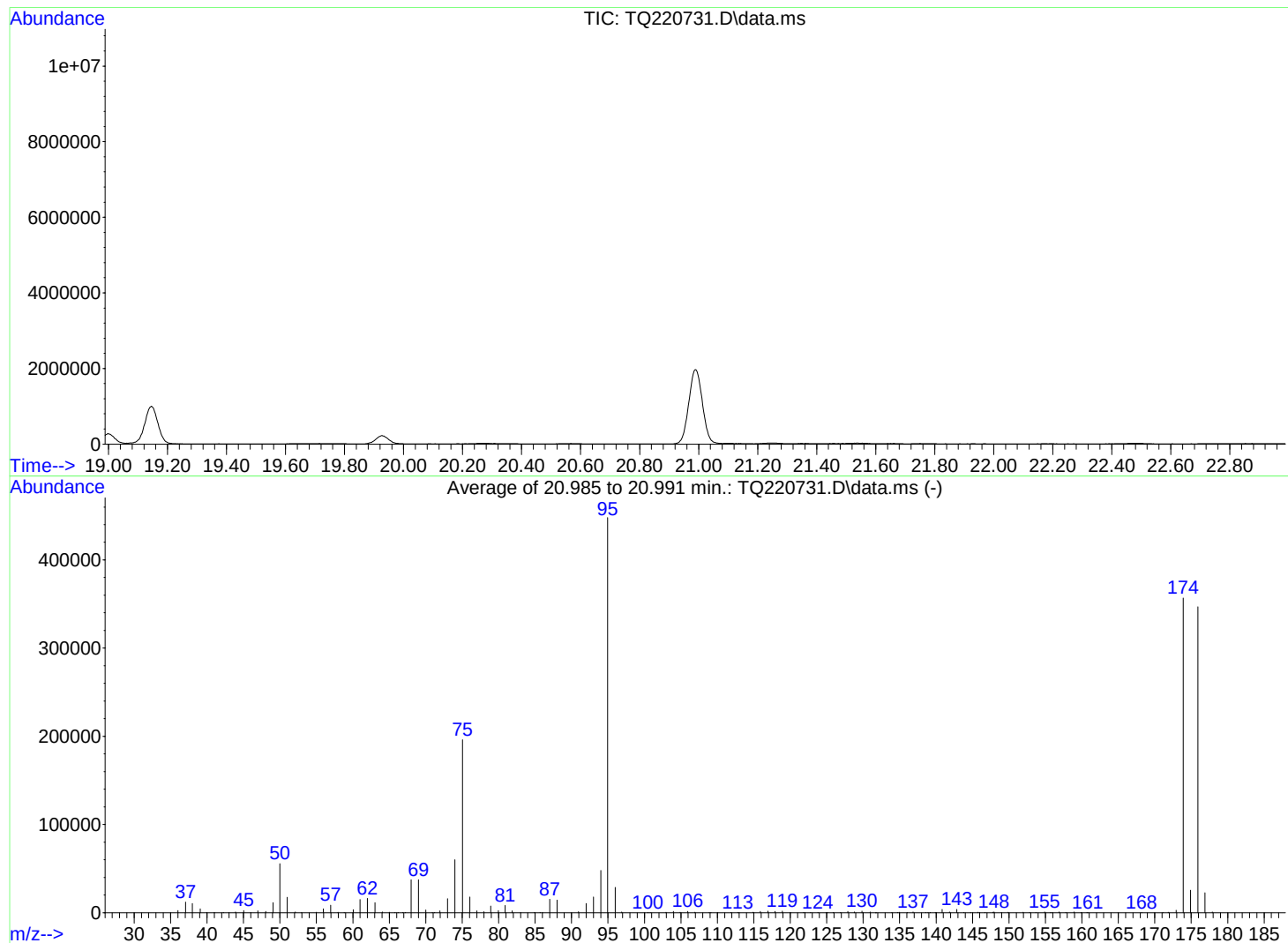
AutoFind: Scans 5100, 5101, 5102; Background Corrected with Scan 5072

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	11.8	77376	PASS
75	95	30	66	42.7	281045	PASS
95	95	100	100	100.0	658367	PASS
96	95	5	9	6.6	43379	PASS
173	174	0.00	2	0.9	4569	PASS
174	95	50	120	80.9	532800	PASS
175	174	4	9	7.3	38889	PASS
176	174	93	101	99.1	527765	PASS
177	176	5	9	6.5	34387	PASS

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220731.D
 Acq On : 23 Jun 2022 2:44 am
 Operator : LLJ
 Sample : SEQ-TUN1
 Misc : QBT02062322A TUNE
 ALS Vial : 8 Sample Multiplier: 1
 InstName : T015_AIR2

Integration File: rteint.p

Method : C:\msdchem\1\methods\AIR-2-0057.M
 Title : T015 VOC Analysis
 Last Update : Thu May 05 10:30:04 2022



AutoFind: Scans 5100, 5101, 5102; Background Corrected with Scan 5071

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	12.4	55456	PASS
75	95	30	66	43.7	195925	PASS
95	95	100	100	100.0	448163	PASS
96	95	5	9	6.4	28793	PASS
173	174	0.00	2	0.7	2662	PASS
174	95	50	120	79.6	356907	PASS
175	174	4	9	7.2	25528	PASS
176	174	93	101	97.2	346965	PASS
177	176	5	9	6.5	22717	PASS

METHOD BLANK RAW DATA

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Air Laboratory ID: BF21412-BLK1 File ID: TQ220720.D
 Prepared: 06/22/22 03:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Analyzed: 06/22/22 09:55 Instrument: TO15_AIR2
 Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018

CAS NO.	COMPOUND	CONC. (ug/m³)	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	J
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. SDG: 22F1033
 Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
 Matrix: Air Laboratory ID: BF21412-BLK1 File ID: TQ220720.D
 Prepared: 06/22/22 03:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
 Analyzed: 06/22/22 09:55 Instrument: TO15_AIR2
 Batch: BF21412 Sequence: Y2F2411 Calibration: YD20018

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
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
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET
EPA TO-15

Laboratory:

York Analytical Laboratories, Inc.

SDG:

22F1033

Client:

Langan Engineering & Environmental Services (NJ)

Project:

100287505

Matrix:

Air

Laboratory ID:

BF21412-BLK1

File ID:

TQ220720.D

Prepared:

06/22/22 03:00

Preparation:

EPA TO15 PREP

Initial/Final:

400 mL / 400 mL

Analyzed:

06/22/22 09:55

Instrument:

TO15_AIR2

Batch:

BF21412

Sequence:

Y2F2411

Calibration:

YD20018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
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	557287	11.985	679348	11.979	
ISTD: 1,4-Difluorobenzene	3071204	13.557	3753147	13.558	
ISTD: d5-Chlorobenzene	2595772	18.827	3277670	18.824	

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220720.D
 Acq On : 22 Jun 2022 9:55 am
 Operator : AS
 Sample : BF21412-BLK1
 Misc : QBT02062222A BLK
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 22 18:30:45 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

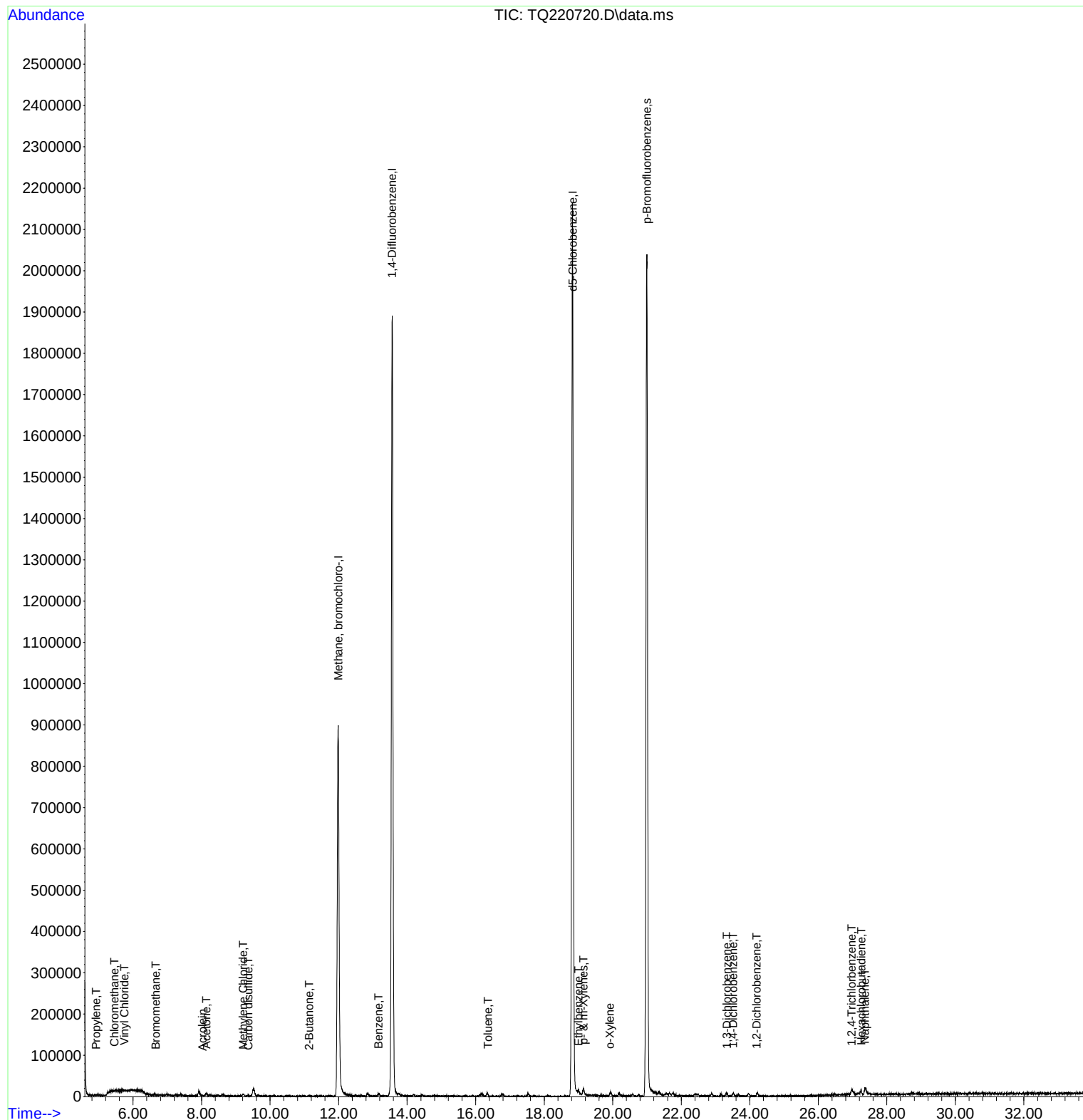
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

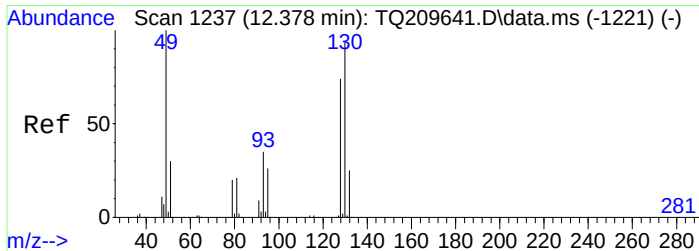
Internal Standards						
1) Methane, bromochloro-	11.985	49	557287	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.557	114	3071204	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.827	117	2595772	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1521555	8.96	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	89.60%	
Target Compounds						
						Qvalue
2) Propylene	4.918	42	825m	0.03	ppbv	
5) Chloromethane	5.452	50	996	0.03	ppbv	# 49
6) Vinyl Chloride	5.747	62	1032m	0.03	ppbv	
8) Bromomethane	6.654	94	2599m	0.04	ppbv	
12) Isopropanol	7.918	45	20545m	Below Cal		
13) Acrolein	8.017	56	498m	0.02	ppbv	
14) Acetone	8.133	43	10902m	0.12	ppbv	
18) Methylene Chloride	9.214	49	3763m	0.06	ppbv	
20) Carbon disulfide	9.358	76	5535m	0.03	ppbv	
26) 2-Butanone	11.133	43	3686m	0.04	ppbv	
35) Benzene	13.159	78	7526m	0.03	ppbv	
45) Toluene	16.352	91	11272m	0.03	ppbv	
56) Ethylbenzene	18.991	91	10261m	0.02	ppbv	
57) p- & m-Xylenes	19.142	91	16150m	0.05	ppbv	
58) o-Xylene	19.914	91	6855m	0.02	ppbv	
71) 1,3-Dichlorobenzene	23.329	146	6625m	0.03	ppbv	
72) 1,4-Dichlorobenzene	23.509	146	7607m	0.03	ppbv	
75) 1,2-Dichlorobenzene	24.197	146	7299m	0.03	ppbv	
76) 1,2,4-Trichlorobenzene	26.965	180	11704m	0.07	ppbv	
77) Hexachlorobutadiene	27.255	225	4415m	0.03	ppbv	
78) Naphthalene	27.361	128	37167m	0.07	ppbv	

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

Data Path : C:\msdchem\1\data\062222\
Data File : TQ220720.D
Acq On : 22 Jun 2022 9:55 am
Operator : AS
Sample : BF21412-BLK1
Misc : QBT02062222A BLK
ALS Vial : 92 Sample Multiplier: 1
InstName : T015_AIR2

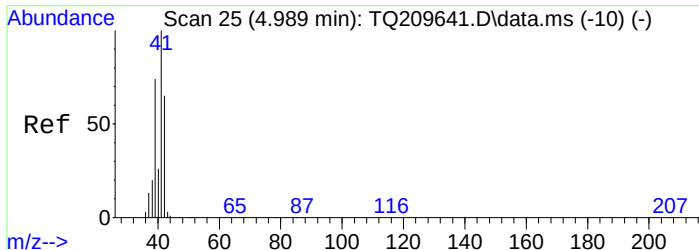
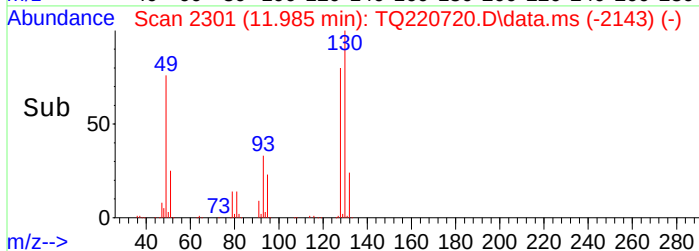
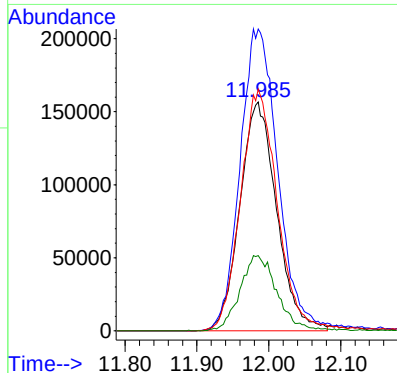
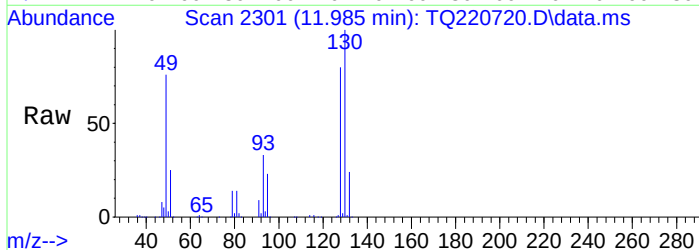
Quant Time: Jun 22 18:30:45 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





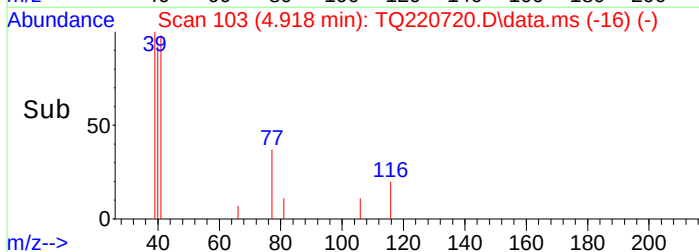
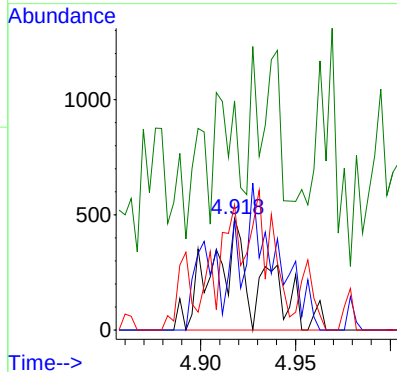
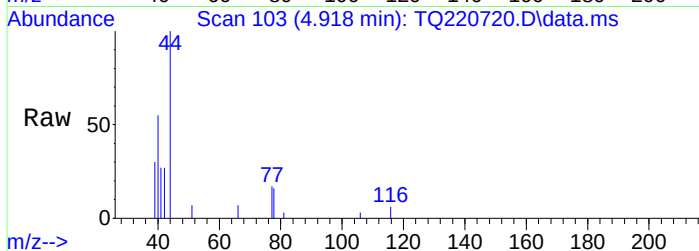
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.985 min Scan# 2301
Delta R.T. 0.009 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

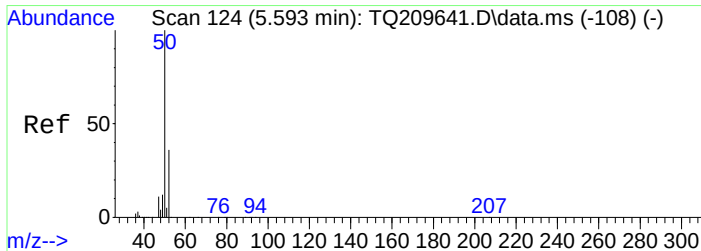
Tgt Ion	Ratio	Lower	Upper
49	100		
130	135.8	48.1	99.9#
128	105.9	38.3	79.5#
51	32.6	20.3	42.3



#2
Propylene
Concen: 0.03 ppbv m
RT: 4.918 min Scan# 103
Delta R.T. 0.029 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

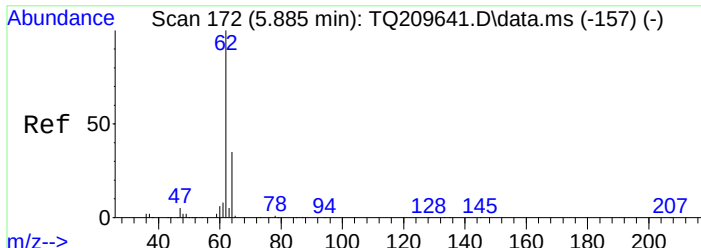
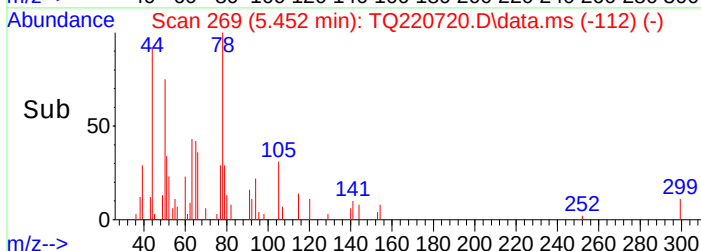
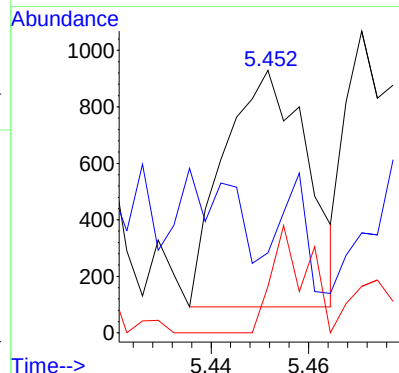
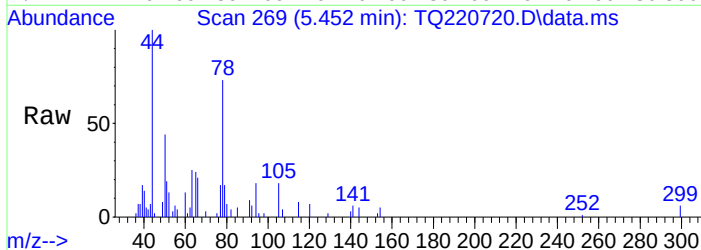
Tgt Ion	Ratio	Lower	Upper
42	100		
41	0.0	90.7	211.7#
39	0.0	54.1	162.3#
40	0.0	18.7	56.1#





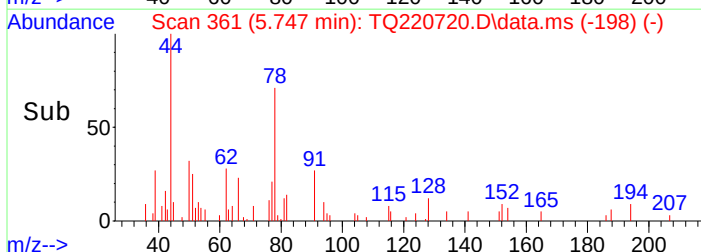
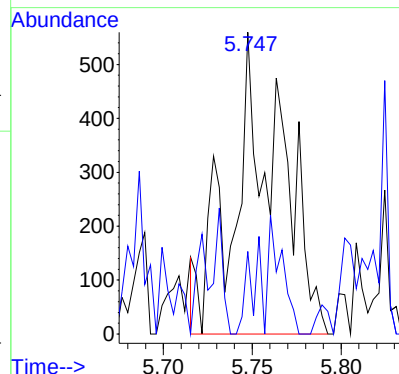
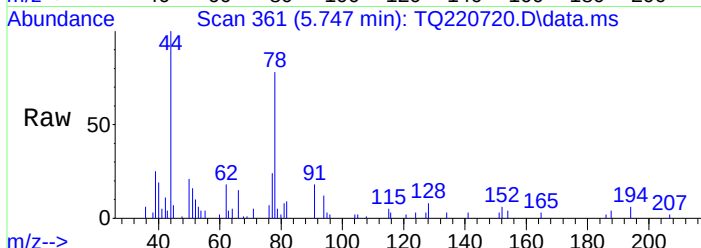
#5
Chloromethane
Concen: 0.03 ppbv
RT: 5.452 min Scan# 269
Delta R.T. 0.004 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

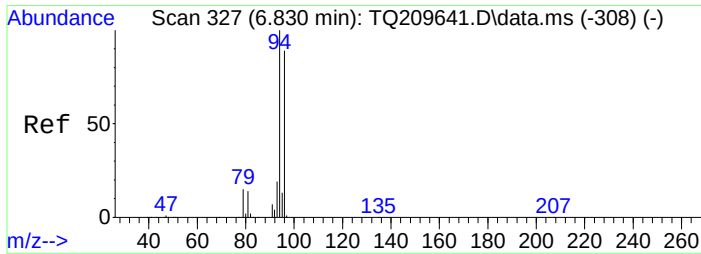
Tgt Ion	Ratio	Lower	Upper
50	100		
52	0.0	0.0	65.2
49	0.0	0.0	19.6



#6
Vinyl Chloride
Concen: 0.03 ppbv m
RT: 5.747 min Scan# 361
Delta R.T. 0.025 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

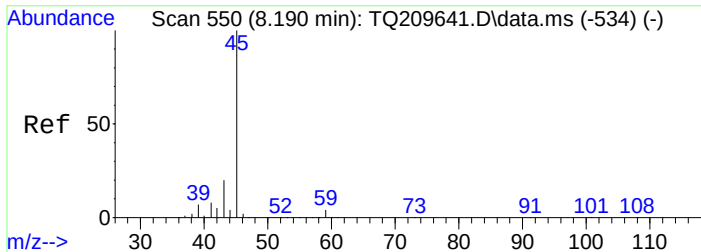
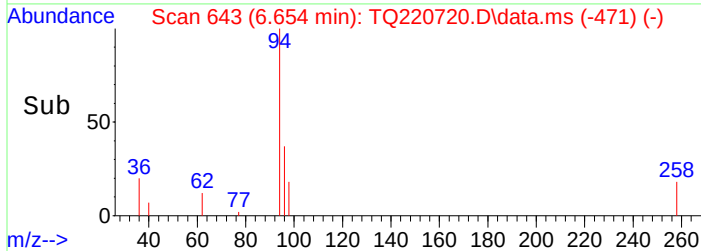
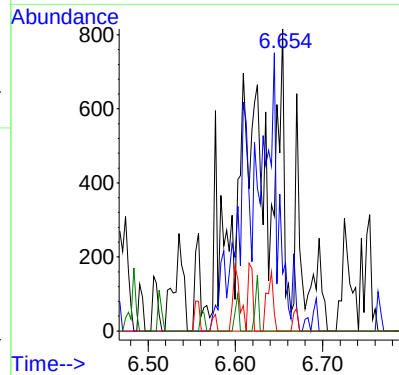
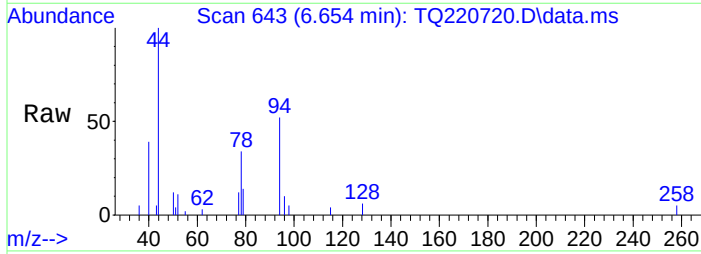
Tgt Ion	Ratio	Lower	Upper
62	100		
64	0.0	20.8	43.2#





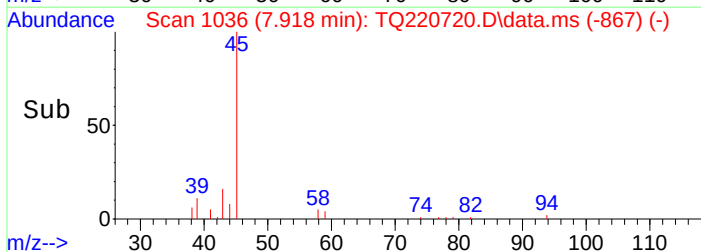
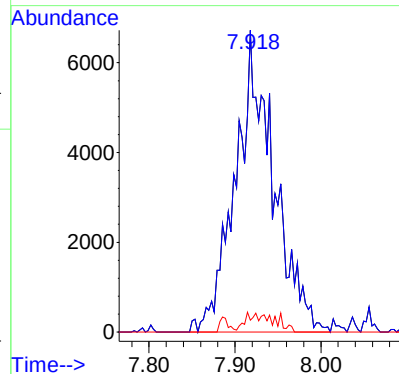
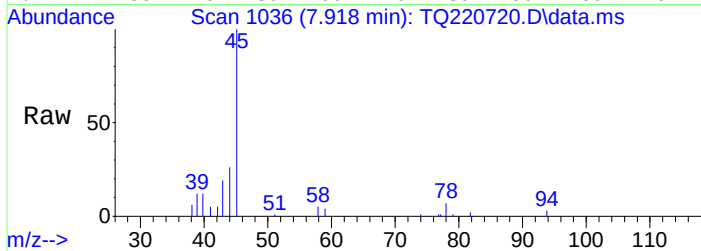
#8
Bromomethane
Concen: 0.04 ppbv m
RT: 6.654 min Scan# 643
Delta R.T. 0.054 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

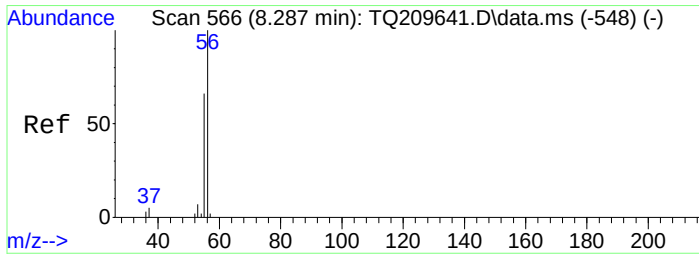
Tgt Ion:	94	Resp:	2599
Ion Ratio	Lower	Upper	
94	100		
96	0.0	61.2	127.0#
93	0.0	13.1	27.3#
95	0.0	8.8	18.2#



#12
Isopropanol
Concen: Below Cal m
RT: 7.918 min Scan# 1036
Delta R.T. 0.045 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

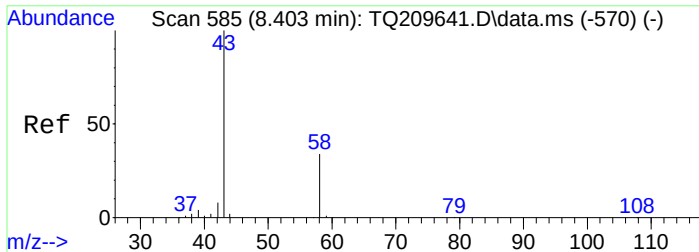
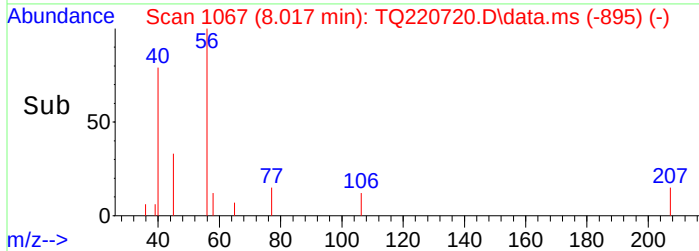
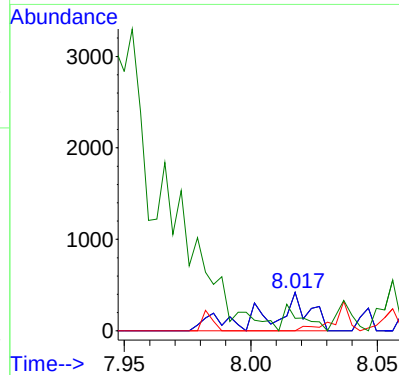
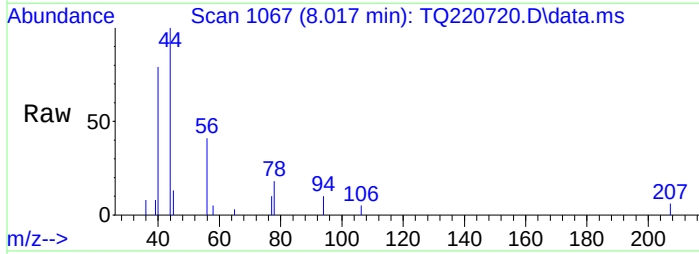
Tgt Ion:	45	Resp:	20545
Ion Ratio	Lower	Upper	
45	100		
45	83.7	65.0	135.0
59	0.0	0.0	10.0





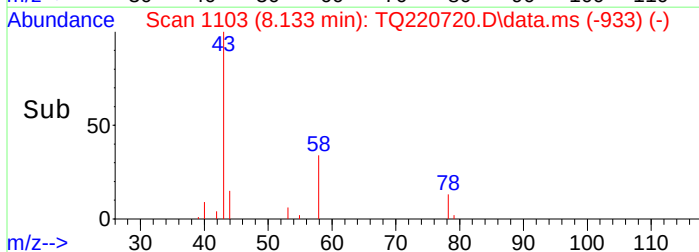
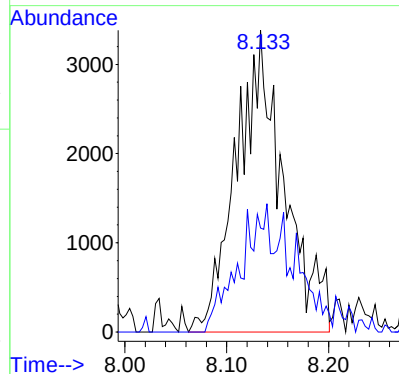
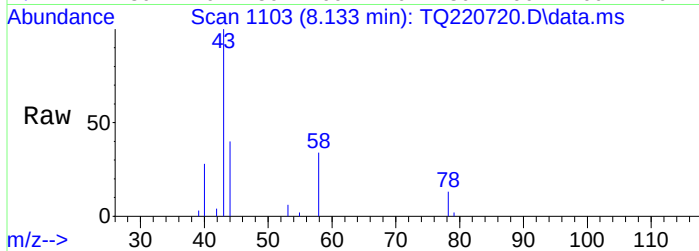
#13
Acrolein
Concen: 0.02 ppbv m
RT: 8.017 min Scan# 1067
Delta R.T. 0.051 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

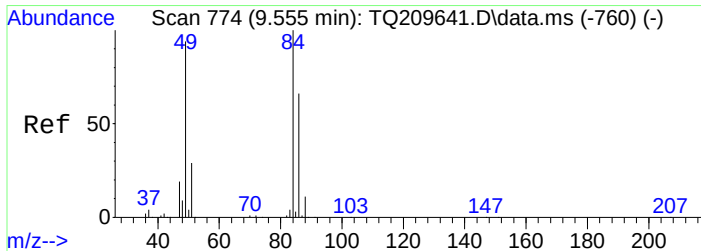
Tgt Ion:	56	Resp:	498
Ion Ratio	Lower	Upper	
56	100		
56	0.0	80.0	120.0#
55	0.0	40.0	120.0#
45	0.0	17.5	52.5#



#14
Acetone
Concen: 0.12 ppbv m
RT: 8.133 min Scan# 1103
Delta R.T. 0.048 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

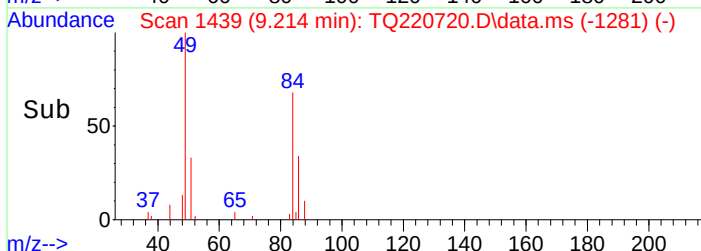
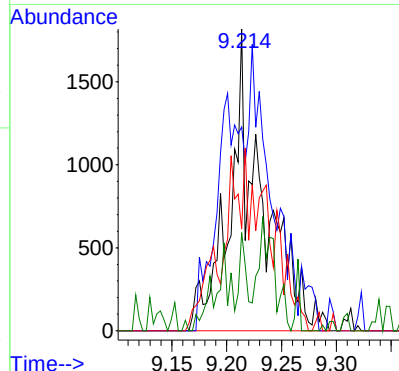
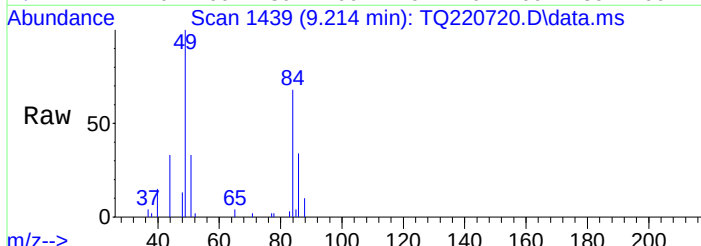
Tgt Ion:	43	Resp:	10902
Ion Ratio	Lower	Upper	
43	100		
58	15.7	20.9	43.3#





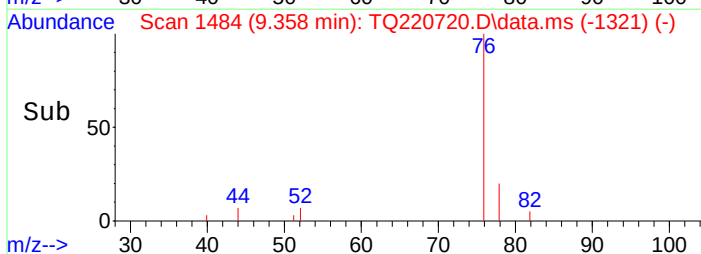
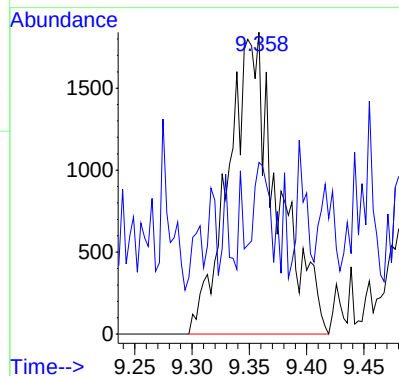
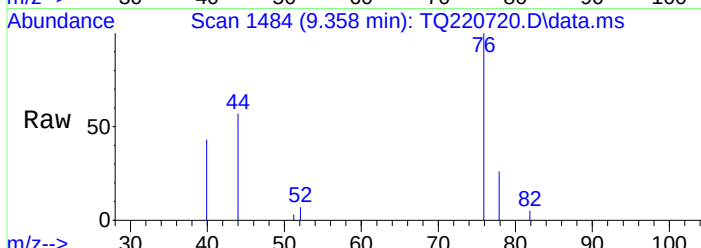
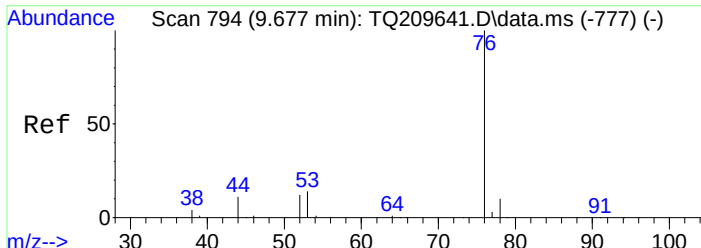
#18
Methylene Chloride
Concen: 0.06 ppbv m
RT: 9.214 min Scan# 1439
Delta R.T. 0.007 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

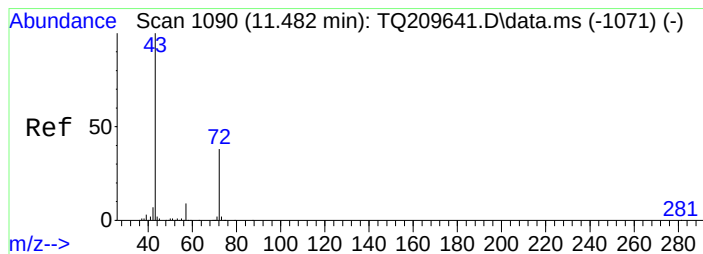
Tgt Ion:	49	Resp:	3763
Ion Ratio	Lower	Upper	
49	100		
84	63.7	49.9	103.5
86	13.4	31.8	66.0#
51	0.0	20.2	41.9#



#20
Carbon disulfide
Concen: 0.03 ppbv m
RT: 9.358 min Scan# 1484
Delta R.T. 0.025 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

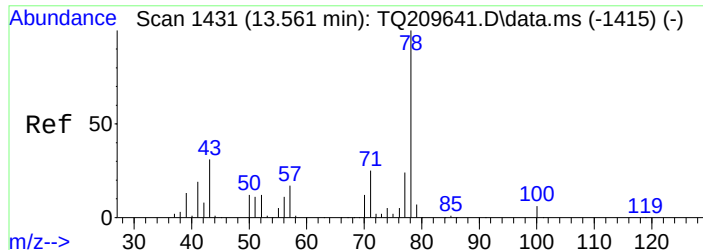
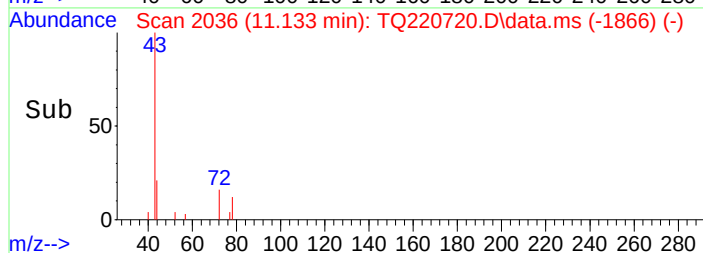
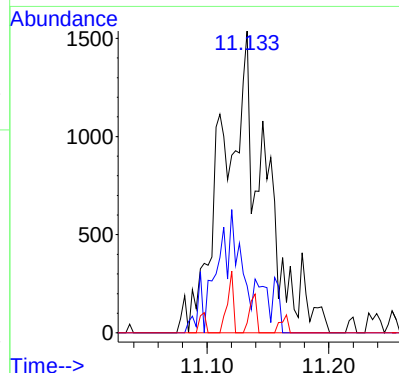
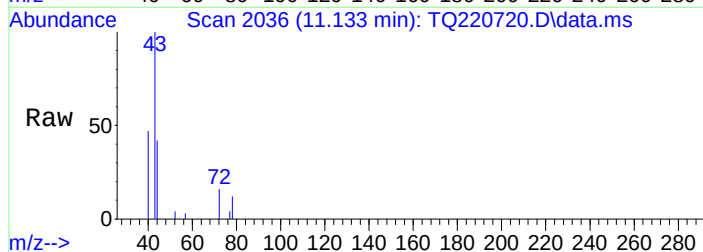
Tgt Ion:	76	Resp:	5535
Ion Ratio	Lower	Upper	
76	100		
44	9.3	8.3	17.3





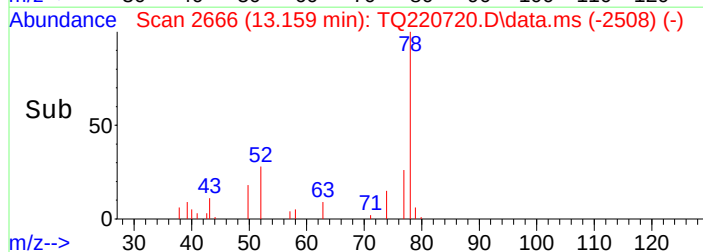
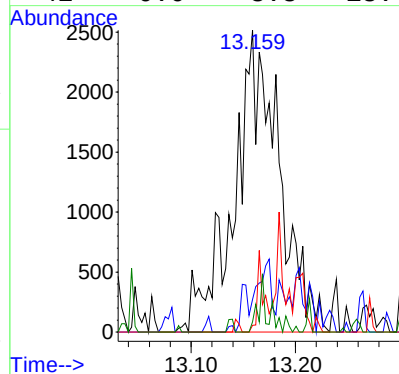
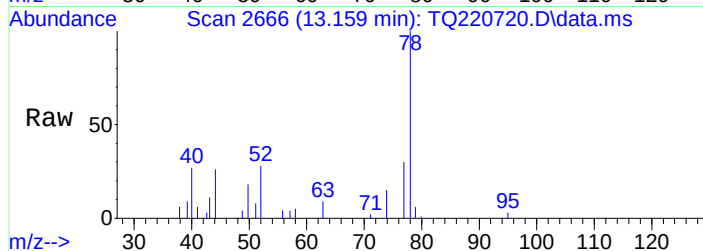
#26
2-Butanone
Concen: 0.04 ppbv m
RT: 11.133 min Scan# 2036
Delta R.T. 0.045 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

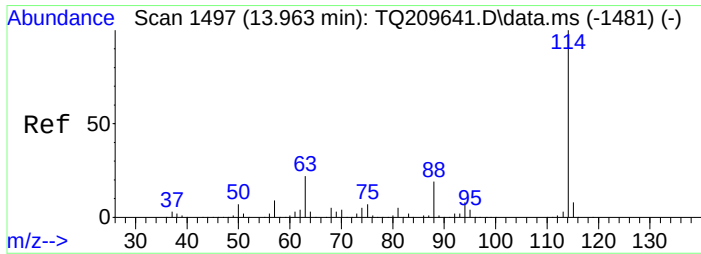
Tgt Ion:	43	Resp:	3686
Ion Ratio	Lower	Upper	
43	100		
72	0.0	16.1	33.5#
57	0.0	4.9	10.3#



#35
Benzene
Concen: 0.03 ppbv m
RT: 13.159 min Scan# 2666
Delta R.T. 0.007 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

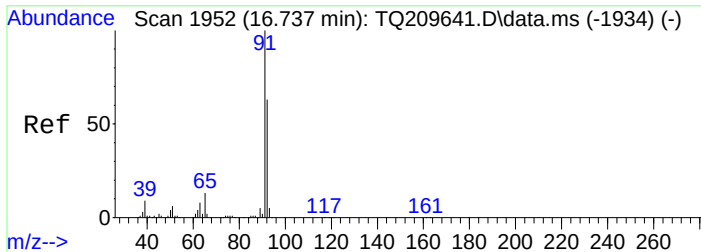
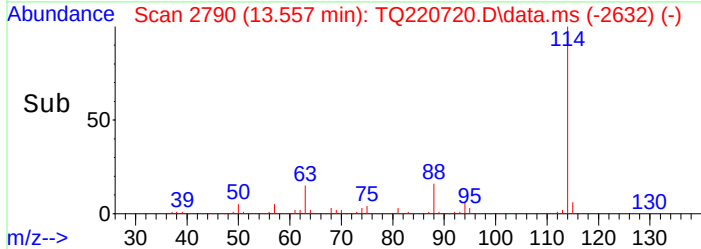
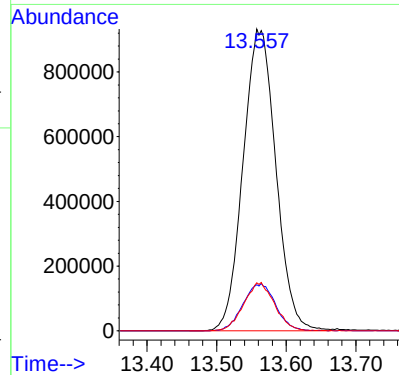
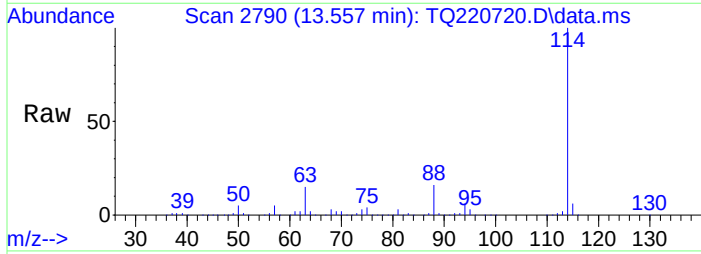
Tgt Ion:	78	Resp:	7526
Ion Ratio	Lower	Upper	
78	100		
43	0.0	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#





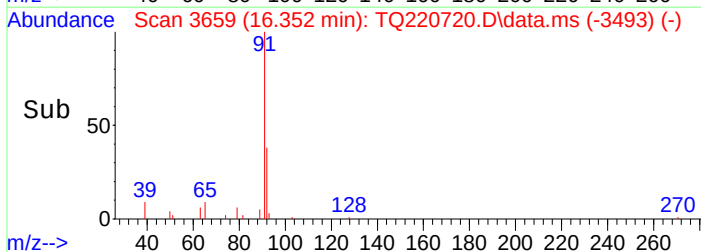
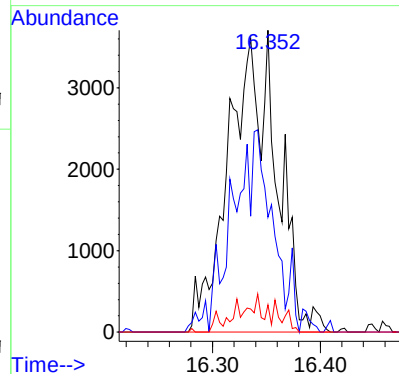
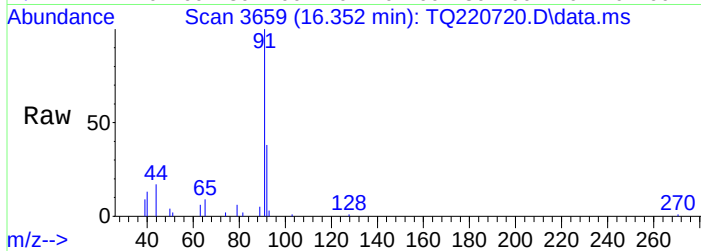
#37
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 13.557 min Scan# 2790
 Delta R.T. 0.009 min
 Lab File: TQ220720.D
 Acq: 22 Jun 2022 9:55 am

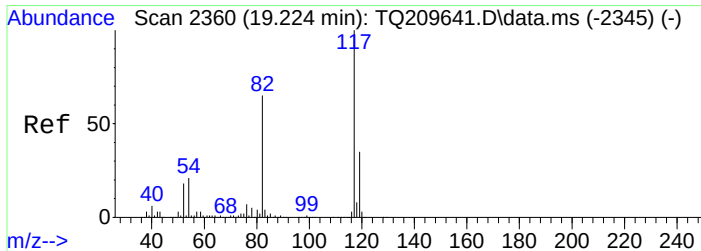
Tgt Ion:	114	Resp:	3071204
Ion Ratio	Lower	Upper	
114	100		
63	15.6	12.9	26.9
88	15.1	10.7	22.3



#45
 Toluene
 Concen: 0.03 ppbv m
 RT: 16.352 min Scan# 3659
 Delta R.T. 0.033 min
 Lab File: TQ220720.D
 Acq: 22 Jun 2022 9:55 am

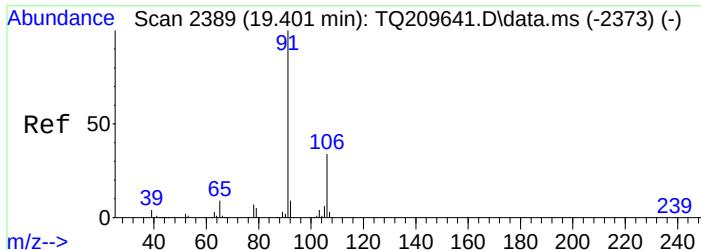
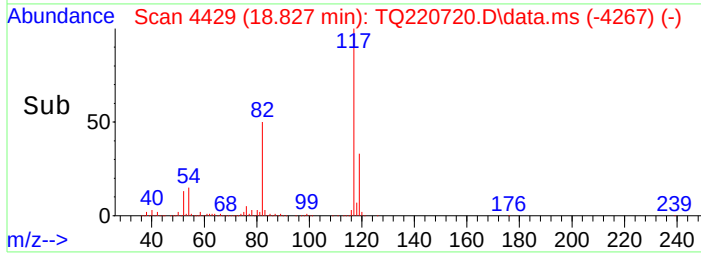
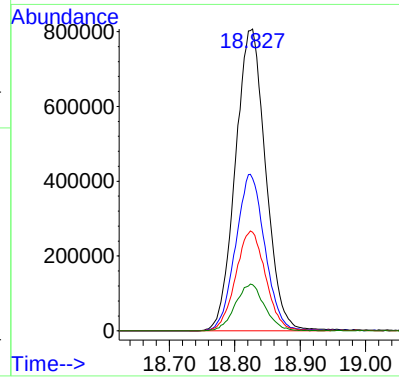
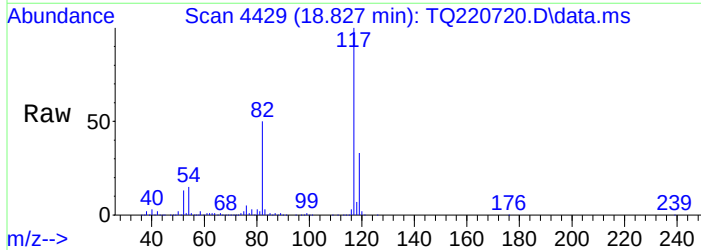
Tgt Ion:	91	Resp:	11272
Ion Ratio	Lower	Upper	
91	100		
92	10.0	38.7	80.3#
65	0.0	7.5	15.5#





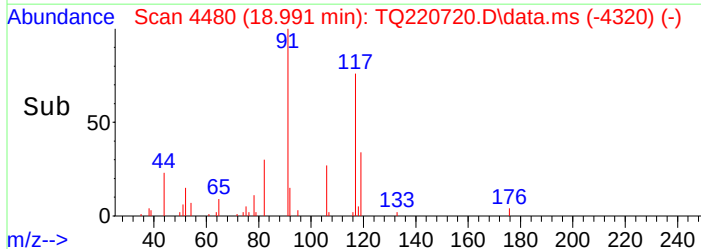
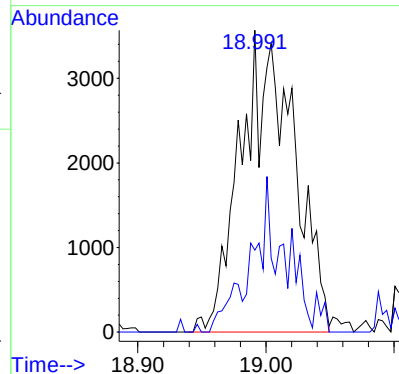
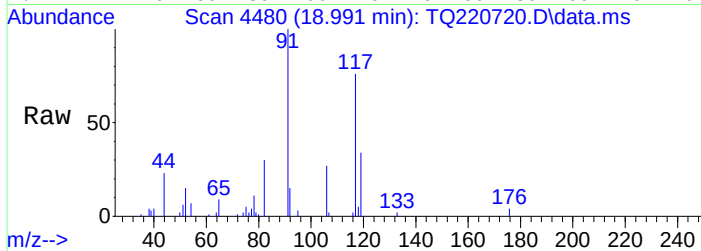
#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.827 min Scan# 4429
Delta R.T. 0.022 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

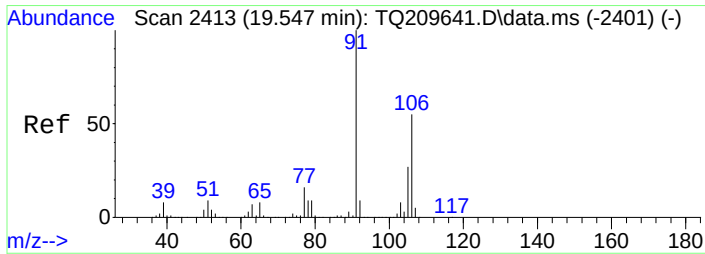
Tgt Ion:	117	Resp:	2595772
Ion Ratio	Lower	Upper	
117	100		
82	50.2	37.1	77.1
119	32.6	22.1	45.9
54	15.0	13.8	28.6



#56
Ethylbenzene
Concen: 0.02 ppbv m
RT: 18.991 min Scan# 4480
Delta R.T. 0.013 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

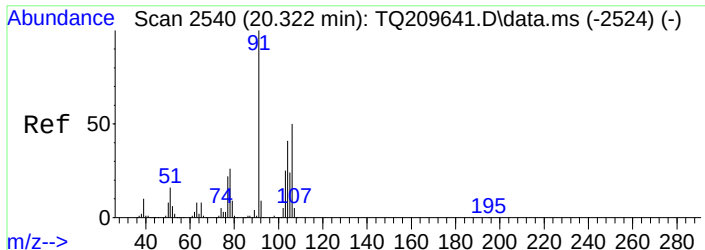
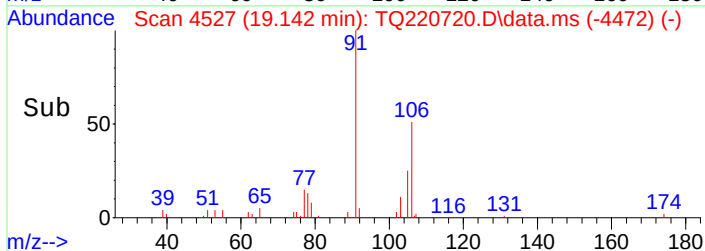
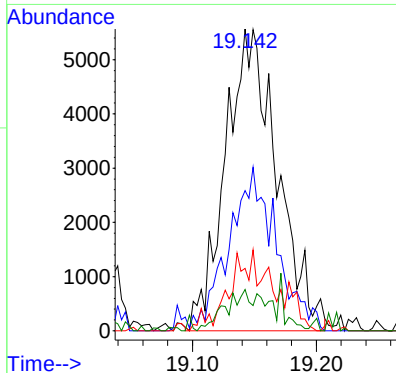
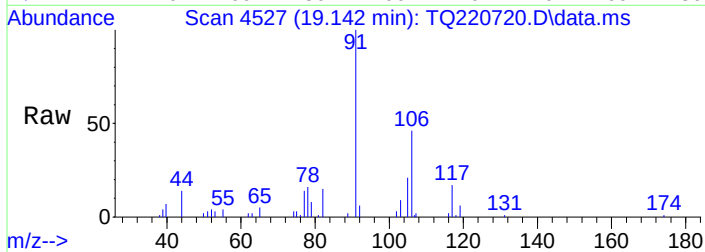
Tgt Ion:	91	Resp:	10261
Ion Ratio	Lower	Upper	
91	100		
106	0.0	20.5	42.7#





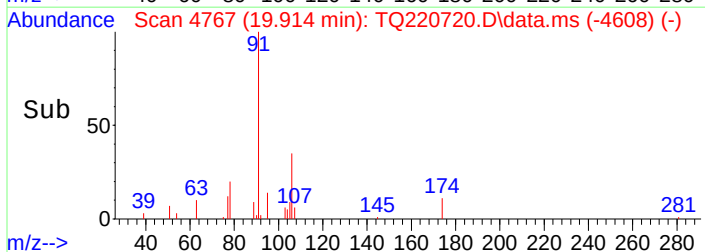
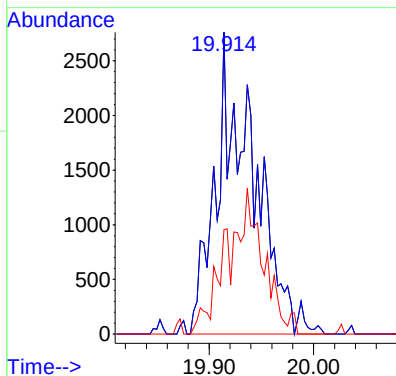
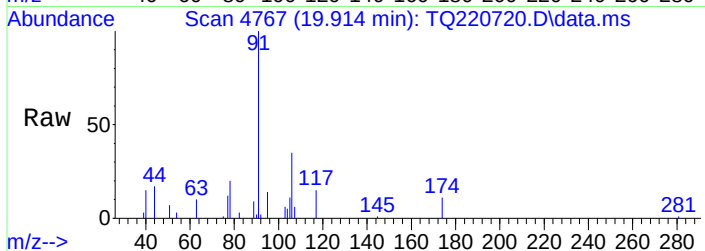
#57
p- & m-Xylenes
Concen: 0.05 ppbv m
RT: 19.142 min Scan# 4527
Delta R.T. 0.016 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

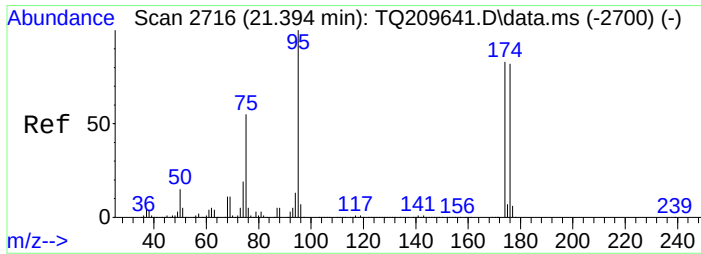
Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	32.6	67.8#
105	0.0	14.5	30.1#
77	0.0	8.5	17.7#



#58
o-Xylene
Concen: 0.02 ppbv m
RT: 19.914 min Scan# 4767
Delta R.T. 0.010 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

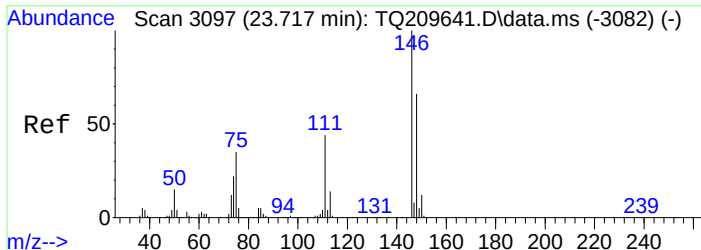
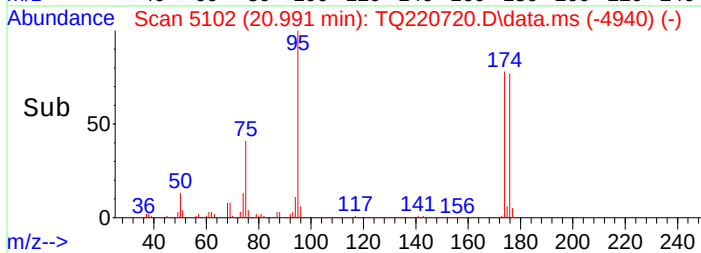
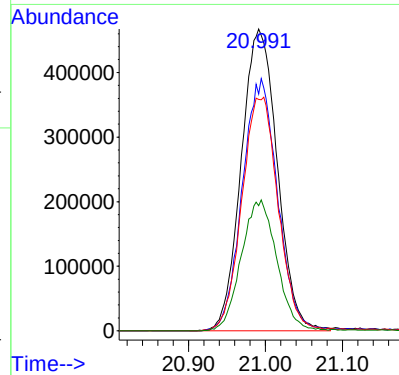
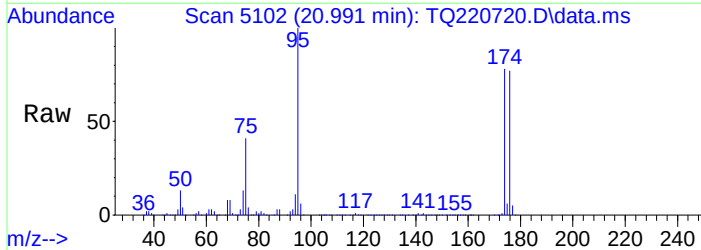
Tgt Ion	Ratio	Lower	Upper
91	100		
91	38.3	80.0	120.0#
106	0.0	38.2	57.2#





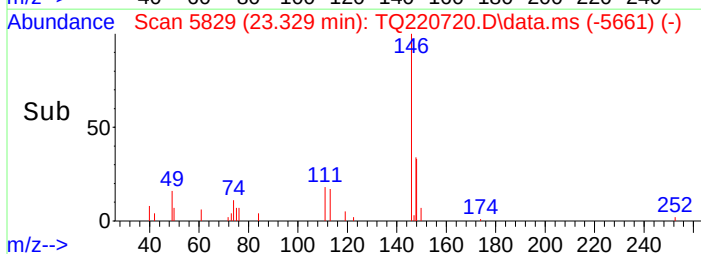
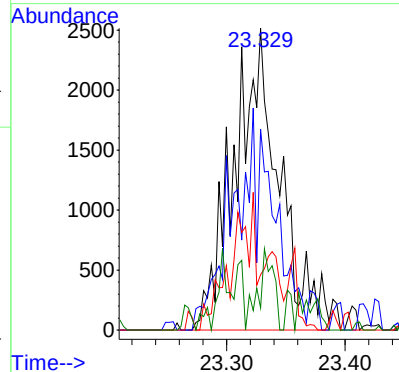
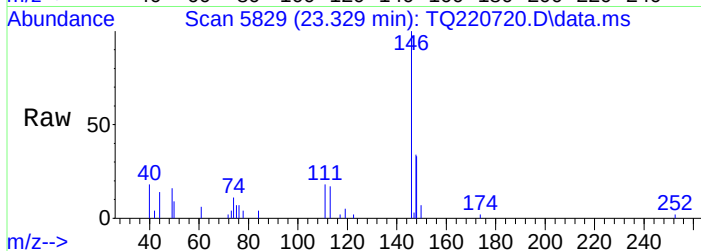
#64
p-Bromofluorobenzene
Concen: 8.96 ppbv
RT: 20.991 min Scan# 5102
Delta R.T. 0.022 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

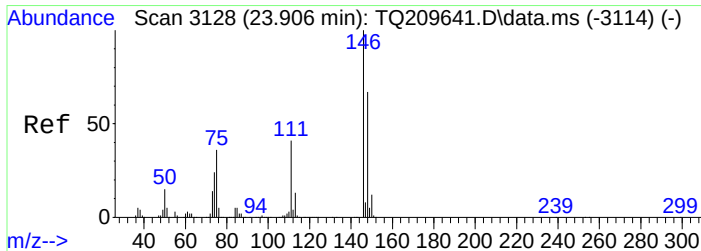
Tgt Ion	95	174	176	75
Ratio	100	81.6	77.8	42.7
Lower		53.2	51.6	30.7
Upper		110.6	107.2	63.7



#71
1,3-Dichlorobenzene
Concen: 0.03 ppbv m
RT: 23.329 min Scan# 5829
Delta R.T. 0.039 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

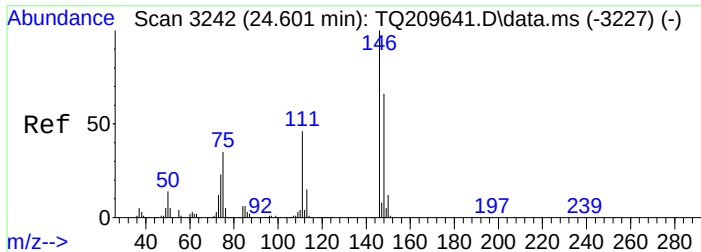
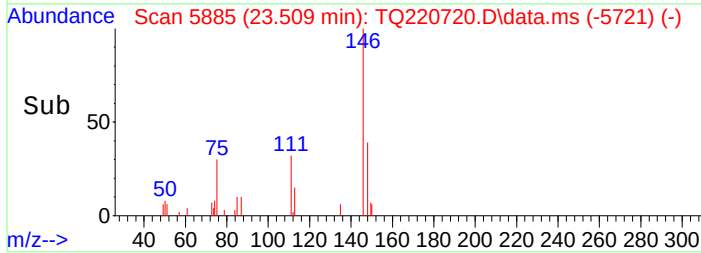
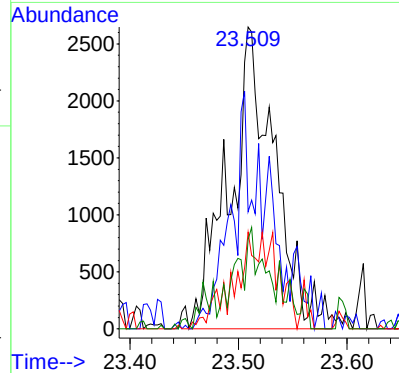
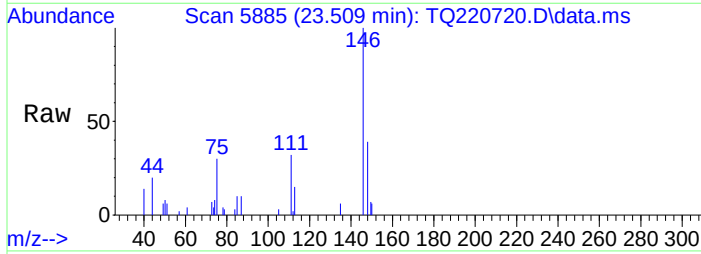
Tgt Ion	146	111	75
Ratio	100	17.7	0.0
Lower		41.7	25.7
Upper		86.5#	53.5#





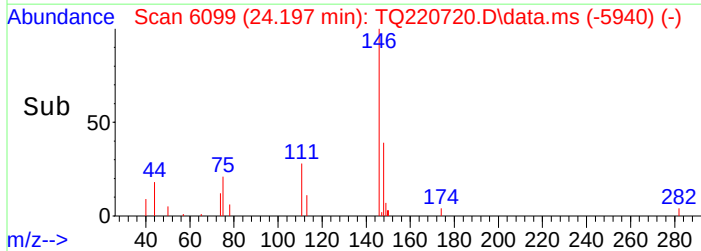
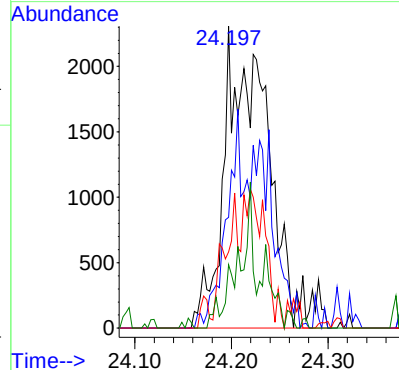
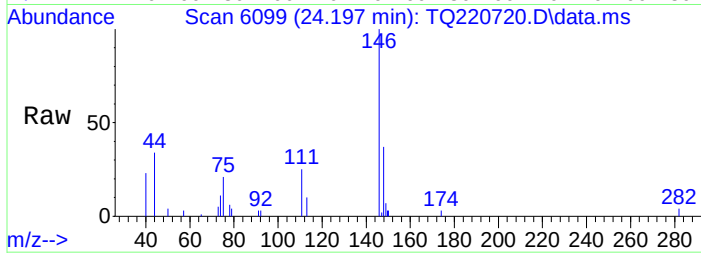
#72
1,4-Dichlorobenzene
Concen: 0.03 ppbv m
RT: 23.509 min Scan# 5885
Delta R.T. 0.029 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

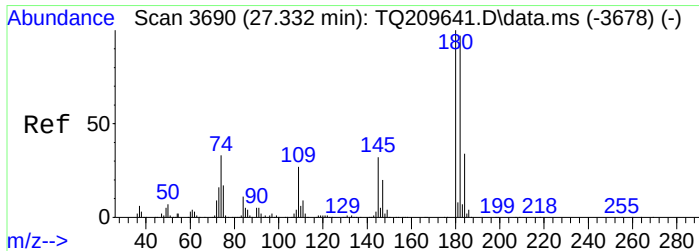
Tgt Ion	Ratio	Lower	Upper
146	100		
148	0.0	41.6	86.4#
111	0.0	24.8	51.6#
75	0.0	19.0	39.6#



#75
1,2-Dichlorobenzene
Concen: 0.03 ppbv m
RT: 24.197 min Scan# 6099
Delta R.T. 0.010 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

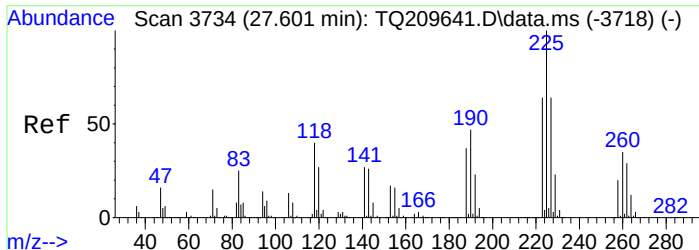
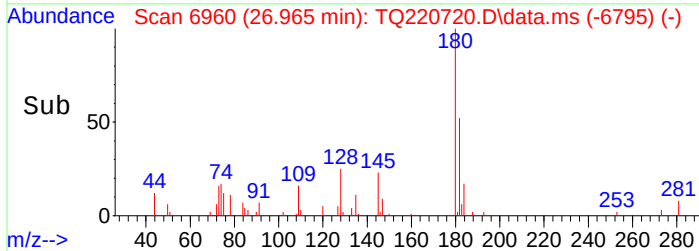
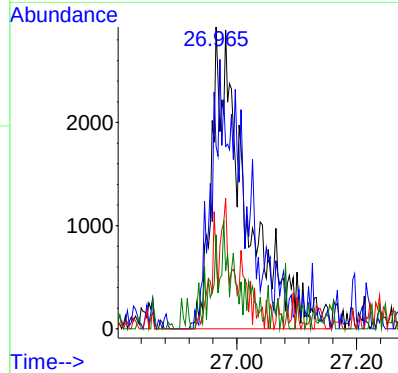
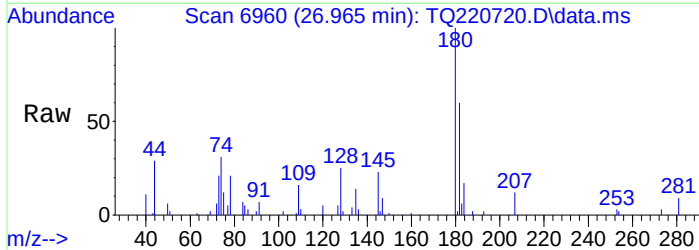
Tgt Ion	Ratio	Lower	Upper
146	100		
148	26.3	41.5	86.3#
111	0.0	26.8	55.8#
75	0.0	19.0	39.4#





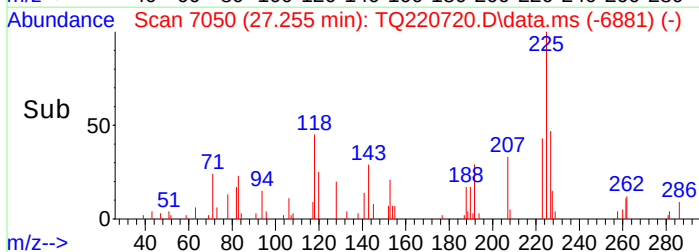
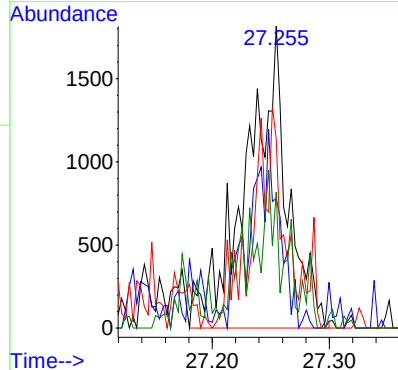
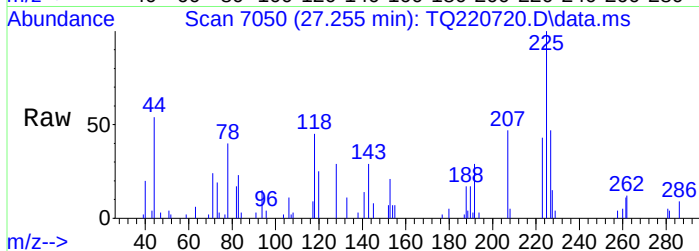
#76
1,2,4-Trichlorobenzene
Concen: 0.07 ppbv m
RT: 26.965 min Scan# 6960
Delta R.T. 0.029 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

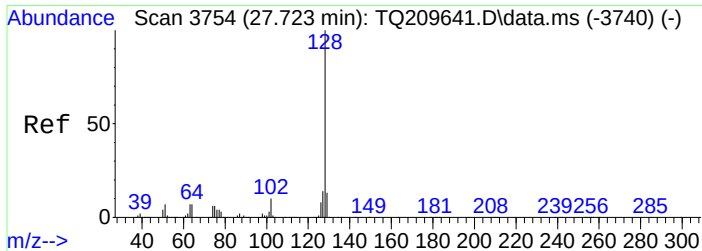
Tgt Ion	Ratio	Lower	Upper
180	100		
182	0.0	61.7	128.1#
145	7.3	19.2	40.0#
74	0.0	18.0	37.4#



#77
Hexachlorobutadiene
Concen: 0.03 ppbv m
RT: 27.255 min Scan# 7050
Delta R.T. 0.045 min
Lab File: TQ220720.D
Acq: 22 Jun 2022 9:55 am

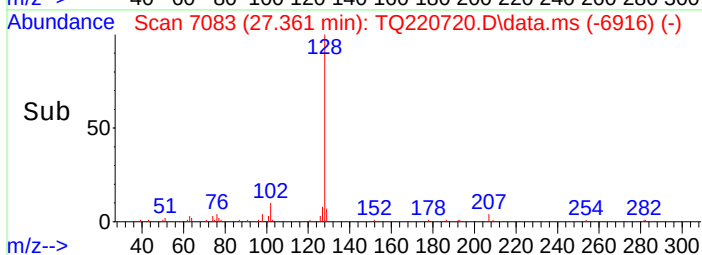
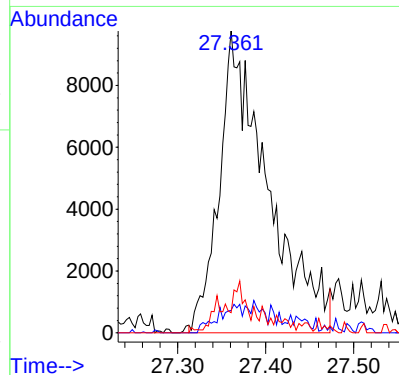
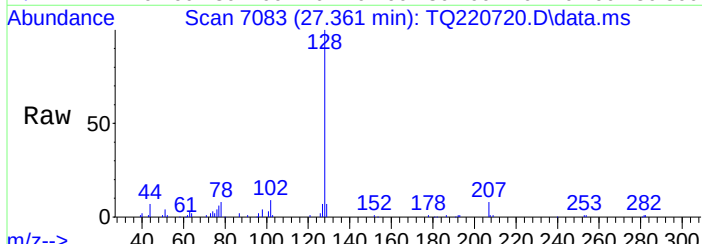
Tgt Ion	Ratio	Lower	Upper
225	100		
223	18.3	40.8	84.8#
227	15.5	41.3	85.7#
118	0.0	26.7	55.5#





#78
 Naphthalene
 Concen: 0.07 ppbv m
 RT: 27.361 min Scan# 7083
 Delta R.T. 0.036 min
 Lab File: TQ220720.D
 Acq: 22 Jun 2022 9:55 am

Tgt Ion:	128	Resp:	37167
Ion Ratio	Lower	Upper	
128	100		
127	0.0	8.1	16.9#
129	3.4	7.1	14.7#



METHOD BLANK RAW DATA

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

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

Laboratory: York Analytical Laboratories, Inc. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21498-BLK1 File ID: TQ220736.D
Prepared: 06/23/22 02:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/23/22 08:08 Instrument: TO15_AIR2
Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018

CAS NO.	COMPOUND	CONC. (ug/m³)	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	J
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. SDG: 22F1033
Client: Langan Engineering & Environmental Services (NJ) Project: 100287505
Matrix: Air Laboratory ID: BF21498-BLK1 File ID: TQ220736.D
Prepared: 06/23/22 02:00 Preparation: EPA TO15 PREP Initial/Final: 400 mL / 400 mL
Analyzed: 06/23/22 08:08 Instrument: TO15_AIR2
Batch: BF21498 Sequence: Y2F2413 Calibration: YD20018

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
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
156-60-5	trans-1,2-Dichloroethylene	0.40	U

FORM I

METHOD BLANK DATA SHEET

EPA TO-15

Laboratory:York Analytical Laboratories, Inc.SDG:22F1033

Client:Langan Engineering & Environmental Services (NJ)Project:100287505

Matrix:AirLaboratory ID:BF21498-BLK1File ID:TQ220736.D

Prepared:06/23/22 02:00Preparation:EPA TO15 PREPInitial/Final:400 mL / 400 mL

Analyzed:06/23/22 08:08Instrument:TO15_AIR2

Batch:BF21498Sequence:Y2F2413Calibration:YD20018

CAS NO.	COMPOUND	CONC. (ug/m³)	Q
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	430531	11.989	554760	11.985	
ISTD: 1,4-Difluorobenzene	2450248	13.564	3144562	13.564	
ISTD: d5-Chlorobenzene	2033016	18.824	2743461	18.824	

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220736.D
 Acq On : 23 Jun 2022 8:08 am
 Operator : LLJ
 Sample : BF21498-BLK1
 Misc : QBT02062322A BLK
 ALS Vial : 92 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 23 12:21:11 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

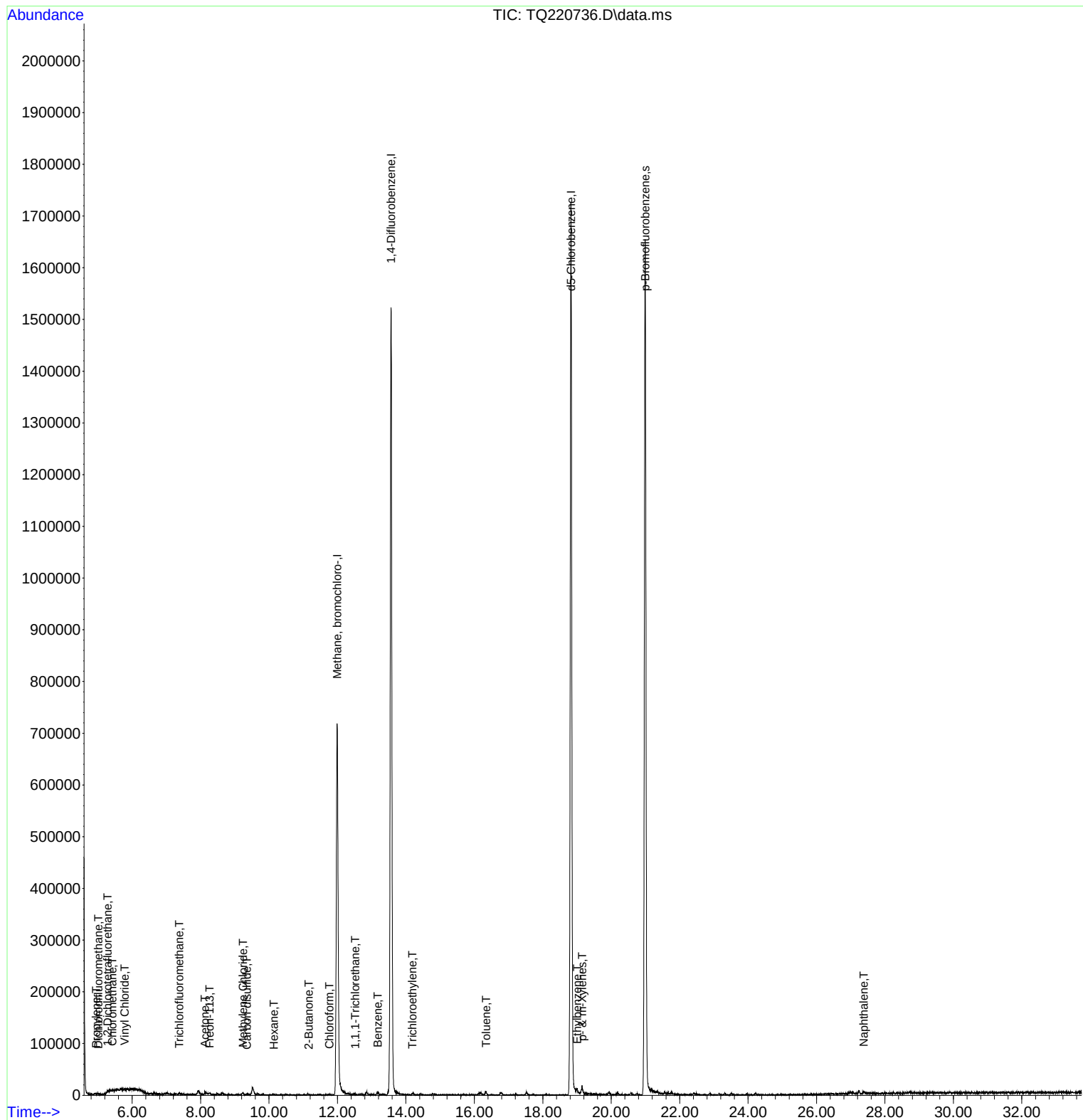
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

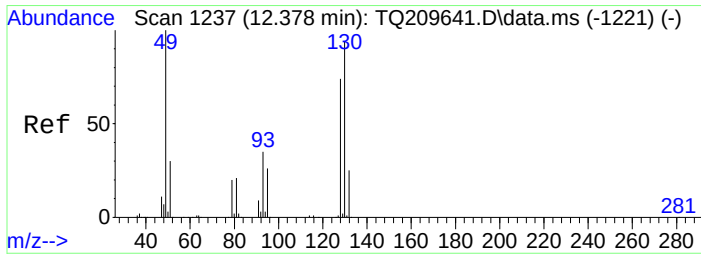
Internal Standards						
1) Methane, bromochloro-	11.989	49	430531	10.00	ppbv	# 0.01
37) 1,4-Difluorobenzene	13.564	114	2450248	10.00	ppbv	0.02
53) d5-Chlorobenzene	18.824	117	2033016	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1207758	9.08	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	90.80%	
Target Compounds						
						Qvalue
2) Propylene	4.944	42	904m	0.04	ppbv	
3) Dichlorodifluoromethane	5.008	85	3270m	0.02	ppbv	
4) 1,2-Dichlorotetrafluor...	5.281	85	3085m	0.03	ppbv	
5) Chloromethane	5.420	50	528	0.02	ppbv	# 49
6) Vinyl Chloride	5.780	62	695m	0.02	ppbv	
11) Trichlorofluoromethane	7.371	101	3503m	0.03	ppbv	
12) Isopropanol	7.928	45	15802m	Below	Cal	
14) Acetone	8.124	43	10572m	0.15	ppbv	
15) Freon-113	8.259	101	2415m	0.02	ppbv	
18) Methylene Chloride	9.236	49	3470m	0.07	ppbv	
20) Carbon disulfide	9.342	76	5366m	0.04	ppbv	
23) Hexane	10.140	57	1441m	0.02	ppbv	
26) 2-Butanone	11.156	43	3206m	0.04	ppbv	
29) Chloroform	11.763	83	2746m	0.02	ppbv	
31) 1,1,1-Trichlorethane	12.509	97	2760m	0.02	ppbv	
35) Benzene	13.172	78	7034m	0.04	ppbv	
38) Trichloroethylene	14.181	95	2009m	0.02	ppbv	
45) Toluene	16.342	91	8929m	0.03	ppbv	
56) Ethylbenzene	18.998	91	8523m	0.03	ppbv	
57) p- & m-Xylenes	19.146	91	12950	0.05	ppbv	# 68
78) Naphthalene	27.377	128	9640m	0.02	ppbv	

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220736.D
Acq On : 23 Jun 2022 8:08 am
Operator : LLJ
Sample : BF21498-BLK1
Misc : QBT02062322A BLK
ALS Vial : 92 Sample Multiplier: 1
InstName : T015_AIR2

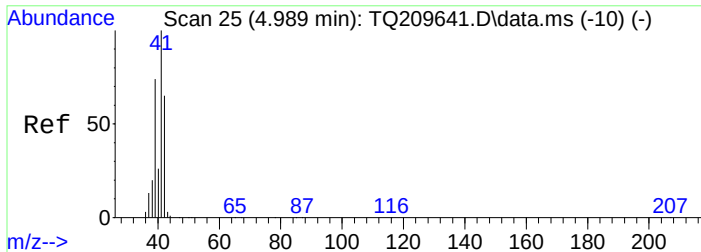
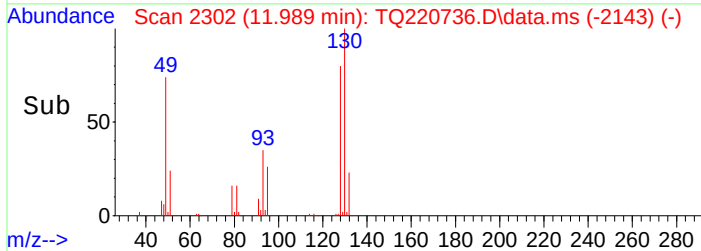
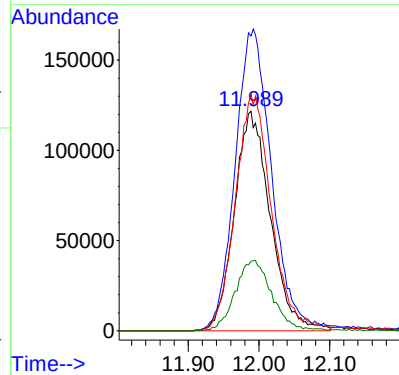
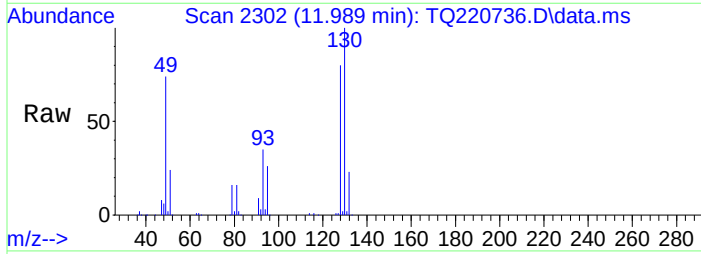
Quant Time: Jun 23 12:21:11 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration





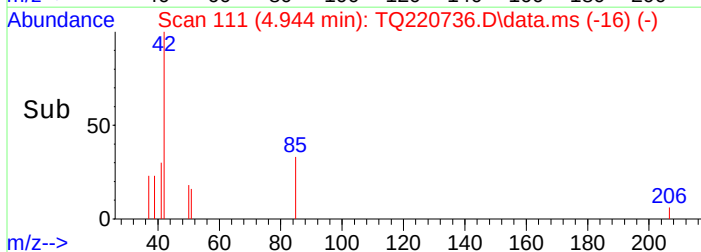
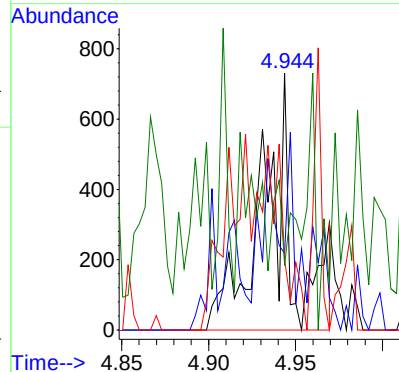
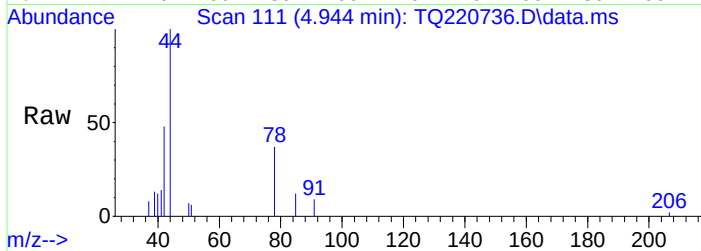
#1
Methane, bromochloro-
Concen: 10.00 ppbv
RT: 11.989 min Scan# 2302
Delta R.T. 0.013 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

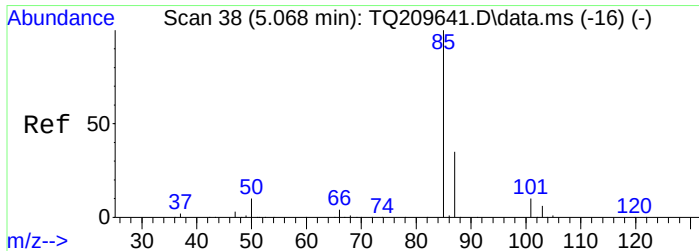
Tgt Ion	Ratio	Lower	Upper
49	100		
130	138.0	48.1	99.9#
128	107.6	38.3	79.5#
51	32.4	20.3	42.3



#2
Propylene
Concen: 0.04 ppbv m
RT: 4.944 min Scan# 111
Delta R.T. 0.055 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

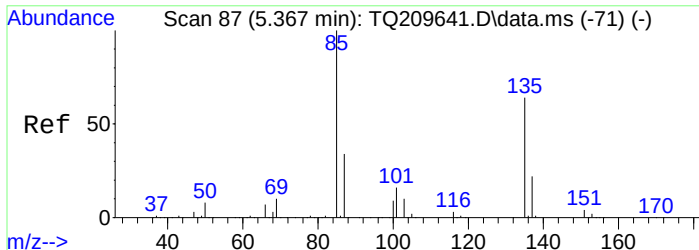
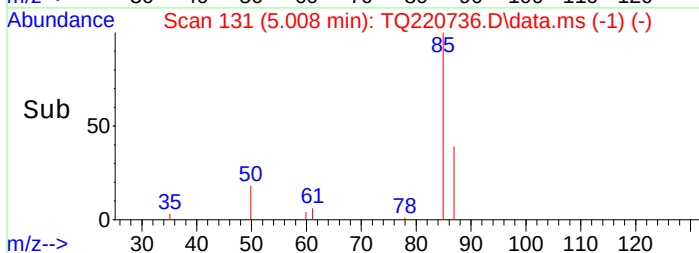
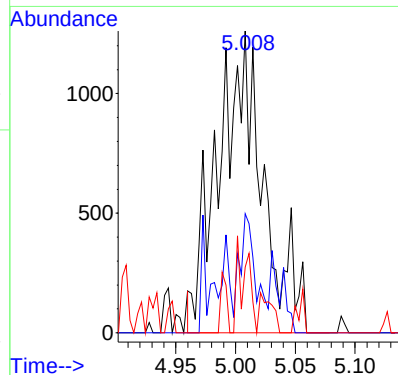
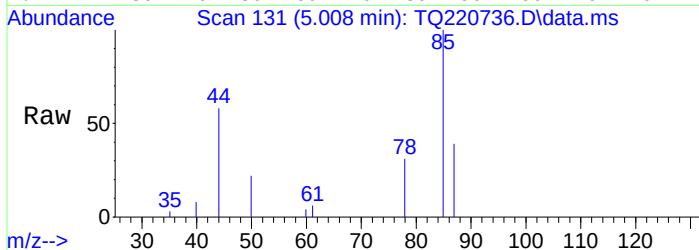
Tgt Ion	Ratio	Lower	Upper
42	100		
41	0.0	90.7	211.7#
39	0.0	54.1	162.3#
40	0.0	18.7	56.1#





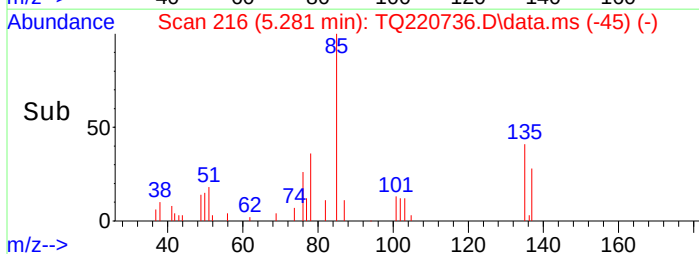
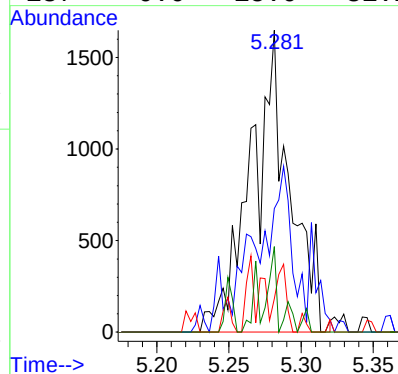
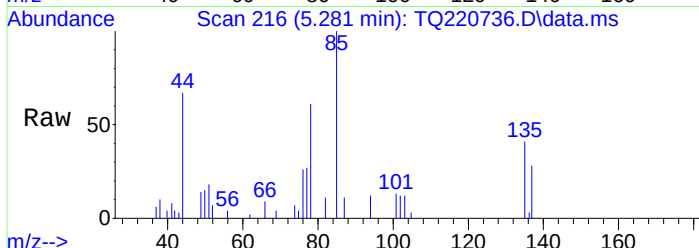
#3
 Dichlorodifluoromethane
 Concen: 0.02 ppbv m
 RT: 5.008 min Scan# 131
 Delta R.T. 0.042 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

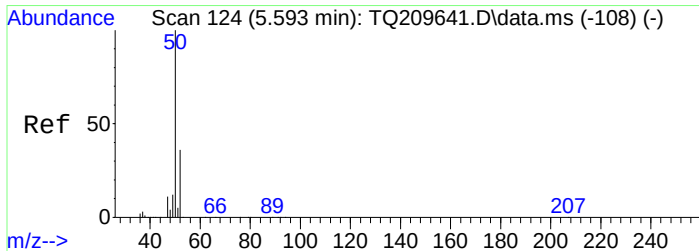
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	3270		
87	0.0	20.9	43.5#	
50	0.0	7.2	15.0#	



#4
 1,2-Dichlorotetrafluorethane
 Concen: 0.03 ppbv m
 RT: 5.281 min Scan# 216
 Delta R.T. 0.048 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

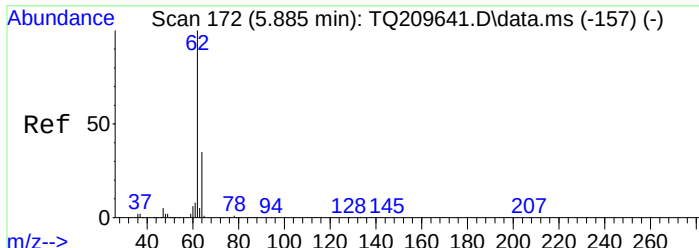
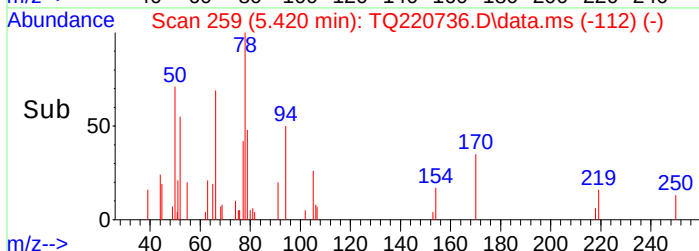
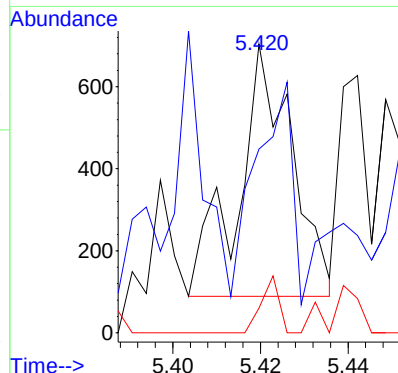
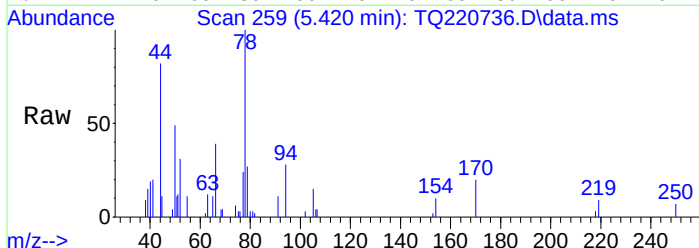
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	3085		
135	0.0	47.0	97.6#	
87	0.0	20.9	43.5#	
137	0.0	15.0	31.2#	





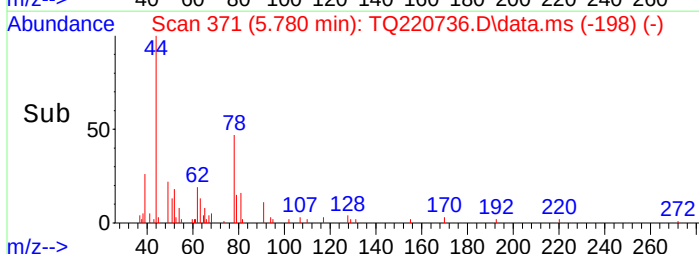
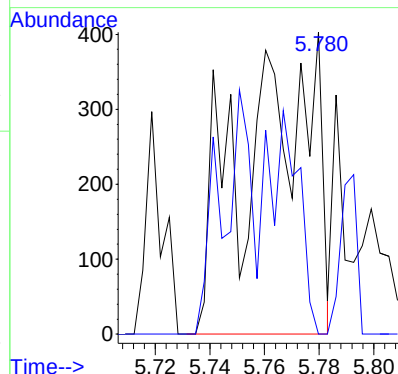
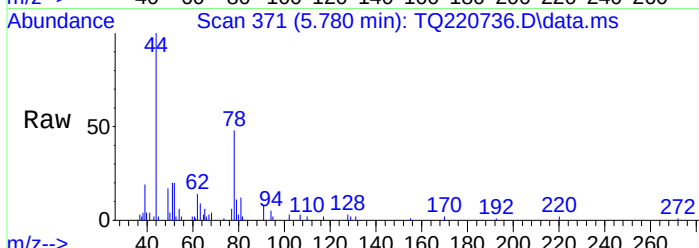
#5
Chloromethane
Concen: 0.02 ppbv
RT: 5.420 min Scan# 259
Delta R.T. -0.028 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

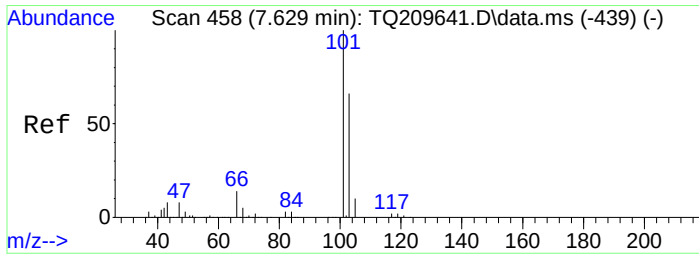
Tgt Ion	Ratio	Lower	Upper
50	100		
52	0.0	0.0	65.2
49	0.0	0.0	19.6



#6
Vinyl Chloride
Concen: 0.02 ppbv m
RT: 5.780 min Scan# 371
Delta R.T. 0.058 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

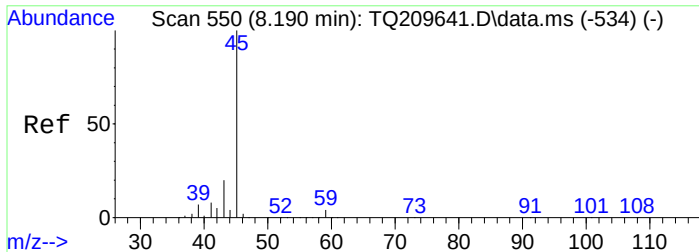
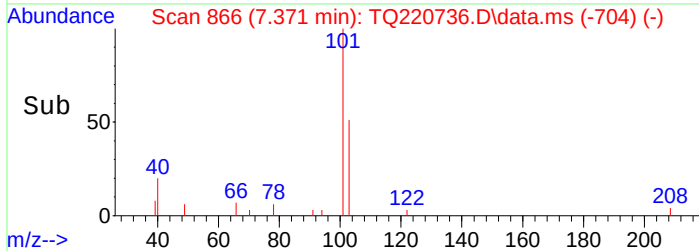
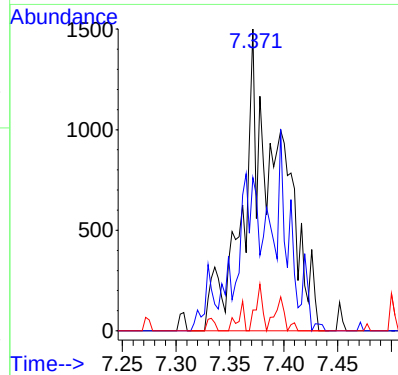
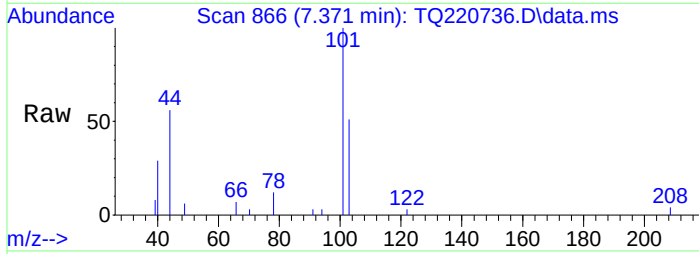
Tgt Ion	Ratio	Lower	Upper
62	100		
64	0.0	20.8	43.2#





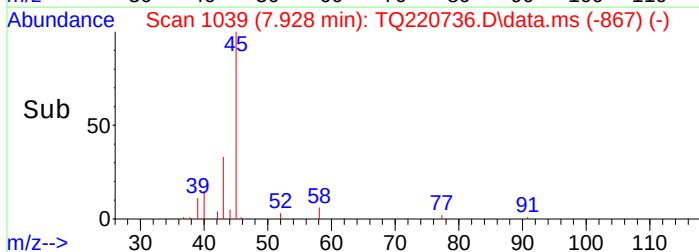
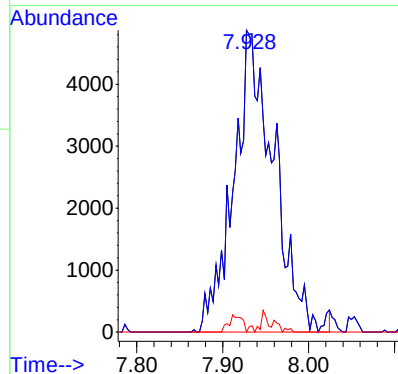
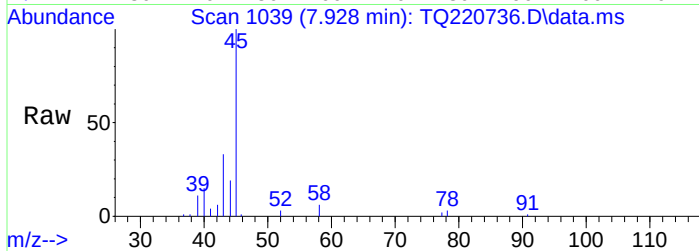
#11
 Trichlorofluoromethane
 Concen: 0.03 ppbv m
 RT: 7.371 min Scan# 866
 Delta R.T. 0.019 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

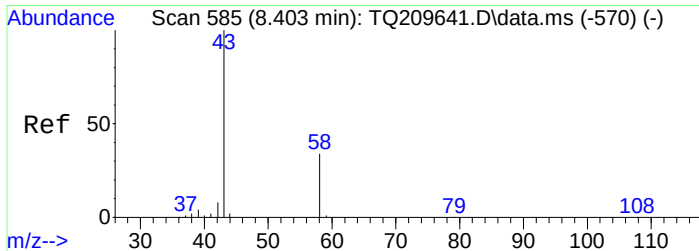
Tgt Ion:	101	Resp:	3503
Ion Ratio	Lower	Upper	
101	100		
103	0.0	42.3	87.8#
66	0.0	7.8	16.2#



#12
 Isopropanol
 Concen: Below Cal m
 RT: 7.928 min Scan# 1039
 Delta R.T. 0.055 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

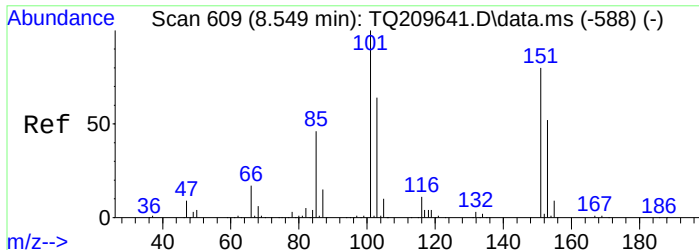
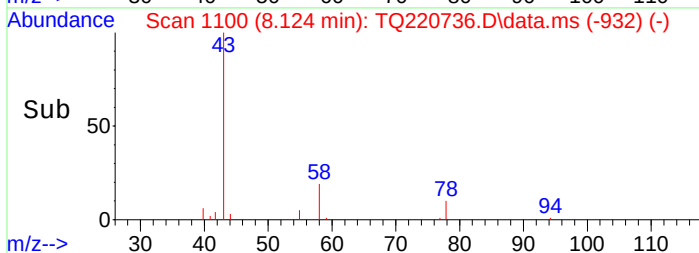
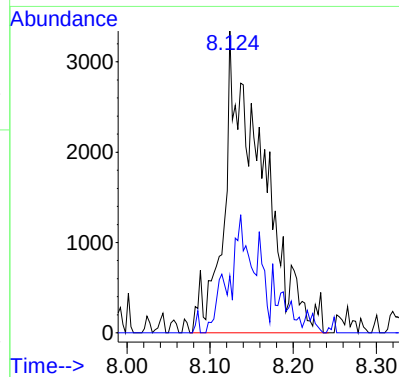
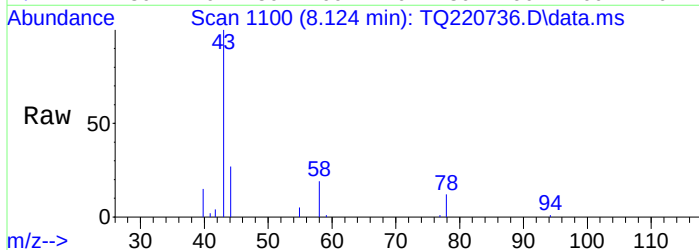
Tgt Ion:	45	Resp:	15802
Ion Ratio	Lower	Upper	
45	100		
45	77.1	65.0	135.0
59	0.0	0.0	10.0





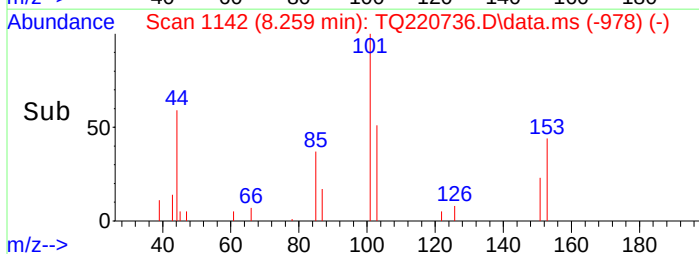
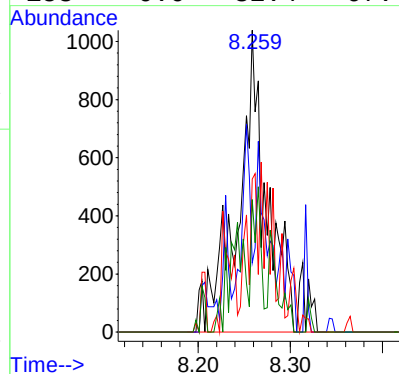
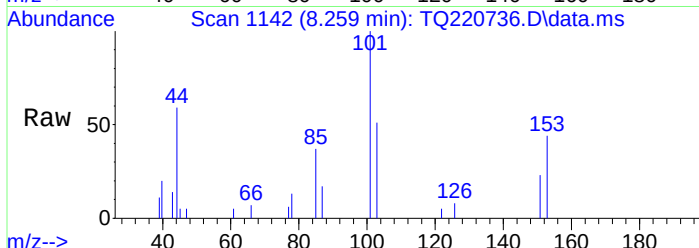
#14
Acetone
Concen: 0.15 ppbv m
RT: 8.124 min Scan# 1100
Delta R.T. 0.039 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

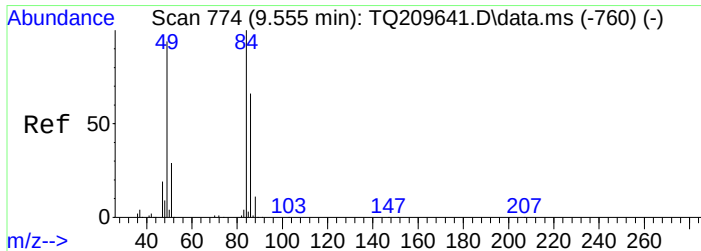
Tgt Ion: 43 Resp: 10572
Ion Ratio Lower Upper
43 100
58 5.4 20.9 43.3#



#15
Freon-113
Concen: 0.02 ppbv m
RT: 8.259 min Scan# 1142
Delta R.T. 0.029 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

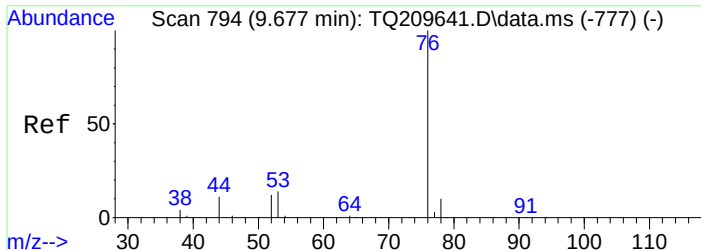
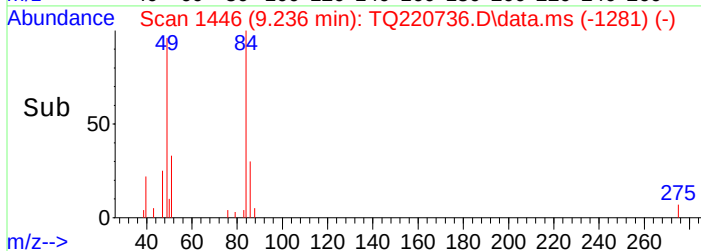
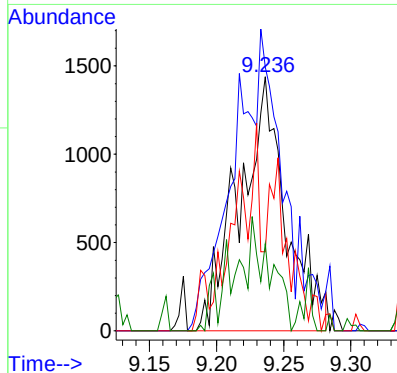
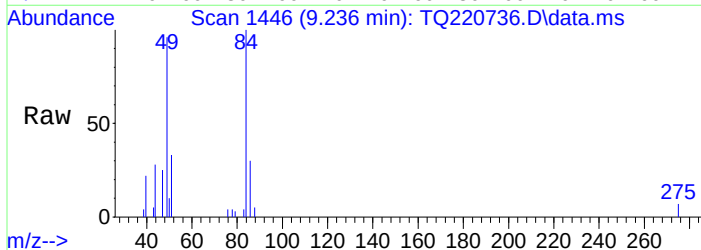
Tgt Ion: 101 Resp: 2415
Ion Ratio Lower Upper
101 100
151 0.0 50.5 104.9#
103 0.0 42.0 87.2#
153 0.0 32.4 67.4#





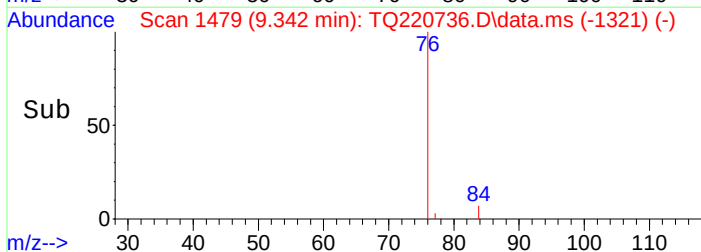
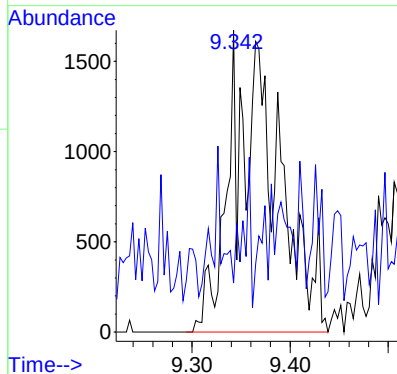
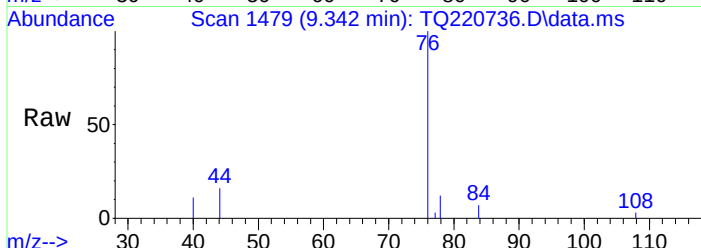
#18
Methylene Chloride
Concen: 0.07 ppbv m
RT: 9.236 min Scan# 1446
Delta R.T. 0.029 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

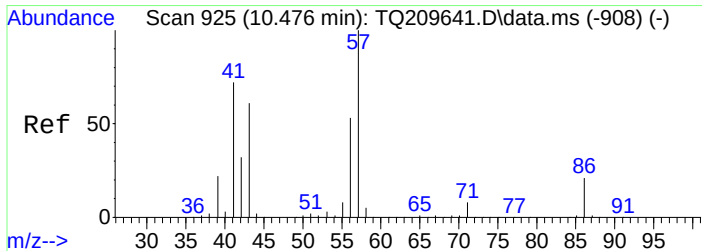
Tgt Ion: 49 Resp: 3470
Ion Ratio Lower Upper
49 100
84 57.2 49.9 103.5
86 20.3 31.8 66.0#
51 0.0 20.2 41.9#



#20
Carbon disulfide
Concen: 0.04 ppbv m
RT: 9.342 min Scan# 1479
Delta R.T. 0.009 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

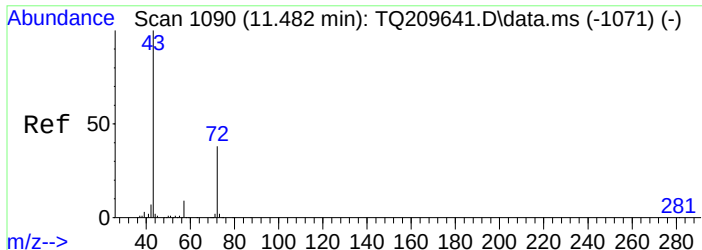
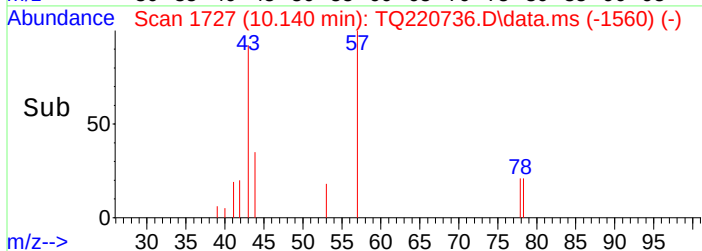
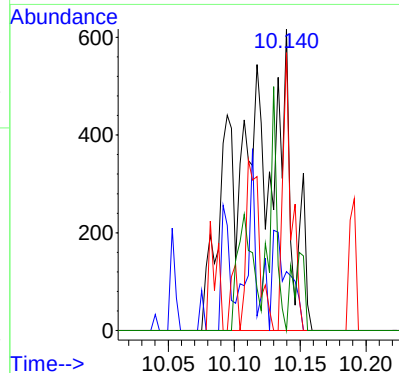
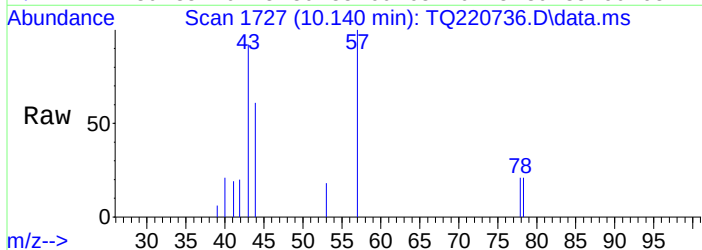
Tgt Ion: 76 Resp: 5366
Ion Ratio Lower Upper
76 100
44 10.4 8.3 17.3





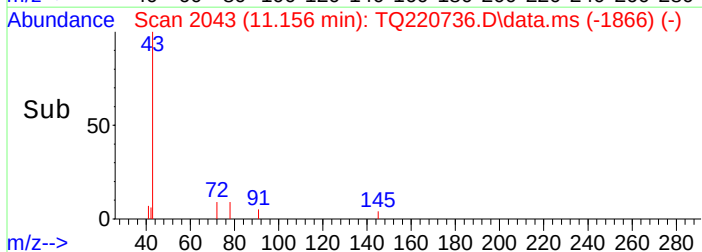
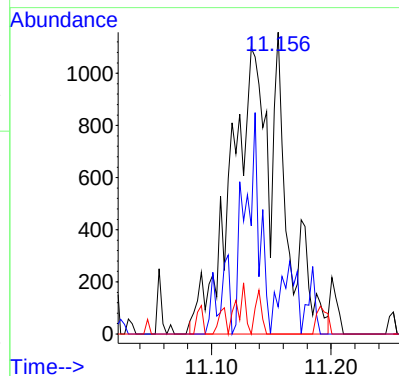
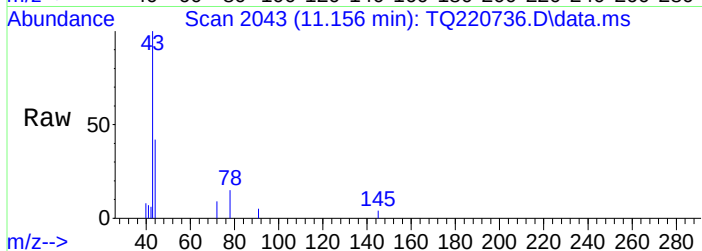
#23
Hexane
Concen: 0.02 ppbv m
RT: 10.140 min Scan# 1727
Delta R.T. 0.036 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

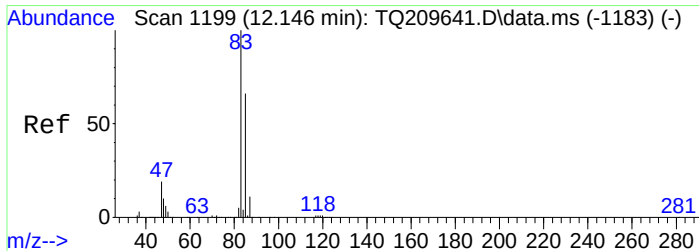
Tgt Ion:	57	Resp:	1441
Ion Ratio	Lower	Upper	
57	100		
42	0.0	21.6	45.0#
43	0.0	42.0	87.2#
56	0.0	33.3	69.1#



#26
2-Butanone
Concen: 0.04 ppbv m
RT: 11.156 min Scan# 2043
Delta R.T. 0.068 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

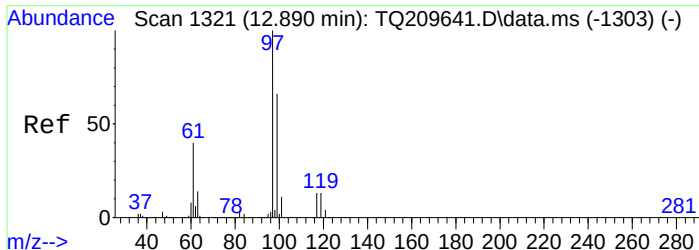
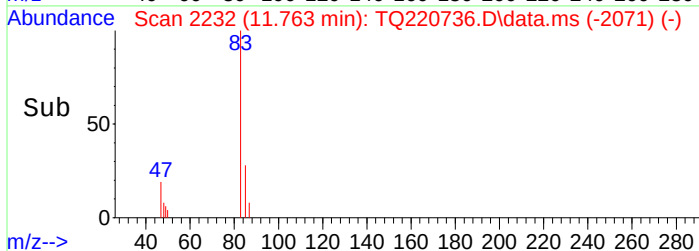
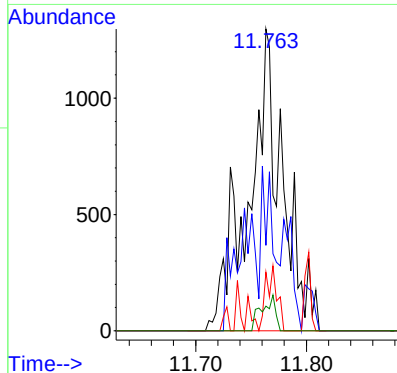
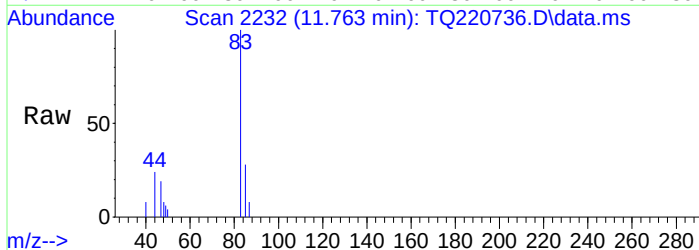
Tgt Ion:	43	Resp:	3206
Ion Ratio	Lower	Upper	
43	100		
72	22.2	16.1	33.5
57	0.0	4.9	10.3#





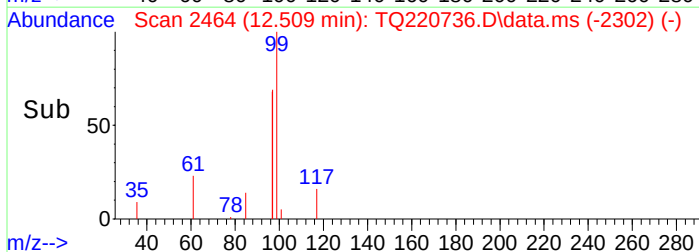
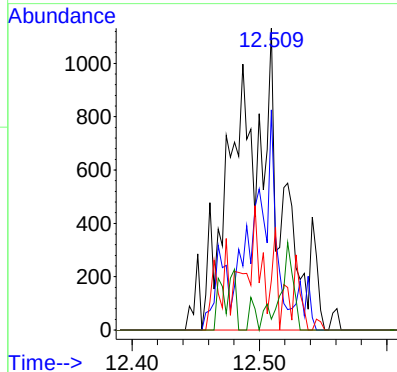
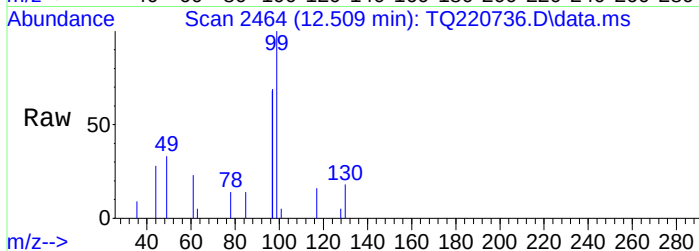
#29
Chloroform
Concen: 0.02 ppbv m
RT: 11.763 min Scan# 2232
Delta R.T. 0.016 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

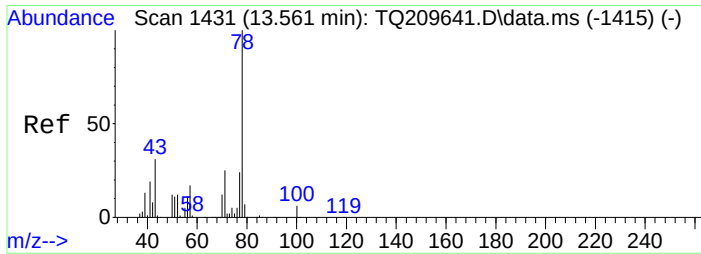
Tgt Ion	83	Resp	2746
Ion Ratio	100		
Lower	41.7		86.7#
Upper	15.1		31.5#
85	0.0		
47	0.0		
87	0.0		



#31
1,1,1-Trichloroethane
Concen: 0.02 ppbv m
RT: 12.509 min Scan# 2464
Delta R.T. 0.022 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

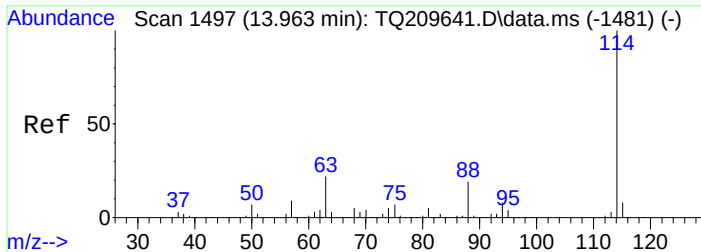
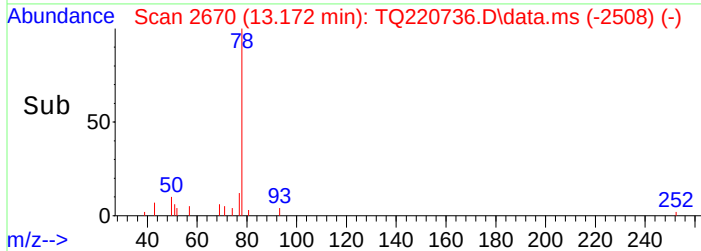
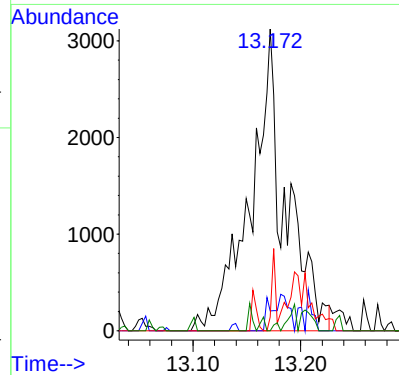
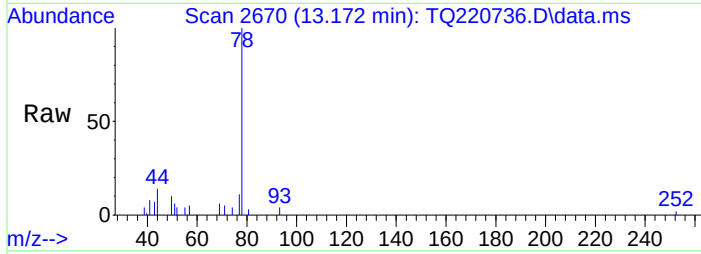
Tgt Ion	97	Resp	2760
Ion Ratio	100		
Lower	41.9		87.1#
Upper	27.6		57.4#
99	0.0		
61	0.0		
63	0.0		





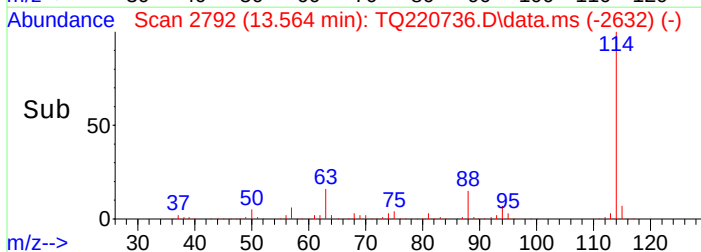
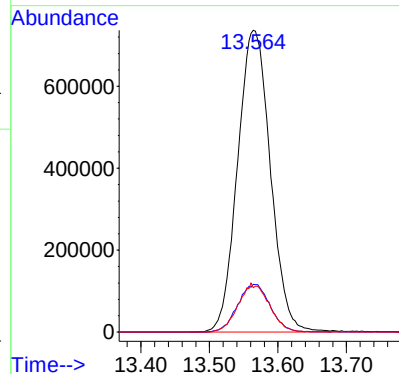
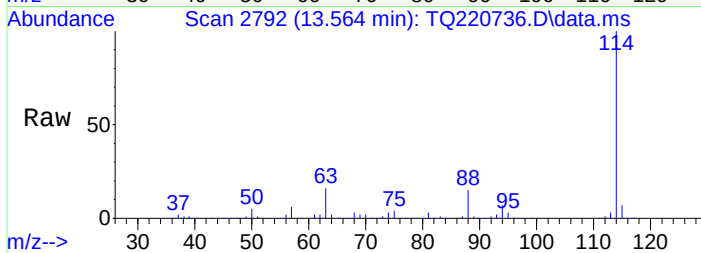
#35
Benzene
Concen: 0.04 ppbv m
RT: 13.172 min Scan# 2670
Delta R.T. 0.020 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

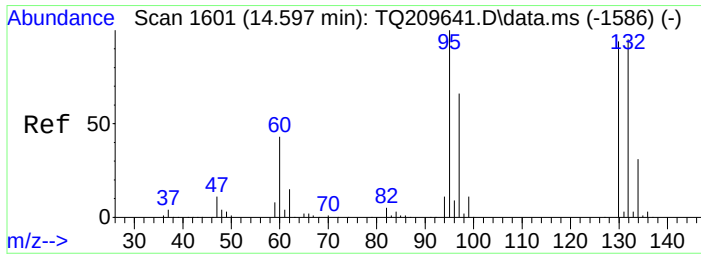
Tgt Ion	Ratio	Lower	Upper
78	100		
43	0.0	37.5	77.9#
71	0.0	22.0	45.8#
42	0.0	8.8	18.4#



#37
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 13.564 min Scan# 2792
Delta R.T. 0.016 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

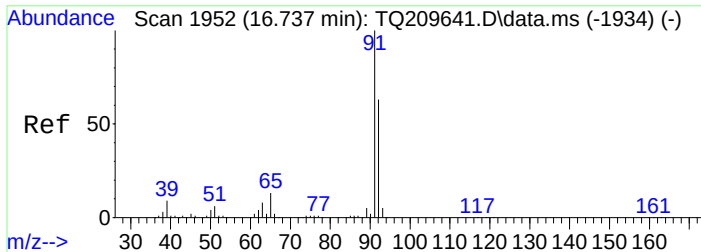
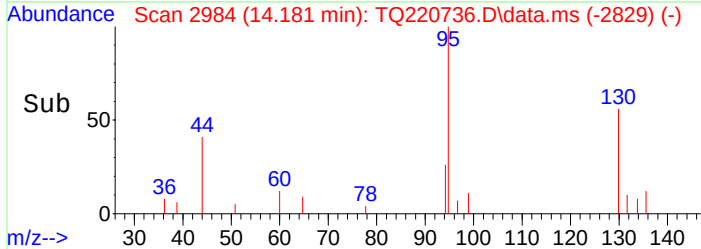
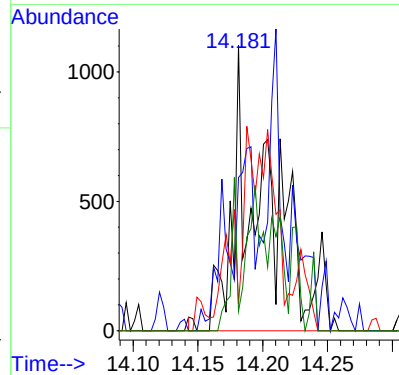
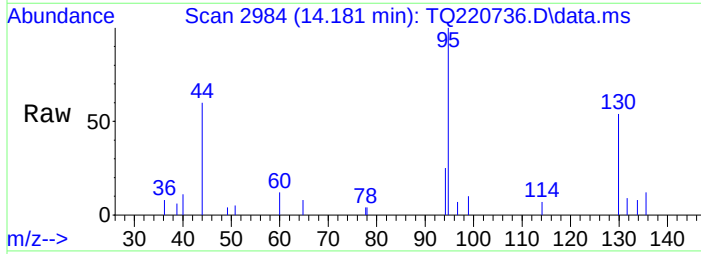
Tgt Ion	Ratio	Lower	Upper
114	100		
63	15.6	12.9	26.9
88	15.3	10.7	22.3





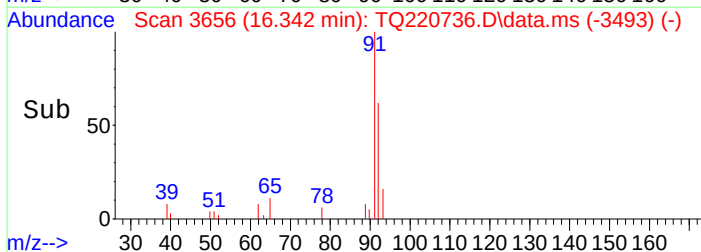
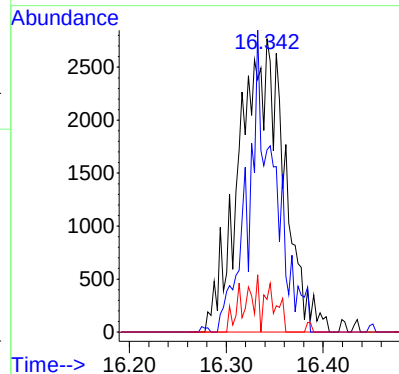
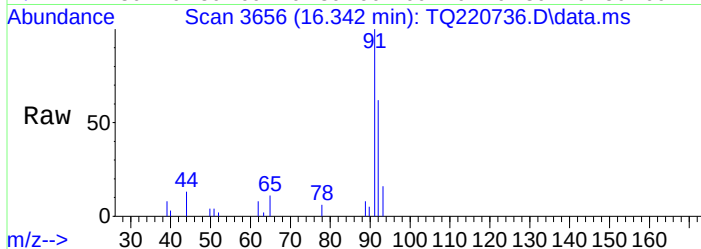
#38
 Trichloroethylene
 Concen: 0.02 ppbv m
 RT: 14.181 min Scan# 2984
 Delta R.T. -0.003 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

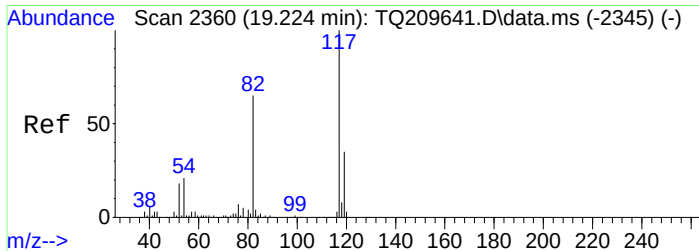
Tgt Ion:	95	Resp:	2009
Ion Ratio	Lower	Upper	
95	100		
130	0.0	66.0	137.0#
132	26.0	63.3	131.5#
97	0.0	41.9	87.1#



#45
 Toluene
 Concen: 0.03 ppbv m
 RT: 16.342 min Scan# 3656
 Delta R.T. 0.023 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

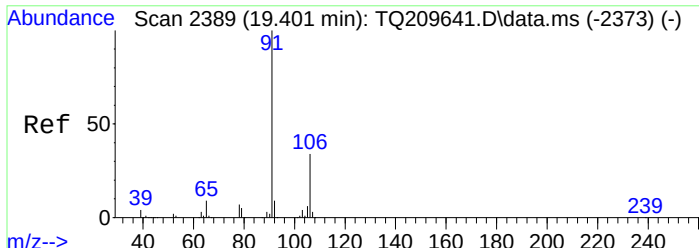
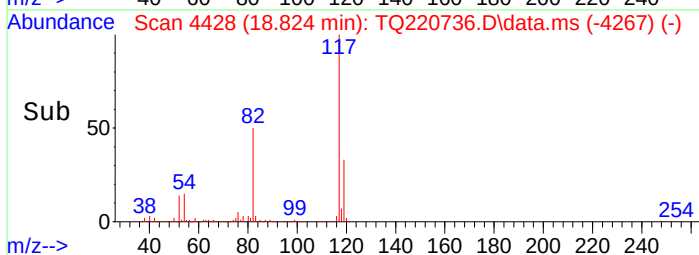
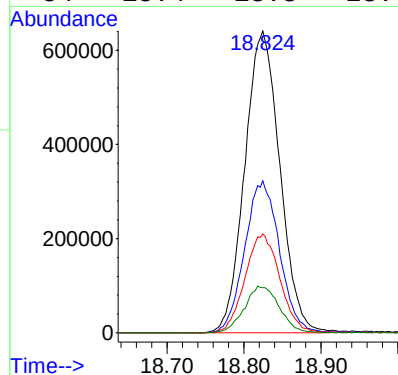
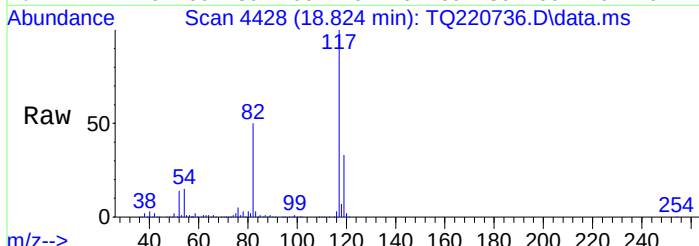
Tgt Ion:	91	Resp:	8929
Ion Ratio	Lower	Upper	
91	100		
92	14.2	38.7	80.3#
65	0.0	7.5	15.5#





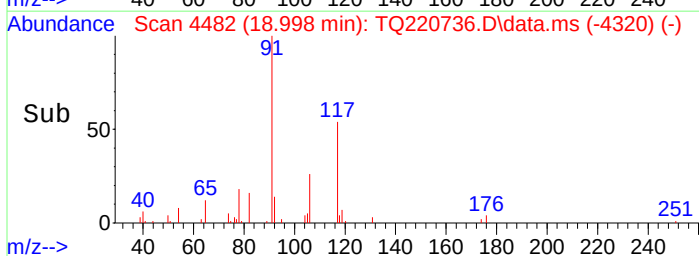
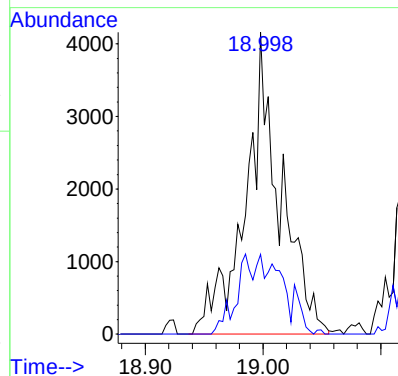
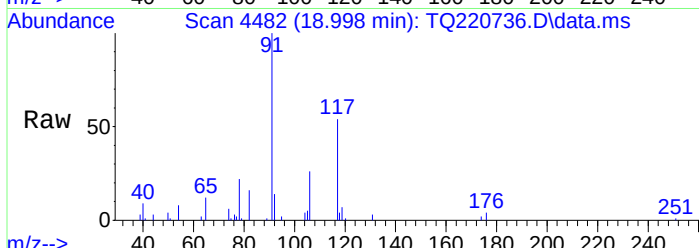
#53
d5-Chlorobenzene
Concen: 10.00 ppbv
RT: 18.824 min Scan# 4428
Delta R.T. 0.019 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

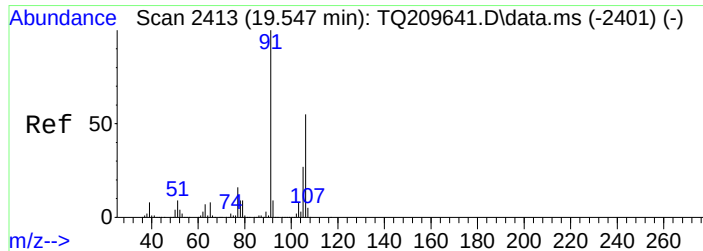
Tgt Ion:	117	Resp:	2033016
Ion	Ratio	Lower	Upper
117	100		
82	49.9	37.1	77.1
119	32.7	22.1	45.9
54	15.4	13.8	28.6



#56
Ethylbenzene
Concen: 0.03 ppbv m
RT: 18.998 min Scan# 4482
Delta R.T. 0.020 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

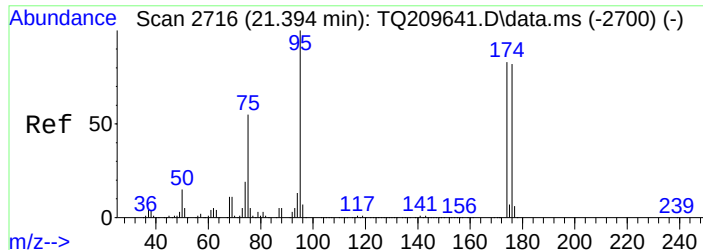
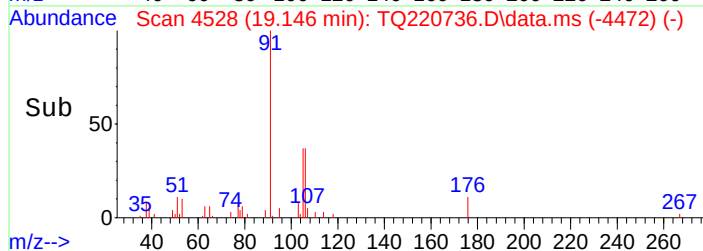
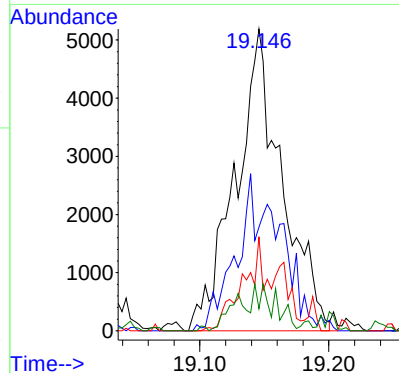
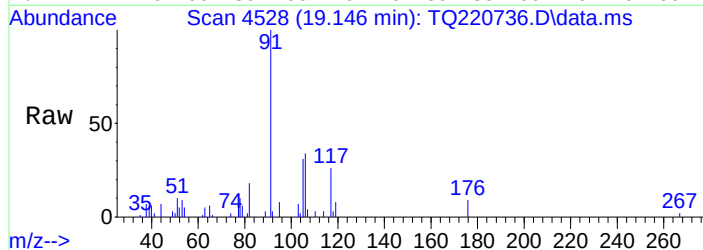
Tgt Ion:	91	Resp:	8523
Ion	Ratio	Lower	Upper
91	100		
106	7.5	20.5	42.7#





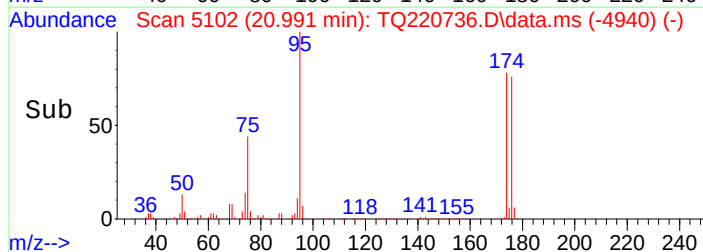
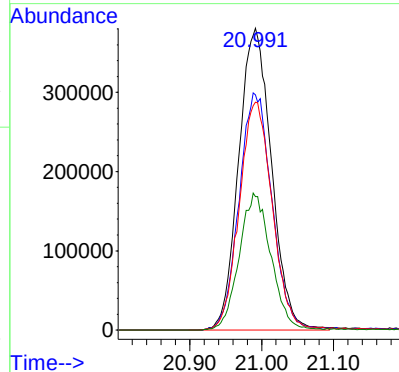
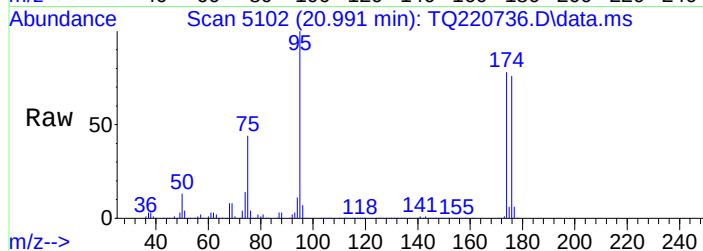
#57
p- & m-Xylenes
Concen: 0.05 ppbv
RT: 19.146 min Scan# 4528
Delta R.T. 0.020 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

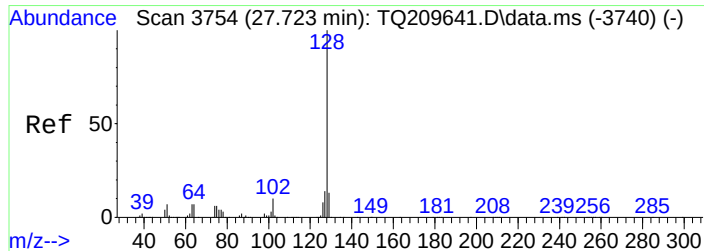
Tgt Ion	Ratio	Lower	Upper
91	100		
106	22.7	32.6	67.8#
105	15.2	14.5	30.1
77	0.0	8.5	17.7#



#64
p-Bromofluorobenzene
Concen: 9.08 ppbv
RT: 20.991 min Scan# 5102
Delta R.T. 0.022 min
Lab File: TQ220736.D
Acq: 23 Jun 2022 8:08 am

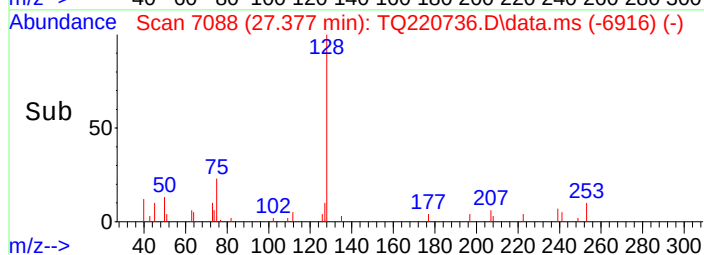
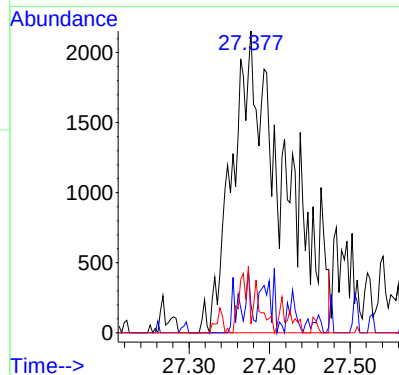
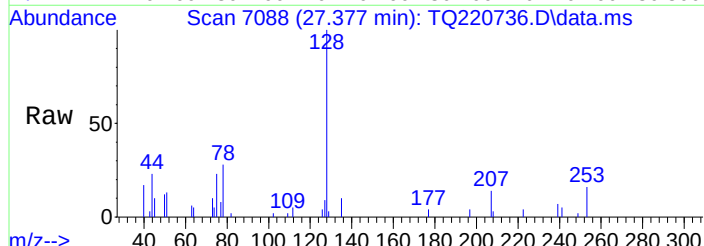
Tgt Ion	Ratio	Lower	Upper
95	100		
174	78.7	53.2	110.6
176	75.6	51.6	107.2
75	43.9	30.7	63.7





#78
 Naphthalene
 Concen: 0.02 ppbv m
 RT: 27.377 min Scan# 7088
 Delta R.T. 0.052 min
 Lab File: TQ220736.D
 Acq: 23 Jun 2022 8:08 am

Tgt Ion:	128	Resp:	9640
Ion Ratio		Lower	Upper
128	100		
127	0.0	8.1	16.9#
129	0.0	7.1	14.7#



LCS RAW DATA

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220718.D
 Acq On : 22 Jun 2022 7:50 am
 Operator : AS
 Sample : BF21412-BS1
 Misc : QBT02062222A LCS
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 22 16:53:35 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.982	49	675791	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.561	114	3731361	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.824	117	3235770	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	2171228	10.26	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.60%	
Target Compounds						
						Qvalue
2) Propylene	4.883	42	255125	7.82	ppbv	# 76
3) Dichlorodifluoromethane	4.950	85	2173312	10.05	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.233	85	2015644	11.23	ppbv	99
5) Chloromethane	5.436	50	255342	7.18	ppbv	95
6) Vinyl Chloride	5.715	62	365224	7.43	ppbv	98
7) 1,3-Butadiene	5.796	54	241481m	7.28	ppbv	
8) Bromomethane	6.596	94	743153	10.23	ppbv	98
9) Chloroethane	6.767	64	311464	9.11	ppbv	# 81
10) Vinyl Bromide	7.230	106	794298	10.29	ppbv	100
11) Trichlorofluoromethane	7.352	101	2112577	10.39	ppbv	# 97
12) Isopropanol	7.876	45	975859	8.18	ppbv	100
13) Acrolein	7.982	56	229068	7.65	ppbv	# 84
14) Acetone	8.088	43	772754	7.04	ppbv	92
15) Freon-113	8.236	101	1696778	10.14	ppbv	98
16) 1,1-Dichloroethylene	8.458	61	1078717	8.73	ppbv	81
17) 3-Chloropropene	9.059	41	576769	7.83	ppbv	# 85
18) Methylene Chloride	9.207	49	587961	7.70	ppbv	# 60
19) Acrylonitrile	9.310	53	392359	7.99	ppbv	97
20) Carbon disulfide	9.336	76	2109291	9.59	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.622	73	2232354	9.50	ppbv	# 82
22) trans-1,2-Dichloroethy...	9.815	61	963830	9.06	ppbv	# 79
23) Hexane	10.104	57	926392	8.75	ppbv	89
24) Vinyl Acetate	10.432	43	1120484	7.44	ppbv	# 98
25) 1,1-Dichloroethane	10.480	63	1256277	9.19	ppbv	# 65
26) 2-Butanone	11.098	43	986220	7.77	ppbv	# 77
27) Ethyl Acetate	11.403	43	1101379	8.17	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.480	61	907315	8.52	ppbv	# 58
29) Chloroform	11.754	83	1786273	9.90	ppbv	96
30) Tetrahydrofuran	12.082	42	545033	7.83	ppbv	# 72
31) 1,1,1-Trichlorethane	12.496	97	1918673	10.28	ppbv	94
32) Cyclohexane	12.664	56	960727	8.75	ppbv	# 74
33) Carbon Tetrachloride	12.956	117	1555553	9.51	ppbv	100
34) 1,2-Dichloroethane	13.030	62	1038225	9.32	ppbv	99
35) Benzene	13.165	78	2455280	9.11	ppbv	# 81
36) n-Heptane	13.181	43	878330	8.15	ppbv	# 76
38) Trichloroethylene	14.200	95	1206939	7.91	ppbv	94
39) 1,2-Dichloropropane	14.426	63	749141	7.59	ppbv	87
40) Methyl Methacrylate	14.442	69	825703	7.69	ppbv	# 90
41) 1,4-Dioxane	14.741	88	621734	7.04	ppbv	# 100
42) Bromodichloromethane	14.789	83	1752152	8.29	ppbv	95
43) Methyl Isobutyl Ketone	15.326	43	1185774	5.66	ppbv	# 82
44) cis-1,3-Dichloropropene	15.683	75	1398638	8.19	ppbv	94
45) Toluene	16.335	91	3402101	8.11	ppbv	98
46) trans-1,3-Dichloropropene	16.496	75	1262593	8.20	ppbv	94
47) 1,1,2-Trichlorethane	16.786	97	1139850	8.39	ppbv	91
48) 2-Hexanone	16.795	43	1060285	5.34	ppbv	# 73
49) 1,3-Dichloropropane	17.213	76	1503696	8.06	ppbv	# 82

Data Path : C:\msdchem\1\data\062222\
 Data File : TQ220718.D
 Acq On : 22 Jun 2022 7:50 am
 Operator : AS
 Sample : BF21412-BS1
 Misc : QBT02062222A LCS
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

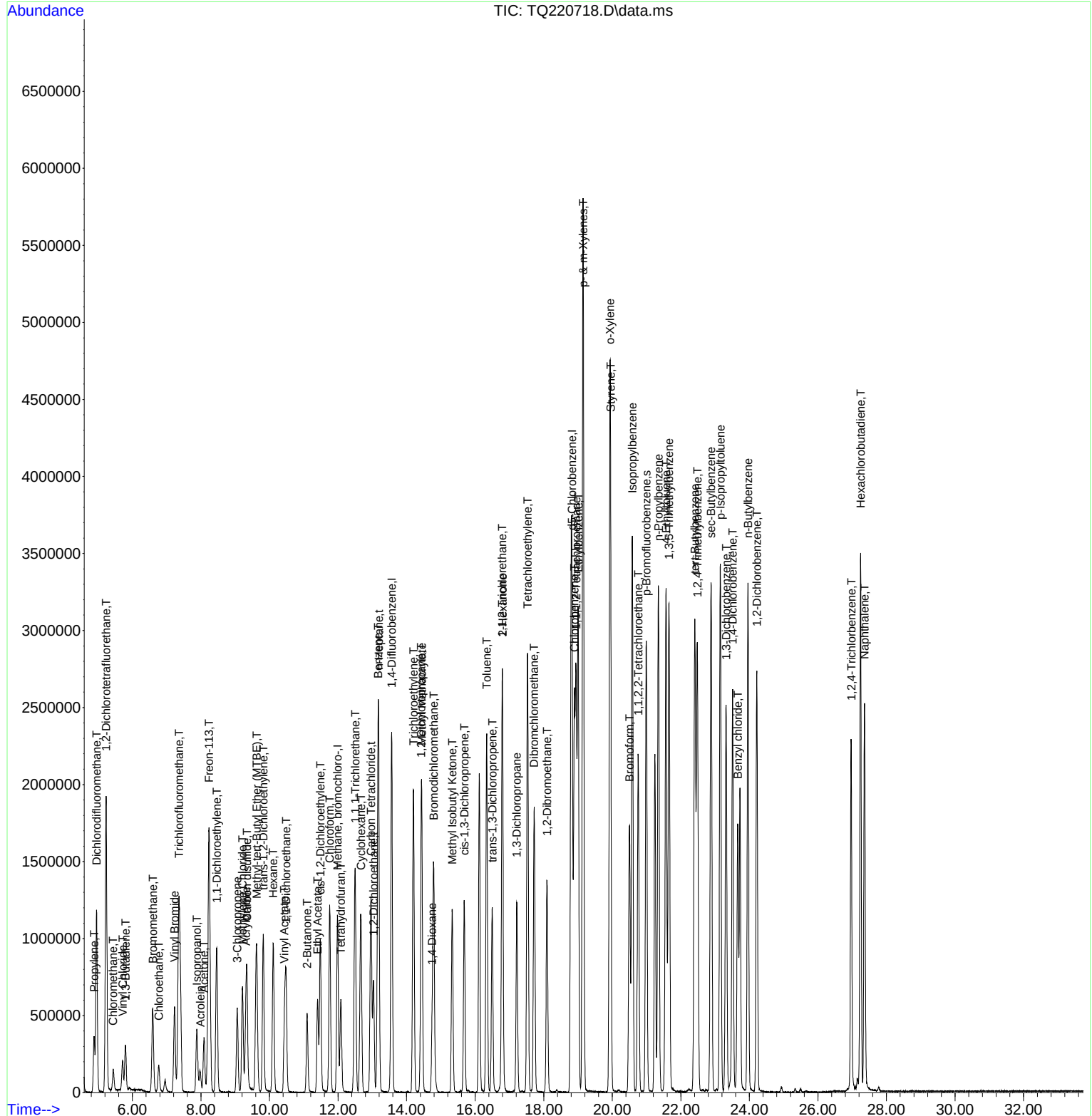
Quant Time: Jun 22 16:53:35 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.528	166	1637096	7.78	ppbv	98
51) Dibromchloromethane	17.718	129	2012102	9.36	ppbv	98
52) 1,2-Dibromoethane	18.094	107	1811908	8.47	ppbv	99
54) Chlorobenzene	18.892	112	2845395	8.36	ppbv #	100
55) 1,1,1,2-Tetrachloroethane	18.946	131	1503655	8.89	ppbv	93
56) Ethylbenzene	19.004	91	4433563	8.55	ppbv	96
57) p- & m-Xylenes	19.146	91	6677375	17.14	ppbv	97
58) o-Xylene	19.930	91	3475563	8.49	ppbv	99
59) Styrene	19.949	104	2666814	8.09	ppbv #	100
60) Bromoform	20.499	173	1615973	8.93	ppbv	99
61) n-Propylbenzene	21.345	91	5455784	8.24	ppbv	98
62) Isopropylbenzene	20.586	105	4937019	8.51	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.760	83	2210868	7.92	ppbv	98
65) 4-Ethyltoluene	21.567	105	4660777	8.14	ppbv	98
66) 1,3,5-Trimethylbenzene	21.650	105	3824480	7.93	ppbv	96
67) tert-Butylbenzene	22.406	119	4170600	7.83	ppbv	93
68) 1,2,4-Trimethylbenzene	22.480	105	3854103	7.83	ppbv #	91
69) sec-Butylbenzene	22.882	105	5341705	7.55	ppbv #	94
70) p-Isopropyltoluene	23.152	119	4402222	7.39	ppbv	96
71) 1,3-Dichlorobenzene	23.322	146	2374633	7.71	ppbv	98
72) 1,4-Dichlorobenzene	23.509	146	2332017	7.55	ppbv	98
73) Benzyl chloride	23.657	91	2675444	7.39	ppbv	95
74) n-Butylbenzene	23.959	91	3623528	6.86	ppbv #	76
75) 1,2-Dichlorobenzene	24.216	146	2317002	7.51	ppbv	98
76) 1,2,4-Trichlorobenzene	26.972	180	1328387	6.21	ppbv	98
77) Hexachlorobutadiene	27.242	225	1176600	5.72	ppbv	99
78) Naphthalene	27.357	128	3916243	6.14	ppbv	100

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

Data Path : C:\msdchem\1\data\062222\
Data File : TQ220718.D
Acq On : 22 Jun 2022 7:50 am
Operator : AS
Sample : BF21412-BS1
Misc : QBT02062222A LCS
ALS Vial : 94 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Jun 22 16:53:35 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration



LCS RAW DATA

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220733.D
 Acq On : 23 Jun 2022 4:39 am
 Operator : LLJ
 Sample : BF21498-BS1
 Misc : QBT02062322A LCS
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 23 05:14:03 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

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

Internal Standards						
1) Methane, bromochloro-	11.972	49	582885	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.561	114	3273013	10.00	ppbv	0.01
53) d5-Chlorobenzene	18.824	117	2836074	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1912156	10.31	ppbv	0.02
Spiked Amount 10.000	Range 70 - 130		Recovery	=	103.10%	
Target Compounds						
						Qvalue
2) Propylene	4.867	42	223634	7.94	ppbv	96
3) Dichlorodifluoromethane	4.940	85	2081370	11.16	ppbv	97
4) 1,2-Dichlorotetrafluor...	5.217	85	1919983	12.41	ppbv	98
5) Chloromethane	5.429	50	253618	8.27	ppbv	82
6) Vinyl Chloride	5.696	62	349315	8.24	ppbv	100
7) 1,3-Butadiene	5.783	54	231651	8.10	ppbv	97
8) Bromomethane	6.577	94	715358	11.41	ppbv	98
9) Chloroethane	6.757	64	292945	9.93	ppbv	# 51
10) Vinyl Bromide	7.210	106	760343	11.42	ppbv	100
11) Trichlorofluoromethane	7.339	101	2049586	11.68	ppbv	# 97
12) Isopropanol	7.866	45	914685	8.93	ppbv	100
13) Acrolein	7.963	56	204431	7.92	ppbv	# 85
14) Acetone	8.072	43	734616	7.76	ppbv	93
15) Freon-113	8.223	101	1621726	11.24	ppbv	98
16) 1,1-Dichloroethylene	8.445	61	1028228	9.65	ppbv	82
17) 3-Chloropropene	9.046	41	524013	8.24	ppbv	# 87
18) Methylene Chloride	9.194	49	547055	8.30	ppbv	# 60
19) Acrylonitrile	9.294	53	359253	8.48	ppbv	97
20) Carbon disulfide	9.323	76	1965199	10.36	ppbv	91
21) Methyl-tert-Butyl Ethe...	9.612	73	2083248	10.28	ppbv	# 91
22) trans-1,2-Dichloroethy...	9.805	61	906575	9.88	ppbv	# 78
23) Hexane	10.101	57	850397	9.32	ppbv	88
24) Vinyl Acetate	10.429	43	1033012	7.96	ppbv	# 98
25) 1,1-Dichloroethane	10.468	63	1181786	10.02	ppbv	# 64
26) 2-Butanone	11.085	43	915727	8.37	ppbv	# 76
27) Ethyl Acetate	11.397	43	1019445	8.77	ppbv	# 45
28) cis-1,2-Dichloroethylene	11.474	61	840857	9.15	ppbv	# 56
29) Chloroform	11.750	83	1708769	10.98	ppbv	# 94
30) Tetrahydrofuran	12.075	42	501769	8.35	ppbv	# 70
31) 1,1,1-Trichlorethane	12.487	97	1826770	11.35	ppbv	94
32) Cyclohexane	12.657	56	892170	9.42	ppbv	# 76
33) Carbon Tetrachloride	12.950	117	1417847	10.05	ppbv	# 55
34) 1,2-Dichloroethane	13.027	62	1007387	10.49	ppbv	100
35) Benzene	13.156	78	2294001	9.87	ppbv	# 79
36) n-Heptane	13.181	43	798083	8.58	ppbv	# 90
38) Trichloroethylene	14.191	95	1139368	8.52	ppbv	94
39) 1,2-Dichloropropane	14.422	63	690645	7.98	ppbv	86
40) Methyl Methacrylate	14.442	69	779100	8.27	ppbv	94
41) 1,4-Dioxane	14.744	88	582022	7.51	ppbv	# 100
42) Bromodichloromethane	14.786	83	1669538	9.01	ppbv	# 92
43) Methyl Isobutyl Ketone	15.329	43	1101886	6.00	ppbv	# 82
44) cis-1,3-Dichloropropene	15.676	75	1311172	8.75	ppbv	94
45) Toluene	16.332	91	3226430	8.77	ppbv	99
46) trans-1,3-Dichloropropene	16.493	75	1216071	9.01	ppbv	94
47) 1,1,2-Trichlorethane	16.782	97	1088993	9.14	ppbv	90
48) 2-Hexanone	16.795	43	998642	5.74	ppbv	# 91
49) 1,3-Dichloropropane	17.213	76	1417471	8.66	ppbv	# 82

Data Path : C:\msdchem\1\data\062322\
 Data File : TQ220733.D
 Acq On : 23 Jun 2022 4:39 am
 Operator : LLJ
 Sample : BF21498-BS1
 Misc : QBT02062322A LCS
 ALS Vial : 94 Sample Multiplier: 1
 InstName : T015_AIR2

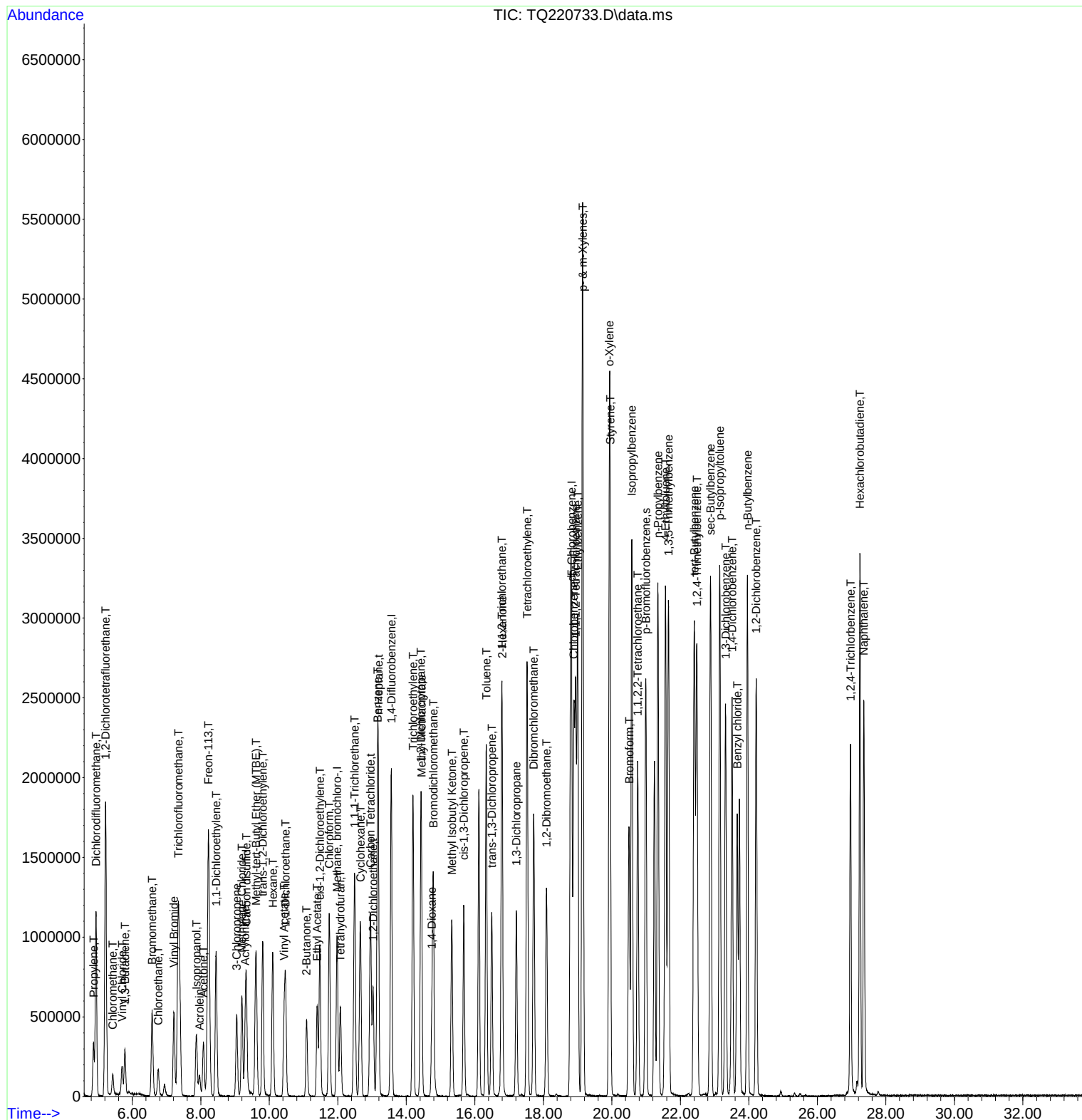
Quant Time: Jun 23 05:14:03 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
50) Tetrachloroethylene	17.525	166	1560824	8.45	ppbv	98
51) Dibromchloromethane	17.718	129	1927770	10.22	ppbv	98
52) 1,2-Dibromoethane	18.088	107	1722142	9.18	ppbv	99
54) Chlorobenzene	18.888	112	2697303	9.04	ppbv #	86
55) 1,1,1,2-Tetrachloroethane	18.943	131	1415739	9.55	ppbv	93
56) Ethylbenzene	18.998	91	4177873	9.19	ppbv	96
57) p- & m-Xylenes	19.146	91	6384314	18.70	ppbv	98
58) o-Xylene	19.927	91	3323886	9.26	ppbv	99
59) Styrene	19.950	104	2554333	8.84	ppbv #	100
60) Bromoform	20.503	173	1564401	9.87	ppbv	99
61) n-Propylbenzene	21.342	91	5318097	9.16	ppbv	98
62) Isopropylbenzene	20.580	105	4752759	9.34	ppbv	97
63) 1,1,2,2-Tetrachloroeth...	20.753	83	2108800	8.62	ppbv #	97
65) 4-Ethyltoluene	21.564	105	4589804	9.15	ppbv	98
66) 1,3,5-Trimethylbenzene	21.650	105	3738001	8.84	ppbv	96
67) tert-Butylbenzene	22.406	119	4079830m	8.74	ppbv	
68) 1,2,4-Trimethylbenzene	22.483	105	3761654	8.72	ppbv #	88
69) sec-Butylbenzene	22.879	105	5240619	8.45	ppbv #	96
70) p-Isopropyltoluene	23.149	119	4272746	8.19	ppbv	96
71) 1,3-Dichlorobenzene	23.319	146	2305984	8.54	ppbv	98
72) 1,4-Dichlorobenzene	23.509	146	2248836	8.31	ppbv	97
73) Benzyl chloride	23.660	91	2640162	8.32	ppbv	95
74) n-Butylbenzene	23.956	91	3504956	7.57	ppbv	98
75) 1,2-Dichlorobenzene	24.213	146	2240639	8.29	ppbv	97
76) 1,2,4-Trichlorobenzene	26.965	180	1277333	6.82	ppbv	98
77) Hexachlorobutadiene	27.239	225	1123912	6.23	ppbv	99
78) Naphthalene	27.354	128	3829034	6.87	ppbv	100

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

Data Path : C:\msdchem\1\data\062322\
Data File : TQ220733.D
Acq On : 23 Jun 2022 4:39 am
Operator : LLJ
Sample : BF21498-BS1
Misc : QBT02062322A LCS
ALS Vial : 94 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Jun 23 05:14:03 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration



Batch Canister Certification Prep Logs

York Analytical Canister Batch Certification Report

Page: 1 of 1

Cleaning Batch ID: 4283

<u>Technician:</u>	LieLing	<u>Heating Unit:</u>	2,3
<u>Batch Cleaning Date:</u>	5/28/2022	<u>Cleaning Cycles:</u>	15
<u>Cert Run Analysis Date:</u>	6/10/2022 6:34:00 PM	<u>Method Blank SN:</u>	41843
<u>Certification Date:</u>	6/10/2022	<u>CertificationRunID:</u>	TO15_AIR2_BF20169

Hardware SN	type	Analyzed	Cert Run. ID	File ID	Cert Time				
16144	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:02:28 AM	Fin.Pressure: -30 6/8/2022 10:32:18 AM	Pass: Yes			
16152	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:02:40 AM	Fin.Pressure: -30 6/8/2022 10:32:21 AM	Pass: Yes			
16694	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:02:48 AM	Fin.Pressure: -28 6/8/2022 10:32:25 AM	Pass: Yes			
16974	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:03:00 AM	Fin.Pressure: -30 6/8/2022 10:32:30 AM	Pass: Yes			
16976	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:03:14 AM	Fin.Pressure: -30 6/8/2022 10:32:37 AM	Pass: Yes			
17351	6	No	Leak Check: Date /Time:	Init.Pressure:	Fin.Pressure:	Pass: No			
moved to batch 4289									
18315	6	No	Leak Check: Date /Time:	Init.Pressure: -28 6/6/2022 11:03:46 AM	Fin.Pressure: -24 6/8/2022 10:32:45 AM	Pass: No			
19527	6	No	Leak Check: Date /Time:	Init.Pressure: -26	Fin.Pressure: -22 6/3/2022 3:12:39 PM	Pass: No			
leaking; removed from batch									
24109	6	No	Leak Check: Date /Time:	Init.Pressure: -28 6/6/2022 11:04:50 AM	Fin.Pressure: -28 6/8/2022 10:33:20 AM	Pass: Yes			
24113	6	No	Leak Check: Date /Time:	Init.Pressure: -28 6/6/2022 11:04:53 AM	Fin.Pressure: -28 6/8/2022 10:33:24 AM	Pass: Yes			
24114	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:04:57 AM	Fin.Pressure: -30 6/8/2022 10:33:56 AM	Pass: Yes			
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28856	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:05:35 AM	Fin.Pressure: -30 6/8/2022 10:34:13 AM	Pass: Yes			
34502	6	No	Leak Check: Date /Time:	Init.Pressure: -29 6/6/2022 11:05:47 AM	Fin.Pressure: -29 6/8/2022 10:34:16 AM	Pass: Yes			
36889	6	Yes	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:05:58 AM	Fin.Pressure: -30 6/14/2022 12:47:30 PM	Pass: Yes			
QBS/INDIV CERT		<table><tr><td>TO15_AIR2_BF20169</td><td>TQ220542b.D</td><td>6/10/2022 6:34:00 PM</td></tr></table>					TO15_AIR2_BF20169	TQ220542b.D	6/10/2022 6:34:00 PM
TO15_AIR2_BF20169	TQ220542b.D	6/10/2022 6:34:00 PM							
36998	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:06:02 AM	Fin.Pressure: -30 6/8/2022 10:34:23 AM	Pass: Yes			
37319	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:06:09 AM	Fin.Pressure: -30 6/8/2022 10:34:27 AM	Pass: Yes			
41934	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:06:17 AM	Fin.Pressure: -30 6/8/2022 10:34:30 AM	Pass: Yes			
43007	6	No	Leak Check: Date /Time:	Init.Pressure: -30 6/6/2022 11:06:24 AM	Fin.Pressure: -30 6/8/2022 10:34:46 AM	Pass: Yes			
INDIV CERT									

Wednesday, July 6, 2022

Batch Canister Certification

Data Path : C:\msdchem\1\data\060922\
 Data File : TQ220542b.D
 Acq On : 10 Jun 2022 6:34 pm
 Operator : AS
 Sample : BF20169-BLK4
 Misc : QBT02061022A CAN#36889; BATCH: 4283
 ALS Vial : 2 Sample Multiplier: 1
 InstName : T015_AIR2

Quant Time: Jun 10 19:18:20 2022
 Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
 Quant Title : T015 VOC Analysis
 QLast Update : Thu May 05 10:30:04 2022
 Response via : Initial Calibration

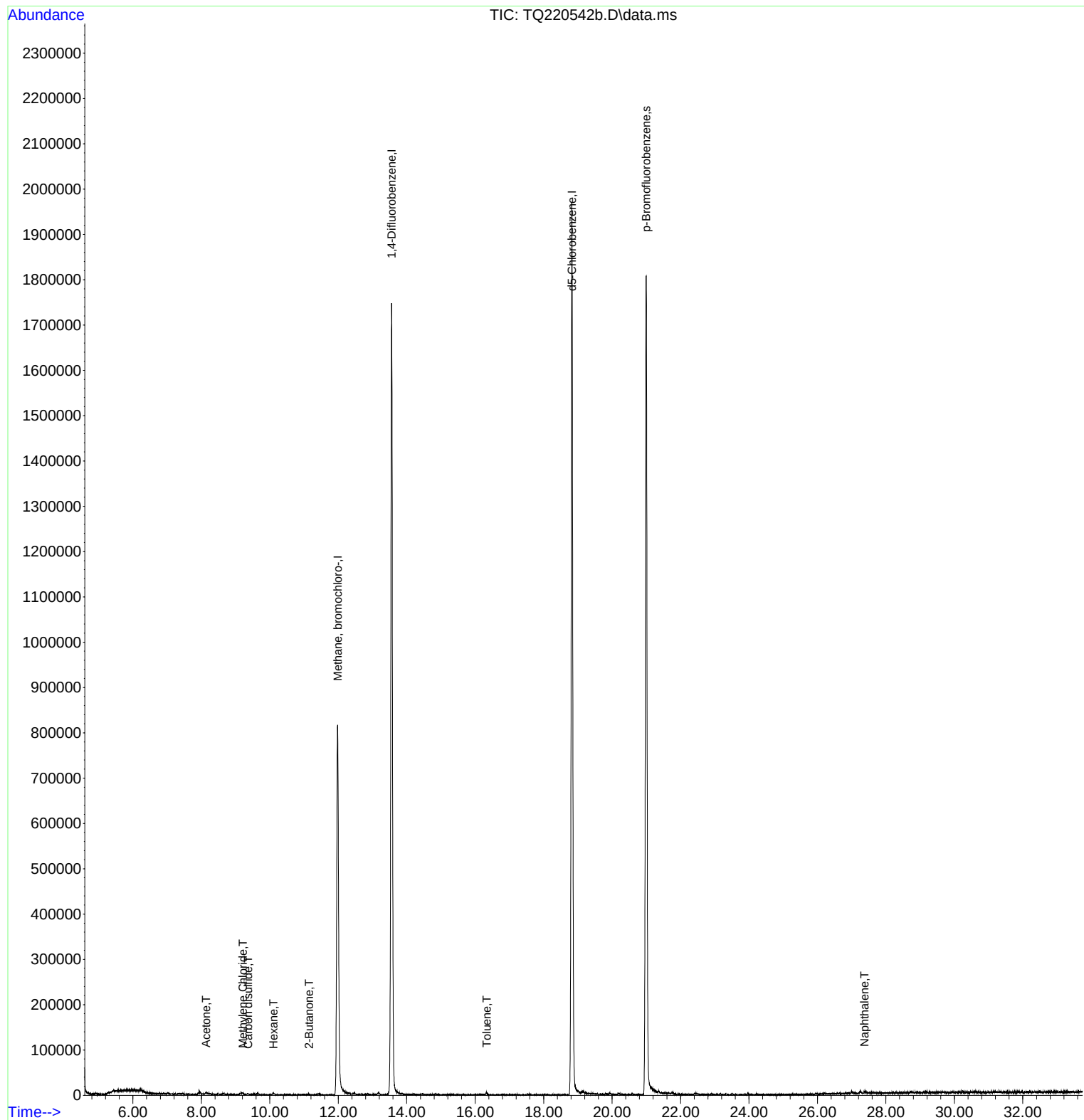
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Methane, bromochloro-	11.979	49	568860	10.00	ppbv	# 0.00
37) 1,4-Difluorobenzene	13.557	114	2821678	10.00	ppbv	0.00
53) d5-Chlorobenzene	18.824	117	2343689	10.00	ppbv	0.02
System Monitoring Compounds						
64) p-Bromofluorobenzene	20.991	95	1337981	8.73	ppbv	0.02
Spiked Amount	10.000	Range	70 - 130	Recovery	=	87.30%
Target Compounds						
						Qvalue
12) Isopropanol	7.937	45	13213m	Below	Cal	
14) Acetone	8.133	43	9534m	0.10	ppbv	
18) Methylene Chloride	9.210	49	3272	0.05	ppbv	# 43
20) Carbon disulfide	9.358	76	5854m	0.03	ppbv	
23) Hexane	10.104	57	2652m	0.03	ppbv	
26) 2-Butanone	11.143	43	2378m	0.02	ppbv	
45) Toluene	16.332	91	7068	0.02	ppbv	# 66
78) Naphthalene	27.374	128	10687m	0.02	ppbv	

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

Data Path : C:\msdchem\1\data\060922\
Data File : TQ220542b.D
Acq On : 10 Jun 2022 6:34 pm
Operator : AS
Sample : BF20169-BLK4
Misc : QBT02061022A CAN#36889; BATCH: 4283
ALS Vial : 2 Sample Multiplier: 1
InstName : T015_AIR2

Quant Time: Jun 10 19:18:20 2022
Quant Method : C:\msdchem\1\methods\AIR-2-0057.M
Quant Title : T015 VOC Analysis
QLast Update : Thu May 05 10:30:04 2022
Response via : Initial Calibration



BENCHSHEETS

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR : **BF21412**

Preparation Date: **06/22/2022 03:00**

York Analytical Laboratories, Inc.

Printed: 6/27/2022 6:58:11AM

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
22F1004-02 A	Volatile Organics, EPA TO15 Full List	-10.92	+5.74			
22F1004-03 A	Volatile Organics, EPA TO15 Full List	-10.17	+5.25			
22F1033-01 A	Volatile Organics, EPA TO15 Full List	-10.78	+5.27			
BF21412-BLK1	QC	NA	NA			
BF21412-BS1	QC	NA	NA		Y22F016	
BF21412-DUP1	QC	-10.92	+5.74		22F1004-02	

Preparations Performed by AS

Date: 06/22/2022 03:00

BENCHSHEETS

SDG: 22F1033
CLASS: AIR
METHOD: EPA TO-15

PREPARATION BENCH SHEET-AIR : BF21498

Preparation Date: 06/23/2022 02:00

York Analytical Laboratories, Inc.

Printed: 6/27/2022 6:57:57AM

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
22F1004-01 A	Volatile Organics, EPA TO15 Full List	-7.1	+6.96			From BF21412 by AS on 06/
22F1004-03RE1 A	Volatile Organics, EPA TO15 Full List	-10.17	+5.25			From BF21412 by AS on 06/
22F1033-02 A	Volatile Organics, EPA TO15 Full List	-4.73	+5.12			From BF21412 by AS on 06/
22F1033-03 A	Volatile Organics, EPA TO15 Full List	-3.71	+6.68			From BF21412 by AS on 06/
22F1033-04 A	Volatile Organics, EPA TO15 Full List	-4.38	+5.23			From BF21412 by AS on 06/
22F1033-05 A	Volatile Organics, EPA TO15 Full List	-3.97	+5.49			From BF21412 by AS on 06/
22F1086-01 A	Volatile Organics, EPA TO15 Full List	-7.67	+5.1			
22F1086-02 A	Volatile Organics, EPA TO15 Full List	-4.31	+6.2			
22F1086-02RE1 A	Volatile Organics, EPA TO15 Full List	-4.31	+6.2			Added 6/24/2022 by AS
22F1086-03 A	Volatile Organics, EPA TO15 Full List	-8.16	+5.8			
22F1086-03RE1 A	Volatile Organics, EPA TO15 Full List	-8.16	+5.8			Added 6/24/2022 by AS
BF21498-BLK1	QC	NA	NA			
BF21498-BS1	QC	NA	NA		Y22F016	
BF21498-DUP1	QC	-7.1	+6.96		22F1004-01	

Preparations Performed by LLJ

Date: 06/23/2022 02:00

Injection Logs



Canister Order No.: 4183

Langan Engineering & Environmental Services (NJ)

Order Created: 6/13/2022

Order Filled: 6/17/2022

Order Returned: 6/20/2022

Laboratory Analysis Log

Can Order: 4183 Workorder 22F1033

Instrument: TO15_AIR2

Batch	QC	Analyzed	FileID	Analyst
BF21412	TUN1	6/22/2022 5:53:00 AM	TQ220716.D	AS
BF21412	CCV1	6/22/2022 6:51:00 AM	TQ220717.D	AS
BF21412	BS1	6/22/2022 7:50:00 AM	TQ220718.D	AS
BF21412	BLK1	6/22/2022 9:55:00 AM	TQ220720.D	AS
BF21412	DUP1	6/22/2022 12:14:00 PM	TQ220722.D	AS

SampleID	Analysis	Analyzed	FileID	Analyst
22F1033-01	Volatile Organics, EPA TO15 Full List	6/22/2022 3:35:00 PM	TQ220725.D	AS

Instrument: TO15_AIR2

Batch	QC	Analyzed	FileID	Analyst
BF21498	TUN1	6/23/2022 2:44:00 AM	TQ220731.D	LLJ
BF21498	CCV1	6/23/2022 3:41:00 AM	TQ220732.D	LLJ
BF21498	BS1	6/23/2022 4:39:00 AM	TQ220733.D	LLJ
BF21498	BLK1	6/23/2022 8:08:00 AM	TQ220736.D	LLJ
BF21498	DUP1	6/23/2022 3:22:00 PM	TQ220743.D	LLJ

SampleID	Analysis	Analyzed	FileID	Analyst
22F1033-02	Volatile Organics, EPA TO15 Full List	6/23/2022 10:08:00 AM	TQ220738.D	LLJ
22F1033-03	Volatile Organics, EPA TO15 Full List	6/23/2022 11:10:00 AM	TQ220739.D	LLJ
22F1033-04	Volatile Organics, EPA TO15 Full List	6/23/2022 12:13:00 PM	TQ220740.D	LLJ
22F1033-05	Volatile Organics, EPA TO15 Full List	6/23/2022 1:16:00 PM	TQ220741.D	LLJ



Canister Order No.: 4183

Langan Engineering & Environmental Services (NJ)

Order Created: 6/13/2022

Order Filled: 6/17/2022

Order Returned: 6/20/2022

Laboratory Analysis Log

Laboratory Bench Sheet

Canister Order No.: 4183

Type	Sample ID	Hardare SN	Flow Rate	Initial Pressure	Final Pressure	Pressure DF	Sample Volume	Analysis DF	Final DF	Cert Batch No.
FC	22F1033-03	Y-15	42.87 ml/min							
FC		7363	44.11 ml/min							
FC	22F1033-01	7360	12.71 ml/min							
FC	22F1033-05	6865	44.44 ml/min							
FC	22F1033-04	5624	38.53 ml/min							
FC	22F1033-02	13560	39.49 ml/min							
Can	22F1033-01	41934		10.78 InHg	5.27 psig	2.123	750	0.533	1.131	4283
Can	22F1033-04	37319		4.38 InHg	5.23 psig	1.588	400	1	1.588	4283
Can	22F1033-05	34502		3.97 InHg	5.49 psig	1.583	400	1	1.583	4283
Can	22F1033-03	28856		3.71 InHg	6.68 psig	1.66	400	1	1.66	4283
Can	returned unused	24113								4283
Can	22F1033-02	16976		4.73 InHg	5.12 psig	1.601	400	1	1.601	4283

Media Request Form



Air Sampling Media Request Form

132-02 89th Avenue
Richmond Hill, New York 11418
TEL: 203-325-1371

Canister Order No.: 4183

Order Date: 6/13/2022

Client:

Requested By: kkarcich

Company: **Langan Engineering & Environmental Services (NJ)**

Client Contact: Allyson Kritzer

Address: 300 Kimball Drive, 4th Floor

Hardware Needed By: 6/20/2022 am

Parsipanny, NJ 07054-2172

Phone: (973) 560-4900

Expected Return Date: 7/4/2022

Project:

Ship Date:

Delivery Method:	York Courier
Drop Off Address:	356 Bond St @ 7:00 AM
Special Instructions / Additional Info:	

Type of Sample:							
Type	Size	Technique	Flow Rate	Sample Time (hr)	Quantity	IndivCert	DigitalGauge
CANISTER	6	RESTRICTEDSAMPLING		6	1	No	No
CANISTER	6	RESTRICTEDSAMPLING		2	5	No	No

Hardware Details :

Description	Type	Serial Number	Lab Sample ID	Cert Batch No.
Canister	6	16976	22F1033-02	4283
Canister	6	24113	returned unused	4283
Canister	6	28856	22F1033-03	4283
Canister	6	34502	22F1033-05	4283
Canister	6	37319	22F1033-04	4283
Canister	6	41934	22F1033-01	4283
FlowController	CS1200ES	13560	22F1033-02	
FlowController	CS1200	5624	22F1033-04	
FlowController	CS1200E2	6865	22F1033-05	
FlowController	CS1200E3	7360	22F1033-01	
FlowController	CS1200E3	7363		
FlowController	-1	Y-15	22F1033-03	



USE AGREEMENT FORM

Summa Canisters and Flow Controllers

1. York Analytical Laboratories, Inc. (YORK) has provided the specifically identified asset(s) on the Air Sampling Media Request form for your exclusive use. These assets were provided to you on the date indicated, in proper working order, certified clean and calibrated where appropriate. By signing this Agreement Form you acknowledge that assets signed for will be returned in the same condition as received. York is providing you will a valuable asset(s) (the canisters and flow controllers have a combined value of \$1225). As such, York may require a credit card to serve as collateral for the loan of these assets.
2. Assets that are damaged, lost or stolen will be billed to you for replacement at the following costs:
 - Replacement flow controller (analog gauge) - \$585.00
 - Replacement flow controller (digital gauge) - \$795.00
 - Summa Canisters - \$ 640.00
3. Limits on Time of Use – Canisters and flow controllers must be returned to York within 14 days of receipt. After such time, York may charge \$50 /week (1 week minimum) for each flow controller/canister set not returned.
4. Return of Unused Canisters/Flow Controllers – For each project, York prepares canisters by certifying them clean (either batch or individual) and calibrates the flow controllers to your project specifications. York provides one extra canister/flow controller set as field contingency units at no fee. For canister and flow controllers requested but not used (excepting the contingency unit) there will be a \$75 per canister/flow controller unit not used for sampling.
5. By signing the front of this form you agree to the above terms and conditions.

Customer Signature

Date

York Asset Control Officer

Contact:

Clientservices@yorklab.com

203-325-1371

*120 Research Drive
132-02 89th Ave.*

*Stratford, CT 06615
Richmond Hill, NY 11418*

ATTACHMENT C

Data Usability Summary Report

989 Lenox Drive Lawrenceville, NJ 08648 T: 609.282.8000
Mailing Address: 989 Lenox Drive Lawrenceville, NJ 08648

To: Allyson Kritzer, Langan Senior Staff Engineer

From: Joe Conboy, Langan Senior Staff Chemist

Date: August 5, 2022

Re: Data Usability Summary Report
For 365 Bond Street
June 2022 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in June 2022 by Langan Engineering and Environmental Services at the 365 Bond Street site. The samples were analyzed by York Analytical Laboratories, Inc. (NELAP registration # 10854 and 12058) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by USEPA Method TO-15

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6),
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator.

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street
June 2022 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
August 5, 2022 Page 2 of 4

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. All (1 SDG) SDGs underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- R** – The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** – The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified in Table 2 (attached).

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street
June 2022 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
August 5, 2022 Page 3 of 4

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method TO-15:

22F1033

The LCS for batch BF21412 exhibited percent recoveries below the LCL for 4-methyl-2-pentanone (56.6%), 1,2,4-trichlorobenzene (62.1%), 2-hexanone (53.4%), and hexachlorobutadiene (57.2%). The associated results in sample 876_AMBIENT-1 are qualified as J or UJ because of potential low bias.

The LCS for batch BF21498 exhibited percent recoveries below the LCL for 4-methyl-2-pentanone (60%), 1,2,4-trichlorobenzene (68.2%), 2-hexanone (57.4%), and hexachlorobutadiene (62.3%). The associated results in samples 877_V5, 878_V2, 879_V3, and 880_DUP-1 are qualified as J or UJ because of potential low bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. No other deficiencies were identified.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than $\pm 1X$ the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for vapor. The following field duplicate and parent sample pair was compared to and met precision criteria:

- 880_DUP-1 and 879_V3

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street
June 2022 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
August 5, 2022 Page 4 of 4

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:



Joe Conboy
Senior Staff Chemist

4 April 2024

Sadique Ahmed
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Soil Vapor Monitoring Report – Year 7
365 Bond Street
Brooklyn, New York
BCP Site No. C224174
Langan Project No.: 100287503

Dear Mr. Ahmed:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this letter report to summarize periodic soil vapor sampling during the fifth year of passive sub-membrane depressurization system (SMDS) operation at 365 Bond Street in Brooklyn, New York (the “site”). The soil vapor monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) dated September 2015, prepared by Langan.

Background

The site is located at 365 Bond Street in the City of Brooklyn, Kings County, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. The site is approximately 2.066 acres and is located on the city block bordered by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west. Site location is shown on Figure 1.

The site was remediated under the NYSDEC Brownfield Cleanup Program in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRM) and Remedial Action Work Plan (RAWP), as described in the September 2015 Final Engineering Report (FER) and Construction Completion Report (CCR). As part of the remediation, soil vapor mitigation measures included installation of a sub-membrane piping network for a passive SMDS and a vapor barrier membrane beneath the ground floor slab of the building. The SMDS as-built layout is shown on Figure 2.

The site was redeveloped as a five- to twelve-story mixed-use commercial/residential building with a partial basement that was opened for residential occupation in April 2016. The building is being operated in accordance with the SMP which in part specifies that periodic soil vapor monitoring be completed to assess the effectiveness of the remedy. The SMP specifies that monitoring occur annually during the heating season unless otherwise required by NYSDEC to assess system effectiveness and determine if expansion to an active SMDS is warranted.

SMDS Inspection and Soil Vapor Sampling

On 2 March 2023, Langan conducted a visual inspection of the above-ground SMDS components prior to collecting sub-membrane soil vapor samples. The results of the inspection confirmed that all system components are in good condition. Langan also completed field screening of the soil vapor using a RKI Instruments GX-6000 photo-ionization detector (PID) capable of detecting volatile organic compound (VOC) in the parts per billion (ppb) range. System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sample port (V2, V3 and V5). Current and previous field screening data are provided in Table 1. VOC readings detected with the PID at the sample ports ranged from 0 ppb to 28 ppb and vacuum measurements at the sample ports ranged from 0.032 inches water to 0.098 inches water. The field screening results indicate that very low levels of VOCs are present in the soil vapor collection system and that a vacuum condition exists that is removing these vapors from beneath the membrane. A copy of the passive SMDS inspection checklist and field data is provided in Attachment A.

Following the inspection and field screening, three sub-membrane soil vapor samples were collected using Summa canisters that were connected to each sample port via an approximately 3-foot length of Teflon-lined polyethylene tubing. Quality assurance/quality control (QA/QC) included collection of a duplicate sample (at the V3 location) and an ambient air sample from the exterior of the building. All samples were collected in accordance with the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel Summa canisters with flow control regulators supplied by the laboratory. The regulators were set to collect each sub-membrane soil vapor sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per United States Environmental Protection Agency (USEPA) / Interstate Technology and Regulatory Council (ITRC) soil vapor sampling guidance. Each sub-membrane soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored below a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis. All soil vapor and ambient air samples were submitted under chain of custody to York Analytical Laboratories, Inc. of Stratford, Connecticut (York) a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Soil vapor and ambient air samples were laboratory analyzed for VOCs via the USEPA TO-15 Method. A copy of the Summa canister log is provided in Attachment A.

Laboratory Analytical Results

Currently, no NYSDEC or NYSDOH standards exist for VOCs in soil vapor. A summary of the sub-membrane soil vapor analytical results from this sampling event is provided in Table 2 and shown on Figure 3. The complete laboratory report for the March 2023 sampling event is provided in Attachment B. Duplicate soil vapor sample results are not included in this discussion as these samples are collected for quality assurance/quality control verification of

the laboratory results only and are discussed below. The following table provides a summary of compounds that were detected:

Analyte	Minimum Detected Concentration (microgram per cubic meter (µg/m³))	Maximum Detected Concentration (µg/m³)
1,2,4-Trimethylbenzene	1.4 J at V5	2.6 D at V3
1,3,5-Trimethylbenzene (Mesitylene)	0.83 D at V2	
4-Ethyltoluene	1.3 J at V5	2.1 D at V3
Acetone	3.7 J at V5	10 D at V3
Benzene	1 J at V5	7 D at V3
Carbon Disulfide	0.79 D at V2	1 J at V5
Carbon Tetrachloride	0.39 J at V5	0.39 J at V5
Chloroform	1.7 D at V2	3.1 J at V5
Chloromethane	1.4 D at V3	2.7 J at V5
Cis-1,2-Dichloroethene	0.47 D at V2	2.3 J at V5
Cyclohexane	1.4 D at V3	
Dichlorodifluoromethane	2 D at V3	3.2 D at V2
Ethylbenzene	2.4 J at V5	2.8 D at V3
Isopropanol	3.2 D at V2	4.6 J at V5
M,P-Xylene	4.7 J at V5	9.7 D at V3
Methyl Ethyl Ketone (2-Butanone)	0.96 D at V2	2.3 D at V3
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1 D at V2	2.3 D at V3
Methylene Chloride	1.4 J at V2 and V5	1.5 D at V3
n-Heptane	0.61 D at V2	2.5 D at V3
n-Hexane	0.82 J at V5	4.9 D at V3
o-Xylene (1,2-Dimethylbenzene)	1.9 J at V5	3.4 D at V3
Tetrachloroethene (PCE)	1 D at V2	3 J at V5
Toluene	7.2 D at V2	18 D at V3
Trichloroethene (TCE)	0.56 D at V2	1.8 J at V5
Trichlorofluoromethane	1.3 D at V3	2 J at V5
Vinyl Chloride	0.24 J at V5	

The soil vapor results identified concentrations of chlorinated VOCs (CVOCs) including carbon tetrachloride, cis-1,2-dichloroethene, methylene chloride, PCE, TCE, and vinyl chloride. Total CVOC results detected above the laboratory reporting limit ranged from 1.5 µg/m³ at V3 located in the northern portion of the Site to 9.13 µg/m³ at V5 located in the eastern portion of the Site. Methylene chloride was detected in all soil vapor samples collected.

Although samples were not collected for a soil vapor intrusion investigation, the sub-membrane soil vapor analytical results were also compared to the NYSDOH Matrices A, B, and C of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. None of the compounds were detected in exceedance of the minimum NYSDOH Decision Matrix A, B, and C Compounds for soil vapor.

Concentrations of total BTEX in soil vapor above the laboratory reporting limit ranged from 17.9 $\mu\text{g}/\text{m}^3$ at V5 located in the eastern portion of the Site to 40.9 $\mu\text{g}/\text{m}^3$ at V3 located in the northern portion of the Site. Additional petroleum-related VOCs including 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were also detected. The highest concentrations of petroleum related compounds were identified in V3.

Although samples were not collected for a soil vapor intrusion investigation, the sub-membrane soil vapor analytical results were also compared to the NYSDOH Matrices D, E, and F of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. None of the compounds were detected in exceedance of the minimum NYSDOH Decision Matrix D, E, and F Compounds for soil vapor.

Due to the presence of the SMDS, the vapor barrier, and the building foundation, it is reasonably anticipated that indoor air concentrations of VOCs originating from soil vapor do not exist inside the building. Based on the remediation completed to date, the source of these vapors is likely residual contamination in soil that is being addressed by operation of the SMDS.

Historical sub-slab soil vapor analytical results are shown on Table 3. Comparison of the Year 7 monitoring analytical results to results from the four sampling events completed in Year 1 generally revealed a decrease in concentrations of total CVOCs and BTEX in all three sampling locations. A comparison of the Year 7 monitoring analytical results to the Year 6 sampling event results reveals that total CVOCs concentrations have generally remained stable or increased by less than one order of magnitude and BTEX concentrations have generally remained stable. Chlorinated VOCs were detected at concentrations requiring no further action when compared against the Matrix A, Matrix B, and Matrix C Vapor Intrusion thresholds during all seven sampling events.

Validation Overview

Data validation was completed for all sub-membrane soil vapor and ambient air results in accordance with the QAPP provided in the September 2015 SMP which included verification of sample results, verification of the identification of sample results, and recalculation of 10% of all sample results. Following data validation, a Data Usability Summary Report (DUSR) was prepared for all samples (and related QA/QC samples) collected during the monitoring event. The DUSR presents the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. The DUSR is included in Attachment C. Associated raw data is provided as Attachment B.

Conclusions

Based on the findings of this SMDS inspection and soil vapor monitoring event, the vacuum being produced in the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. A vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations for CVOCs were detected below the NYSDOH Vapor Intrusion Decision Matrix thresholds requiring further action.

Based on these findings, continued operation of the passive SMDS is sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. The operation, maintenance, and monitoring (OM&M) protocols provided in the SMP for this passive SMDS will consist of continued monitoring of the system annually during the heating season unless otherwise required by NYSDEC.

Sincerely,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



Christopher McMahon, CHMM
Associate Principal / Vice President



Steven Ciambuschini, P.G., L.E.P.
Senior Principal / Senior Vice President

CM:SAC:kn

Attachments: Table 1 – SMDS Screening Results

Table 2 – Summary of Sub-Slab Soil Vapor Analytical Results

Table 3 – Historical Sub-Slab Soil Vapor Analytical Results

Figure 1 – Site Location Map

Figure 2 – Sample Location Plan

Figure 3 – Sub-Slab Soil Vapor Analytical Results

Attachment A – Field Logs

Attachment B – Laboratory Analytical Results

Attachment C – Data Usability Summary Report (DUSR)

cc: Jennifer Jennings – LSG 365 Bond Street, LLC
Allyson Kritzer, Jessica Friscia – Langan

TABLES

Table 1
Soil Vapor Monitoring Report - Year 7
Field Screening Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Parameter	PID	PID	PID	PID	PID	PID	PID	PID	PID
Monitoring Event	Year 1, Month 1	Year 1, Month 3	Year 1, Month 6	Year 1, Month 12	Year 2	Year 3	Year 5	Year 6	Year 7
Date	5/20/2016	7/20/2016	10/20/2016	4/20/2017	2/13/2018	2/27/2019	4/8/2021	6/20/2022	3/2/2023
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Sample Port									
V2	329	239	373	1,058	637	70	7	0	28
V3	309	1,602	401	539	658	20	4	7	14
V5	257	0	363	717	640	10	0	0	0

Parameter	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum
Monitoring Event	Month 1	Month 3	Month 6	Month 12	Year 2	Year 3	Year 5	Year 6	Year 7
Date	5/20/2017	7/20/2017	10/20/2016	4/20/2017	2/13/2018	2/27/2019	4/8/2021	6/20/2022	3/2/2023
Units	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O
Sample Port									
V2	0.015	0.011	0.012	0.017	0.064	0.057	0.031	0.043	0.098
V3	0.005	0.006	0.009	0.011	0.029	0.025	0.012	0.016	0.032
V5	0.018	0.015	0.024	0.009	0.021	0.020	0.024	0.018	0.032

Notes:

ppb: parts per billion

in. H2O: inches of water

Table 2
Soil Vapor Monitoring Report - Year 7
Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	Ambient-1_365	V2_365	V3_365	V3_365	V5_365
		Sample Name	Ambient_030223	V2_030223	V3_030223	DUP030223	V5_030223
		Sample Date	03/02/2023	03/02/2023	03/02/2023	03/02/2023	03/02/2023
		Sample Type	AA	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	630-20-6	ug/m3	<0.71 U	<1 U	<1 U	<1.1 U	<1.1 UJ
1,1,1-Trichloroethane	71-55-6	ug/m3	<0.56 U	<0.81 U	<0.83 U	<0.9 U	<0.85 UJ
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	<0.71 U	<1 U	<1 U	<1.1 U	<1.1 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/m3	<0.79 U	<1.1 U	<1.2 U	<1.3 U	<1.2 UJ
1,1,2-Trichloroethane	79-00-5	ug/m3	<0.56 U	<0.81 U	<0.83 U	<0.9 U	<0.85 UJ
1,1-Dichloroethane	75-34-3	ug/m3	<0.42 U	<0.6 U	<0.62 U	<0.67 U	<0.63 UJ
1,1-Dichloroethene	75-35-4	ug/m3	<0.1 U	<0.15 U	<0.15 U	<0.16 U	<0.15 UJ
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<0.77 UJ	<1.1 U	<1.1 UJ	<1.2 UJ	<1.2 UJ
1,2,4-Trimethylbenzene	95-63-6	ug/m3	<0.51 U	1.8 D	2.6 D	2.7 D	1.4 J
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<0.79 U	<1.1 U	<1.2 U	<1.3 U	<1.2 UJ
1,2-Dichlorobenzene	95-50-1	ug/m3	<0.62 U	<0.89 U	<0.92 U	<0.99 U	<0.94 UJ
1,2-Dichloroethane	107-06-2	ug/m3	<0.42 U	<0.6 U	<0.62 U	<0.67 U	<0.63 UJ
1,2-Dichloropropane	78-87-5	ug/m3	<0.48 U	<0.69 U	<0.71 U	<0.76 U	<0.72 UJ
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	<0.72 U	<1 U	<1 U	<1.1 U	<1.1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/m3	<0.51 U	<0.73 U	0.83 D	0.97 D	<0.77 UJ
1,3-Butadiene	106-99-0	ug/m3	<0.69 U	<0.98 U	<1 U	<1.1 U	<1 UJ
1,3-Dichlorobenzene	541-73-1	ug/m3	<0.62 U	<0.89 U	<0.92 U	<0.99 U	<0.94 UJ
1,3-Dichloropropane	142-28-9	ug/m3	<0.48 U	<0.69 U	<0.71 U	<0.76 U	<0.72 UJ
1,4-Dichlorobenzene	106-46-7	ug/m3	<0.62 U	<0.89 U	<0.92 U	<0.99 U	<0.94 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<0.75 U	<1.1 U	<1.1 U	<1.2 U	<1.1 UJ
2-Hexanone (MBK)	591-78-6	ug/m3	<0.85 U	<1.2 U	<1.3 U	<1.3 U	<1.3 UJ
4-Ethyltoluene	622-96-8	ug/m3	<0.51 U	1.6 D	2.1 D	2 D	1.3 J
Acetone	67-64-1	ug/m3	14 D	4.1 D	10 D	7.5 D	3.7 J
Acrylonitrile	107-13-1	ug/m3	<0.22 U	<0.32 U	<0.33 U	<0.36 U	<0.34 UJ
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3	<1.6 U	<2.3 U	<2.4 U	<2.6 U	<2.4 UJ
Benzene	71-43-2	ug/m3	1.2 D	2.1 D	7 D	6.9 D	1 J
Benzyl Chloride	100-44-7	ug/m3	<0.54 U	<0.77 U	<0.79 U	<0.85 U	<0.81 UJ
Bromodichloromethane	75-27-4	ug/m3	<0.69 U	<0.99 U	<1 U	<1.1 U	<1 UJ
Bromoethene	593-60-2	ug/m3	<0.45 U	<0.65 U	<0.67 U	<0.72 U	<0.68 UJ
Bromoform	75-25-2	ug/m3	<1.1 U	<1.5 U	<1.6 U	<1.7 U	<1.6 UJ
Bromomethane	74-83-9	ug/m3	<0.4 U	<0.58 U	<0.59 U	<0.64 U	<0.6 UJ
Carbon Disulfide	75-15-0	ug/m3	0.35 D	0.79 D	<0.48 U	<0.51 U	1 J
Carbon Tetrachloride	56-23-5	ug/m3	0.39 D	<0.23 U	<0.24 U	<0.26 U	0.39 J
Chlorobenzene	108-90-7	ug/m3	<0.48 U	<0.68 U	<0.7 U	<0.76 U	<0.72 UJ
Chloroethane	75-00-3	ug/m3	<0.27 U	<0.39 U	<0.4 U	<0.43 U	<0.41 UJ
Chloroform	67-66-3	ug/m3	<0.5 U	1.7 D	<0.75 U	<0.8 U	3.1 J
Chloromethane	74-87-3	ug/m3	1.1 D	2.1 D	1.4 D	1.3 D	2.7 J
Cis-1,2-Dichloroethene	156-59-2	ug/m3	<0.1 U	0.47 D	<0.15 U	<0.16 U	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.47 U	<0.67 U	<0.69 U	<0.75 U	<0.71 UJ
Cyclohexane	110-82-7	ug/m3	0.5 D	<0.51 U	1.4 D	1.4 D	<0.54 UJ
Dibromochloromethane	124-48-1	ug/m3	<0.88 U	<1.3 U	<1.3 U	<1.4 U	<1.3 UJ
Dichlorodifluoromethane	75-71-8	ug/m3	1.8 D	3.2 D	2 D	2 D	2.8 J
Ethyl Acetate	141-78-6	ug/m3	<0.75 U	<1.1 U	<1.1 U	<1.2 U	<1.1 UJ
Ethylbenzene	100-41-4	ug/m3	0.45 D	2.6 D	2.8 D	2.9 D	2.4 J
Hexachlorobutadiene	87-68-3	ug/m3	<1.1 U	<1.6 UJ	<1.6 U	<1.8 U	<1.7 UJ
Isopropanol	67-63-0	ug/m3	80 BD	3.2 D	3.8 J	4 J	4.6 J
M,P-Xylene	179601-23-1	ug/m3	1.4 D	5.2 D	9.7 D	9.7 D	4.7 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	2.5 D	0.96 D	2.3 D	2 D	<0.46 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.42 U	1 D	2.3 D	2.4 D	1.8 J
Methyl Methacrylate	80-62-6	ug/m3	<0.42 U	<0.61 U	<0.62 U	<0.67 U	<0.64 UJ
Methylene Chloride	75-09-2	ug/m3	1.3 D	1.4 J	1.5 D	1.7 D	1.4 J
n-Heptane	142-82-5	ug/m3	0.51 D	0.61 D	2.5 D	2.5 D	<0.64 UJ
n-Hexane	110-54-3	ug/m3	2.5 D	1.4 D	4.9 D	4.8 D	0.82 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/m3	0.45 D	2 D	3.4 D	3.4 D	1.9 J
Propylene	115-07-1	ug/m3	<0.18 U	<0.26 U	5.9 D	5.7 D	<0.27 UJ
Styrene	100-42-5	ug/m3	<0.44 U	<0.63 U	<0.65 U	<0.7 U	<0.66 UJ
Tert-Butyl Methyl Ether	1634-04-4	ug/m3	<0.37 U	<0.54 U	<0.55 U	<0.59 U	<0.56 UJ
Tetrachloroethene (PCE)	127-18-4	ug/m3	1.9 D	1 D	<1 U	<1.1 U	3 J
Tetrahydrofuran	109-99-9	ug/m3	<0.61 U	<0.88 U	<0.9 U	<0.97 U	<0.92 UJ
Toluene	108-88-3	ug/m3	4.9 D	7.2 D	18 D	18 D	7.9 J
Trans-1,2-Dichloroethene	156-60-5	ug/m3	<0.41 U	<0.59 U	<0.61 U	<0.65 U	<0.62 UJ
Trans-1,3-Dichloropropene	10061-02-6	ug/m3	<0.47 U	<0.67 U	<0.69 U	<0.75 U	<0.71 UJ
Trichloroethene (TCE)	79-01-6	ug/m3	<0.14 U	0.56 D	<0.21 U	<0.22 U	1.8 J
Trichlorofluoromethane	75-69-4	ug/m3	1.2 D	1.6 D	1.3 D	1.3 D	2 J
Vinyl Acetate	108-05-4	ug/m3	<0.36 U	<0.52 U	<0.54 U	<0.58 U	<0.55 UJ
Vinyl Chloride	75-01-4	ug/m3	<0.13 U	<0.19 U	<0.2 U	<0.21 U	0.24 J
Total BTEX	—	ug/m3	8.4	19.1	40.9	40.9	17.9
Total CVOCs	—	ug/m3	3.59	3.43	1.5	1.7	9.13

Table 2
Soil Vapor Monitoring Report - Year 7
Soil Vapor Sample Analytical Results

Page 2 of 2

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Notes:

AA - Ambient Air
SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

Ambient air sample analytical results are shown for reference only.

Qualifiers:

D - The concentration reported is a result of a diluted sample.
B - The analyte was found in the associated analysis batch blank.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10 - Result exceeds minimum soil vapor concentrations recommending mitigation

Table 3
Soil Vapor Monitoring Report - Year 7
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	V2_365										
		Sample Name	0762-V2_20160520	0763-DUP-1_20160520	0778-V2_072016	794-V2-20161020	816-V2	861_V2	866-V2	873_V2	878_V2	V2_030223	
		Sample Date	05/20/2016	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022	03/02/2023	
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	ua/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	NA	<1.05 U	<1.26 U	<1.1 U	<1 U	
1,1,1-Trichloroethane	71-55-6	ua/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	
1,1,2,2-Tetrachloroethane	79-34-5	ua/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	<1.37 U	<1.05 U	<1.26 U	<1.1 U	<1 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ua/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.53 U	<1.17 U	<1.41 U	<1.3 U	<1.1 U	
1,1,2-Trichloroethane	79-00-5	ua/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	
1,1-Dichloroethane	75-34-3	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.746 U	<0.67 U	<0.6 U	
1,1-Dichloroethene	75-35-4	ug/m3	<0.84 U	<1 U	<0.45 U	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.365 U	<0.16 U	<0.15 U	
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<1.6 U	<1.9 U	<0.84 U	<0.74 U	<14 U	<1.48 U	<1.13 U	<1.37 U	<1.2 U	<1.1 U	
1,2,4-Trimethylbenzene	95-63-6	ug/m3	6.9 J	2.4 J	2.4 D	<0.49 U	<9.5 U	<0.983 U	6.46 D	5.07 D	17 D	1.8 D	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.54 U	<1.17 U	<1.42 U	<1.3 U	<1.1 U	
1,2-Dichlorobenzene	95-50-1	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	
1,2-Dichloroethane	107-06-2	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.745 U	<0.67 U	<0.6 U	
1,2-Dichloropropane	78-87-5	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.924 U	<0.707 U	<0.851 U	<0.77 U	<0.69 U	
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	<1.5 U	<1.8 U	<0.79 U	<0.7 U	<13 U	<1.4 U	<1.07 U	<1.29 U	<1.2 U	<1 U	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ua/m3	2.1 D	<1.3 U	0.61 D	<0.49 U	<9.5 U	<0.983 U	1.95 D	1.36 D	4.3 D	<0.73 U	
1,3-Butadiene	106-99-0	ua/m3	<1.4 U	<1.7 U	<0.75 U	<0.66 U	<13 U	<0.442 U	<1.01 U	<1.22 U	<1.1 U	<0.98 U	
1,3-Dichlorobenzene	541-73-1	ua/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	
1,3-Dichloropropane	142-28-9	ua/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	NA	<0.707 U	<0.851 U	<0.77 U	<0.69 U	
1,4-Dichlorobenzene	106-46-7	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 U	<14 U	<0.721 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	
2,2,4-Trimethylpentane	540-84-1	ug/m3	NA	NA	NA	NA	NA	<0.934 U	NA	NA	NA	NA	
2-Hexanone (MBK)	591-78-6	ug/m3	<1.7 U	<2.1 U	<0.93 U	<0.82 U	<16 U	<0.82 U	<4.64 U	<1.51 U	<1.4 U	<1.2 U	
4-Ethyltoluene	622-96-8	ug/m3	6.4 J	2 J	1.8 D	<0.49 U	<9.5 U	<0.983 U	5.86 J	4.35 D	14 D	1.6 D	
Acetone	67-64-1	ug/m3	48 D	58 D	14 D	2.4	280 D	19.7	6.28 D	2.63 D	4 D	4.1 D	
Acrylonitrile	107-13-1	ug/m3	<0.46 U	<0.56 U	<0.25 U	<0.22 U	<4.2 U	NA	<0.332 U	<0.4 U	<0.36 U	<0.32 U	
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3	<3.3 U	<4 U	<1.8 U	<1.6 U	<30 U	<0.626 U	<2.39 U	<2.88 U	<2.6 U	<2.3 U	
Benzene	71-43-2	ug/m3	9.4 D	6.4 D	0.98 D	<0.32 U	<6.1 U	1.08	2.78 D	2.94 D	2.9 D	2.1 D	
Benzyl Chloride	100-44-7	ug/m3	<1.1 U	<1.3 U	<0.59 U	<0.52 U	<10 U	<1.04 U	<0.792 U	<0.954 U	<0.86 U	<0.77 U	
Bromodichloromethane	75-27-4	ua/m3	<1.4 U	<1.7 U	<0.76 U	<0.67 U	<13 U	<1.34 U	<1.02 U	<1.23 U	<1.1 U	<0.99 U	
Bromoethene	593-60-2	ua/m3	<0.92 U	<1.1 U	<0.5 U	<0.44 U	<8.4 U	<0.874 U	<0.669 U	<0.806 U	<0.73 U	<0.65 U	
Bromoform	75-25-2	ua/m3	<2.2 U	<2.7 U	<1.2 U	<1 U	<20 U	<2.07 U	<1.58 U	<1.9 U	<1.7 U	<1.5 U	
Bromomethane	74-83-9	ua/m3	<0.82 U	<1 U	<0.44 U	<0.39 U	<7.5 U	<0.777 U	<0.594 U	<0.715 U	<0.64 U	<0.58 U	
Carbon Disulfide	75-15-0	ug/m3	<0.66 U	<0.8 U	0.53 D	<0.31 U	49 D	<0.623 U	0.476 D	0.574 D	0.72 D	0.79 D	
Carbon Tetrachloride	56-23-5	ug/m3	<0.33 U	<0.4 U	<0.18 U	<0.16 U	<3 U	<1.26 U	0.481 D	0.348 D	0.31 D	<0.23 U	
Chlorobenzene	108-90-7	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.921 U	<0.704 U	<0.848 U	<0.76 U	<0.68 U	
Chloroethane	75-00-3	ug/m3	<0.56 U	<0.68 U	<0.3 U	<0.26 U	<5.1 U	<0.528 U	<0.403 U	<0.486 U	<0.44 U	<0.39 U	
Chloroform	67-66-3	ug/m3	<1 U	<1.3 U	<0.55 U	0.73	<9.4 U	<0.977 U	<0.747 U	<0.899 U	1.5 D	1.7 D	
Chloromethane	74-87-3	ug/m3	2 D	2 D	5.6 D	0.41	7.2 D	1.9	3.54 D	1.07 D	2.3 D	2.1 D	
Cis-1,2-Dichloroethene	156-59-2	ug/m3	<0.84 U	<1 U	0.81 D	<0.4 U	<7.6 U	<0.793 U	0.606 D	0.584 D	0.86 D	0.47 D	
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U	<0.67 U	
Cyclohexane	110-82-7	ug/m3	1.8 D	1.6 D	0.47 D	<0.34 U	<6.6 U	<0.688 U	<0.526 U	0.697 D	1.3 D	<0.51 U	
Dibromochloromethane	124-48-1	ua/m3	<1.8 U	<2.2 U	<0.97 U	<0.85 U	<16 U	<1.7 U	<1.3 U	<1.57 U	<1.4 U	<1.3 U	
Dichlorodifluoromethane	75-71-8	ua/m3	2.7 D	2.8 D	1.1 D	<0.49 U	<9.5 U	2.11	2.12 J	2.19 D	3 D	3.2 D	
Ethanol	64-17-5	ua/m3	NA	NA	NA	NA	NA	11.9	NA	NA	NA	NA	
Ethyl Acetate	141-78-6	ua/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 U	<14 U	<1.8 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	
Ethylbenzene	100-41-4	ug/m3	6.3 J	3 J	2.5 D	<0.43 U	<8.4 U	<0.869 U	3.59 D	2.88 D	7.7 D	2.6 D	
Hexachlorobutadiene	87-68-3	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1.1 U	<21 U	<2.13 U	<1.63 U	<1.96 U	<1.8 U	<1.6 U	
Isopropanol	67-63-0	ug/m3	<1 U	<1.3 U	<0.56 U	<0.49 U	54 D	2.56	1.13 D	2.35 D	<0.82 U	3.2 D	
M,P-Xylene	179601-23-1	ug/m3	24 J	12 J	10 D	<0.87 U	<17 U	2.78	14.3 D	10.9 D	30 D	5.2 D	
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	7.1 D	6.7 D	3.9 D	0.38	81 D	2.75	2.34 D	0.815 D	1.4 D	0.96 D	
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	<2.05 U	2.57 D	2.04 D	0.75 J	1 D	
Methyl Methacrylate	80-62-6	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	NA	<0.626 U	2.19 D	<0.68 U	<0.61 U	
Methylene Chloride	75-09-2	ug/m3	5.4 J	30 J	<0.79 U	<0.69 U	<13 U	<1.74 U	1.91 D	28.5 D	<1.2 U	1.4 J	
n-Heptane	142-82-5	ug/m3	3.9 D	3 D	1.1 D	<0.41 U	<7.9 U	<0.82 U	1.32 D	1.28 D	2.4 D	0.61 D	
n-Hexane	110-54-3	ua/m3	18 J	55 J	1.7 D	<0.35 U	<6.8 U	<0.705 U	1.08 D	2.14 D	3.3 D	1.4 D	
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ua/m3	8.9 J	4.6 J	2.8 D	<0.43 U	<8.4 U	0.999	5.05 D	4.24 D	13 D	2 D	
Propylene	115-07-1	ua/m3	7.7 D	6.6 D	<0.2 U	<0.17 U	<3.3 U	NA	<0.263 U	<0.317 U	1.2 D	<0.26 U	
Styrene	100-42-5	ua/m3	<0.9 U	<1.1 U	1.1 D	<0.43 U	<8.2 U	<0.852 U	<0.651 U	<0.785 U	<0.71 U	<0.63 U	
Tert-Butyl Alcohol	75-65-0	ug/m3	NA	NA	NA	NA	NA	<1.52 U	NA	NA	NA	NA	
Tert-Butyl Methyl Ether	1634-04-4	ug/m3	<0.76 U	<0.93 U	<0.41 U	<0.36 U	<6.9 U	<0.721 U	<0.551 U	<0.664 U	<0.6 U	<0.54 U	
Tetrachloroethene (PCE)	127-18-4	ug/m3	1.6 J	<0.44 U	3.6 D	0.2	9.1 D	<1.36 U	2.18 D	1.75 D	1.9 D	1 D	
Tetrahydrofuran	109-99-9	ug/m3	29 D	26 D	37 D	0.65	37 D	1.48	1.8 D	1.58 D	3 D	<0.88 U	
Toluene	108-88-3	ug/m3	32 J	19 J	11 D	0.6	17 D	15.5	12.4 D	10.9 D	20 D	7.2 D	
Trans-1,2-Dichloroethene	156-60-5	ug/m3	<0.84 U	<1 U	0.58 D	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.73 U	<0.66 U	<0.59 U	
Trans-1,3-Dichloropropene	10061-02-6	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U	<0.67 U	
Trichloroethene (TCE)	79-01-6	ug/m3	<0.28 U	<0.35 U	1.2 D	<0.13 U	<2.6 U	<1.07 U	0.904 D	0.792 D	1.1 D	0.56 D	
Trichlorofluoromethane	75-69-4	ug/m3	3.6 D	5.5 D	2 D	<0.56 U	<11 U	<1.12 U	1.29 D	1.45 D	2 D	1.6 D	
Vinyl Acetate	108-05-4	ug/m3	<0.74 U	<0.91 U	<0.4 U	<0.35 U	<6.8 U	NA	<0.538 U	<0.649 U	<0.58 U	<0.52 U	
Vinyl Chloride	75-01-4	ug/m3	<0.54 U	<0.66 U	<0.29 U	<0.26 U	<4.9 U	<0.511 U	<0.391 U	<0.235 U	<0.21 U	<0.19 U	
Total BTEX	—	ua/m3	80.6	45	27.28	0.6	17	20.359	38.12	31.86	73.6	19.1	
Total CVOCs	—	ua/m3	7	30	5.61	0.2	9.1	ND	6.081	31.974	4.17	3.43	
Total VOCs	—	ug/m3	226.8	246.6	106.78	5.37							

Table 3
Soil Vapor Monitoring Report - Year 7
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	V3_365																		
			Sample Name	0764-V3_20160520	0779-V3_072016	0780-DUP-1_072016	795-V3-20161020	796-DUP-1-20161020	817-V3	818-DUP-1	862_V3	863_DUP-1	867-V3	868-DUP-1	874_V3	875_DUP-1	879_V3	880_DUP-1	V3_030223	DUP030223	
			Sample Date	05/20/2016	07/20/2016	07/20/2016	10/20/2016	10/20/2016	04/20/2017	04/20/2017	02/13/2018	02/13/2018	02/27/2019	02/27/2019	04/08/2021	04/08/2021	06/20/2022	06/20/2022	03/02/2023	03/02/2023	
			Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
			Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds																					
1,1,1,2-Tetrachloroethane	630-20-6	ua/m3	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	NA	NA	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1 U	<1 U		
1,1,1-Trichloroethane	71-55-6	ua/m3	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U		
1,1,2,2-Tetrachloroethane	79-34-5	ua/m3	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	<1.37 U	<1.37 U	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U		
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ua/m3	<1.6 U	<0.8 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.53 U	<1.53 U	<1.15 U	<1.15 U	<1.37 U	<1.26 U	<1.2 U	<1.2 U	<1.2 U	<1.3 U		
1,1,2-Trichloroethane	79-00-5	ua/m3	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U		
1,1-Dichloroethane	75-34-3	ug/m3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.61 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U		
1,1-Dichloroethene	75-35-4	ug/m3	<0.83 U	<0.42 U	<0.45 U	<0.4 U	<0.4 U	<7.1 U	<7.8 U	<0.793 U	<0.793 U	<0.597 U	<0.595 U	<0.356 U	<0.326 U	<0.16 U	<0.16 U	<0.15 U	<0.16 U		
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<1.5 U	<0.78 U	<0.85 U	<0.74 U	<0.74 U	<13 U	<15 U	<1.48 U	<1.48 U	<1.12 U	<1.11 U	<1.33 U	<1.22 U	<1.2 U	<1.2 U	<1.2 U	<1.2 U		
1,2,4-Trimethylbenzene	95-63-6	ug/m3	2.8 D	5.6 D	4.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.44 D	4.57 D	4.14 D	3.71 D	6.1 D	6.4 D	2.6 D	2.7 D		
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<1.6 U	<0.81 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.54 U	<1.54 U	<1.16 U	<1.15 U	<1.38 U	<1.26 U	<1.2 U	<1.2 U	<1.2 U	<1.3 U		
1,2-Dichlorobenzene	95-50-1	ug/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U		
1,2-Dichloroethane	107-06-2	ug/m3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.609 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U		
1,2-Dichloropropane	78-87-5	ug/m3	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	<0.924 U	<0.924 U	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U		
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	<1.5 U	<0.73 U	<0.8 U	<0.7 U	<0.7 U	<12 U	<14 U	<1.4 U	<1.4 U	<1.05 U	<1.05 U	<1.25 U	<1.15 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U		
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ua/m3	<1 U	0.72 D	0.96 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	1.33 D	1.33 D	1.15 D	1.05 D	1.7 D	1.8 D	0.83 D	0.97 D		
1,3-Butadiene	106-99-0	ua/m3	<1.4 U	<0.7 U	<0.76 U	<0.66 U	<0.66 U	<12 U	<13 U	0.515	0.518	<1 U	<0.996 U	<1.19 U	<1.09 U	<1.1 U	<1.1 U	<1 U	<1 U		
1,3-Dichlorobenzene	541-73-1	ua/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U		
1,3-Dichloropropane	142-28-9	ua/m3	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	NA	NA	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U		
1,4-Dichlorobenzene	106-46-7	ug/m3	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U		
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<1.5 U	<0.76 U	<0.82 U	<0.72 U	<0.72 U	<13 U	<14 U	<0.721 U	<0.721 U	<1.09 U	<1.08 U	<1.29 U	<1.18 U	<1.1 U	<1.1 U	<1.1 U	<1.2 U		
2,2,4-Trimethylpentane	540-84-1	ug/m3	NA	NA	NA	NA	NA	NA	NA	2.41	2.38	NA	NA	NA	NA	NA	NA	NA	NA		
2-Hexanone (MBK)	591-78-6	ug/m3	<1.7 U	1.3 J	1.2 J	<0.82 U	<0.82 U	<15 U	<16 U	<0.82 U	<0.82 U	<4.01 U	<4.06 U	<1.47 U	<1.35 U	<1.3 U	<1.3 U	<1.3 U	<1.3 U		
4-Ethyltoluene	622-96-8	ug/m3	2 D	2.4 D	2.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.29 J	4.5 J	3.7 D	3.23 D	5.7 D	5.9 D	2.1 D	2 D		
Acetone	67-64-1	ug/m3	61 D	47 D	42 D	1.9	1.1	200 J	340 J	20.3	20.8	4.97 D	4.92 D	7.46 J	4.41 J	8.2 D	8 D	10 D	7.5 D		
Acrylonitrile	107-13-1	ug/m3	<0.45 U	<0.23 U	<0.25 U	<0.22 U	<0.22 U	<3.9 U	<4.3 U	NA	NA	<0.327 U	<0.326 U	<0.389 U	<0.366 U	<0.34 U	<0.34 U	<0.33 U	<0.36 U		
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3	<3.3 U	<1.6 U	<1.8 U	<1.6 U	<1.6 U	<28 U	<31 U	<0.626 U	<0.626 U	<2.36 U	<2.35 U	<2.81 U	<2.57 U	<2.5 U	<2.5 U	<2.4 U	<2.6 U		
Benzene	71-43-2	ug/m3	4.1 D	4.4 D	4.5 D	0.45	0.32	9.1 D	6.9 D	2.82	2.74	7.94 D	8.29 D	5.33 D	4.98 D	4 D	4.1 D	7 D	6.8 D		
Benzyl Chloride	100-44-7	ug/m3	<1.1 U	<0.54 U	<0.59 U	<0.52 U	<0.52 U	<9.3 U	<10 U	<1.04 U	<1.04 U	<0.78 U	<0.777 U	<0.929 U	<0.85 U	<0.82 U	<0.82 U	<0.79 U	<0.85 U		
Bromodichloromethane	75-27-4	ua/m3	<1.4 U	<0.7 U	<0.77 U	<0.67 U	<0.67 U	<12 U	<13 U	<1.34 U	<1.34 U	<1.01 U	<1 U	<1.2 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U		
Bromoethene	593-60-2	ua/m3	<0.91 U	<0.46 U	<0.5 U	<0.44 U	<0.44 U	<7.8 U	<8.6 U	<0.874 U	<0.874 U	<0.659 U	<0.656 U	<0.785 U	<0.718 U	<0.69 U	<0.69 U	<0.67 U	<0.72 U		
Bromofom	75-25-2	ua/m3	<2.2 U	<1.1 U	<1.2 U	<1 U	<1 U	<18 U	<20 U	<2.07 U	<2.07 U	<1.56 U	<1.55 U	<1.85 U	<1.7 U	<1.6 U	<1.6 U	<1.7 U	<1.7 U		
Bromomethane	74-83-9	ua/m3	<0.81 U	<0.41 U	<0.44 U	<0.39 U	<0.39 U	<6.9 U	<7.6 U	<0.777 U	<0.777 U	<0.585 U	<0.582 U	<0.697 U	<0.638 U	<0.62 U	<0.61 U	<0.59 U	<0.64 U		
Carbon Disulfide	75-15-0	ug/m3	0.65 D	0.88 D	0.82 D	<0.31 U	<0.31 U	<5.6 U	55 D	<0.623 U	<0.623 U	<0.469 U	<0.467 U	0.559 D	0.511 D	14 D	13 D	<0.48 U	<0.51 U		
Carbon Tetrachloride	56-23-5	ug/m3	<0.33 U	<0.17 U	<0.18 U	<0.16 U	<0.16 U	<2.8 U	<3.1 U	<1.26 U	<1.26 U	0.474 D	0.472 D	0.451 D	0.31 D	0.4 D	0.4 D	<0.24 U	<0.26 U		
Chlorobenzene	108-90-7	ug/m3	<0.96 U	<0.48 U	<0.53 U	<0.46 U	<0.46 U	<8.2 U	<9.1 U	<0.921 U	<0.921 U	<0.693 U	<0.691 U	<0.826 U	<0.756 U	<0.73 U	<0.73 U	<0.7 U	<0.76 U		
Chloroethane	75-00-3	ug/m3	<0.55 U	<0.28 U	<0.3 U	<0.26 U	<0.26 U	<4.7 U	<5.2 U	<0.528 U	<0.528 U	<0.397 U	<0.396 U	<0.473 U	<0.433 U	<0.42 U	<0.42 U	<0.4 U	<0.43 U		
Chloroform	67-66-3	ug/m3	<1 U	<0.51 U	<0.56 U	<0.49 U	<0.49 U	<8.7 U	<9.6 U	<0.977 U	<0.977 U	<0.735 U	<0.732 U	<0.876 U							

Table 3
Soil Vapor Monitoring Report - Year 7
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	V5_365								
		Sample Name	0765-V5_20160520	0781-V5_072016	797-V5-20161020	819-V5	864_V5	869-V5	872_V5	877_V5	V5_030223
		Sample Date	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022	03/02/2023
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	ua/m3	<1.3 U	<0.76 U	<0.69 U	<12 U	NA	<1.01 U	<1.1 U	<1.1 U	<1.1 UJ
1,1,1-Trichloroethane	71-55-6	ua/m3	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U	<0.85 UJ
1,1,2,2-Tetrachloroethane	79-34-5	ua/m3	<1.3 U	<0.76 U	<0.69 U	<12 U	<1.37 U	<1.01 U	<1.1 U	<1.1 U	<1.1 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ua/m3	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.53 U	<1.12 U	<1.23 U	<1.2 U	<1.2 UJ
1,1,2-Trichloroethane	79-00-5	ua/m3	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U	<0.85 UJ
1,1-Dichloroethane	75-34-3	ug/m3	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U	<0.63 UJ
1,1-Dichloroethene	75-35-4	ug/m3	<0.76 U	<0.44 U	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.317 U	<0.16 U	<0.15 UJ
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<1.4 U	<0.82 U	<0.74 U	<12 U	<1.48 U	<1.09 U	<1.19 U	<1.2 UJ	<1.2 UJ
1,2,4-Trimethylbenzene	95-63-6	ug/m3	1.9 D	5.4 D	0.69	<8.3 U	<0.983 U	3.53 D	3.86 D	6.1 D	1.4 J
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.54 U	<1.13 U	<1.23 U	<1.2 U	<1.2 UJ
1,2-Dichlorobenzene	95-50-1	ug/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 UJ
1,2-Dichloroethane	107-06-2	ug/m3	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U	<0.63 UJ
1,2-Dichloropropane	78-87-5	ug/m3	<0.89 U	<0.51 U	<0.46 U	<7.8 U	<0.924 U	<0.678 U	<0.74 U	<0.74 U	<0.72 UJ
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	<1.3 U	<0.78 U	<0.7 U	<12 U	<1.4 U	<1.03 U	<1.12 U	<1.1 U	<1.1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ua/m3	<0.94 U	<0.55 U	<0.49 U	<8.3 U	<0.983 U	1.08 D	1.02 D	1.9 D	<0.77 UJ
1,3-Butadiene	106-99-0	ua/m3	<1.3 U	<0.74 U	<0.66 U	<11 U	<0.442 U	<0.974 U	<1.06 U	<1.1 U	<1 UJ
1,3-Dichlorobenzene	541-73-1	ua/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 UJ
1,3-Dichloropropane	142-28-9	ua/m3	<0.89 U	<0.51 U	<0.46 U	<7.8 U	NA	<0.678 U	<0.74 U	<0.74 U	<0.72 UJ
1,4-Dichlorobenzene	106-46-7	ug/m3	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<1.4 U	<0.8 U	<0.72 UJ	<12 U	<0.721 U	<1.06 U	<1.15 U	<1.2 U	<1.1 UJ
2,2,4-Trimethylpentane	540-84-1	ug/m3	NA	NA	NA	NA	1.35	NA	NA	NA	NA
2-Hexanone (MBK)	591-78-6	ug/m3	<1.6 U	1.1 D	<0.82 U	<14 U	<0.82 U	4.39 D	<1.31 U	<1.3 UJ	<1.3 UJ
4-Ethyltoluene	622-96-8	ug/m3	1.3 D	2.1 D	0.88	<8.3 U	<0.983 U	3.68 J	3.31 D	5.8 D	1.3 J
Acetone	67-64-1	ug/m3	73 D	41 D	1.8	350 D	25.2	6.66 D	3.23 D	6.9 D	3.7 J
Acrylonitrile	107-13-1	ug/m3	<0.42 U	<0.24 U	<0.22 U	<3.6 U	NA	<0.318 U	<0.347 U	<0.35 U	<0.34 UJ
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3	<3 U	<1.7 U	<1.6 U	<26 U	<0.626 U	<2.3 U	<2.51 U	<2.5 U	<2.4 UJ
Benzene	71-43-2	ug/m3	1.5 D	1.5 D	2.3	<5.4 U	1.47	2.39 D	2.05 D	3.6 D	1 J
Benzyl Chloride	100-44-7	ug/m3	<0.99 U	<0.58 U	<0.52 UJ	<8.7 U	<1.04 U	<0.759 U	<0.829 U	<0.83 U	<0.81 UJ
Bromodichloromethane	75-27-4	ua/m3	<1.3 U	<0.74 U	<0.7 U	<11 U	<1.34 U	<0.983 U	<1.07 U	<1.1 U	<1 UJ
Bromoethane	593-60-2	ua/m3	<0.84 U	<0.49 U	<0.44 U	<7.3 U	<0.874 U	<0.642 U	<0.7 U	<0.7 U	<0.68 UJ
Bromoform	75-25-2	ua/m3	<2 U	<1.1 U	<1 U	<17 U	<2.07 U	<1.52 UJ	<1.65 U	<1.7 U	<1.6 UJ
Bromomethane	74-83-9	ua/m3	<0.74 U	<0.43 U	<0.39 U	<6.5 U	<0.777 U	<0.57 U	<0.622 U	<0.62 U	<0.6 UJ
Carbon Disulfide	75-15-0	ug/m3	<0.6 U	0.35 D	<0.31 U	<5.2 U	<0.623 U	0.594 D	0.897 D	1 D	1 J
Carbon Tetrachloride	56-23-5	ug/m3	<0.3 U	<0.17 U	<0.16 U	<2.6 U	<1.26 U	0.461 D	0.403 D	0.5 D	0.39 J
Chlorobenzene	108-90-7	ug/m3	<0.88 U	<0.51 U	<0.46 U	<7.7 U	<0.921 U	<0.675 U	<0.737 U	<0.74 U	<0.72 UJ
Chloroethane	75-00-3	ug/m3	<0.51 U	<0.29 U	<0.26 U	<4.4 U	<0.528 U	<0.387 U	<0.422 U	<0.42 U	<0.41 UJ
Chloroform	67-66-3	ug/m3	2 D	2.3 D	<0.49 U	<8.2 U	1.15	1.22 D	1.49 D	2.5 D	3.1 J
Chloromethane	74-87-3	ug/m3	2.3 D	5 D	<0.21 U	<3.5 U	3.76	0.757 D	1.59 D	2.8 D	2.7 J
Cis-1,2-Dichloroethene	156-59-2	ug/m3	1.7 D	0.57 D	<0.4 U	<6.7 U	2.12	1.74 D	1.14 D	1.1 D	2.3 J
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U	<0.71 UJ
Cyclohexane	110-82-7	ug/m3	1.1 D	0.61 D	<0.34 U	<5.8 U	<0.688 U	0.606 D	0.551 D	0.83 D	<0.54 UJ
Dibromochloromethane	124-48-1	ua/m3	<1.6 U	<0.95 U	<0.85 U	<14 U	<1.7 U	<1.25 U	<1.36 U	<1.4 U	<1.3 UJ
Dichlorodifluoromethane	75-71-8	ua/m3	3.3 D	1.3 D	<0.49 U	<8.3 U	2.15	2.39 D	2.22 D	3.2 D	2.8 J
Ethanol	64-17-5	ua/m3	NA	NA	NA	NA	23	NA	NA	NA	NA
Ethyl Acetate	141-78-6	ua/m3	<1.4 U	<0.8 U	<0.72 U	<12 U	<1.8 U	1.8 D	<1.15 U	<1.2 U	<1.1 UJ
Ethylbenzene	100-41-4	ug/m3	3.4 D	3.9 D	1.2	<7.3 U	<0.869 U	2.99 D	2.57 D	5.4 D	2.4 J
Hexachlorobutadiene	87-68-3	ug/m3	<2 U	<1.2 U	<1.1 U	<18 U	<2.13 U	<1.56 U	<1.71 U	<1.7 UJ	<1.7 UJ
Isopropanol	67-63-0	ug/m3	<0.94 U	6.4 D	<0.49 U	49 D	6.44	1.3 D	4.6 D	1.9 D	4.6 J
M,P-Xylene	179601-23-1	ug/m3	14 D	14 D	4.1	<15 U	2.71	10.4 D	9.52 D	21 D	4.7 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	15 D	7.6 D	0.35	280 D	4.07	2.16 D	1.23 D	1.1 D	<0.46 UJ
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.78 U	<0.46 U	<0.41 U	<6.9 U	<2.05 U	2.88 D	3.08 D	0.66 J	1.8 J
Methyl Methacrylate	80-62-6	ug/m3	<0.78 U	<0.45 U	<0.41 U	<6.9 U	NA	<0.601 U	1.84 D	<0.66 U	<0.64 UJ
Methylene Chloride	75-09-2	ug/m3	3.9 D	<0.77 U	<0.69 U	<12 U	<1.74 U	1.27 D	15.8 D	<1.1 U	1.4 J
n-Heptane	142-82-5	ug/m3	1.9 D	1.6 D	0.57	<6.9 U	<0.82 U	1.26 D	1.12 D	2.4 D	<0.64 UJ
n-Hexane	110-54-3	ug/m3	18 D	2.6 D	0.7	<5.9 U	1.02	1.24 D	1.69 D	1.9 D	0.82 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ua/m3	4.7 D	<0.48 U	1.3	<7.3 U	<0.869 U	3.69 D	3.55 D	7.6 D	1.9 J
Propylene	115-07-1	ua/m3	9.4 D	3.3 D	3.4	7.8 D	NA	<0.252 U	<0.276 U	<0.28 U	<0.27 UJ
Styrene	100-42-5	ua/m3	<0.82 U	<0.47 U	<0.43 U	<7.2 U	<0.852 U	<0.625 U	<0.682 U	<0.68 U	<0.66 UJ
Tert-Butyl Alcohol	75-65-0	ug/m3	NA	NA	NA	NA	<1.52 U	NA	NA	NA	NA
Tert-Butyl Methyl Ether	1634-04-4	ug/m3	<0.69 U	<0.4 U	<0.36 U	<6.1 U	<0.721 U	<0.529 U	<0.577 U	<0.58 U	<0.56 UJ
Tetrachloroethene (PCE)	127-18-4	ug/m3	3 D	1.7 D	<0.17 U	8 D	2.55	2.49 D	2.17 D	2 D	3 J
Tetrahydrofuran	109-99-9	ug/m3	38 D	13 D	<0.59 U	120 D	2.87	1.38 D	1.13 D	1.2 D	<0.92 UJ
Toluene	108-88-3	ug/m3	10 D	19 D	7.2	16 D	10.3	13.1 D	10.1 D	20 D	7.9 J
Trans-1,2-Dichloroethene	156-60-5	ug/m3	<0.76 U	0.57 D	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.635 U	<0.63 U	<0.62 UJ
Trans-1,3-Dichloropropene	10061-02-6	ug/m3	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U	<0.71 UJ
Trichloroethene (TCE)	79-01-6	ug/m3	<0.26 U	1.5 D	<0.13 U	<2.3 U	<1.07 U	0.946 D	0.688 D	0.77 D	1.8 J
Trichlorofluoromethane	75-69-4	ug/m3	9.7 D	5.5 D	<0.56 U	<9.4 U	2.21	1.9 D	1.8 D	2.6 D	2 J
Vinyl Acetate	108-05-4	ug/m3	<0.67 U	<0.39 UJ	<0.35 U	<5.9 U	NA	<0.517 U	<0.564 UJ	<0.56 U	<0.55 UJ
Vinyl Chloride	75-01-4	ug/m3	<0.49 U	<0.28 U	<0.26 U	<4.3 U	<0.511 U	<0.375 U	<0.205 U	<0.2 U	0.24 J
Total BTEX	—	ua/m3	33.6	38.4	16.1	16	14.48	32.57	27.79	57.6	17.9
Total CVOCs	—	ua/m3	8.6	3.77	ND	8	4.67	6.907	20.201	4.37	9.13
Total VOCs	—	ug/m3	219.1	141.9	24.49	830.8	92.37	78.304	82.649	104.76	52.25

Table 3
Soil Vapor Monitoring Report - Year 7
Historical Soil Vapor Sample Analytical Results

Page 4 of 4

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Notes:

SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Soil vapor sample analytical results are compared to the minimum soil vapor concentrations at which mitigation is recommended as set forth in the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York Decision Matrices for Sub-Slab Vapor and Indoor Air and subsequent updates (2017).

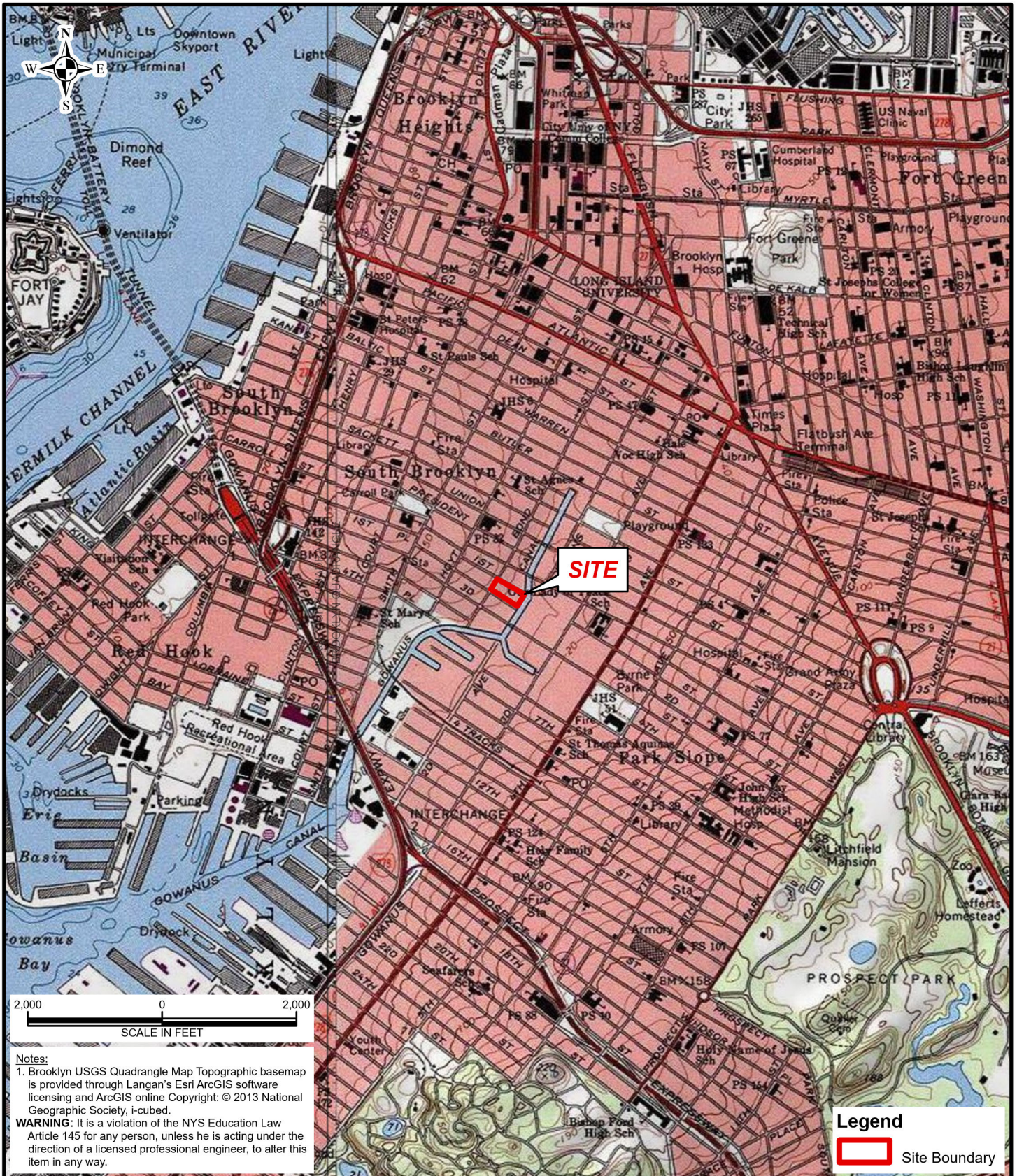
Qualifiers:

D - The concentration reported is a result of a diluted sample.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Exceedance Summary:

10	- Result exceeds minimum soil vapor concentrations recommending mitigation
-----------	--

FIGURES



LANGAN

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**365 BOND STREET
DEVELOPMENT**

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Figure Title

**SITE
LOCATION
MAP**

Project No.

100287503

Date

3/28/2024

Scale

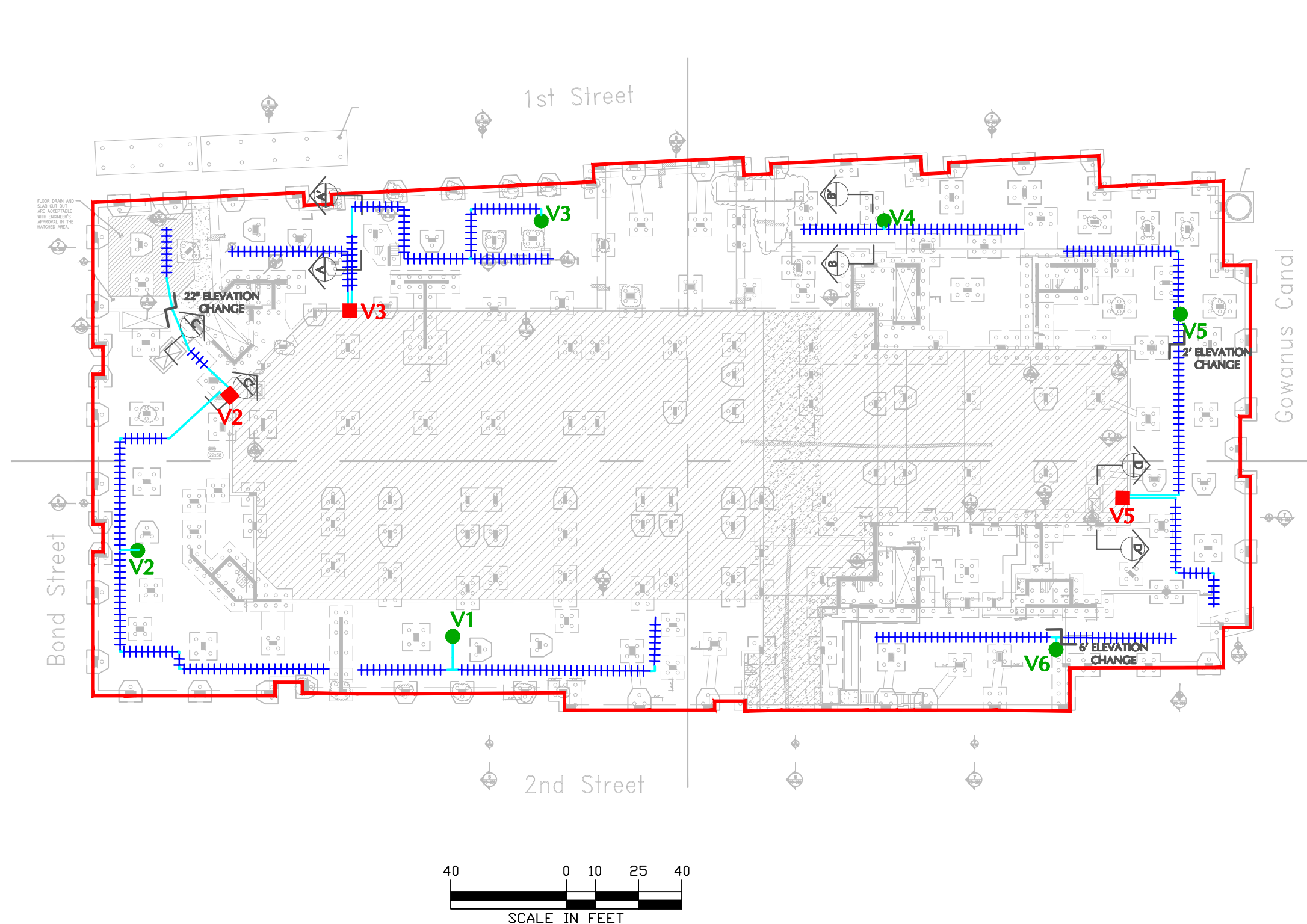
1"=2,000'

Drawn By

SH

Figure

1



LEGEND:

- BUILDING EXTERIOR
- SUBGRADE PARKING AREA
- INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
- INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
- INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
- INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

NOTES:

- ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
- THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
- FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
- SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.

LANGAN

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Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

**365 BOND STREET
DEVELOPMENT**

365 BOND STREET

BROOKLYN

NEW YORK

Drawing Title

**SAMPLE
LOCATION PLAN**

Project No.
100287501

Date
MARCH 20, 2019

Scale
AS SHOWN

Drawn By
JR

Submission Date
APRIL 20, 2021

Drawing No.

2

Location	V3_365	V3_365
Sample Name	V3_030223	DUP030223
Sample Date	3/2/2023	3/2/2023
Sample Type	SV	SV
VOCs		
1,2,4-Trimethylbenzene	2.6 D	2.7 D
1,3,5-Trimethylbenzene (Mesitylene)	0.83 D	0.97 D
4-Ethyltoluene	2.1 D	2 D
Acetone	10 D	75 D
Benzene	7 D	6.9 D
Carbon Disulfide	<0.48 U	<0.51 U
Carbon Tetrachloride	<0.24 U	<0.26 U
Chloroform	<0.75 U	<0.8 U
Chloromethane	1.4 D	1.3 D
Cis-1,2-Dichloroethene	<0.15 U	<0.16 U
Cyclohexane	1.4 D	1.4 D
Dichlorodifluoromethane	2 D	2 D
Ethylbenzene	2.8 D	2.9 D
Isopropanol	3.8 J	4 J
M,P-Xylene	9.7 D	9.7 D
Methyl Ethyl Ketone (2-Butanone)	2.3 D	2 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2.3 D	2.4 D
Methylene Chloride	1.5 D	1.7 D
n-Heptane	2.5 D	2.5 D
n-Hexane	4.9 D	4.8 D
o-Xylene (1,2-Dimethylbenzene)	3.4 D	3.4 D
Propylene	5.9 D	5.7 D
Tetrachloroethene (PCE)	<1 U	<1.1 U
Toluene	18 D	18 D
Trichloroethene (TCE)	<0.21 U	<0.22 U
Trichlorofluoromethane	1.3 D	1.3 D
Vinyl Chloride	<0.2 U	<0.21 U

Location	V2_365
Sample Name	V2_030223
Sample Date	3/2/2023
Sample Type	SV
VOCs	
1,2,4-Trimethylbenzene	1.8 D
1,3,5-Trimethylbenzene (Mesitylene)	<0.73 U
4-Ethyltoluene	1.6 D
Acetone	4.1 D
Benzene	2.1 D
Carbon Disulfide	0.79 D
Carbon Tetrachloride	<0.23 U
Chloroform	1.7 D
Chloromethane	2.1 D
Cis-1,2-Dichloroethene	0.47 D
Cyclohexane	<0.51 U
Dichlorodifluoromethane	3.2 D
Ethylbenzene	2.6 D
Isopropanol	3.2 D
M,P-Xylene	5.2 D
Methyl Ethyl Ketone (2-Butanone)	0.96 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1 D
Methylene Chloride	1.4 J
n-Heptane	0.61 D
n-Hexane	1.4 D
o-Xylene (1,2-Dimethylbenzene)	2 D
Propylene	<0.26 U
Tetrachloroethene (PCE)	1 D
Toluene	7.2 D
Trichloroethene (TCE)	0.56 D
Trichlorofluoromethane	1.6 D
Vinyl Chloride	<0.19 U

Location	Ambient-1_365
Sample Name	AMBIENT-1_120523
Sample Date	12/05/2023
Sample Type	AA
VOCs	
1,2,4-Trimethylbenzene	<0.41 U
1,3,5-Trimethylbenzene (Mesitylene)	<0.41 U
4-Ethyltoluene	<0.41 U
Acetone	3.9 D
Benzene	0.58 D
Carbon Tetrachloride	0.42 D
Chloroform	<0.4 U
Chloromethane	0.78 J
Cis-1,2-Dichloroethene	<0.082 U
Cyclohexane	<0.28 U
Dichlorodifluoromethane	2.3 D
Ethyl Acetate	<0.6 U
Ethylbenzene	<0.36 U
Isopropanol	0.77 D
M,P-Xylene	<0.72 U
Methyl Ethyl Ketone (2-Butanone)	3.5 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.34 U
n-Heptane	<0.34 U
n-Hexane	0.35 D
o-Xylene (1,2-Dimethylbenzene)	<0.36 U
Propylene	<0.14 U
Tetrachloroethene (PCE)	0.84 D
Tetrahydrofuran	0.78 D
Toluene	0.93 D
Trichloroethene (TCE)	<0.11 U
Trichlorofluoromethane	1.2 D

Legend

- Building Exterior
- Subgrade Parking Area
- Installed Below Grade PVC Pipe (4" SCH 80 PVC)
- Installed Below Grade Horizontal Well SMDS Screen (4" SCH 80 PVC, 10-Slot)
- Sidewalk
- Gowanus Canal
- Installed Vent Pipe (Overhead Vertical Manifold, 4" Cast Iron Pipe)
- Installed Valve Box With Insulation Valve And Sample Ports
- Ambient Air Sample Location

- Notes:
1. All vertical vent piping is constructed from cast iron and all below grade piping is constructed from schedule 80 PVC.
 2. The installed SMDS well screens and manifold are designed to be operated as a "passive" vapor mitigation system and potentially can be converted to an "active" vapor mitigation system with the addition of fans/blowers.
 3. Foundation elements presented herein are based on 100% foundation (1st floor/garage) overall plan FO-100 dated 28 March 2014.
 4. Signed and sealed as-built drawings were submitted in the September 2015 SMP, CCR, and FER.



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Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

365 BOND STREET

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Drawing Title

SUB SLAB
SOIL VAPOR
ANALYTICAL
RESULTS

Project No.

100287503

Date

4/4/2024

Scale

1"=40'

Drawn By

PDT

Last Revised

Figure

3

ATTACHMENT A

Field Logs

PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Esther Arthur Date: 03/02/2023 Weather Conditions: 40s, Cloudy

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection

When was the last rain event?: 02/28/2023

Current Temperature: 42° F

Current Barometric Pressure: 29.68

Valve Manifolds		
Location	PID (ppb)	Vacuum (in. H2O)
V2	28	-0.098
V3	14	-0.032
V5	0	-0.032

Comments

Riser Pipes Exhaust		
Location	PID (ppb)	Air Flow (CFM)
V1	0	3.26
V2	0	3.83
V3	0	2.56
V4	265	1.45
V5	0	2.69
V6	9	2.98

Comments

Inspection Comments

Emergency Contact Information		
Name	Title	Phone Number
Christopher Cusumano	Building Management	718-705-8413
Steven Ciambuschini	Langan Qualified Environmental Professional	973-560-4900 (office) 973-560-4982 (direct)
Christopher McMahon	Langan Project Manager	973-560-4900 (office) 973-560-4861 (direct)
Jennifer Jennings	Lighstone Representative	718-564-6531 (direct)
Sadique Ahmed	NYSDEC Case Manager	518-402-9656 (office)

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 365 Bond Street, Brooklyn, New York

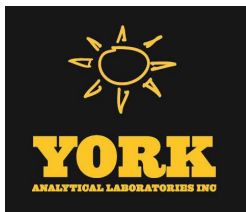
Samplers: Esther Arthur

Date: 03/02/2023

Sample #	V2_030223	V3_030223	DUP_030223	V5_030223	Ambient_030223		
Location	V2	V3	DUP	V-5	Ambient-1		
Summa Canister ID	28318	22079	16974	16156	37405		
Flow Controller ID	7361	6869	13557	12182	6863		
PID Test of SSDS Air	28 ppb	14 ppb	14 ppb	0 ppb	0 ppb		
Pressure Gauge - before sampling	-30	-30	-30	-28	-30		
Sample Time (Start)	8:47	8:56	8:56	8:35	8:27		
Sample Time (Stop)	11:17	11:06	11:06	10:40	14:17		
Total Sample Time (min)	150	130	130	125	350		
Pressure Gauge - after sampling	-4	-5	-4	-3	-10		
Sample Volume	6L	6L	6L	6L	6L		
Canister Pressure Went to Ambient Pressure?	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO		
Associated Ambient Air Sample Number	Ambient-1	Ambient-1	Ambient-1	Ambient-1	N/A		
Weather 24 hours before and during sampling	Sunny, 40s						
General Comments	DUP_030223 parent sample is V3_030223						

ATTACHMENT B

Laboratory Analytical Reports



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive, 4th Floor

Parsipanny NJ, 07054-2172

Attention: Allyson Kritzer

Report Date: 03/13/2023

Client Project ID: 100287503

York Project (SDG) No.: 23C0193



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE
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STRATFORD, CT 06615
(203) 325-1371

132-02 89th AVENUE
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RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 03/13/2023
Client Project ID: 100287503
York Project (SDG) No.: 23C0193

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive, 4th Floor
Parsipanny NJ, 07054-2172
Attention: Allyson Kritzer

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 03, 2023 and listed below. The project was identified as your project: **100287503**.

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>
23C0193-01	V2_030223	Soil Vapor	03/02/2023	03/03/2023
23C0193-02	V5_030223	Soil Vapor	03/02/2023	03/03/2023
23C0193-03	V3_030223	Soil Vapor	03/02/2023	03/03/2023
23C0193-04	DUP030223	Soil Vapor	03/02/2023	03/03/2023
23C0193-05	Ambient_030223	Outdoor Ambient Ai	03/02/2023	03/03/2023

General Notes for York Project (SDG) No.: 23C0193

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

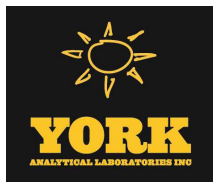
Approved By



Cassie L. Mosher
Laboratory Manager

Date: 03/13/2023





Sample Information

Client Sample ID: V2_030223

York Sample ID: 23C0193-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:17 am

03/03/2023

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	1.0	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.81	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.0	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.1	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.81	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.60	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.15	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.1	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
95-63-6	1,2,4-Trimethylbenzene	1.8		ug/m ³	0.73	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.1	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.89	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.60	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.69	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.0	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.73	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
106-99-0	1,3-Butadiene	ND		ug/m ³	0.98	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.89	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.69	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.89	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
78-93-3	2-Butanone	0.96		ug/m ³	0.44	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH



Sample Information

Client Sample ID: V2_030223

York Sample ID: 23C0193-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:17 am

03/03/2023

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
591-78-6	* 2-Hexanone	ND		ug/m ³	1.2	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
107-05-1	3-Chloropropene	ND		ug/m ³	2.3	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
108-10-1	4-Methyl-2-pentanone	1.0		ug/m ³	0.61	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
67-64-1	Acetone	4.1		ug/m ³	0.71	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
107-13-1	Acrylonitrile	ND		ug/m ³	0.32	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
71-43-2	Benzene	2.1		ug/m ³	0.47	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
100-44-7	Benzyl chloride	ND		ug/m ³	0.77	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-27-4	Bromodichloromethane	ND		ug/m ³	0.99	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-25-2	Bromoform	ND		ug/m ³	1.5	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
74-83-9	Bromomethane	ND		ug/m ³	0.58	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-15-0	Carbon disulfide	0.79		ug/m ³	0.46	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.23	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
108-90-7	Chlorobenzene	ND		ug/m ³	0.68	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-00-3	Chloroethane	ND		ug/m ³	0.39	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
67-66-3	Chloroform	1.7		ug/m ³	0.72	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
74-87-3	Chloromethane	2.1		ug/m ³	0.31	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
156-59-2	cis-1,2-Dichloroethylene	0.47		ug/m ³	0.15	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.67	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
110-82-7	Cyclohexane	ND		ug/m ³	0.51	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-71-8	Dichlorodifluoromethane	3.2		ug/m ³	0.73	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH



Sample Information

Client Sample ID: V2_030223

York Sample ID: 23C0193-01

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 11:17 am

Date Received

03/03/2023

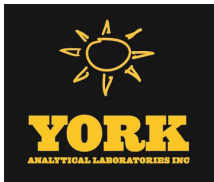
Volatile Organics, EPA TO15 Full List

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
100-41-4	Ethyl Benzene	2.6		ug/m ³	0.64	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
87-68-3	Hexachlorobutadiene	ND	CAL-E, TO-CC V, TO-LCS -L	ug/m ³	1.6	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
67-63-0	Isopropanol	3.2		ug/m ³	0.73	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.61	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.54	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-09-2	Methylene chloride	1.4	B	ug/m ³	1.0	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
142-82-5	n-Heptane	0.61		ug/m ³	0.61	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
110-54-3	n-Hexane	1.4		ug/m ³	0.52	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
95-47-6	o-Xylene	2.0		ug/m ³	0.64	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
179601-23-1	p- & m- Xylenes	5.2		ug/m ³	1.3	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
622-96-8	* p-Ethyltoluene	1.6		ug/m ³	0.73	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
115-07-1	* Propylene	ND		ug/m ³	0.26	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
100-42-5	Styrene	ND		ug/m ³	0.63	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
127-18-4	Tetrachloroethylene	1.0		ug/m ³	1.0	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.88	1.484	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:24	VH
108-88-3	Toluene	7.2		ug/m ³	0.56	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.59	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.67	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
79-01-6	Trichloroethylene	0.56		ug/m ³	0.20	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-69-4	Trichlorofluoromethane (Freon 11)	1.6		ug/m ³	0.83	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH



Sample Information

Client Sample ID: V2_030223		York Sample ID: 23C0193-01			
<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>	
23C0193	100287503	Soil Vapor	March 2, 2023 11:17 am	03/03/2023	

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.52	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
593-60-2	Vinyl bromide	ND		ug/m³	0.65	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH
75-01-4	Vinyl Chloride	ND		ug/m³	0.19	1.484	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:24	VH



Sample Information

Client Sample ID: V5_030223

York Sample ID: 23C0193-02

York Project (SDG) No.
23C0193

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
March 2, 2023 10:40 am

Date Received
03/03/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	1.1	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.85	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.85	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.63	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.15	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
95-63-6	1,2,4-Trimethylbenzene	1.4		ug/m ³	0.77	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.94	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.63	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.72	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.77	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
106-99-0	1,3-Butadiene	ND		ug/m ³	1.0	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.94	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.72	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.94	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
78-93-3	2-Butanone	ND		ug/m ³	0.46	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH



Sample Information

Client Sample ID: V5_030223

York Sample ID: 23C0193-02

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 10:40 am

Date Received

03/03/2023

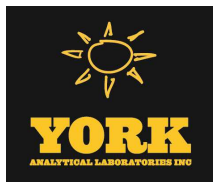
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	2.4	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
108-10-1	4-Methyl-2-pentanone	1.8		ug/m ³	0.64	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
67-64-1	Acetone	3.7		ug/m ³	0.74	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
107-13-1	Acrylonitrile	ND		ug/m ³	0.34	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
71-43-2	Benzene	1.0		ug/m ³	0.50	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
100-44-7	Benzyl chloride	ND		ug/m ³	0.81	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-27-4	Bromodichloromethane	ND		ug/m ³	1.0	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-25-2	Bromoform	ND		ug/m ³	1.6	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
74-83-9	Bromomethane	ND		ug/m ³	0.60	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-15-0	Carbon disulfide	1.0		ug/m ³	0.48	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
56-23-5	Carbon tetrachloride	0.39		ug/m ³	0.24	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
108-90-7	Chlorobenzene	ND		ug/m ³	0.72	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-00-3	Chloroethane	ND		ug/m ³	0.41	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
67-66-3	Chloroform	3.1		ug/m ³	0.76	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
74-87-3	Chloromethane	2.7		ug/m ³	0.32	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
156-59-2	cis-1,2-Dichloroethylene	2.3		ug/m ³	0.15	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.71	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
110-82-7	Cyclohexane	ND		ug/m ³	0.54	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.77	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
100-41-4	Ethyl Benzene	2.4		ug/m ³	0.68	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH



Sample Information

Client Sample ID: V5_030223

York Sample ID: 23C0193-02

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 10:40 am

Date Received

03/03/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	CAL-E, TO-CC V, TO-LCS -L	ug/m ³	1.7	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
67-63-0	Isopropanol	4.6		ug/m ³	0.77	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.64	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.56	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-09-2	Methylene chloride	1.4	B	ug/m ³	1.1	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
142-82-5	n-Heptane	ND		ug/m ³	0.64	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
110-54-3	n-Hexane	0.82		ug/m ³	0.55	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
95-47-6	o-Xylene	1.9		ug/m ³	0.68	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
179601-23-1	p- & m- Xylenes	4.7		ug/m ³	1.4	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
622-96-8	* p-Ethyltoluene	1.3		ug/m ³	0.77	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
115-07-1	* Propylene	ND		ug/m ³	0.27	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
100-42-5	Styrene	ND		ug/m ³	0.66	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
127-18-4	Tetrachloroethylene	3.0		ug/m ³	1.1	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.92	1.557	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 21:17	VH
108-88-3	Toluene	7.9		ug/m ³	0.59	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.62	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.71	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
79-01-6	Trichloroethylene	1.8		ug/m ³	0.21	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-69-4	Trichlorofluoromethane (Freon 11)	2.0		ug/m ³	0.87	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
108-05-4	Vinyl acetate	ND		ug/m ³	0.55	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH



Sample Information

Client Sample ID: V5_030223

York Sample ID: 23C0193-02

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 10:40 am

Date Received

03/03/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
593-60-2	Vinyl bromide	ND		ug/m ³	0.68	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH
75-01-4	Vinyl Chloride	0.24		ug/m ³	0.20	1.557	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 21:17	VH



Sample Information

Client Sample ID: V3_030223

York Sample ID: 23C0193-03

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 11:06 am

Date Received

03/03/2023

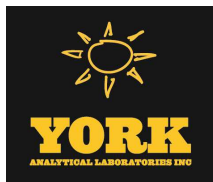
Volatile Organics, EPA TO15 Full List

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	1.0	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.83	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.0	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.83	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.62	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.15	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
120-82-1	1,2,4-Trichlorobenzene	ND	TO-LCS -L	ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
95-63-6	1,2,4-Trimethylbenzene	2.6		ug/m ³	0.75	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.92	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.62	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.71	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
108-67-8	1,3,5-Trimethylbenzene	0.83		ug/m ³	0.75	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
106-99-0	1,3-Butadiene	ND		ug/m ³	1.0	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.92	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.71	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.92	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
78-93-3	2-Butanone	2.3		ug/m ³	0.45	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC



Sample Information

Client Sample ID: V3_030223

York Sample ID: 23C0193-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:06 am

03/03/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	2.4	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
108-10-1	4-Methyl-2-pentanone	2.3		ug/m ³	0.63	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
67-64-1	Acetone	10		ug/m ³	0.72	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
107-13-1	Acrylonitrile	ND		ug/m ³	0.33	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
71-43-2	Benzene	7.0		ug/m ³	0.49	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
100-44-7	Benzyl chloride	ND		ug/m ³	0.79	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-27-4	Bromodichloromethane	ND		ug/m ³	1.0	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-25-2	Bromoform	ND		ug/m ³	1.6	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
74-83-9	Bromomethane	ND		ug/m ³	0.59	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-15-0	Carbon disulfide	ND		ug/m ³	0.48	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.24	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
108-90-7	Chlorobenzene	ND		ug/m ³	0.70	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-00-3	Chloroethane	ND		ug/m ³	0.40	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
67-66-3	Chloroform	ND		ug/m ³	0.75	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
74-87-3	Chloromethane	1.4		ug/m ³	0.32	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.15	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.69	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
110-82-7	Cyclohexane	1.4		ug/m ³	0.53	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-71-8	Dichlorodifluoromethane	2.0		ug/m ³	0.75	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
100-41-4	Ethyl Benzene	2.8		ug/m ³	0.66	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC



Sample Information

Client Sample ID: V3_030223

York Sample ID: 23C0193-03

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

March 2, 2023 11:06 am

Date Received

03/03/2023

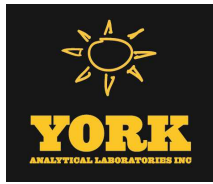
Volatile Organics, EPA TO15 Full List

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	1.6	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
67-63-0	Isopropanol	3.8	B	ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.62	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.55	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-09-2	Methylene chloride	1.5		ug/m ³	1.1	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
142-82-5	n-Heptane	2.5		ug/m ³	0.63	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
110-54-3	n-Hexane	4.9		ug/m ³	0.54	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
95-47-6	o-Xylene	3.4		ug/m ³	0.66	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
179601-23-1	p- & m- Xylenes	9.7		ug/m ³	1.3	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
622-96-8	* p-Ethyltoluene	2.1		ug/m ³	0.75	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC
115-07-1	* Propylene	5.9		ug/m ³	0.26	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC
100-42-5	Styrene	ND		ug/m ³	0.65	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
127-18-4	Tetrachloroethylene	ND		ug/m ³	1.0	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.90	1.526	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 23:02	AC
108-88-3	Toluene	18		ug/m ³	0.58	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.61	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.69	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
79-01-6	Trichloroethylene	ND		ug/m ³	0.21	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-69-4	Trichlorofluoromethane (Freon 11)	1.3		ug/m ³	0.86	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
108-05-4	Vinyl acetate	ND		ug/m ³	0.54	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
593-60-2	Vinyl bromide	ND		ug/m ³	0.67	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC
75-01-4	Vinyl Chloride	ND		ug/m ³	0.20	1.526	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 23:02	AC



Sample Information

Client Sample ID: V3_030223

York Sample ID: 23C0193-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

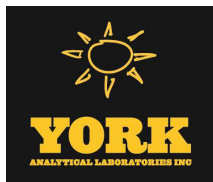
23C0193

100287503

Soil Vapor

March 2, 2023 11:06 am

03/03/2023



Sample Information

Client Sample ID: DUP030223

York Sample ID: 23C0193-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:06 am

03/03/2023

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	1.1	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.90	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.3	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.90	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.67	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
120-82-1	1,2,4-Trichlorobenzene	ND	TO-LCS -L	ug/m ³	1.2	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
95-63-6	1,2,4-Trimethylbenzene	2.7		ug/m ³	0.81	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.3	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.99	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.67	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.76	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
108-67-8	1,3,5-Trimethylbenzene	0.97		ug/m ³	0.81	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.99	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.76	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.99	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
123-91-1	1,4-Dioxane	ND		ug/m ³	1.2	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
78-93-3	2-Butanone	2.0		ug/m ³	0.49	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC



Sample Information

Client Sample ID: DUP030223

York Sample ID: 23C0193-04

York Project (SDG) No.
23C0193

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
March 2, 2023 11:06 am

Date Received
03/03/2023

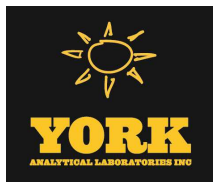
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	2.6	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
108-10-1	4-Methyl-2-pentanone	2.4		ug/m ³	0.67	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
67-64-1	Acetone	7.5		ug/m ³	0.78	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
107-13-1	Acrylonitrile	ND		ug/m ³	0.36	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
71-43-2	Benzene	6.9		ug/m ³	0.53	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
100-44-7	Benzyl chloride	ND		ug/m ³	0.85	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-25-2	Bromoform	ND		ug/m ³	1.7	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
74-83-9	Bromomethane	ND		ug/m ³	0.64	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-15-0	Carbon disulfide	ND		ug/m ³	0.51	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
56-23-5	Carbon tetrachloride	ND		ug/m ³	0.26	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
108-90-7	Chlorobenzene	ND		ug/m ³	0.76	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-00-3	Chloroethane	ND		ug/m ³	0.43	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
67-66-3	Chloroform	ND		ug/m ³	0.80	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
74-87-3	Chloromethane	1.3		ug/m ³	0.34	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.16	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.75	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
110-82-7	Cyclohexane	1.4		ug/m ³	0.57	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
124-48-1	Dibromochloromethane	ND		ug/m ³	1.4	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-71-8	Dichlorodifluoromethane	2.0		ug/m ³	0.81	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
141-78-6	* Ethyl acetate	ND		ug/m ³	1.2	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
100-41-4	Ethyl Benzene	2.9		ug/m ³	0.71	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC



Sample Information

Client Sample ID: DUP030223

York Sample ID: 23C0193-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:06 am

03/03/2023

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	1.8	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
67-63-0	Isopropanol	4.0	B	ug/m ³	1.2	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.67	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.59	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-09-2	Methylene chloride	1.7		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
142-82-5	n-Heptane	2.5		ug/m ³	0.67	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
110-54-3	n-Hexane	4.8		ug/m ³	0.58	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
95-47-6	o-Xylene	3.4		ug/m ³	0.71	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
179601-23-1	p- & m- Xylenes	9.7		ug/m ³	1.4	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
622-96-8	* p-Ethyltoluene	2.0		ug/m ³	0.81	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
115-07-1	* Propylene	5.7		ug/m ³	0.28	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
100-42-5	Styrene	ND		ug/m ³	0.70	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
127-18-4	Tetrachloroethylene	ND		ug/m ³	1.1	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.97	1.645	EPA TO-15 Certifications:	03/03/2023 14:00	03/11/2023 00:05	AC
108-88-3	Toluene	18		ug/m ³	0.62	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.65	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.75	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
79-01-6	Trichloroethylene	ND		ug/m ³	0.22	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-69-4	Trichlorofluoromethane (Freon 11)	1.3		ug/m ³	0.92	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
108-05-4	Vinyl acetate	ND		ug/m ³	0.58	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
593-60-2	Vinyl bromide	ND		ug/m ³	0.72	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC
75-01-4	Vinyl Chloride	ND		ug/m ³	0.21	1.645	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/11/2023 00:05	AC



Sample Information

Client Sample ID: **DUP030223**

York Sample ID: **23C0193-04**

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Soil Vapor

March 2, 2023 11:06 am

03/03/2023



Sample Information

Client Sample ID: Ambient_030223

York Sample ID: 23C0193-05

York Project (SDG) No.

23C0193

Client Project ID

100287503

Matrix

Outdoor Ambient Air

Collection Date/Time

March 2, 2023 2:17 pm

Date Received

03/03/2023

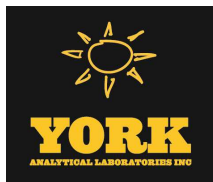
Volatile Organics, EPA TO15 Full List

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	0.71	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.56	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.71	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.79	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.56	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.42	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.10	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
120-82-1	1,2,4-Trichlorobenzene	ND	TO-LCS -L	ug/m ³	0.77	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.51	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.79	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.62	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.42	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.48	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.72	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.51	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
106-99-0	1,3-Butadiene	ND		ug/m ³	0.69	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.62	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.48	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.62	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
123-91-1	1,4-Dioxane	ND		ug/m ³	0.75	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
78-93-3	2-Butanone	2.5		ug/m ³	0.30	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
591-78-6	* 2-Hexanone	ND		ug/m ³	0.85	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC



Sample Information

Client Sample ID: Ambient_030223

York Sample ID: 23C0193-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Outdoor Ambient Air

March 2, 2023 2:17 pm

03/03/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	1.6	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.42	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
67-64-1	Acetone	14		ug/m ³	0.49	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
107-13-1	Acrylonitrile	ND		ug/m ³	0.22	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
71-43-2	Benzene	1.2		ug/m ³	0.33	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
100-44-7	Benzyl chloride	ND		ug/m ³	0.54	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-27-4	Bromodichloromethane	ND		ug/m ³	0.69	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-25-2	Bromoform	ND		ug/m ³	1.1	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
74-83-9	Bromomethane	ND		ug/m ³	0.40	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-15-0	Carbon disulfide	0.35		ug/m ³	0.32	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
56-23-5	Carbon tetrachloride	0.39		ug/m ³	0.16	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
108-90-7	Chlorobenzene	ND		ug/m ³	0.48	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-00-3	Chloroethane	ND		ug/m ³	0.27	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
67-66-3	Chloroform	ND		ug/m ³	0.50	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
74-87-3	Chloromethane	1.1		ug/m ³	0.21	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.10	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.47	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
110-82-7	Cyclohexane	0.50		ug/m ³	0.36	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
124-48-1	Dibromochloromethane	ND		ug/m ³	0.88	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-71-8	Dichlorodifluoromethane	1.8		ug/m ³	0.51	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
141-78-6	* Ethyl acetate	ND		ug/m ³	0.75	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
100-41-4	Ethyl Benzene	0.45		ug/m ³	0.45	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC



Sample Information

Client Sample ID: Ambient_030223

York Sample ID: 23C0193-05

York Project (SDG) No.
23C0193

Client Project ID
100287503

Matrix
Outdoor Ambient Air

Collection Date/Time
March 2, 2023 2:17 pm

Date Received
03/03/2023

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	1.1	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
67-63-0	Isopropanol	80	B	ug/m ³	0.76	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.42	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.37	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-09-2	Methylene chloride	1.3		ug/m ³	0.72	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
142-82-5	n-Heptane	0.51		ug/m ³	0.42	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
110-54-3	n-Hexane	2.5		ug/m ³	0.36	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
95-47-6	o-Xylene	0.45		ug/m ³	0.45	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
179601-23-1	p- & m- Xylenes	1.4		ug/m ³	0.90	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.51	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
115-07-1	* Propylene	ND		ug/m ³	0.18	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
100-42-5	Styrene	ND		ug/m ³	0.44	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
127-18-4	Tetrachloroethylene	1.9		ug/m ³	0.70	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.61	1.034	EPA TO-15 Certifications:	03/03/2023 14:00	03/10/2023 20:56	AC
108-88-3	Toluene	4.9		ug/m ³	0.39	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.41	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.47	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
79-01-6	Trichloroethylene	ND		ug/m ³	0.14	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.58	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
108-05-4	Vinyl acetate	ND		ug/m ³	0.36	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
593-60-2	Vinyl bromide	ND		ug/m ³	0.45	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC
75-01-4	Vinyl Chloride	ND		ug/m ³	0.13	1.034	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-Queens	03/03/2023 14:00	03/10/2023 20:56	AC



Sample Information

Client Sample ID: **Ambient_030223**

York Sample ID: **23C0193-05**

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23C0193

100287503

Outdoor Ambient Air

March 2, 2023 2:17 pm

03/03/2023



Analytical Batch Summary

Batch ID: BC30738

Preparation Method: EPA TO15 PREP

Prepared By: AC

YORK Sample ID	Client Sample ID	Preparation Date
23C0193-01	V2_030223	03/03/23
23C0193-02	V5_030223	03/03/23
BC30738-BLK1	Blank	03/10/23
BC30738-BS1	LCS	03/10/23
BC30738-DUP1	Duplicate	03/03/23

Batch ID: BC30810

Preparation Method: EPA TO15 PREP

Prepared By: AC

YORK Sample ID	Client Sample ID	Preparation Date
23C0193-03	V3_030223	03/03/23
23C0193-04	DUP030223	03/03/23
23C0193-05	Ambient_030223	03/03/23
BC30810-BLK1	Blank	03/10/23
BC30810-BS1	LCS	03/10/23
BC30810-DUP1	Duplicate	03/06/23



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
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Batch BC30738 - EPA TO15 PREP

Blank (BC30738-BLK1)	Blank									Prepared & Analyzed: 03/10/2023
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	0.69	0.69	"							
n-Heptane	ND	0.41	"							



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
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Batch BC30738 - EPA TO15 PREP

Blank (BC30738-BLK1)	Blank										Prepared & Analyzed: 03/10/2023
n-Hexane	ND	0.35	ug/m ³								
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 (BC30738-BS1)	LCS										Prepared & Analyzed: 03/10/2023
1,1,1,2-Tetrachloroethane	9.74		ppbv	10.0		97.4	70-130				
1,1,1-Trichloroethane	10.2		"	10.0		102	70-130				
1,1,2,2-Tetrachloroethane	11.4		"	10.0		114	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.1		"	10.0		101	70-130				
1,1,2-Trichloroethane	8.65		"	10.0		86.5	70-130				
1,1-Dichloroethane	10.2		"	10.0		102	70-130				
1,1-Dichloroethylene	11.1		"	10.0		111	70-130				
1,2,4-Trichlorobenzene	8.35		"	10.0		83.5	70-130				
1,2,4-Trimethylbenzene	8.36		"	10.0		83.6	70-130				
1,2-Dibromoethane	8.88		"	10.0		88.8	70-130				
1,2-Dichlorobenzene	8.03		"	10.0		80.3	70-130				
1,2-Dichloroethane	10.5		"	10.0		105	70-130				
1,2-Dichloropropane	8.67		"	10.0		86.7	70-130				
1,2-Dichlorotetrafluoroethane	8.62		"	10.0		86.2	70-130				
1,3,5-Trimethylbenzene	8.51		"	10.0		85.1	70-130				
1,3-Butadiene	9.60		"	10.0		96.0	70-130				
1,3-Dichlorobenzene	8.35		"	10.0		83.5	70-130				
1,3-Dichloropropane	9.09		"	10.0		90.9	70-130				
1,4-Dichlorobenzene	8.10		"	10.0		81.0	70-130				
1,4-Dioxane	11.0		"	10.0		110	70-130				
2-Butanone	10.6		"	10.0		106	70-130				
2-Hexanone	7.94		"	10.0		79.4	70-130				
3-Chloropropene	11.8		"	10.0		118	70-130				
4-Methyl-2-pentanone	8.57		"	10.0		85.7	70-130				
Acetone	8.73		"	10.0		87.3	70-130				
Acrylonitrile	12.6		"	10.0		126	70-130				
Benzene	7.60		"	10.0		76.0	70-130				
Benzyl chloride	9.07		"	10.0		90.7	70-130				
Bromodichloromethane	8.98		"	10.0		89.8	70-130				
Bromoform	8.97		"	10.0		89.7	70-130				
Bromomethane	7.02		"	10.0		70.2	70-130				
Carbon disulfide	10.2		"	10.0		102	70-130				
Carbon tetrachloride	9.12		"	10.0		91.2	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
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Batch BC30738 - EPA TO15 PREP

LCS (BC30738-BS1)	LCS	Prepared & Analyzed: 03/10/2023									
Chlorobenzene	10.6		ppbv	10.0		106	70-130				
Chloroethane	11.4		"	10.0		114	70-130				
Chloroform	10.1		"	10.0		101	70-130				
Chloromethane	8.75		"	10.0		87.5	70-130				
cis-1,2-Dichloroethylene	11.4		"	10.0		114	70-130				
cis-1,3-Dichloropropylene	9.71		"	10.0		97.1	70-130				
Cyclohexane	9.57		"	10.0		95.7	70-130				
Dibromochloromethane	8.70		"	10.0		87.0	70-130				
Dichlorodifluoromethane	10.1		"	10.0		101	70-130				
Ethyl acetate	10.8		"	10.0		108	70-130				
Ethyl Benzene	11.1		"	10.0		111	70-130				
Hexachlorobutadiene	5.42		"	10.0		54.2	70-130	Low Bias			
Isopropanol	10.1		"	10.0		101	70-130				
Methyl Methacrylate	8.50		"	10.0		85.0	70-130				
Methyl tert-butyl ether (MTBE)	10.9		"	10.0		109	70-130				
Methylene chloride	10.0		"	10.0		100	70-130				
n-Heptane	7.54		"	10.0		75.4	70-130				
n-Hexane	9.50		"	10.0		95.0	70-130				
o-Xylene	8.15		"	10.0		81.5	70-130				
p- & m- Xylenes	14.5		"	20.0		72.6	70-130				
p-Ethyltoluene	8.11		"	10.0		81.1	70-130				
Propylene	12.2		"	10.0		122	70-130				
Styrene	7.93		"	10.0		79.3	70-130				
Tetrachloroethylene	8.99		"	10.0		89.9	70-130				
Tetrahydrofuran	11.6		"	10.0		116	70-130				
Toluene	8.42		"	10.0		84.2	70-130				
trans-1,2-Dichloroethylene	11.0		"	10.0		110	70-130				
trans-1,3-Dichloropropylene	9.68		"	10.0		96.8	70-130				
Trichloroethylene	9.59		"	10.0		95.9	70-130				
Trichlorofluoromethane (Freon 11)	9.63		"	10.0		96.3	70-130				
Vinyl acetate	8.42		"	10.0		84.2	70-130				
Vinyl bromide	11.4		"	10.0		114	70-130				
Vinyl Chloride	7.82		"	10.0		78.2	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
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Batch BC30738 - EPA TO15 PREP

Duplicate (BC30738-DUP1)	Duplicate	*Source sample: 23C0193-02 (V5_030223)				Prepared: 03/03/2023 Analyzed: 03/10/2023					
1,1,1,2-Tetrachloroethane	ND	1.1	ug/m ³	ND						25	
1,1,1-Trichloroethane	ND	0.85	"	ND						25	
1,1,2,2-Tetrachloroethane	ND	1.1	"	ND						25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.2	"	ND						25	
1,1,2-Trichloroethane	ND	0.85	"	ND						25	
1,1-Dichloroethane	ND	0.63	"	ND						25	
1,1-Dichloroethylene	ND	0.15	"	ND						25	
1,2,4-Trichlorobenzene	ND	1.2	"	ND						25	
1,2,4-Trimethylbenzene	1.4	0.77	"	1.4					0.00	25	
1,2-Dibromoethane	ND	1.2	"	ND						25	
1,2-Dichlorobenzene	ND	0.94	"	ND						25	
1,2-Dichloroethane	ND	0.63	"	ND						25	
1,2-Dichloropropane	ND	0.72	"	ND						25	
1,2-Dichlorotetrafluoroethane	ND	1.1	"	ND						25	
1,3,5-Trimethylbenzene	ND	0.77	"	ND						25	
1,3-Butadiene	ND	1.0	"	ND						25	
1,3-Dichlorobenzene	ND	0.94	"	ND						25	
1,3-Dichloropropane	ND	0.72	"	ND						25	
1,4-Dichlorobenzene	ND	0.94	"	ND						25	
1,4-Dioxane	ND	1.1	"	ND						25	
2-Butanone	ND	0.46	"	ND						25	
2-Hexanone	ND	1.3	"	ND						25	
3-Chloropropene	ND	2.4	"	ND						25	
4-Methyl-2-pentanone	1.7	0.64	"	1.8					10.9	25	
Acetone	3.6	0.74	"	3.7					5.08	25	
Acrylonitrile	ND	0.34	"	ND						25	
Benzene	0.99	0.50	"	1.0					4.88	25	
Benzyl chloride	ND	0.81	"	ND						25	
Bromodichloromethane	ND	1.0	"	ND						25	
Bromoform	ND	1.6	"	ND						25	
Bromomethane	ND	0.60	"	ND						25	
Carbon disulfide	0.92	0.48	"	1.0					10.0	25	
Carbon tetrachloride	0.39	0.24	"	0.39					0.00	25	
Chlorobenzene	ND	0.72	"	ND						25	
Chloroethane	ND	0.41	"	ND						25	
Chloroform	3.0	0.76	"	3.1					2.47	25	
Chloromethane	2.6	0.32	"	2.7					2.44	25	
cis-1,2-Dichloroethylene	2.2	0.15	"	2.3					5.41	25	
cis-1,3-Dichloropropylene	ND	0.71	"	ND						25	
Cyclohexane	ND	0.54	"	ND						25	
Dibromochloromethane	ND	1.3	"	ND						25	
Dichlorodifluoromethane	2.8	0.77	"	2.8					2.74	25	
Ethyl acetate	ND	1.1	"	ND						25	
Ethyl Benzene	2.3	0.68	"	2.4					2.90	25	
Hexachlorobutadiene	ND	1.7	"	ND						25	
Isopropanol	4.3	0.77	"	4.6					5.17	25	
Methyl Methacrylate	ND	0.64	"	ND						25	
Methyl tert-butyl ether (MTBE)	ND	0.56	"	ND						25	
Methylene chloride	1.4	1.1	"	1.4					3.92	25	
n-Heptane	ND	0.64	"	ND						25	
n-Hexane	0.82	0.55	"	0.82					0.00	25	



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
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Batch BC30738 - EPA TO15 PREP

Duplicate (BC30738-DUP1)	Duplicate	*Source sample: 23C0193-02 (V5_030223)				Prepared: 03/03/2023 Analyzed: 03/10/2023					
o-Xylene	1.8	0.68	ug/m ³		1.9				7.41	25	
p- & m- Xylenes	4.6	1.4	"		4.7				2.90	25	
p-Ethyltoluene	1.2	0.77	"		1.3				6.06	25	
Propylene	ND	0.27	"		ND					25	
Styrene	ND	0.66	"		ND					25	
Tetrachloroethylene	2.7	1.1	"		3.0				7.41	25	
Tetrahydrofuran	ND	0.92	"		ND					25	
Toluene	7.5	0.59	"		7.9				5.32	25	
trans-1,2-Dichloroethylene	ND	0.62	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.71	"		ND					25	
Trichloroethylene	1.6	0.21	"		1.8				10.0	25	
Trichlorofluoromethane (Freon 11)	2.0	0.87	"		2.0				0.00	25	
Vinyl acetate	ND	0.55	"		ND					25	
Vinyl bromide	ND	0.68	"		ND					25	
Vinyl Chloride	0.24	0.20	"		0.24				0.00	25	

Batch BC30810 - EPA TO15 PREP

Blank (BC30810-BLK1)	Blank	Prepared & Analyzed: 03/10/2023									
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	"								



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
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Batch BC30810 - EPA TO15 PREP

Blank (BC30810-BLK1)	Blank		Prepared & Analyzed: 03/10/2023								
Carbon tetrachloride	ND	0.16	ug/m ³								
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	0.61	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
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	"								



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
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Batch BC30810 - EPA TO15 PREP

LCS (BC30810-BS1)	LCS	Prepared & Analyzed: 03/10/2023									
1,1,1,2-Tetrachloroethane	9.26		ppbv	10.0		92.6	70-130				
1,1,1-Trichloroethane	9.49		"	10.0		94.9	70-130				
1,1,2,2-Tetrachloroethane	8.77		"	10.0		87.7	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.86		"	10.0		88.6	70-130				
1,1,2-Trichloroethane	8.64		"	10.0		86.4	70-130				
1,1-Dichloroethane	8.58		"	10.0		85.8	70-130				
1,1-Dichloroethylene	7.98		"	10.0		79.8	70-130				
1,2,4-Trichlorobenzene	6.12		"	10.0		61.2	70-130	Low Bias			
1,2,4-Trimethylbenzene	8.75		"	10.0		87.5	70-130				
1,2-Dibromoethane	9.01		"	10.0		90.1	70-130				
1,2-Dichlorobenzene	8.62		"	10.0		86.2	70-130				
1,2-Dichloroethane	8.90		"	10.0		89.0	70-130				
1,2-Dichloropropane	8.72		"	10.0		87.2	70-130				
1,2-Dichlorotetrafluoroethane	7.85		"	10.0		78.5	70-130				
1,3,5-Trimethylbenzene	8.14		"	10.0		81.4	70-130				
1,3-Butadiene	8.67		"	10.0		86.7	70-130				
1,3-Dichlorobenzene	8.89		"	10.0		88.9	70-130				
1,3-Dichloropropane	8.72		"	10.0		87.2	70-130				
1,4-Dichlorobenzene	9.02		"	10.0		90.2	70-130				
1,4-Dioxane	8.54		"	10.0		85.4	70-130				
2-Butanone	8.45		"	10.0		84.5	70-130				
2-Hexanone	8.69		"	10.0		86.9	70-130				
3-Chloropropene	9.10		"	10.0		91.0	70-130				
4-Methyl-2-pentanone	8.47		"	10.0		84.7	70-130				
Acetone	7.87		"	10.0		78.7	70-130				
Acrylonitrile	8.93		"	10.0		89.3	70-130				
Benzene	8.68		"	10.0		86.8	70-130				
Benzyl chloride	7.81		"	10.0		78.1	70-130				
Bromodichloromethane	9.86		"	10.0		98.6	70-130				
Bromoform	9.71		"	10.0		97.1	70-130				
Bromomethane	7.96		"	10.0		79.6	70-130				
Carbon disulfide	9.13		"	10.0		91.3	70-130				
Carbon tetrachloride	9.75		"	10.0		97.5	70-130				
Chlorobenzene	8.44		"	10.0		84.4	70-130				
Chloroethane	8.14		"	10.0		81.4	70-130				
Chloroform	9.17		"	10.0		91.7	70-130				
Chloromethane	8.10		"	10.0		81.0	70-130				
cis-1,2-Dichloroethylene	7.96		"	10.0		79.6	70-130				
cis-1,3-Dichloropropylene	9.82		"	10.0		98.2	70-130				
Cyclohexane	9.09		"	10.0		90.9	70-130				
Dibromochloromethane	10.4		"	10.0		104	70-130				
Dichlorodifluoromethane	8.19		"	10.0		81.9	70-130				
Ethyl acetate	8.93		"	10.0		89.3	70-130				
Ethyl Benzene	8.97		"	10.0		89.7	70-130				
Hexachlorobutadiene	7.25		"	10.0		72.5	70-130				
Isopropanol	8.50		"	10.0		85.0	70-130				
Methyl Methacrylate	8.81		"	10.0		88.1	70-130				
Methyl tert-butyl ether (MTBE)	9.25		"	10.0		92.5	70-130				
Methylene chloride	9.34		"	10.0		93.4	70-130				
n-Heptane	9.18		"	10.0		91.8	70-130				
n-Hexane	9.24		"	10.0		92.4	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
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Batch BC30810 - EPA TO15 PREP

LCS (BC30810-BS1)	LCS	Prepared & Analyzed: 03/10/2023									
o-Xylene	9.13		ppbv	10.0		91.3	70-130				
p- & m- Xylenes	17.5		"	20.0		87.4	70-130				
p-Ethyltoluene	8.75		"	10.0		87.5	70-130				
Propylene	7.70		"	10.0		77.0	70-130				
Styrene	9.34		"	10.0		93.4	70-130				
Tetrachloroethylene	8.58		"	10.0		85.8	70-130				
Tetrahydrofuran	8.86		"	10.0		88.6	70-130				
Toluene	8.58		"	10.0		85.8	70-130				
trans-1,2-Dichloroethylene	8.73		"	10.0		87.3	70-130				
trans-1,3-Dichloropropylene	9.70		"	10.0		97.0	70-130				
Trichloroethylene	8.24		"	10.0		82.4	70-130				
Trichlorofluoromethane (Freon 11)	8.94		"	10.0		89.4	70-130				
Vinyl acetate	9.49		"	10.0		94.9	70-130				
Vinyl bromide	9.45		"	10.0		94.5	70-130				
Vinyl Chloride	7.56		"	10.0		75.6	70-130				

Duplicate (BC30810-DUP1)	Duplicate	*Source sample: 23C0236-02 (Duplicate)									
1,1,1,2-Tetrachloroethane	ND	0.94	ug/m ³		ND						25
1,1,1-Trichloroethane	ND	0.75	"		ND						25
1,1,2,2-Tetrachloroethane	ND	0.94	"		ND						25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.1	"		ND						25
1,1,2-Trichloroethane	ND	0.75	"		ND						25
1,1-Dichloroethane	ND	0.56	"		ND						25
1,1-Dichloroethylene	ND	0.14	"		ND						25
1,2,4-Trichlorobenzene	ND	1.0	"		ND						25
1,2,4-Trimethylbenzene	4.0	0.68	"		4.3				8.13		25
1,2-Dibromoethane	ND	1.1	"		ND						25
1,2-Dichlorobenzene	ND	0.83	"		ND						25
1,2-Dichloroethane	ND	0.56	"		ND						25
1,2-Dichloropropane	ND	0.64	"		ND						25
1,2-Dichlorotetrafluoroethane	ND	0.96	"		ND						25
1,3,5-Trimethylbenzene	0.95	0.68	"		0.95				0.00		25
1,3-Butadiene	1.6	0.91	"		1.6				3.85		25
1,3-Dichlorobenzene	ND	0.83	"		ND						25
1,3-Dichloropropane	ND	0.64	"		ND						25
1,4-Dichlorobenzene	ND	0.83	"		ND						25
1,4-Dioxane	ND	0.99	"		ND						25
2-Butanone	3.5	0.41	"		3.3				5.99		25
2-Hexanone	ND	1.1	"		ND						25
3-Chloropropene	ND	2.2	"		ND						25
4-Methyl-2-pentanone	ND	0.56	"		ND						25
Acetone	20	0.65	"		20				0.811		25
Acrylonitrile	ND	0.30	"		0.39						25
Benzene	1.7	0.44	"		1.7				2.60		25
Benzyl chloride	ND	0.71	"		ND						25
Bromodichloromethane	ND	0.92	"		ND						25
Bromoform	ND	1.4	"		ND						25
Bromomethane	ND	0.53	"		ND						25
Carbon disulfide	ND	0.43	"		0.51						25
Carbon tetrachloride	ND	0.22	"		0.35						25
Chlorobenzene	ND	0.63	"		ND						25



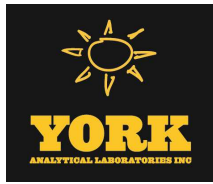
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BC30810 - EPA TO15 PREP

Duplicate (BC30810-DUP1)	Duplicate	*Source sample: 23C0236-02 (Duplicate)				Prepared: 03/06/2023 Analyzed: 03/11/2023					
Chloroethane	ND	0.36	ug/m ³	ND						25	
Chloroform	13	0.67	"	14					1.00	25	
Chloromethane	0.85	0.28	"	0.80					6.90	25	
cis-1,2-Dichloroethylene	ND	0.14	"	ND						25	
cis-1,3-Dichloropropylene	ND	0.62	"	ND						25	
Cyclohexane	0.71	0.47	"	0.76					6.45	25	
Dibromochloromethane	ND	1.2	"	ND						25	
Dichlorodifluoromethane	1.9	0.68	"	1.9					0.00	25	
Ethyl acetate	ND	0.99	"	ND						25	
Ethyl Benzene	4.4	0.60	"	4.5					1.34	25	
Hexachlorobutadiene	ND	1.5	"	ND						25	
Isopropanol	9.0	0.68	"	9.0					0.00	25	
Methyl Methacrylate	0.62	0.56	"	ND						25	
Methyl tert-butyl ether (MTBE)	ND	0.50	"	ND						25	
Methylene chloride	ND	0.96	"	1.1						25	
n-Heptane	0.96	0.56	"	1.0					5.71	25	
n-Hexane	9.9	0.49	"	9.9					0.489	25	
o-Xylene	5.7	0.60	"	5.4					4.30	25	
p- & m- Xylenes	21	1.2	"	21					0.565	25	
p-Ethyltoluene	3.0	0.68	"	3.7					20.0	25	
Propylene	5.6	0.24	"	5.4					3.45	25	
Styrene	ND	0.59	"	ND						25	
Tetrachloroethylene	160	0.93	"	170					0.454	25	
Tetrahydrofuran	ND	0.81	"	ND						25	
Toluene	220	0.52	"	220					0.871	25	
trans-1,2-Dichloroethylene	ND	0.55	"	ND						25	
trans-1,3-Dichloropropylene	ND	0.62	"	ND						25	
Trichloroethylene	ND	0.18	"	ND						25	
Trichlorofluoromethane (Freon 11)	1.2	0.77	"	1.2					6.45	25	
Vinyl acetate	ND	0.48	"	ND						25	
Vinyl bromide	ND	0.60	"	ND						25	
Vinyl Chloride	ND	0.18	"	ND						25	





Sample and Data Qualifiers Relating to This Work Order

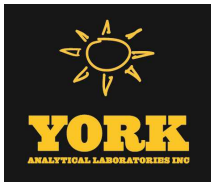
TO-VAC	The final vacuum in the canister was less than -2 inches Hg vacuum. The time integrated sampling may be affected and not reflect proper sampling over the time period. The data user should take note.
TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
CAL-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%)
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.



2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



York Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No.
230193

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization for YORK to proceed with the analyses requested below.
signature binds you to YORK's Standard Terms & Conditions.

Your Page 1 of 1

YOUR Information		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time	
Company:	Langdon	Company:		Company:		100287503		RUSH - Next Day	
Address:	300 Kimball Drive	Address:		Address:	SAFEC			RUSH - Two Day	
Phone:	Passigany NJ 07054	Phone:		Phone:		YOUR Project Name		RUSH - Three Day	
Contact:	973-360-4900	Contact:		Contact:		365 Bond Street		RUSH - Four Day	
E-mail:	akritex@langdon.com	E-mail:		E-mail:		YOUR PO#:		Standard (5-7 Day)	
Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.		Air Matrix Codes		Samples From		Report / EDD Type (circle selections)		YORK Reg. Comp.	
ESTHER ARTHUR Samples Collected by: (print your name above and sign below) [Signature]		AI - Indoor Ambient Air		New York		CT RCP		Standard Excel EDD	
		AO - Outdoor Ambient Air		New Jersey		QA Report		EQUIS (Standard)	
		AE - Vapor Extraction Well/Process Gas/Effluent		Connecticut		NY ASP A Package		NYSDEC EQUIS	
		AS - Soil Vapor/Sub-Slab		Pennsylvania		NY ASP B Package		NJDEP Reduced Deliv.	
				Other		Other:		NJDEP SRP HazSite	
Certified Canisters: Batch _____ Individual _____		Please enter the following REQUIRED Field Data							
Sample Identification		Air Matrix		Canister Vacuum Before Sampling (in Hg)		Canister Vacuum After Sampling (in Hg)		Flow Cont. ID	
V2 - 030223		AS		-30		-4		7361	
V5 - 030223		AS		-28		-3		12182	
V3 - 030223		AS		-30		-5		6869	
DUP030223		AS		-30		-4		13551	
Ambient_030223		AO		-30		-10		6863	
[Signature]		[Signature]		[Signature]		[Signature]		[Signature]	
Comments:		Detection Limits Required							
		≤ 1 ug/m ³		Routine Survey		NYSDEC V1 Limits		6 Liter Canister	
						Other		Tedlar Bag	
Samples Relinquished by / Company		Date/Time		Samples Received by / Company		Date/Time		Samples Relinquished by / Company	
Esther Arth / Langdon		03/02/2023 1420		[Signature]		03/02/23 1420		[Signature]	
Samples Received by / Company		Date/Time		Samples Received by / Company		Date/Time		Samples Received by / Company	
Samples Relinquished by / Company		Date/Time		Samples Received by / Company		Date/Time		Samples Received by / Company	
								3/3/23 12:00	

ATTACHMENT C

Data Usability Summary Report

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Allyson Kritzer, Langan Project Engineer

From: Joe Conboy, Langan Senior Staff Chemist

Date: May 9, 2023

Re: Data Usability Summary Report
For 363 Bond Street - Soil Vapor Monitoring Report - Year 7
March 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287505

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in March 2023 by Langan Engineering and Environmental Services at the 363 Bond Street site. The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration # 10854 and 12058) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by USEPA Method TO-15

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6),
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator.

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs

Technical Memorandum

values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. The 23C0193 SDG underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- R** – The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** – The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified in Table 2 (attached).

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Technical Memorandum

Data Usability Summary Report
For 363 Bond Street - Soil Vapor Monitoring Report - Year 7
March 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
May 9, 2023 Page 3 of 4

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method TO-15:

23C0193

The MB for batch BC30738 exhibited a detection of methylene chloride (0.69 ug/m³). The associated results in samples V2_030223 and V5_030223 are qualified as J because of potential blank contamination.

The MB for batch BC30810 exhibited a detection of isopropanol (0.61 ug/m³). The associated results <10x the blank concentration in samples AMBIENT_030223, DUP030223, and V3_030223 are qualified as J because of potential blank contamination.

The LCS for batch BC30738 exhibited a percent recovery below the LCL for hexachlorobutadiene (54.2%). The associated results in samples V2_030223 and V5_030223 are qualified as UJ because of potential low bias.

The LCS for batch BC30810 exhibited a percent recovery below the LCL for 1,2,4-trichlorobenzene (61.2%). The associated results in samples AMBIENT_030223, DUP030223, and V3_030223 are qualified as UJ because of potential low bias.

The sample V5_030223 exhibited a laboratory-measured receipt pressure above -2 in. Hg (0 in. Hg). The associated results in sample V5_030223 are qualified as J or UJ because of potential indeterminate bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. No other deficiencies were identified.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less

Technical Memorandum

Data Usability Summary Report
For 363 Bond Street - Soil Vapor Monitoring Report - Year 7
March 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
May 9, 2023 Page 4 of 4

than $\pm 1X$ the RL. For results greater than $5X$ the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for vapor. The following field duplicate and parent sample pair was compared to and met precision criteria:

- DUP_030223 and V3_030223

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:



Joe Conboy
Senior Staff Chemist

Data Usability Summary Report
For 363 Bond Street
March 2023 Soil Vapor and Ambient Air Samples
Table 1: Sample Summary

SDG	Lab Sample ID	Client Sample ID	Sample Date	Validation Level	Analytical Parameters
23C0193	23C0193-01	V2_030223	3/2/2023	Tier 1	VOCs by TO-15
23C0193	23C0193-02	V5_030223	3/2/2023	Tier 1	VOCs by TO-15
23C0193	23C0193-03	V3_030223	3/2/2023	Tier 1	VOCs by TO-15
23C0193	23C0193-04	DUP030223	3/2/2023	Tier 1	VOCs by TO-15
23C0193	23C0193-05	AMBIENT_030223	3/2/2023	Tier 1	VOCs by TO-15

Data Usability Summary Report
For 363 Bond Street
March 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
AMBIENT_030223	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
DUP030223	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
DUP030223	TO15	67-63-0	Isopropanol	J
V2_030223	TO15	75-09-2	Methylene Chloride	J
V2_030223	TO15	87-68-3	Hexachlorobutadiene	UJ
V3_030223	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
V3_030223	TO15	67-63-0	Isopropanol	J
V5_030223	TO15	630-20-6	1,1,1,2-Tetrachloroethane	UJ
V5_030223	TO15	124-48-1	Dibromochloromethane	UJ
V5_030223	TO15	127-18-4	Tetrachloroethylene	J
V5_030223	TO15	141-78-6	Ethyl Acetate	UJ
V5_030223	TO15	142-28-9	1,3-Dichloropropane	UJ
V5_030223	TO15	142-82-5	N-Heptane	UJ
V5_030223	TO15	156-59-2	Cis-1,2-Dichloroethylene	J
V5_030223	TO15	156-60-5	Trans-1,2-Dichloroethene	UJ
V5_030223	TO15	1634-04-4	Tert-Butyl Methyl Ether	UJ
V5_030223	TO15	100-41-4	Ethylbenzene	J
V5_030223	TO15	100-42-5	Styrene	UJ
V5_030223	TO15	100-44-7	Benzyl Chloride	UJ
V5_030223	TO15	10061-01-5	Cis-1,3-Dichloropropene	UJ
V5_030223	TO15	10061-02-6	Trans-1,3-Dichloropropene	UJ
V5_030223	TO15	106-46-7	1,4-Dichlorobenzene	UJ
V5_030223	TO15	106-93-4	1,2-Dibromoethane	UJ
V5_030223	TO15	106-99-0	1,3-Butadiene	UJ
V5_030223	TO15	107-05-1	3-Chloropropene	UJ
V5_030223	TO15	107-06-2	1,2-Dichloroethane	UJ
V5_030223	TO15	107-13-1	Acrylonitrile	UJ
V5_030223	TO15	108-05-4	Vinyl Acetate	UJ
V5_030223	TO15	108-10-1	4-Methyl-2-Pentanone	J
V5_030223	TO15	108-67-8	1,3,5-Trimethylbenzene	UJ
V5_030223	TO15	108-88-3	Toluene	J
V5_030223	TO15	108-90-7	Chlorobenzene	UJ
V5_030223	TO15	109-99-9	Tetrahydrofuran	UJ
V5_030223	TO15	110-54-3	N-Hexane	J
V5_030223	TO15	110-82-7	Cyclohexane	UJ
V5_030223	TO15	115-07-1	Propylene	UJ
V5_030223	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
V5_030223	TO15	123-91-1	1,4-Dioxane	UJ
V5_030223	TO15	179601-23-1	m,p-Xylene	J
V5_030223	TO15	541-73-1	1,3-Dichlorobenzene	UJ
V5_030223	TO15	56-23-5	Carbon Tetrachloride	J
V5_030223	TO15	591-78-6	2-Hexanone	UJ
V5_030223	TO15	593-60-2	Vinyl Bromide	UJ

Data Usability Summary Report
For 363 Bond Street
March 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
V5_030223	TO15	622-96-8	4-Ethyltoluene	J
V5_030223	TO15	67-63-0	Isopropanol	J
V5_030223	TO15	67-64-1	Acetone	J
V5_030223	TO15	67-66-3	Chloroform	J
V5_030223	TO15	71-43-2	Benzene	J
V5_030223	TO15	71-55-6	1,1,1-Trichloroethane	UJ
V5_030223	TO15	74-83-9	Bromomethane	UJ
V5_030223	TO15	74-87-3	Chloromethane	J
V5_030223	TO15	75-00-3	Chloroethane	UJ
V5_030223	TO15	75-01-4	Vinyl Chloride	J
V5_030223	TO15	75-09-2	Methylene Chloride	J
V5_030223	TO15	75-15-0	Carbon Disulfide	J
V5_030223	TO15	75-25-2	Bromoform	UJ
V5_030223	TO15	75-27-4	Bromodichloromethane	UJ
V5_030223	TO15	75-34-3	1,1-Dichloroethane	UJ
V5_030223	TO15	75-35-4	1,1-Dichloroethene	UJ
V5_030223	TO15	75-69-4	Trichlorofluoromethane	J
V5_030223	TO15	75-71-8	Dichlorodifluoromethane	J
V5_030223	TO15	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	UJ
V5_030223	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	UJ
V5_030223	TO15	78-87-5	1,2-Dichloropropane	UJ
V5_030223	TO15	78-93-3	2-Butanone	UJ
V5_030223	TO15	79-00-5	1,1,2-Trichloroethane	UJ
V5_030223	TO15	79-01-6	Trichloroethylene	J
V5_030223	TO15	79-34-5	1,1,2,2-Tetrachloroethane	UJ
V5_030223	TO15	80-62-6	Methyl Methacrylate	UJ
V5_030223	TO15	87-68-3	Hexachlorobutadiene	UJ
V5_030223	TO15	95-47-6	O-Xylene	J
V5_030223	TO15	95-50-1	1,2-Dichlorobenzene	UJ
V5_030223	TO15	95-63-6	1,2,4-Trimethylbenzene	J

4 April 2024

Sadique Ahmed
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

**Re: Soil Vapor Monitoring Report – Year 8
365 Bond Street
Brooklyn, New York
BCP Site No. C224174
Langan Project No.: 100287503**

Dear Mr. Ahmed:

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) has prepared this letter report to summarize periodic soil vapor sampling during the fifth year of passive sub-membrane depressurization system (SMDS) operation at 365 Bond Street in Brooklyn, New York (the “site”). The soil vapor monitoring was conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) dated September 2015, prepared by Langan.

Background

The site is located at 365 Bond Street in the City of Brooklyn, Kings County, New York and is identified as Block 458 and Lot 1 on the New York City Tax Map. The site is approximately 2.066 acres and is located on the city block bordered by First Street to the north, Second Street to the south, the Gowanus Canal to the east, and Bond Street to the west. Site location is shown on Figure 1.

The site was remediated under the NYSDEC Brownfield Cleanup Program in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRM) and Remedial Action Work Plan (RAWP), as described in the September 2015 Final Engineering Report (FER) and Construction Completion Report (CCR). As part of the remediation, soil vapor mitigation measures included installation of a sub-membrane piping network for a passive SMDS and a vapor barrier membrane beneath the ground floor slab of the building. The SMDS as-built layout is shown on Figure 2.

The site was redeveloped as a five- to twelve-story mixed-use commercial/residential building with a partial basement that was opened for residential occupation in April 2016. The building is being operated in accordance with the SMP which in part specifies that periodic soil vapor monitoring be completed to assess the effectiveness of the remedy. The SMP specifies that monitoring occur annually during the heating season unless otherwise required by NYSDEC to assess system effectiveness and determine if expansion to an active SMDS is warranted.

SMDS Inspection and Soil Vapor Sampling

On 5 December 2023, Langan conducted a visual inspection of the above-ground SMDS components prior to collecting sub-membrane soil vapor samples. The results of the inspection confirmed that all system components are in good condition. Langan also completed field screening of the soil vapor using a RKI Instruments GX-6000 photo-ionization detector (PID) capable of detecting volatile organic compound (VOC) in the parts per billion (ppb) range. System performance was evaluated using a TSI 9515 VelociCalc which obtained vacuum readings at each sample port (V2, V3 and V5). Current and previous field screening data are provided in Table 1. VOC readings detected with the PID at the sample ports ranged from 0 ppb to 23 ppb and vacuum measurements at the sample ports ranged from 0.032 inches water to 0.082 inches water. The field screening results indicate that very low levels of VOCs are present in the soil vapor collection system and that a vacuum condition exists that is removing these vapors from beneath the membrane. A copy of the passive SMDS inspection checklist and field data is provided in Attachment A.

Following the inspection and field screening, three sub-membrane soil vapor samples were collected using Summa canisters that were connected to each sample port via an approximately 3-foot length of Teflon-lined polyethylene tubing. Quality assurance/quality control (QA/QC) included collection of a duplicate sample (at the V3 location) and an ambient air sample from the exterior of the building. All samples were collected in accordance with the New York State Department of Health (NYSDOH) October 2006 Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Samples were collected in laboratory-cleaned and certified evacuated 6-L stainless steel Summa canisters with flow control regulators supplied by the laboratory. The regulators were set to collect each sub-membrane soil vapor sample over a 2-hour sampling period (a flow-rate of <200-ml per minute) as per United States Environmental Protection Agency (USEPA) / Interstate Technology and Regulatory Council (ITRC) soil vapor sampling guidance. Each sub-membrane soil vapor sample was numbered and recorded in a field log book. Samples were transferred to the laboratory immediately after field sampling was completed, and stored below a maximum room temperature of 30° Celsius. Chain-of-custody forms were utilized to document custody for the acquisition, possession, and analysis. All soil vapor and ambient air samples were submitted under chain of custody to York Analytical Laboratories, Inc. of Stratford, Connecticut (York) a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory. Soil vapor and ambient air samples were laboratory analyzed for VOCs via the USEPA TO-15 Method. A copy of the Summa canister log is provided in Attachment A.

Laboratory Analytical Results

Currently, no NYSDEC or NYSDOH standards exist for VOCs in soil vapor. A summary of the sub-membrane soil vapor analytical results from this sampling event is provided in Table 2 and shown on Figure 3. The complete laboratory report for the March 2023 sampling event is provided in Attachment B. Duplicate soil vapor sample results are not included in this discussion as these samples are collected for quality assurance/quality control verification of

the laboratory results only and are discussed below. The following table provides a summary of compounds that were detected:

Analyte	Minimum Detected Concentration (microgram per cubic meter (µg/m³))	Maximum Detected Concentration (µg/m³)
1,2,4-Trimethylbenzene	2.9 J at V2	17 D at V5
1,3,5-Trimethylbenzene (Mesitylene)	0.84 D at V3	4.8 D at V5
4-Ethyltoluene	2.4 JD at V2 and V3	15 D at V5
Acetone	3 J at V2	7.3 D at V3
Benzene	2.9 J at V2	15 D at V5
Carbon Tetrachloride	0.47 J at V2	0.59 D at V3
Chloroform	3.4 J at V2	
Chloromethane	1.4 J at V2	2 J at V3
Cis-1,2-Dichloroethene	0.25 J at V3	1.9 D at V5
Cyclohexane	0.57 J at V2	7 D at V5
Dichlorodifluoromethane	2.8 JD at V2, V3 and V5	
Ethylbenzene	2.5 J at V2	17 D at V5
Isopropanol	0.96 J at V2	2.6 J at V3
M,P-Xylene	7.9 J at V2	46 D at V5
Methyl Ethyl Ketone (2-Butanone)	0.71 J at V2	2.5 J at V3
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.5 J at V2	2.7 D at V3
n-Heptane	1.4 J at V2	
n-Hexane	1.6 J at V2	25 D at V5
o-Xylene (1,2-Dimethylbenzene)	2.8 JD at V2	17 D at V5
Propylene	6.3 D at V5	12 D at V5
Tetrachloroethene (PCE)	1.8 D at V5	2 J at V2
Tetrahydrofuran	1.3 J at V2	2.9 D at V3
Toluene	7.9 J at V2	60 D at V5
Trichloroethene (TCE)	0.25 D at V3	0.97 J at V2
Trichlorofluoromethane	1.5 JD at V2, V3 and V5	

The soil vapor results identified concentrations of chlorinated VOCs (CVOCs) including carbon tetrachloride, cis-1,2-dichloroethene, PCE, and TCE. Total CVOC results detected above the laboratory reporting limit ranged from 1.09 µg/m³ at V3 located in the northern portion of the Site to 4.84 µg/m³ at V5 located in the eastern portion of the Site. Carbon tetrachloride, cis-1,2-dichloroethene, and TCE were detected in all soil vapor samples collected.

Although samples were not collected for a soil vapor intrusion investigation, the sub-membrane soil vapor analytical results were also compared to the NYSDOH Matrices A, B, and C of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. None of the compounds were detected in exceedance of the minimum NYSDOH Decision Matrix Compounds for soil vapor.

Concentrations of total BTEX in soil vapor above the laboratory reporting limit ranged from 155 µg/m³ at V5 located in the eastern portion of the Site to 35.8 µg/m³ at V3 located in the northern portion of the Site. Additional petroleum-related VOCs including 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene were also detected. The highest concentrations of petroleum related compounds were identified in V5.

Although samples were not collected for a soil vapor intrusion investigation, the sub-membrane soil vapor analytical results were also compared to the NYSDOH Matrices D, E, and F of the NYSDOH Guidance for Evaluating Soil Vapor Intrusion. None of the compounds were detected in exceedance of the minimum NYSDOH Decision Matrix Compounds for soil vapor.

Due to the presence of the SMDS, the vapor barrier, and the building foundation, it is reasonably anticipated that indoor air concentrations of VOCs originating from soil vapor do not exist inside the building. Based on the remediation completed to date, the source of these vapors is likely residual contamination in soil that is being addressed by operation of the SMDS.

Historical sub-slab soil vapor analytical results are shown on Table 3. Comparison of the Year 8 monitoring analytical results to results from the four sampling events completed in Year 1 generally revealed a decrease in concentrations of total CVOCs and BTEX in all three sampling locations. A comparison of the Year 8 monitoring analytical results to the Year 7 sampling event results reveals that total CVOCs concentrations have generally remained stable or decreased slightly. BTEX concentrations have generally remained stable with exception of the sample collected from the V5 location which showed significantly elevated concentrations compared to prior year; however, these concentrations are below the minimum NYSDOH Decision Matrix values for BTEX compounds. Chlorinated VOCs were detected at concentrations requiring no further action when compared against the Matrix A, Matrix B, and Matrix C Vapor Intrusion thresholds during all seven sampling events.

Validation Overview

Data validation was completed for all sub-membrane soil vapor and ambient air results in accordance with the QAPP provided in the September 2015 SMP which included verification of sample results, verification of the identification of sample results, and recalculation of 10% of all sample results. Following data validation, a Data Usability Summary Report (DUSR) was prepared for all samples (and related QA/QC samples) collected during the monitoring event. The DUSR presents the results of the data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. The DUSR is included in Attachment C. Associated raw data is provided as Attachment B.

Conclusions

Based on the findings of this SMDS inspection and soil vapor monitoring event, the vacuum being produced in the SMDS is sufficient to effectively mitigate potential vapor intrusion concerns at the site. A vacuum condition was observed at each of the three sample ports (V2, V3, and V5) and the sub-membrane soil vapor concentrations for chlorinated VOCs were detected below the NYSDOH Vapor Intrusion Decision Matrix thresholds requiring further action.

Based on these findings, continued operation of the passive SMDS is sufficient in order to mitigate any potential impacts to the building interior indoor air quality and, system expansion as an active SMDS is not required at this time. The operation, maintenance, and monitoring (OM&M) protocols provided in the SMP for this passive SMDS will consist of continued monitoring of the system annually during the heating season unless otherwise required by NYSDEC.

Sincerely,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



Christopher McMahon, CHMM
Associate Principal / Vice President



Steven Ciambuschini, P.G., L.E.P.
Senior Principal / Senior Vice President

CM:SAC:kn

Attachments: Table 1 – SMDS Screening Results

Table 2 – Summary of Sub-Slab Soil Vapor Analytical Results

Table 3 – Historical Sub-Slab Soil Vapor Analytical Results

Figure 1 – Site Location Map

Figure 2 – Sample Location Plan

Figure 3 – Sub-Slab Soil Vapor Analytical Results

Attachment A – Field Logs

Attachment B – Laboratory Analytical Results

Attachment C – Data Usability Summary Report (DUSR)

cc: Jennifer Jennings – LSG 365 Bond Street, LLC
Allyson Kritzer, Jessica Friscia – Langan

TABLES

Table 1
Soil Vapor Monitoring Report - Year 8
Field Screening Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Parameter	PID	PID	PID	PID	PID	PID	PID	PID	PID	PID
Monitoring Event	Year 1, Month 1	Year 1, Month 3	Year 1, Month 6	Year 1, Month 12	Year 2	Year 3	Year 5	Year 6	Year 7	Year 8
Date	5/20/2016	7/20/2016	10/20/2016	4/20/2017	2/13/2018	2/27/2019	4/8/2021	6/20/2022	3/2/2023	12/5/2023
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Sample Port										
V2	329	239	373	1,058	637	70	7	0	28	0
V3	309	1,602	401	539	658	20	4	7	14	0
V5	257	0	363	717	640	10	0	0	0	0

Parameter	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum	Vacuum
Monitoring Event	Month 1	Month 3	Month 6	Month 12	Year 2	Year 3	Year 5	Year 6	Year 7	Year 8
Date	5/20/2017	7/20/2017	10/20/2016	4/20/2017	2/13/2018	2/27/2019	4/8/2021	6/20/2022	3/2/2023	12/5/2023
Units	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O	in. H2O
Sample Port										
V2	0.015	0.011	0.012	0.017	0.064	0.057	0.031	0.043	0.098	0.082
V3	0.005	0.006	0.009	0.011	0.029	0.025	0.012	0.016	0.032	0.032
V5	0.018	0.015	0.024	0.009	0.021	0.020	0.024	0.018	0.032	0.037

Notes:

ppb: parts per billion
in. H2O: inches of water

365 Bond Street

Brooklyn, New York

NYSDEC BCP Site No.: C224174

Langan Project No.: 100287503

Analyte	CAS Number	Location	Ambient-1_365	V2_365	V3_365	V3_365	V5_365
		Sample Name	AMBIENT-1_120523	V2_120523	V3_120523	DUP01_120523	V5_120523
		Sample Date	12/05/2023	12/05/2023	12/05/2023	12/05/2023	12/05/2023
		Sample Type	AA	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	630-20-6	ug/m3	<0.57 U	<1 UJ	<1.1 U	<1 UJ	<1.1 U
1,1,1-Trichloroethane	71-55-6	ug/m3	<0.45 U	<0.82 UJ	<0.85 U	<0.79 UJ	<0.9 U
1,1,2,2-Tetrachloroethane	79-34-5	ug/m3	<0.57 U	<1 UJ	<1.1 U	<1 UJ	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/m3	<0.63 U	<1.2 UJ	<1.2 U	<1.1 UJ	<1.3 U
1,1,2-Trichloroethane	79-00-5	ug/m3	<0.45 U	<0.82 UJ	<0.85 U	<0.79 UJ	<0.9 U
1,1-Dichloroethane	75-34-3	ug/m3	<0.33 U	<0.61 UJ	<0.63 U	<0.59 UJ	<0.66 U
1,1-Dichloroethene	75-35-4	ug/m3	<0.082 U	<0.15 UJ	<0.15 U	<0.14 UJ	<0.16 U
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<0.61 UJ	<1.1 UJ	<1.2 U	<1.1 UJ	<1.2 U
1,2,4-Trimethylbenzene	95-63-6	ug/m3	<0.41 U	2.9 J	3.1 D	2.5 J	17 D
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<0.63 U	<1.2 UJ	<1.2 U	<1.1 UJ	<1.3 U
1,2-Dichlorobenzene	95-50-1	ug/m3	<0.5 U	<0.9 UJ	<0.93 U	<0.87 UJ	<0.99 U
1,2-Dichloroethane	107-06-2	ug/m3	<0.33 U	<0.61 UJ	<0.63 U	<0.59 UJ	<0.66 U
1,2-Dichloropropane	78-87-5	ug/m3	<0.38 U	<0.7 UJ	<0.72 U	<0.67 UJ	<0.76 U
1,2-Dichlorotetrafluoroethane	76-14-2	ug/m3	<0.58 U	<1.1 UJ	<1.1 U	<1 UJ	<1.1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/m3	<0.41 U	0.89 J	0.84 D	0.71 J	4.8 D
1,3-Butadiene	106-99-0	ug/m3	<0.55 U	<1 UJ	<1 U	<0.96 UJ	<1.1 U
1,3-Dichlorobenzene	541-73-1	ug/m3	<0.5 U	<0.9 UJ	<0.93 U	<0.87 UJ	<0.99 U
1,3-Dichloropropane	142-28-9	ug/m3	<0.38 U	<0.7 UJ	<0.72 U	<0.67 UJ	<0.76 U
1,4-Dichlorobenzene	106-46-7	ug/m3	<0.5 U	<0.9 UJ	<0.93 U	<0.87 UJ	<0.99 U
1,4-Dioxane (P-Dioxane)	123-91-1	ug/m3	<0.6 U	<1.1 UJ	<1.1 U	<1 UJ	<1.2 U
2-Hexanone (MBK)	591-78-6	ug/m3	<0.68 U	<1.2 UJ	<1.3 U	<1.2 UJ	<1.3 U
4-Ethyltoluene	622-96-8	ug/m3	<0.41 U	2.4 J	2.4 D	2.3 J	15 D
Acetone	67-64-1	ug/m3	3.9 D	3 J	7.3 D	6.3 J	5.5 D
Acrylonitrile	107-13-1	ug/m3	<0.54 U	<0.98 UJ	<1 U	<0.94 UJ	<1.1 U
Allyl Chloride (3-Chloropropene)	107-05-1	ug/m3	<1.3 U	<2.4 UJ	<2.4 U	<2.3 UJ	<2.6 U
Benzene	71-43-2	ug/m3	0.58 D	2.9 J	6.7 D	6 J	15 D
Benzyl Chloride	100-44-7	ug/m3	<0.43 U	<0.78 UJ	<0.8 U	<0.75 UJ	<0.85 U
Bromodichloromethane	75-27-4	ug/m3	<0.55 U	<1 UJ	<1 U	<0.97 UJ	<1.1 U
Bromoethene	593-60-2	ug/m3	<0.36 U	<0.66 UJ	<0.68 U	<0.63 UJ	<0.72 U
Bromoform	75-25-2	ug/m3	<0.85 U	<1.6 UJ	<1.6 U	<1.5 UJ	<1.7 U
Bromomethane	74-83-9	ug/m3	<0.32 U	<0.58 UJ	<0.6 U	<0.56 UJ	<0.64 U
Carbon Disulfide	75-15-0	ug/m3	<0.26 U	<0.47 UJ	<0.48 U	<0.45 UJ	<0.51 U
Carbon Tetrachloride	56-23-5	ug/m3	0.42 D	0.47 J	0.59 D	0.46 J	0.52 D
Chlorobenzene	108-90-7	ug/m3	<0.38 U	<0.69 UJ	<0.71 U	<0.67 UJ	<0.76 U
Chloroethane	75-00-3	ug/m3	<0.22 U	<0.4 UJ	<0.41 U	<0.38 UJ	<0.43 U
Chloroform	67-66-3	ug/m3	<0.4 U	3.4 J	<0.76 U	<0.71 UJ	<0.8 U
Chloromethane	74-87-3	ug/m3	0.78 J	1.4 J	2 J	1.1 J	1.4 D
Cis-1,2-Dichloroethene	156-59-2	ug/m3	<0.082 U	1.2 J	0.25 J	0.4 J	1.9 D
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.37 U	<0.68 UJ	<0.7 U	<0.66 UJ	<0.74 U
Cyclohexane	110-82-7	ug/m3	<0.28 U	0.57 J	1.5 D	1.3 J	7 D
Dibromochloromethane	124-48-1	ug/m3	<0.7 U	<1.3 UJ	<1.3 U	<1.2 UJ	<1.4 U
Dichlorodifluoromethane	75-71-8	ug/m3	2.3 D	2.8 J	2.8 D	2.4 J	2.8 D
Ethyl Acetate	141-78-6	ug/m3	<0.6 U	<1.1 UJ	<1.1 U	<1 UJ	1.3 D
Ethylbenzene	100-41-4	ug/m3	<0.36 U	2.5 J	3.2 D	3 J	17 D
Hexachlorobutadiene	87-68-3	ug/m3	<0.88 UJ	<1.6 UJ	<1.7 U	<1.5 UJ	<1.8 U
Isopropanol	67-63-0	ug/m3	0.77 D	0.96 J	2.6 J	5.6 J	1.4 D
M,P-Xylene	179601-23-1	ug/m3	<0.72 U	7.9 J	8.7 D	8.3 J	46 D
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	3.5 D	0.71 J	2.5 J	1.9 J	1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.34 U	1.5 J	2.7 D	2.4 J	<0.67 U
Methyl Methacrylate	80-62-6	ug/m3	<0.34 U	<0.62 UJ	<0.64 U	<0.59 UJ	<0.67 U
Methylene Chloride	75-09-2	ug/m3	<0.57 U	<1 UJ	<1.1 U	<1 UJ	<1.1 U
n-Heptane	142-82-5	ug/m3	<0.34 U	1.4 J	<0.64 U	<0.59 UJ	<0.67 U
n-Hexane	110-54-3	ug/m3	0.35 D	1.6 J	4.6 D	4.1 J	25 D
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/m3	<0.36 U	2.8 J	3.2 D	3.1 J	17 D
Propylene	115-07-1	ug/m3	<0.14 U	<0.26 UJ	6.3 D	5.6 J	12 D
Styrene	100-42-5	ug/m3	<0.35 U	<0.64 UJ	<0.66 U	<0.62 UJ	<0.7 U
Tert-Butyl Methyl Ether	1634-04-4	ug/m3	<0.3 U	<0.54 UJ	<0.56 U	<0.52 UJ	<0.59 U
Tetrachloroethene (PCE)	127-18-4	ug/m3	0.84 D	2 J	<1.1 UJ	2.3 J	1.8 D
Tetrahydrofuran	109-99-9	ug/m3	0.78 D	1.3 J	2.9 D	2.5 J	<0.97 U
Toluene	108-88-3	ug/m3	0.93 D	7.9 J	14 D	12 J	60 D
Trans-1,2-Dichloroethene	156-60-5	ug/m3	<0.33 U	<0.6 UJ	<0.62 U	<0.58 UJ	<0.65 U
Trans-1,3-Dichloropropene	10061-02-6	ug/m3	<0.37 U	<0.68 UJ	<0.7 U	<0.66 UJ	<0.74 U
Trichloroethene (TCE)	79-01-6	ug/m3	<0.11 U	0.97 J	0.25 D	0.23 J	0.62 D
Trichlorofluoromethane	75-69-4	ug/m3	1.2 D	1.5 J	1.5 D	1.3 J	1.5 D
Vinyl Acetate	108-05-4	ug/m3	<0.29 U	<0.53 UJ	<0.55 U	<0.51 UJ	<0.58 U
Vinyl Chloride	75-01-4	ug/m3	<0.11 UJ	<0.19 UJ	<0.2 U	<0.19 UJ	<0.21 U
Total BTEX	—	ug/m3	1.51	24	35.8	32.4	155
Total CVOCs	—	ug/m3	1.26	4.64	1.09	3.39	4.84
Total VOCs	—	ug/m3	16.35	54.97	79.93	75.8	255.54

Table 2
Soil Vapor Monitoring Report - Year 8
Soil Vapor Sample Analytical Results

Page 2 of 2

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Notes:

AA - Ambient Air
SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Qualifiers:

D - The concentration reported is a result of a diluted sample.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

Table 3
Soil Vapor Monitoring Report - Year 8
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	Location	V2_365										
		Sample Name	0762-V2_20160520	0763-DUP-1_20160520	0778-V2_072016	794-V2-20161020	816-V2	861_V2	866-V2	873_V2	878_V2	V2_030223	V2_120523
		Sample Date	05/20/2016	05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022	03/02/2023	12/05/2023
		Sample Type	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Unit	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	630-20-6	ug/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	NA	<1.05 U	<1.26 U	<1.1 U	<1 U	<1 UJ
1,1,1-Trichloroethane	71-55-6	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	<0.82 UJ
1,1,2,2-Tetrachloroethane	79-34-5	ua/m3	<1.4 U	<1.8 U	<0.78 U	<0.69 U	<13 U	<1.37 U	<1.05 U	<1.26 U	<1.1 U	<1 U	<1 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.53 U	<1.17 U	<1.41 U	<1.3 U	<1.1 U	<1.2 UJ
1,1,2-Trichloroethane	79-00-5	ug/m3	<1.2 U	<1.4 U	<0.62 U	<0.55 U	<10 U	<1.09 U	<0.834 U	<1.01 U	<0.91 U	<0.81 U	<0.82 UJ
1,1-Dichloroethane	75-34-3	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.746 U	<0.67 U	<0.6 U	<0.61 UJ
1,1-Dichloroethene	75-35-4	ug/m3	<0.84 U	<1 U	<0.45 U	<0.4 U	<7.6 U	<0.793 U	<0.606 U	<0.365 U	<0.16 U	<0.15 U	<0.15 UJ
1,2,4-Trichlorobenzene	120-82-1	ug/m3	<1.6 U	<1.9 U	<0.84 U	<0.74 U	<14 U	<1.48 U	<1.13 U	<1.37 U	<1.2 UJ	<1.1 U	<1.1 UJ
1,2,4-Trimethylbenzene	95-63-6	ug/m3	6.9 J	2.4 J	2.4 D	<0.49 U	<9.5 U	<0.983 U	6.46 D	5.07 D	17 D	1.8 D	2.9 J
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	ug/m3	<1.6 U	<2 U	<0.87 U	<0.77 U	<15 U	<1.54 U	<1.17 U	<1.42 U	<1.3 U	<1.1 U	<1.2 UJ
1,2-Dichlorobenzene	95-50-1	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,2-Dichloroethane	107-06-2	ug/m3	<0.85 U	<1 U	<0.46 U	<0.4 U	<7.8 U	<0.809 U	<0.619 U	<0.745 U	<0.67 U	<0.6 U	<0.61 UJ
1,2-Dichloropropane	78-87-5	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.924 U	<0.707 U	<0.851 U	<0.77 U	<0.69 U	<0.7 UJ
1,2-Dichlorotetrafluoroethane	76-14-2	ua/m3	<1.5 U	<1.8 U	<0.79 U	<0.7 U	<13 U	<1.4 U	<1.07 U	<1.29 U	<1.2 U	<1 U	<1.1 UJ
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	ug/m3	2.1 D	<1.3 U	0.61 D	<0.49 U	<9.5 U	<0.983 U	1.95 D	1.36 D	4.3 D	<0.73 U	0.89 J
1,3-Butadiene	106-99-0	ug/m3	<1.4 U	<1.7 U	<0.75 U	<0.66 U	<13 U	<0.442 U	<1.01 U	<1.22 U	<1.1 U	<0.98 U	<1 UJ
1,3-Dichlorobenzene	541-73-1	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,3-Dichloropropane	142-28-9	ua/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	NA	<0.707 U	<0.851 U	<0.77 U	<0.69 U	<0.7 UJ
1,4-Dichlorobenzene	106-46-7	ug/m3	<1.3 U	<1.5 U	<0.68 U	<0.6 U	<12 U	<1.2 U	<0.919 U	<1.11 U	<1 U	<0.89 U	<0.9 UJ
1,4-Dioxane (P-Dioxane)	123-91-1	ua/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 UJ	<14 U	<0.721 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	<1.1 UJ
2,2,4-Trimethylpentane	540-84-1	ug/m3	NA	NA	NA	NA	NA	<0.934 U	NA	NA	NA	NA	NA
2-Hexanone (MBK)	591-78-6	ua/m3	<1.7 U	<2.1 U	<0.93 UJ	<0.82 U	<16 U	<0.82 U	<4.64 U	<1.51 U	<1.4 UJ	<1.2 U	<1.2 UJ
4-Ethyltoluene	622-96-8	ug/m3	6.4 J	2 J	1.8 D	<0.49 U	<9.5 U	<0.983 U	5.86 J	4.35 D	14 D	1.6 D	2.4 J
Acetone	67-64-1	ua/m3	48 D	58 D	14 D	2.4	280 D	19.7	6.28 D	2.63 D	4 D	4.1 D	3 J
Acrylonitrile	107-13-1	ug/m3	<0.46 U	<0.56 U	<0.25 U	<0.22 U	<4.2 U	NA	<0.332 U	<0.4 U	<0.36 U	<0.32 U	<0.98 UJ
Allyl Chloride (3-Chloropropene)	107-05-1	ua/m3	<3.3 U	<4 U	<1.8 U	<1.6 U	<30 U	<0.626 U	<2.39 U	<2.88 U	<2.6 U	<2.3 U	<2.4 UJ
Benzene	71-43-2	ug/m3	9.4 D	6.4 D	0.98 D	<0.32 U	<6.1 U	1.08	2.78 D	2.94 D	2.9 D	2.1 D	2.9 J
Benzyl Chloride	100-44-7	ua/m3	<1.1 U	<1.3 U	<0.59 U	<0.52 UJ	<10 U	<1.04 U	<0.792 U	<0.954 U	<0.86 U	<0.77 U	<0.78 UJ
Bromodichloromethane	75-27-4	ug/m3	<1.4 U	<1.7 U	<0.76 U	<0.67 U	<13 U	<1.34 U	<1.02 U	<1.23 U	<1.1 U	<0.99 U	<1 UJ
Bromoethene	593-60-2	ua/m3	<0.92 U	<1.1 U	<0.5 U	<0.44 U	<8.4 U	<0.874 U	<0.669 U	<0.806 U	<0.73 U	<0.65 U	<0.66 UJ
Bromoform	75-25-2	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1 U	<20 U	<2.07 U	<1.58 UJ	<1.9 U	<1.7 U	<1.5 U	<1.6 UJ
Bromomethane	74-83-9	ua/m3	<0.82 U	<1 U	<0.44 U	<0.39 U	<7.5 U	<0.777 U	<0.594 U	<0.715 U	<0.64 U	<0.58 U	<0.58 UJ
Carbon Disulfide	75-15-0	ug/m3	<0.66 U	<0.8 U	0.53 D	<0.31 U	49 D	<0.623 U	0.476 D	0.574 D	0.72 D	0.79 D	<0.47 UJ
Carbon Tetrachloride	56-23-5	ua/m3	<0.33 U	<0.4 U	<0.18 U	<0.16 U	<3 U	<1.26 U	0.481 D	0.348 D	0.31 D	<0.23 U	0.47 J
Chlorobenzene	108-90-7	ug/m3	<0.97 U	<1.2 U	<0.52 U	<0.46 U	<8.9 U	<0.921 U	<0.704 U	<0.848 U	<0.76 U	<0.68 U	<0.69 UJ
Chloroethane	75-00-3	ua/m3	<0.56 U	<0.68 U	<0.3 U	<0.26 U	<5.1 U	<0.528 U	<0.403 U	<0.486 U	<0.44 U	<0.39 U	<0.4 UJ
Chloroform	67-66-3	ug/m3	<1 U	<1.3 U	<0.55 U	0.73	<9.4 U	<0.977 U	<0.747 U	<0.899 U	1.5 D	1.7 D	3.4 J
Chloromethane	74-87-3	ua/m3	2 D	2 D	5.6 D	0.41	7.2 D	1.9	3.54 D	1.07 D	2.3 D	2.1 D	1.4 J
Cis-1,2-Dichloroethene	156-59-2	ug/m3	<0.84 U	<1 U	0.81 D	<0.4 U	<7.6 U	<0.793 U	0.606 D	0.584 D	0.86 D	0.47 D	1.2 J
Cis-1,3-Dichloropropene	10061-01-5	ug/m3	<0.96 U	<1.2 U	<0.51 U	<0.45 U	<8.7 U	<0.908 U	<0.694 U	<0.836 U	<0.75 U	<0.67 U	<0.68 UJ
Cyclohexane	110-82-7	ug/m3	1.8 D	1.6 D	0.47 D	<0.34 U	<6.6 U	<0.688 U	<0.526 U	0.697 D	1.3 D	<0.51 U	0.57 J
Dibromochloromethane	124-48-1	ug/m3	<1.8 U	<2.2 U	<0.97 U	<0.85 U	<16 U	<1.7 U	<1.3 U	<1.57 U	<1.4 U	<1.3 U	<1.3 UJ
Dichlorodifluoromethane	75-71-8	ug/m3	2.7 D	2.8 D	1.1 D	<0.49 U	<9.5 U	2.11	2.12 J	2.19 D	3 D	3.2 D	2.8 J
Ethanol	64-17-5	ug/m3	NA	NA	NA	NA	NA	11.9	NA	NA	NA	NA	NA
Ethyl Acetate	141-78-6	ua/m3	<1.5 U	<1.9 U	<0.82 U	<0.72 U	<14 U	<1.8 U	<1.1 U	<1.33 U	<1.2 U	<1.1 U	<1.1 UJ
Ethylbenzene	100-41-4	ug/m3	6.3 J	3 J	2.5 D	<0.43 U	<8.4 U	<0.869 U	3.59 D	2.88 D	7.7 D	2.6 D	2.5 J
Hexachlorobutadiene	87-68-3	ug/m3	<2.2 U	<2.7 U	<1.2 U	<1.1 U	<21 U	<2.13 U	<1.63 U	<1.96 U	<1.8 UJ	<1.6 UJ	<1.6 UJ
Isopropanol	67-63-0	ug/m3	<1 U	<1.3 U	<0.56 U	<0.49 U	54 D	2.56	1.13 D	2.35 D	<0.82 U	3.2 D	0.96 J
M,P-Xylene	179601-23-1	ug/m3	24 J	12 J	10 D	<0.87 U	<17 U	2.78	14.3 D	10.9 D	30 D	5.2 D	7.9 J
Methyl Ethyl Ketone (2-Butanone)	78-93-3	ug/m3	7.1 D	6.7 D	3.9 D	0.38	81 D	2.75	2.34 D	0.815 D	1.4 D	0.96 D	0.71 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	<2.05 U	2.57 D	2.04 D	0.75 J	1 D	1.5 J
Methyl Methacrylate	80-62-6	ug/m3	<0.86 U	<1.1 U	<0.46 U	<0.41 U	<7.9 U	NA	<0.626 U	2.19 D	<0.68 U	<0.61 U	<0.62 UJ
Methylene Chloride	75-09-2	ug/m3	5.4 J	30 J	<0.79 U	<0.69 U	<13 U	<1.74 U	1.91 D	28.5 D	<1.2 U	1.4 J	<1 UJ
n-Heptane	142-82-5	ug/m3	3.9 D	3 D	1.1 D	<0.41 U	<7.9 U	<0.82 U	1.32 D	1.28 D	2.4 D	0.61 D	1.4 J
n-Hexane	110-54-3	ug/m3	18 J	55 J	1.7 D	<0.35 U	<6.8 U	<0.705 U	1.08 D	2.14 D	3.3 D	1.4 D	1.6 J
o-Xylene (1,2-Dimethylbenzene)	95-47-6	ug/m3	8.9 J	4.6 J	2.8 D	<0.43 U	<8.4 U	0.999	5.05 D	4.24 D	13 D	2 D	2.8 J
Propylene	115-07-1	ua/m3	7.7 D	6.6 D	<0.2 U	<0.17 U	<3.3 U	NA	<0.263 U	<0.317 U	1.2 D	<0.26 U	<0.2

Table 3
Soil Vapor Monitoring Report - Year 8
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	V3_365																		
		0764-V3_20160520	0779-V3_072016	0780-DUP-1_072016	795-V3-20161020	796-DUP-1-20161020	817-V3	818-DUP-1	862_V3	863_DUP-1	867-V3	868-DUP-1	874_V3	875_DUP-1	879_V3	880_DUP-1	V3_030223	DUP030223	V3_120523	DUP01_120523
		05/20/2016	07/20/2016	07/20/2016	10/20/2016	10/20/2016	04/20/2017	04/20/2017	02/13/2018	02/13/2018	02/27/2019	02/27/2019	04/08/2021	04/08/2021	06/20/2022	06/20/2022	03/02/2023	03/02/2023	12/05/2023	12/05/2023
		SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630-20-6	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	NA	NA	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,1,1-Trichloroethane	71-55-6	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U	<0.85 U	
1,1,2,2-Tetrachloroethane	79-34-5	<1.4 U	<0.72 U	<0.79 U	<0.69 U	<0.69 U	<12 U	<14 U	<1.37 U	<1.37 U	<1.03 U	<1.03 U	<1.23 U	<1.13 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	<1.6 U	<0.8 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.53 U	<1.53 U	<1.15 U	<1.15 U	<1.37 U	<1.26 U	<1.2 U	<1.2 U	<1.2 U	<1.3 U	<1.2 U	
1,1,2-Trichloroethane	79-00-5	<1.1 U	<0.57 U	<0.62 U	<0.55 U	<0.55 U	<9.8 U	<11 U	<1.09 U	<1.09 U	<0.822 U	<0.818 U	<0.979 U	<0.896 U	<0.87 U	<0.86 U	<0.83 U	<0.9 U	<0.85 U	
1,1-Dichloroethane	75-34-3	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.61 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U	<0.63 U	
1,1-Dichloroethene	75-35-4	<0.83 U	<0.42 U	<0.45 U	<0.4 U	<0.4 U	<7.1 U	<7.8 U	<0.793 U	<0.793 U	<0.597 U	<0.595 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U	<0.63 U	
1,2,4-Trichlorobenzene	120-82-1	<1.5 U	<0.78 U	<0.85 U	<0.74 U	<0.74 U	<13 U	<15 U	<1.48 U	<1.48 U	<1.12 U	<1.11 U	<1.33 U	<1.22 U	<1.2 UJ	<1.2 UJ	<1.1 UJ	<1.2 UJ	<1.2 U	
1,2,4-Trimethylbenzene	95-63-6	2.8 D	5.6 D	4.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.44 D	4.57 D	4.14 D	3.71 D	6.1 D	6.4 D	2.6 D	2.7 D	3.1 D	
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	<1.6 U	<0.88 U	<0.88 U	<0.77 U	<0.77 U	<14 U	<15 U	<1.54 U	<1.54 U	<1.16 U	<1.16 U	<1.38 U	<1.26 U	<1.2 U	<1.2 U	<1.2 U	<1.3 U	<1.2 U	
1,2-Dichlorobenzene	95-50-1	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,2-Dichloroethane	107-06-2	<0.84 U	<0.42 U	<0.46 U	<0.4 U	<0.4 U	<7.2 U	<8 U	<0.809 U	<0.809 U	<0.609 U	<0.607 U	<0.726 U	<0.665 U	<0.64 U	<0.64 U	<0.62 U	<0.67 U	<0.63 U	
1,2-Dichloropropane	78-87-5	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	<0.924 U	<0.924 U	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U	<0.72 U	
1,2-Dichlorotetrafluoroethane	76-14-2	<1.5 U	<0.73 U	<0.8 U	<0.7 U	<0.7 U	<12 U	<14 U	<1.4 U	<1.4 U	<1.05 U	<1.05 U	<1.25 U	<1.15 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U	<1 U	
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	<1 U	0.72 D	0.96 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	1.33 D	1.33 D	1.15 D	1.05 D	1.7 D	1.8 D	0.83 D	0.97 D	0.84 D	
1,3-Butadiene	106-99-0	<1.4 U	<0.7 U	<0.76 U	<0.66 U	<0.66 U	<12 U	<13 U	0.515	0.518	<1 U	<0.996 U	<1.19 U	<1.09 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	
1,3-Dichlorobenzene	541-73-1	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,3-Dichloropropane	142-28-9	<0.96 U	<0.49 U	<0.53 U	<0.46 U	<0.46 U	<8.3 U	<9.1 U	NA	NA	<0.696 U	<0.693 U	<0.829 U	<0.759 U	<0.73 U	<0.73 U	<0.71 U	<0.76 U	<0.72 U	
1,4-Dichlorobenzene	106-46-7	<1.3 U	<0.63 U	<0.69 U	<0.6 U	<0.6 U	<11 U	<12 U	<1.2 U	<1.2 U	<0.905 U	<0.902 U	<1.08 U	<0.987 U	<0.95 U	<0.95 U	<0.92 U	<0.99 U	<0.93 U	
1,4-Dioxane (P-Dioxane)	123-91-1	<1.5 U	<0.76 U	<0.82 U	<0.72 UJ	<0.72 UJ	<13 U	<14 UJ	<0.721 U	<0.721 U	<1.09 U	<1.08 U	<1.29 U	<1.18 U	<1.1 U	<1.1 U	<1.2 U	<1.1 U	<1 U	
2,2,4-Trimethylpentane	540-84-1	NA	NA	NA	NA	NA	NA	NA	2.41	2.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Hexanone (MBK)	591-78-6	<1.7 U	1.3 J	1.2 J	<0.82 U	<0.82 U	<15 U	<16 U	<0.82 U	<0.82 U	<4.01 U	<4.06 U	<1.47 U	<1.35 U	<1.3 UJ	<1.3 UJ	<1.3 U	<1.3 U	<1.3 U	
4-Ethyltoluene	622-96-8	2 D	2.4 D	2.9 D	<0.49 U	<0.49 U	<8.8 U	<9.7 U	<0.983 U	<0.983 U	4.29 J	4.5 J	3.7 D	3.23 D	5.7 D	5.9 D	2.1 D	2 D	2.4 D	
Acetone	67-64-1	61 D	47 D	42 D	1.9	1.1	200 J	340 J	20.3	20.8	4.97 D	4.92 D	7.46 J	4.41 J	8.2 D	8 D	10 D	7.5 D	7.3 D	
Acrylonitrile	107-13-1	<0.45 U	<0.23 U	<0.25 U	<0.22 U	<0.22 U	<3.9 U	<4.3 U	NA	NA	<0.327 U	<0.326 U	<0.389 U	<0.356 U	<0.34 U	<0.33 U	<0.36 U	<1 U	<0.94 UJ	
Allyl Chloride (3-Chloropropene)	107-05-1	<3.3 U	<1.6 U	<1.8 U	<1.6 U	<1.6 U	<28 U	<31 U	<0.626 U	<0.626 U	<2.36 U	<2.35 U	<2.81 U	<2.57 U	<2.5 U	<2.5 U	<2.4 U	<2.6 U	<2.4 U	
Benzene	71-43-2	4.1 D	4.4 D	4.5 D	0.45	0.32	9.1 D	6.9 D	2.82	2.74	7.94 D	8.29 D	5.33 D	4.98 D	4 D	4.1 D	7 D	6.9 D	6.7 D	
Benzyl Chloride	100-44-7	<1.1 U	<0.54 U	<0.59 U	<0.52 UJ	<0.52 UJ	<9.3 U	<10 U	<1.04 U	<1.04 U	<0.777 U	<0.777 U	<0.82 U	<0.85 U	<0.82 U	<0.79 U	<0.85 U	<0.82 U	<0.8 U	
Bromodichloromethane	75-27-4	<1.4 U	<0.7 U	<0.77 U	<0.67 U	<0.67 U	<12 U	<13 U	<1.34 U	<1.34 U	<1.01 U	<1 U	<1.2 U	<1.1 U	<1.1 U	<1 U	<1.1 U	<1 U	<0.97 UJ	
Bromoethene	593-60-2	<0.91 U	<0.46 U	<0.5 U	<0.44 U	<0.44 U	<7.8 U	<8.6 U	<0.874 U	<0.874 U	<0.659 U	<0.656 U	<0.785 U	<0.718 U	<0.69 U	<0.69 U	<0.67 U	<0.68 U	<0.63 U	
Bromoform	75-25-2	<2.2 U	<1.1 U	<1.2 U	<1 U	<1 U	<18 U	<20 U	<2.07 U	<2.07 U	<1.56 UJ	<1.55 UJ	<1.85 U	<1.7 U	<1.6 U	<1.6 U	<1.6 U	<1.7 U	<1.6 U	
Bromomethane	74-83-9	<0.81 U	<0.41 U	<0.44 U	<0.39 U	<0.39 U	<6.9 U	<7.6 U	<0.777 U	<0.777 U	<0.585 U	<0.582 U	<0.697 U	<0.638 U	<0.62 U	<0.61 U	<0.59 U	<0.64 U	<0.6 U	
Carbon Disulfide	75-15-0	0.65 D	0.88 D	0.82 D	<0.31 U	<0.31 U	<5.6 U	55 D	<0.623 U	<0.623 U	<0.469 U	<0.467 U	0.559 D	0.511 D	14 D	13 D	<			

Table 3
Soil Vapor Monitoring Report - Year 8
Historical Soil Vapor Sample Analytical Results

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

Analyte	CAS Number	V5_365									
		0765-V5_20160520	0781-V5_072016	797-V5-20161020	819-V5	864_V5	869-V5	872_V5	877_V5	V5_030223	V5_120523
		05/20/2016	07/20/2016	10/20/2016	04/20/2017	02/13/2018	02/27/2019	04/08/2021	06/20/2022	03/02/2023	12/05/2023
		SV	SV	SV	SV	SV	SV	SV	SV	SV	SV
		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane	630-20-6	<1.3 U	<0.76 U	<0.69 U	<12 U	NA	<1.01 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
1,1,1-Trichloroethane	71-55-6	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U	<0.85 U	<0.9 U
1,1,2,2-Tetrachloroethane	79-34-5	<1.3 U	<0.76 U	<0.69 U	<12 U	<1.37 U	<1.01 U	<1.1 U	<1.1 U	<1.1 U	<1.1 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.53 U	<1.12 U	<1.23 U	<1.2 U	<1.2 U	<1.3 U
1,1,2-Trichloroethane	79-00-5	<1 U	<0.61 U	<0.55 U	<9.2 U	<1.09 U	<0.8 U	<0.874 U	<0.87 U	<0.85 U	<0.9 U
1,1-Dichloroethane	75-34-3	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U	<0.63 U	<0.66 U
1,1-Dichloroethene	75-35-4	<0.76 U	<0.44 U	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.317 U	<0.16 U	<0.15 U	<0.16 U
1,2,4-Trichlorobenzene	120-82-1	<1.4 U	<0.82 U	<0.74 U	<12 U	<1.48 U	<1.09 U	<1.19 U	<1.2 U	<1.2 U	<1.2 U
1,2,4-Trimethylbenzene	95-63-6	1.9 D	5.4 D	0.69	<8.3 U	<0.983 U	3.53 D	3.86 D	6.1 D	1.4 J	17 D
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	<1.5 U	<0.85 U	<0.77 U	<13 U	<1.54 U	<1.13 U	<1.23 U	<1.2 U	<1.2 U	<1.3 U
1,2-Dichlorobenzene	95-50-1	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 U	<0.99 U
1,2-Dichloroethane	107-06-2	<0.78 U	<0.45 U	<0.4 U	<6.8 U	<0.809 U	<0.594 U	<0.648 U	<0.65 U	<0.63 U	<0.66 U
1,2-Dichloropropane	78-87-5	<0.89 U	<0.51 U	<0.46 U	<7.8 U	<0.924 U	<0.678 U	<0.74 U	<0.74 U	<0.72 U	<0.76 U
1,2-Dichlorotetrafluoroethane	76-14-2	<1.3 U	<0.78 U	<0.7 U	<12 U	<1.4 U	<1.03 U	<1.12 U	<1.1 U	<1.1 U	<1.1 U
1,3,5-Trimethylbenzene (Mesitylene)	108-67-8	<0.94 U	<0.55 U	<0.49 U	<8.3 U	<0.983 U	1.08 D	1.12 D	1.9 D	<0.77 U	4.8 D
1,3-Butadiene	106-99-0	<1.3 U	<0.74 U	<0.66 U	<11 U	<0.442 U	<0.974 U	<1.06 U	<1.1 U	<1 U	<1.1 U
1,3-Dichlorobenzene	541-73-1	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 U	<0.99 U
1,3-Dichloropropane	142-28-9	<0.89 U	<0.51 U	<0.46 U	<7.8 U	NA	<0.678 U	<0.74 U	<0.74 U	<0.72 U	<0.76 U
1,4-Dichlorobenzene	106-46-7	<1.2 U	<0.67 U	<0.6 U	<10 U	<1.2 U	<0.882 U	<0.963 U	<0.96 U	<0.94 U	<0.99 U
1,4-Dioxane (P-Dioxane)	123-91-1	<1.4 U	<0.8 U	<0.72 U	<12 U	<0.721 U	<1.06 U	<1.15 U	<1.2 U	<1.1 U	<1.2 U
2,2,4-Trimethylpentane	540-84-1	NA	NA	NA	NA	1.35	NA	NA	NA	NA	NA
2-Hexanone (MBK)	591-78-6	<1.6 U	1.1 D	<0.82 U	<14 U	<0.82 U	4.39 D	<1.31 U	<1.3 U	<1.3 U	<1.3 U
4-Ethyltoluene	622-96-8	1.3 D	2.1 D	0.88	<8.3 U	<0.983 U	3.68 J	3.31 D	5.8 D	1.3 J	15 D
Acetone	67-64-1	73 D	41 D	1.8	350 D	25.2	6.66 D	3.23 D	6.9 D	3.7 J	5.5 D
Acrylonitrile	107-13-1	<0.42 U	<0.24 U	<0.22 U	<3.6 U	NA	<0.318 U	<0.347 U	<0.35 U	<0.34 U	<1.1 U
Allyl Chloride (3-Chloropropene)	107-05-1	<3 U	<1.7 U	<1.6 U	<26 U	<0.626 U	<2.3 U	<2.51 U	<2.5 U	<2.4 U	<2.6 U
Benzene	71-43-2	1.5 D	1.5 D	2.3	<5.4 U	1.47	2.39 D	2.05 D	3.6 D	1 J	15 D
Benzyl Chloride	100-44-7	<0.99 U	<0.58 U	<0.52 U	<8.7 U	<1.04 U	<0.759 U	<0.829 U	<0.83 U	<0.81 U	<0.85 U
Bromodichloromethane	75-27-4	<1.3 U	<0.74 U	<0.67 U	<11 U	<1.34 U	<0.983 U	<1.07 U	<1.1 U	<1 U	<1.1 U
Bromoethene	593-60-2	<0.84 U	<0.49 U	<0.44 U	<7.3 U	<0.874 U	<0.642 U	<0.7 U	<0.7 U	<0.68 U	<0.72 U
Bromoform	75-25-2	<2 U	<1.1 U	<1 U	<17 U	<2.07 U	<1.52 U	<1.65 U	<1.7 U	<1.6 U	<1.7 U
Bromomethane	74-83-9	<0.74 U	<0.43 U	<0.39 U	<6.5 U	<0.777 U	<0.57 U	<0.622 U	<0.62 U	<0.6 U	<0.64 U
Carbon Disulfide	75-15-0	<0.6 U	0.35 D	<0.31 U	<5.2 U	<0.623 U	0.594 D	0.897 D	1 D	1 J	<0.51 U
Carbon Tetrachloride	56-23-5	<0.3 U	<0.17 U	<0.16 U	<2.6 U	<1.26 U	0.461 D	0.403 D	0.5 D	0.39 J	0.52 D
Chlorobenzene	108-90-7	<0.88 U	<0.51 U	<0.46 U	<7.7 U	<0.921 U	<0.675 U	<0.737 U	<0.74 U	<0.72 U	<0.76 U
Chloroethane	75-00-3	<0.51 U	<0.29 U	<0.26 U	<4.4 U	<0.528 U	<0.387 U	<0.422 U	<0.42 U	<0.41 U	<0.43 U
Chloroform	67-66-3	2 D	2.3 D	<0.49 U	<8.2 U	1.15	1.22 D	1.49 D	2.5 D	3.1 J	<0.8 U
Chloromethane	74-87-3	2.3 D	5 D	<0.21 U	<3.5 U	3.76	0.757 D	1.59 D	2.8 D	2.7 J	1.4 D
Cis-1,2-Dichloroethene	156-59-2	1.7 D	0.57 D	<0.4 U	<6.7 U	2.12	1.74 D	1.14 D	1.1 D	2.3 J	1.9 D
Cis-1,3-Dichloropropene	10061-01-5	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U	<0.71 U	<0.74 U
Cyclohexane	110-82-7	1.1 D	0.61 D	<0.34 U	<5.8 U	<0.688 U	0.606 D	0.551 D	0.83 D	<0.54 U	7 D
Dibromochloromethane	124-48-1	<1.6 U	<0.95 U	<0.85 U	<14 U	<1.7 U	<1.25 U	<1.36 U	<1.4 U	<1.3 U	<1.4 U
Dichlorodifluoromethane	75-71-8	3.3 D	1.3 D	<0.49 U	<8.3 U	2.15	2.39 D	2.22 D	3.2 D	2.8 J	2.8 D
Ethanol	64-17-5	NA	NA	NA	NA	23	NA	NA	NA	NA	NA
Ethyl Acetate	141-78-6	<1.4 U	<0.8 U	<0.72 U	<12 U	<1.8 U	1.8 D	<1.15 U	<1.2 U	<1.1 U	1.3 D
Ethylbenzene	100-41-4	3.4 D	3.9 D	1.2	<7.3 U	<0.869 U	2.99 D	2.57 D	5.4 D	2.4 J	17 D
Hexachlorobutadiene	87-68-3	<2 U	<1.2 U	<1.1 U	<18 U	<2.13 U	<1.56 U	<1.71 U	<1.7 U	<1.7 U	<1.8 U
Isopropanol	67-63-0	<0.94 U	6.4 D	<0.49 U	49 D	6.44	1.3 D	4.6 D	1.9 D	4.6 J	1.4 D
m,p-Xylene	179601-23-1	14 D	14 D	4.1	<15 U	2.71	10.4 D	9.52 D	21 D	4.7 J	46 D
Methyl Ethyl Ketone (2-Butanone)	78-93-3	15 D	7.6 D	0.35	280 D	4.07	2.16 D	1.23 D	1.1 D	<0.46 U	1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	108-10-1	<0.78 U	<0.46 U	<0.41 U	<6.9 U	<2.05 U	2.88 D	3.08 D	0.66 J	1.8 J	<0.67 U
Methyl Methacrylate	80-62-6	<0.78 U	<0.45 U	<0.41 U	<6.9 U	NA	<0.601 U	1.84 D	<0.66 U	<0.64 U	<0.67 U
Methylene Chloride	75-09-2	3.9 D	<0.77 U	<0.69 U	<12 U	<1.74 U	1.27 D	15.8 D	<1.1 U	1.4 J	<1.1 U
n-Heptane	142-82-5	1.9 D	1.6 D	0.57	<6.9 U	<0.82 U	1.26 D	1.12 D	2.4 D	<0.64 U	<0.67 U
n-Hexane	110-54-3	18 D	2.6 D	0.7	<5.9 U	1.02	1.24 D	1.69 D	1.9 D	0.82 J	25 D
o-Xylene (1,2-Dimethylbenzene)	95-47-6	4.7 D	<0.48 U	1.3	<7.3 U	<0.869 U	3.69 D	3.55 D	7.6 D	1.9 J	17 D
Propylene	115-07-1	9.4 D	3.3 D	3.4	7.8 D	NA	<0.252 U	<0.276 U	<0.28 U	<0.27 U	12 D
Styrene	100-42-5	<0.82 U	<0.47 U	<0.43 U	<7.2 U	<0.852 U	<0.625 U	<0.682 U	<0.68 U	<0.66 U	<0.7 U
Tert-Butyl Alcohol	75-65-0	NA	NA	NA	NA	<1.52 U	NA	NA	NA	NA	NA
Tert-Butyl Methyl Ether	1634-04-4	<0.69 U	<0.4 U	<0.36 U	<6.1 U	<0.721 U	<0.529 U	<0.577 U	<0.58 U	<0.56 U	<0.59 U
Tetrachloroethene (PCE)	127-18-4	3 D	1.7 D	<0.17 U	8 D	2.55	2.49 D	2.17 D	2 D	3 J	1.8 D
Tetrahydrofuran	109-99-9	38 D	13 D	<0.59 U	120 D	2.87	1.38 D	1.13 D	1.2 D	<0.92 U	<0.97 U
Toluene	108-88-3	10 D	19 D	7.2	16 D	10.3	13.1 D	10.1 D	20 D	7.9 J	60 D
Trans-1,2-Dichloroethene	156-60-5	<0.76 U	0.57 D	<0.4 U	<6.7 U	<0.793 U	<0.582 U	<0.635 U	<0.63 U	<0.62 U	<0.65 U
Trans-1,3-Dichloropropene	10061-02-6	<0.87 U	<0.5 U	<0.45 U	<7.6 U	<0.908 U	<0.666 U	<0.727 U	<0.73 U	<0.71 U	<0.74 U
Trichloroethene (TCE)	79-01-6	<0.26 U	1.5 D	<0.13 U	<2.3 U	<1.07 U	0.946 D	0.688 D	0.77 D	1.8 J	0.62 D
Trichlorofluoromethane	75-69-4	9.7 D	5.5 D	<0.56 U	<9.4 U	2.21	1.9 D	1.8 D	2.6 D	2 J	1.5 D
Vinyl Acetate	108-05-4	<0.67 U	<0.39 U	<0.35 U	<5.9 U	NA	<0.517 U	<0.564 U	<0.56 U	<0.55 U	<0.58 U
Vinyl Chloride	75-01-4	<0.49 U	<0.28 U	<0.26 U	<4.3 U	<0.511 U	<0.375 U	<0.205 U	<0.2 U	0.24 J	<0.21 U
Total BTEX	—	33.6	38.4	16.1	16	14.48	32.57	27.79	57.6	17.9	155
Total CVOCs	—	8.6	3.77	ND	8	4.67	6.907	20.201	4.37	9.13	4.84
Total VOCs	—	219.1	141.9	24.49	830.8	92.37	78.304	82.649	104.76	52.25	255.54

Table 3
Soil Vapor Monitoring Report - Year 8
Historical Soil Vapor Sample Analytical Results

Page 4 of 4

365 Bond Street
Brooklyn, New York
NYSDEC BCP Site No.: C224174
Langan Project No.: 100287503

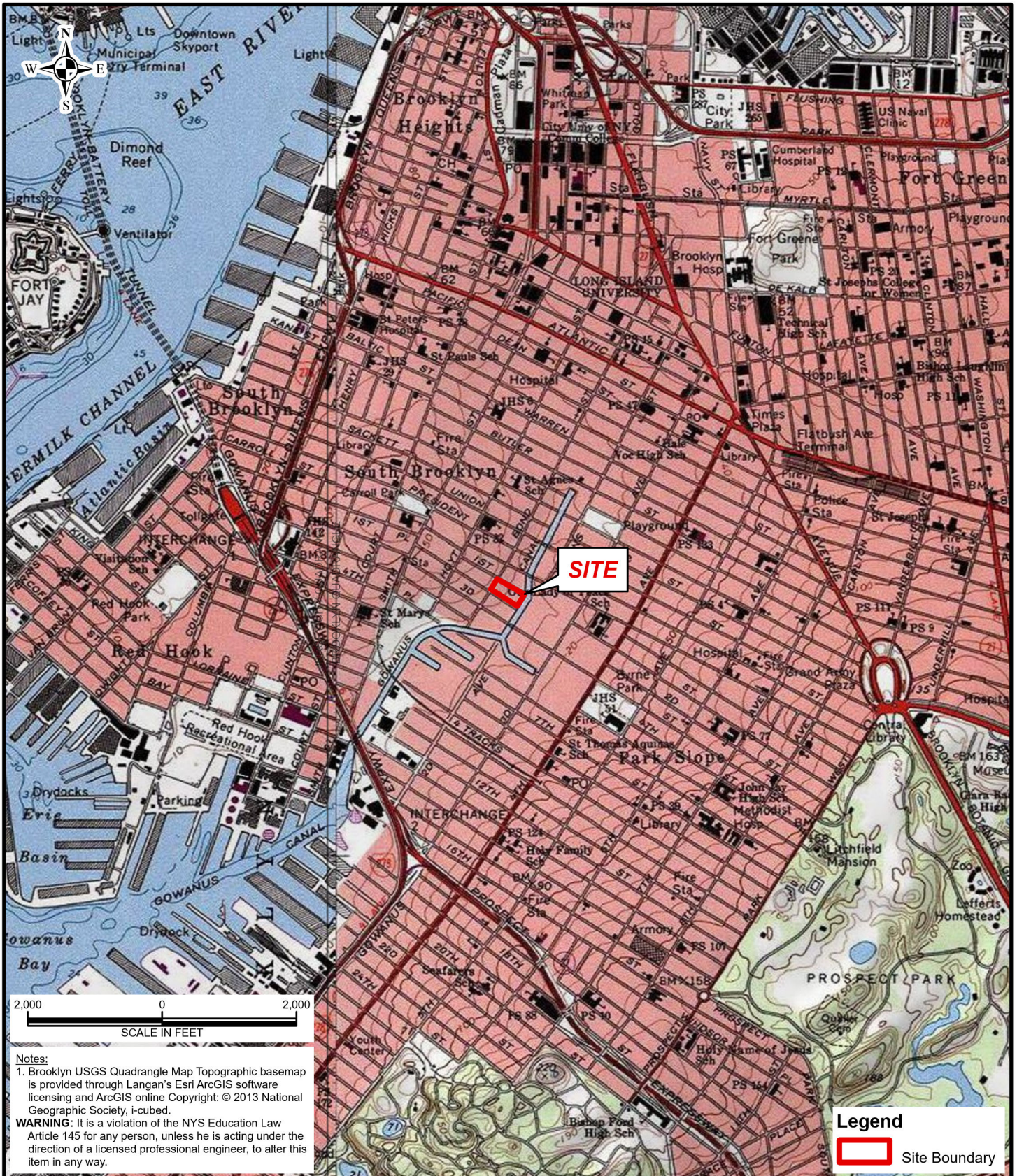
Notes:

SV - Soil Vapor
CAS - Chemical Abstract Service
NS - No standard
ug/m3 - microgram per cubic meter
NA - Not analyzed
RL - Reporting limit
<RL - Not detected

Qualifiers:

D - The concentration reported is a result of a diluted sample.
J - The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
UJ - The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
U - The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

FIGURES



LANGAN

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

**365 BOND STREET
DEVELOPMENT**

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Figure Title

**SITE
LOCATION
MAP**

Project No.

100287503

Date

3/28/2024

Scale

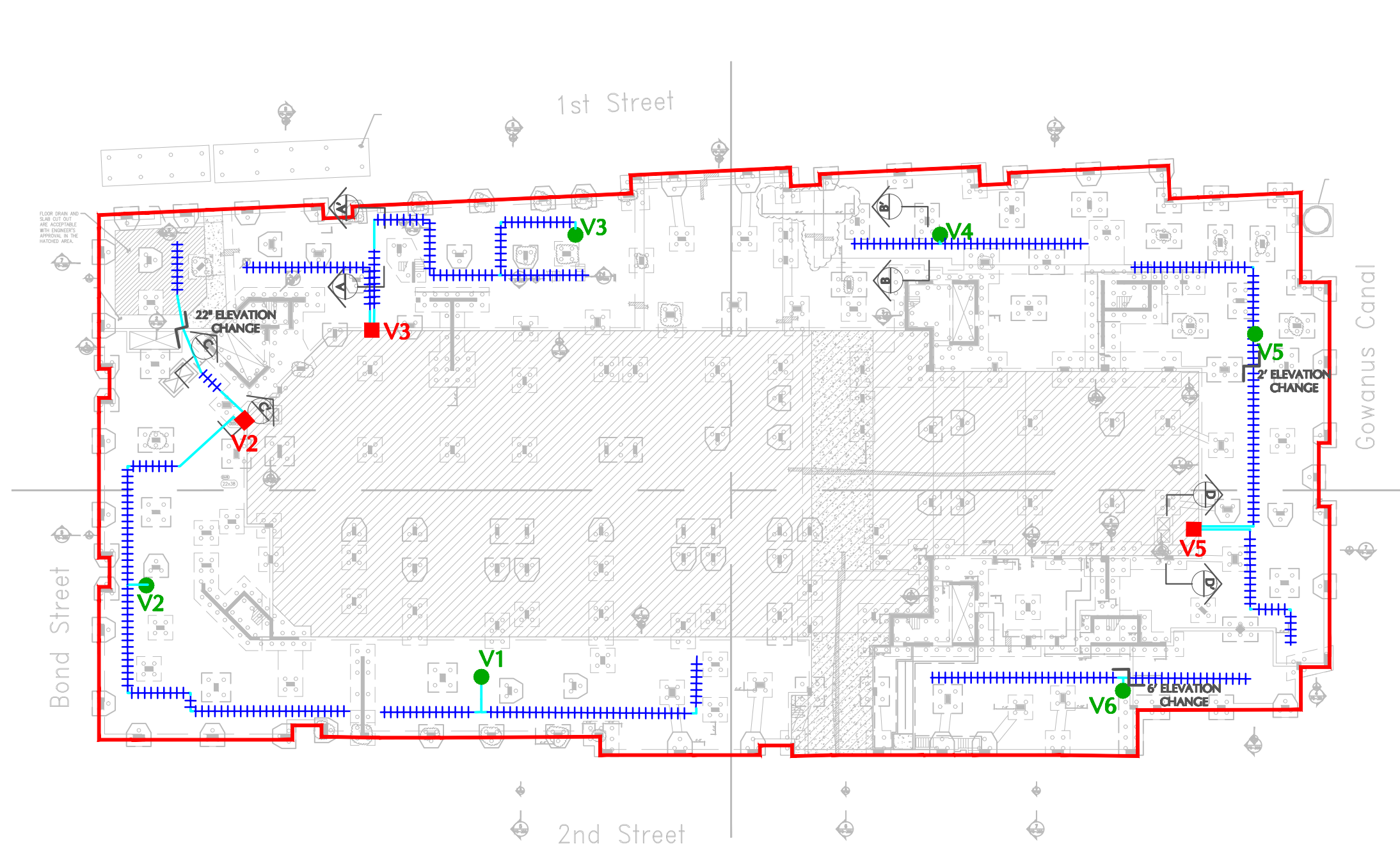
1"=2,000'

Drawn By

SH

Figure

1



- LEGEND:**
- BUILDING EXTERIOR
 - SUBGRADE PARKING AREA
 - INSTALLED BELOW GRADE HORIZONTAL WELL SMDS SCREEN (4" SCHEDULE 80 PVC, 10-SLOT)
 - INSTALLED BELOW GRADE PVC PIPE (4" SCHEDULE 80 PVC)
 - INSTALLED VENT PIPE WITH "T" FITTING AND ISOLATION BALL VALVE (OVERHEAD VERTICAL MANIFOLD, 4" CAST IRON PIPE)
 - INSTALLED VALVE BOX WITH ISOLATION VALVE AND SAMPLE PORTS

- NOTES:**
- ALL VERTICAL VENT PIPING IS CONSTRUCTED FROM CAST IRON AND ALL BELOW GRADE PIPING IS CONSTRUCTED FROM SCHEDULE 80 PVC.
 - THE INSTALLED SMDS WELL SCREENS AND MANIFOLD ARE DESIGNED TO BE OPERATED AS A "PASSIVE" VAPOR MITIGATION SYSTEM AND POTENTIALLY CAN BE CONVERTED TO AN "ACTIVE" VAPOR MITIGATION SYSTEM WITH THE ADDITION OF FANS/BLOWERS.
 - FOUNDATION ELEMENTS PRESENTED HEREIN ARE BASED ON 100% FOUNDATION (1ST FLOOR/GARAGE) OVERALL PLAN F0-100 DATED MARCH 28, 2014.
 - SIGNED AND SEALED AS-BUILT DRAWINGS WERE SUBMITTED IN THE SEPTEMBER 2015 SMP, CCR, AND FER.



LANGAN 300 Kimball Drive Parsippany, NJ 07054 T: 973.560.4900 F: 973.560.4901 www.langan.com Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan	Project 365 BOND STREET DEVELOPMENT 365 BOND STREET BROOKLYN	Drawing Title SAMPLE LOCATION PLAN NEW YORK	Project No. 100287501	2
			Date MARCH 20, 2019	
			Scale AS SHOWN	
			Drawn By JR	

Location	V3_365	V3_365
Sample Name	V3_120523	DUP01_120523
Sample Date	12/05/2023	12/05/2023
Sample Type	SV	SV
VOCs		
1,2,4-Trimethylbenzene	3.1 D	2.5 J
1,3,5-Trimethylbenzene (Mesitylene)	0.84 D	0.71 J
4-Ethyltoluene	2.4 D	2.3 J
Acetone	7.3 D	6.3 J
Benzene	6.7 D	6 J
Carbon Tetrachloride	0.59 D	0.46 J
Chloroform	<0.76 U	<0.71 UJ
Chloromethane	2 J	1.1 J
Cis-1,2-Dichloroethene	0.25 J	0.4 J
Cyclohexane	1.5 D	1.3 J
Dichlorodifluoromethane	2.8 D	2.4 J
Ethyl Acetate	<1.1 U	<1 UJ
Ethylbenzene	3.2 D	3 J
Isopropanol	2.6 J	5.6 J
M,P-Xylene	8.7 D	8.3 J
Methyl Ethyl Ketone (2-Butanone)	2.5 J	1.9 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2.7 D	2.4 J
n-Heptane	<0.64 U	<0.59 UJ
n-Hexane	4.6 D	4.1 J
o-Xylene (1,2-Dimethylbenzene)	3.2 D	3.1 J
Propylene	6.3 D	5.6 J
Tetrachloroethene (PCE)	<1.1 UJ	2.3 J
Tetrahydrofuran	2.9 D	2.5 J
Toluene	14 D	12 J
Trichloroethene (TCE)	0.25 D	0.23 J
Trichlorofluoromethane	1.5 D	1.3 J

Location	V2_365
Sample Name	V2_120523
Sample Date	12/05/2023
Sample Type	SV
VOCs	
1,2,4-Trimethylbenzene	2.9 J
1,3,5-Trimethylbenzene (Mesitylene)	0.89 J
4-Ethyltoluene	2.4 J
Acetone	3 J
Benzene	2.9 J
Carbon Tetrachloride	0.47 J
Chloroform	3.4 J
Chloromethane	1.4 J
Cis-1,2-Dichloroethene	1.2 J
Cyclohexane	0.57 J
Dichlorodifluoromethane	2.8 J
Ethyl Acetate	<1.1 UJ
Ethylbenzene	2.5 J
Isopropanol	0.96 J
M,P-Xylene	7.9 J
Methyl Ethyl Ketone (2-Butanone)	0.71 J
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	1.5 J
n-Heptane	1.4 J
n-Hexane	1.6 J
o-Xylene (1,2-Dimethylbenzene)	2.8 J
Propylene	<0.26 UJ
Tetrachloroethene (PCE)	2 J
Tetrahydrofuran	1.3 J
Toluene	7.9 J
Trichloroethene (TCE)	0.97 J
Trichlorofluoromethane	1.5 J

Location	Ambient-1_365
Sample Name	AMBIENT-1_120523
Sample Date	12/05/2023
Sample Type	AA
VOCs	
1,2,4-Trimethylbenzene	<0.41 U
1,3,5-Trimethylbenzene (Mesitylene)	<0.41 U
4-Ethyltoluene	<0.41 U
Acetone	3.9 D
Benzene	0.58 D
Carbon Tetrachloride	0.42 D
Chloroform	<0.4 U
Chloromethane	0.78 J
Cis-1,2-Dichloroethene	<0.082 U
Cyclohexane	<0.28 U
Dichlorodifluoromethane	2.3 D
Ethyl Acetate	<0.6 U
Ethylbenzene	<0.36 U
Isopropanol	0.77 D
M,P-Xylene	<0.72 U
Methyl Ethyl Ketone (2-Butanone)	3.5 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.34 U
n-Heptane	<0.34 U
n-Hexane	0.35 D
o-Xylene (1,2-Dimethylbenzene)	<0.36 U
Propylene	<0.14 U
Tetrachloroethene (PCE)	0.84 D
Tetrahydrofuran	0.78 D
Toluene	0.93 D
Trichloroethene (TCE)	<0.11 U
Trichlorofluoromethane	1.2 D

Location	V5_365
Sample Name	V5_120523
Sample Date	12/05/2023
Sample Type	SV
VOCs	
1,2,4-Trimethylbenzene	17 D
1,3,5-Trimethylbenzene (Mesitylene)	4.8 D
4-Ethyltoluene	15 D
Acetone	5.5 D
Benzene	15 D
Carbon Tetrachloride	0.52 D
Chloroform	<0.8 U
Chloromethane	1.4 D
Cis-1,2-Dichloroethene	1.9 D
Cyclohexane	7 D
Dichlorodifluoromethane	2.8 D
Ethyl Acetate	1.3 D
Ethylbenzene	17 D
Isopropanol	1.4 D
M,P-Xylene	46 D
Methyl Ethyl Ketone (2-Butanone)	1 D
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	<0.67 U
n-Heptane	<0.67 U
n-Hexane	25 D
o-Xylene (1,2-Dimethylbenzene)	17 D
Propylene	12 D
Tetrachloroethene (PCE)	1.8 D
Tetrahydrofuran	<0.97 U
Toluene	60 D
Trichloroethene (TCE)	0.62 D
Trichlorofluoromethane	1.5 D

Legend

- Building Exterior
- Subgrade Parking Area
- Installed Below Grade PVC Pipe (4" SCH 80 PVC)
- Installed Below Grade Horizontal Well SMDS Screen (4" SCH 80 PVC, 10-Slot)
- Sidewalk
- Gowanus Canal
- Installed Vent Pipe (Overhead Vertical Manifold, 4" Cast Iron Pipe)
- Installed Valve Box With Insulation Valve And Sample Ports
- Ambient Air Sample Location



- Notes:
- All vertical vent piping is constructed from cast iron and all below grade piping is constructed from schedule 80 PVC.
 - The installed SMDS well screens and manifold are designed to be operated as a "passive" vapor mitigation system and potentially can be converted to an "active" vapor mitigation system with the addition of fans/blowers.
 - Foundation elements presented herein are based on 100% foundation (1st floor/garage) overall plan FO-100 dated 28 March 2014.
 - Signed and sealed as-built drawings were submitted in the September 2015 SMP, CCR, and FER.

LANGAN

300 Kimball Drive
Parsippany, NJ 07054
T: 973.560.4900 F: 973.560.4901 www.langan.com

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and
Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

NJ CERTIFICATE OF AUTHORIZATION No. 24GA27996400

Project

365 BOND STREET

BLOCK No. 458, LOT No. 1

BROOKLYN

KINGS COUNTY

NEW YORK

Drawing Title

SUB SLAB SOIL VAPOR ANALYTICAL RESULTS

Project No.

100287503

Date

3/28/2024

Scale

1"=40'

Drawn By

PDT

Last Revised

Figure

3

ATTACHMENT A

Field Logs

SUMMA CANISTER SAMPLING FIELD DATA SHEET

Site: 365 Bond Street, Brooklyn, New York

Samplers: Esther Arthur

Date: 12/05/2023

Sample #	V2_120523	V3_120523	DUP01_120523	V5_120523	AA-1_120523
Location	V2	V3	DUP01	V-5	AA-1
Summa Canister ID	16956	14193	18312	32081	15522
Flow Controller ID	7269	17904	6875	5624	7090
PID Test of SSDS Air	0 ppb	0 ppb	0 ppb	0 ppb	0 ppb
Pressure Gauge - before sampling	-30	-30	-30	-30	-30
Sample Time (Start)	7:41	7:45	7:45	7:37	7:30
Sample Time (Stop)	10:03	10:04	10:04	9:40	14:15
Total Sample Time (min)	142	139	139	125	405
Pressure Gauge - after sampling	-4	-5	-6	-3	-6
Sample Volume	6L	6L	6L	6L	6L
Canister Pressure Went to Ambient Pressure?	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO	YES / ☒ NO
Associated Ambient Air Sample Number	AA-1	AA-1	AA-1	AA-1	AA-1
Weather 24 hours before and during sampling	Sunny, 40s				
General Comments	DUP01_120523 parent sample is V3_120523				

PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Esther Arthur Date: 12/5/2023 Weather Conditions: 40s, Cloudy

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection

When was the last rain event?: 12/3/2023

Current Temperature: 37° F

Current Barometric Pressure: 29.95

Valve Manifolds		
Location	PID (ppb)	Vacuum (in. H2O)
V2	0	-0.082
V3	0	-0.032
V5	0	-0.037

Comments

Riser Pipes Exhaust		
Location	PID (ppb)	Air Flow (CFM)
V1	0	2.86
V2	0	4.32
V3	0	3.82
V4	23	6.07
V5	0	4.48
V6	6	2.24

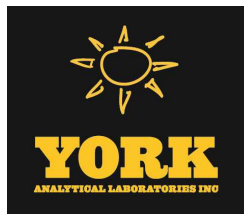
Comments

Inspection Comments

Emergency Contact Information		
Name	Title	Phone Number
Christopher Cusumano	Building Management	718-705-8413
Steven Ciambuschini	Langan Qualified Environmental Professional	973-560-4900 (office) 973-560-4982 (direct)
Christopher McMahon	Langan Project Manager	973-560-4900 (office) 973-560-4861 (direct)
Jennifer Jennings	Lighstone Representative	718-564-6531 (direct)
Sadique Ahmed	NYSDEC Case Manager	518-402-9656 (office)

ATTACHMENT B

Laboratory Analytical Reports



Technical Report

prepared for:

Langan Engineering & Environmental Services (NJ)

300 Kimball Drive, 4th Floor

Parsipanny NJ, 07054-2172

Attention: Allyson Kritzer

Report Date: 12/13/2023

Client Project ID: 100287503

York Project (SDG) No.: 23L0226



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 12/13/2023
Client Project ID: 100287503
York Project (SDG) No.: 23L0226

Langan Engineering & Environmental Services (NJ)
300 Kimball Drive, 4th Floor
Parsipanny NJ, 07054-2172
Attention: Allyson Kritzer

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 December 05, 2023 and listed below. The project was identified as your project: **100287503**.

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>
23L0226-01	V2_120523	Soil Vapor	12/05/2023	12/05/2023
23L0226-02	V5_120523	Soil Vapor	12/05/2023	12/05/2023
23L0226-03	V3_120523	Soil Vapor	12/05/2023	12/05/2023
23L0226-04	DUP01_120523	Soil Vapor	12/05/2023	12/05/2023
23L0226-05	AA-1_120523	Outdoor Ambient Ai	12/05/2023	12/05/2023

General Notes for York Project (SDG) No.: 23L0226

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

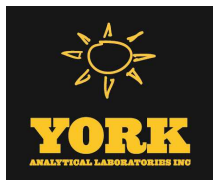
Approved By



Cassie L. Mosher
Laboratory Manager

Date: 12/13/2023





Sample Information

Client Sample ID: V2_120523

York Sample ID: 23L0226-01

York Project (SDG) No.

23L0226

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

December 5, 2023 10:03 am

Date Received

12/05/2023

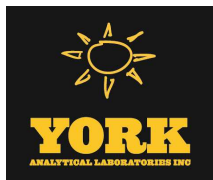
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	1.0	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.82	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.0	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.82	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.61	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.15	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.1	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
95-63-6	1,2,4-Trimethylbenzene	2.9		ug/m ³	0.74	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.90	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.61	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.70	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
108-67-8	1,3,5-Trimethylbenzene	0.89		ug/m ³	0.74	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
106-99-0	1,3-Butadiene	ND		ug/m ³	1.0	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.90	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.70	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.90	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
78-93-3	2-Butanone	0.71		ug/m ³	0.44	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR



Sample Information

Client Sample ID: V2_120523

York Sample ID: 23L0226-01

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:03 am

Date Received
12/05/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
591-78-6	* 2-Hexanone	ND		ug/m ³	1.2	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
107-05-1	3-Chloropropene	ND		ug/m ³	2.4	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
108-10-1	4-Methyl-2-pentanone	1.5		ug/m ³	0.62	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
67-64-1	Acetone	3.0		ug/m ³	0.72	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
107-13-1	Acrylonitrile	ND		ug/m ³	0.98	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
71-43-2	Benzene	2.9		ug/m ³	0.48	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
100-44-7	Benzyl chloride	ND		ug/m ³	0.78	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-27-4	Bromodichloromethane	ND		ug/m ³	1.0	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-25-2	Bromoform	ND		ug/m ³	1.6	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
74-83-9	Bromomethane	ND		ug/m ³	0.58	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-15-0	Carbon disulfide	ND		ug/m ³	0.47	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
56-23-5	Carbon tetrachloride	0.47		ug/m ³	0.24	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
108-90-7	Chlorobenzene	ND		ug/m ³	0.69	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-00-3	Chloroethane	ND		ug/m ³	0.40	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
67-66-3	Chloroform	3.4		ug/m ³	0.73	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
74-87-3	Chloromethane	1.4		ug/m ³	0.31	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
156-59-2	cis-1,2-Dichloroethylene	1.2		ug/m ³	0.15	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.68	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
110-82-7	Cyclohexane	0.57		ug/m ³	0.52	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.74	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR



Sample Information

Client Sample ID: V2_120523

York Sample ID: 23L0226-01

York Project (SDG) No.

23L0226

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

December 5, 2023 10:03 am

Date Received

12/05/2023

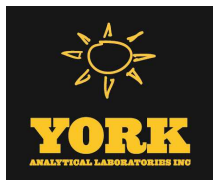
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
100-41-4	Ethyl Benzene	2.5		ug/m ³	0.65	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
87-68-3	Hexachlorobutadiene	ND		ug/m ³	1.6	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
67-63-0	Isopropanol	0.96		ug/m ³	0.74	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.62	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.54	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-09-2	Methylene chloride	ND		ug/m ³	1.0	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
142-82-5	n-Heptane	1.4		ug/m ³	0.62	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
110-54-3	n-Hexane	1.6		ug/m ³	0.53	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
95-47-6	o-Xylene	2.8		ug/m ³	0.65	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
179601-23-1	p- & m- Xylenes	7.9		ug/m ³	1.3	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
622-96-8	* p-Ethyltoluene	2.4		ug/m ³	0.74	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
115-07-1	* Propylene	ND		ug/m ³	0.26	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
100-42-5	Styrene	ND		ug/m ³	0.64	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
127-18-4	Tetrachloroethylene	2.0		ug/m ³	1.0	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
109-99-9	* Tetrahydrofuran	1.3		ug/m ³	0.89	1.505	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 05:59	YR
108-88-3	Toluene	7.9		ug/m ³	0.57	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.60	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.68	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
79-01-6	Trichloroethylene	0.97		ug/m ³	0.20	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m ³	0.85	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.53	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.66	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR



Sample Information

Client Sample ID: V2_120523

York Sample ID: 23L0226-01

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:03 am

Date Received
12/05/2023

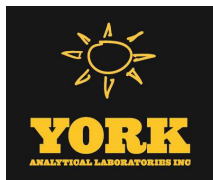
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
75-01-4	Vinyl Chloride	ND		ug/m ³	0.19	1.505	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 05:59	YR



Sample Information

Client Sample ID: V5_120523

York Sample ID: 23L0226-02

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 9:40 am

Date Received
12/05/2023

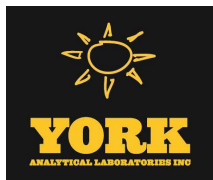
Volatile Organics, EPA TO15 Full List

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	1.1	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.90	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.3	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.90	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.66	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.16	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
95-63-6	1,2,4-Trimethylbenzene	17		ug/m ³	0.81	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.3	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.99	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.66	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.76	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
108-67-8	1,3,5-Trimethylbenzene	4.8		ug/m ³	0.81	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
106-99-0	1,3-Butadiene	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.99	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.76	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.99	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
123-91-1	1,4-Dioxane	ND		ug/m ³	1.2	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
78-93-3	2-Butanone	1.0		ug/m ³	0.48	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR



Sample Information

Client Sample ID: V5_120523

York Sample ID: 23L0226-02

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 9:40 am

Date Received
12/05/2023

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	2.6	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.67	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
67-64-1	Acetone	5.5		ug/m ³	0.78	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
107-13-1	Acrylonitrile	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
71-43-2	Benzene	15		ug/m ³	0.52	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
100-44-7	Benzyl chloride	ND		ug/m ³	0.85	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-27-4	Bromodichloromethane	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-25-2	Bromoform	ND		ug/m ³	1.7	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
74-83-9	Bromomethane	ND		ug/m ³	0.64	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-15-0	Carbon disulfide	ND		ug/m ³	0.51	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
56-23-5	Carbon tetrachloride	0.52		ug/m ³	0.26	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
108-90-7	Chlorobenzene	ND		ug/m ³	0.76	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-00-3	Chloroethane	ND		ug/m ³	0.43	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
67-66-3	Chloroform	ND		ug/m ³	0.80	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
74-87-3	Chloromethane	1.4		ug/m ³	0.34	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
156-59-2	cis-1,2-Dichloroethylene	1.9		ug/m ³	0.16	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.74	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
110-82-7	Cyclohexane	7.0		ug/m ³	0.56	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
124-48-1	Dibromochloromethane	ND		ug/m ³	1.4	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.81	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
141-78-6	* Ethyl acetate	1.3		ug/m ³	1.2	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
100-41-4	Ethyl Benzene	17		ug/m ³	0.71	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR



Sample Information

Client Sample ID: V5_120523

York Sample ID: 23L0226-02

York Project (SDG) No.

23L0226

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

December 5, 2023 9:40 am

Date Received

12/05/2023

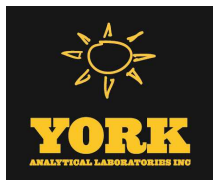
Volatile Organics, EPA TO15 Full List

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	1.8	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
67-63-0	Isopropanol	1.4		ug/m ³	0.81	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.67	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.59	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-09-2	Methylene chloride	ND		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
142-82-5	n-Heptane	ND		ug/m ³	0.67	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
110-54-3	n-Hexane	25		ug/m ³	0.58	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
95-47-6	o-Xylene	17		ug/m ³	0.71	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
179601-23-1	p- & m- Xylenes	46		ug/m ³	1.4	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
622-96-8	* p-Ethyltoluene	15		ug/m ³	0.81	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
115-07-1	* Propylene	12		ug/m ³	0.28	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
100-42-5	Styrene	ND		ug/m ³	0.70	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
127-18-4	Tetrachloroethylene	1.8		ug/m ³	1.1	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
109-99-9	* Tetrahydrofuran	ND		ug/m ³	0.97	1.641	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 07:02	YR
108-88-3	Toluene	60		ug/m ³	0.62	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.65	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.74	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
79-01-6	Trichloroethylene	0.62		ug/m ³	0.22	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m ³	0.92	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.58	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.72	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.21	1.641	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 07:02	YR



Sample Information

Client Sample ID: V5_120523

York Sample ID: 23L0226-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

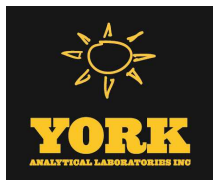
23L0226

100287503

Soil Vapor

December 5, 2023 9:40 am

12/05/2023



Sample Information

Client Sample ID: V3_120523

York Sample ID: 23L0226-03

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:04 am

Date Received
12/05/2023

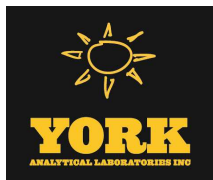
Volatile Organics, EPA TO15 Full List

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	1.1	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.85	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.2	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.85	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.63	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.15	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m ³	1.2	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
95-63-6	1,2,4-Trimethylbenzene	3.1		ug/m ³	0.76	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.2	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.93	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.63	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.72	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
108-67-8	1,3,5-Trimethylbenzene	0.84		ug/m ³	0.76	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
106-99-0	1,3-Butadiene	ND		ug/m ³	1.0	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.93	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.72	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.93	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
123-91-1	1,4-Dioxane	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
78-93-3	2-Butanone	2.5		ug/m ³	0.46	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
591-78-6	* 2-Hexanone	ND		ug/m ³	1.3	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR



Sample Information

Client Sample ID: V3_120523

York Sample ID: 23L0226-03

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:04 am

Date Received
12/05/2023

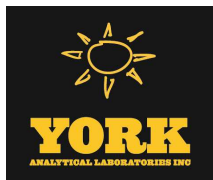
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-05-1	3-Chloropropene	ND		ug/m ³	2.4	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
108-10-1	4-Methyl-2-pentanone	2.7		ug/m ³	0.64	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
67-64-1	Acetone	7.3		ug/m ³	0.74	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
107-13-1	Acrylonitrile	ND		ug/m ³	1.0	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
71-43-2	Benzene	6.7		ug/m ³	0.50	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
100-44-7	Benzyl chloride	ND		ug/m ³	0.80	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-27-4	Bromodichloromethane	ND		ug/m ³	1.0	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-25-2	Bromoform	ND		ug/m ³	1.6	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
74-83-9	Bromomethane	ND		ug/m ³	0.60	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-15-0	Carbon disulfide	ND		ug/m ³	0.48	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
56-23-5	Carbon tetrachloride	0.59		ug/m ³	0.24	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
108-90-7	Chlorobenzene	ND		ug/m ³	0.71	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-00-3	Chloroethane	ND		ug/m ³	0.41	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
67-66-3	Chloroform	ND		ug/m ³	0.76	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
74-87-3	Chloromethane	2.0		ug/m ³	0.32	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
156-59-2	cis-1,2-Dichloroethylene	0.25		ug/m ³	0.15	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.70	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
110-82-7	Cyclohexane	1.5		ug/m ³	0.53	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
124-48-1	Dibromochloromethane	ND		ug/m ³	1.3	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-71-8	Dichlorodifluoromethane	2.8		ug/m ³	0.77	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
141-78-6	* Ethyl acetate	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
100-41-4	Ethyl Benzene	3.2		ug/m ³	0.67	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR



Sample Information

Client Sample ID: V3_120523

York Sample ID: 23L0226-03

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:04 am

Date Received
12/05/2023

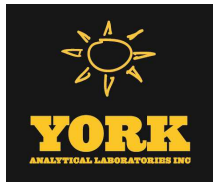
Volatile Organics, EPA TO15 Full List

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	1.7	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
67-63-0	Isopropanol	2.6		ug/m ³	0.76	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.64	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.56	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-09-2	Methylene chloride	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
142-82-5	n-Heptane	ND		ug/m ³	0.64	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
110-54-3	n-Hexane	4.6		ug/m ³	0.55	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
95-47-6	o-Xylene	3.2		ug/m ³	0.67	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
179601-23-1	p- & m- Xylenes	8.7		ug/m ³	1.3	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
622-96-8	* p-Ethyltoluene	2.4		ug/m ³	0.76	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
115-07-1	* Propylene	6.3		ug/m ³	0.27	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
100-42-5	Styrene	ND		ug/m ³	0.66	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
127-18-4	Tetrachloroethylene	ND		ug/m ³	1.1	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
109-99-9	* Tetrahydrofuran	2.9		ug/m ³	0.92	1.552	EPA TO-15 Certifications:	12/11/2023 11:00	12/12/2023 08:06	YR
108-88-3	Toluene	14		ug/m ³	0.58	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.62	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.70	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
79-01-6	Trichloroethylene	0.25		ug/m ³	0.21	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-69-4	Trichlorofluoromethane (Freon 11)	1.5		ug/m ³	0.87	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
108-05-4	Vinyl acetate	ND		ug/m ³	0.55	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
593-60-2	Vinyl bromide	ND		ug/m ³	0.68	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR
75-01-4	Vinyl Chloride	ND		ug/m ³	0.20	1.552	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 11:00	12/12/2023 08:06	YR



Sample Information

Client Sample ID: V3_120523

York Sample ID: 23L0226-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

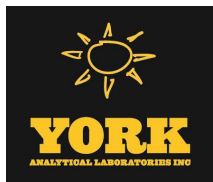
23L0226

100287503

Soil Vapor

December 5, 2023 10:04 am

12/05/2023



Sample Information

Client Sample ID: DUP01_120523

York Sample ID: 23L0226-04

York Project (SDG) No.

23L0226

Client Project ID

100287503

Matrix

Soil Vapor

Collection Date/Time

December 5, 2023 10:04 am

Date Received

12/05/2023

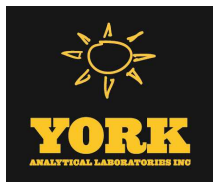
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	1.0	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.79	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	1.0	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	1.1	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.79	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.59	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.14	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
120-82-1	1,2,4-Trichlorobenzene	ND	ICVE, TO-CC V, TO-LCS -L	ug/m ³	1.1	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
95-63-6	1,2,4-Trimethylbenzene	2.5		ug/m ³	0.71	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
106-93-4	1,2-Dibromoethane	ND		ug/m ³	1.1	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.87	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.59	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.67	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	1.0	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
108-67-8	1,3,5-Trimethylbenzene	0.71		ug/m ³	0.71	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
106-99-0	1,3-Butadiene	ND		ug/m ³	0.96	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.87	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.67	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.87	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
123-91-1	1,4-Dioxane	ND		ug/m ³	1.0	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH



Sample Information

Client Sample ID: DUP01_120523

York Sample ID: 23L0226-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

23L0226

100287503

Soil Vapor

December 5, 2023 10:04 am

12/05/2023

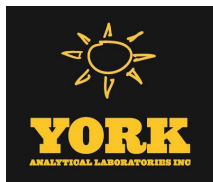
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	1.9		ug/m ³	0.43	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
591-78-6	* 2-Hexanone	ND		ug/m ³	1.2	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
107-05-1	3-Chloropropene	ND		ug/m ³	2.3	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
108-10-1	4-Methyl-2-pentanone	2.4		ug/m ³	0.59	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
67-64-1	Acetone	6.3		ug/m ³	0.69	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
107-13-1	Acrylonitrile	ND		ug/m ³	0.94	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
71-43-2	Benzene	6.0		ug/m ³	0.46	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
100-44-7	Benzyl chloride	ND		ug/m ³	0.75	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-27-4	Bromodichloromethane	ND		ug/m ³	0.97	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-25-2	Bromoform	ND		ug/m ³	1.5	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
74-83-9	Bromomethane	ND		ug/m ³	0.56	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-15-0	Carbon disulfide	ND		ug/m ³	0.45	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
56-23-5	Carbon tetrachloride	0.46		ug/m ³	0.23	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
108-90-7	Chlorobenzene	ND		ug/m ³	0.67	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-00-3	Chloroethane	ND		ug/m ³	0.38	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
67-66-3	Chloroform	ND		ug/m ³	0.71	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
74-87-3	Chloromethane	1.1	TO-LCS -L	ug/m ³	0.30	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
156-59-2	cis-1,2-Dichloroethylene	0.40		ug/m ³	0.14	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.66	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
110-82-7	Cyclohexane	1.3		ug/m ³	0.50	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
124-48-1	Dibromochloromethane	ND		ug/m ³	1.2	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-71-8	Dichlorodifluoromethane	2.4		ug/m ³	0.72	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH



Sample Information

Client Sample ID: DUP01_120523

York Sample ID: 23L0226-04

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:04 am

Date Received
12/05/2023

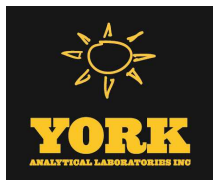
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
141-78-6	* Ethyl acetate	ND		ug/m ³	1.0	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
100-41-4	Ethyl Benzene	3.0		ug/m ³	0.63	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
87-68-3	Hexachlorobutadiene	ND	TO-LCS -L	ug/m ³	1.5	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
67-63-0	Isopropanol	5.6	B	ug/m ³	0.71	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.59	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.52	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-09-2	Methylene chloride	ND		ug/m ³	1.0	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
142-82-5	n-Heptane	ND		ug/m ³	0.59	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
110-54-3	n-Hexane	4.1		ug/m ³	0.51	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
95-47-6	o-Xylene	3.1		ug/m ³	0.63	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
179601-23-1	p- & m- Xylenes	8.3		ug/m ³	1.3	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
622-96-8	* p-Ethyltoluene	2.3		ug/m ³	0.71	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
115-07-1	* Propylene	5.6		ug/m ³	0.25	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
100-42-5	Styrene	ND		ug/m ³	0.62	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
127-18-4	Tetrachloroethylene	2.3		ug/m ³	0.98	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
109-99-9	* Tetrahydrofuran	2.5		ug/m ³	0.86	1.451	EPA TO-15 Certifications:	12/12/2023 13:04	12/13/2023 04:32	VH
108-88-3	Toluene	12		ug/m ³	0.55	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.58	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.66	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
79-01-6	Trichloroethylene	0.23		ug/m ³	0.19	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-69-4	Trichlorofluoromethane (Freon 11)	1.3		ug/m ³	0.82	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
108-05-4	Vinyl acetate	ND		ug/m ³	0.51	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH



Sample Information

Client Sample ID: DUP01_120523

York Sample ID: 23L0226-04

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Soil Vapor

Collection Date/Time
December 5, 2023 10:04 am

Date Received
12/05/2023

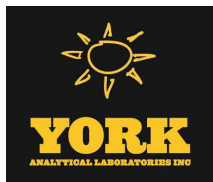
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
593-60-2	Vinyl bromide	ND		ug/m ³	0.63	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH
75-01-4	Vinyl Chloride	ND	TO-CC V, TO-LCS -L	ug/m ³	0.19	1.451	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/12/2023 13:04	12/13/2023 04:32	VH



Sample Information

Client Sample ID: AA-1_120523

York Sample ID: 23L0226-05

York Project (SDG) No.

23L0226

Client Project ID

100287503

Matrix

Outdoor Ambient Air

Collection Date/Time

December 5, 2023 2:15 pm

Date Received

12/05/2023

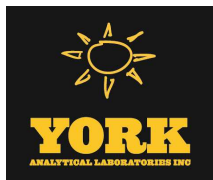
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	0.57	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
71-55-6	1,1,1-Trichloroethane	ND		ug/m ³	0.45	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m ³	0.57	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m ³	0.63	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
79-00-5	1,1,2-Trichloroethane	ND		ug/m ³	0.45	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-34-3	1,1-Dichloroethane	ND		ug/m ³	0.33	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-35-4	1,1-Dichloroethylene	ND		ug/m ³	0.082	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
120-82-1	1,2,4-Trichlorobenzene	ND	ICVE, TO-CC V, TO-LCS -L	ug/m ³	0.61	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
95-63-6	1,2,4-Trimethylbenzene	ND		ug/m ³	0.41	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
106-93-4	1,2-Dibromoethane	ND		ug/m ³	0.63	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
95-50-1	1,2-Dichlorobenzene	ND		ug/m ³	0.50	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
107-06-2	1,2-Dichloroethane	ND		ug/m ³	0.33	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
78-87-5	1,2-Dichloropropane	ND		ug/m ³	0.38	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m ³	0.58	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m ³	0.41	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
106-99-0	1,3-Butadiene	ND		ug/m ³	0.55	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
541-73-1	1,3-Dichlorobenzene	ND		ug/m ³	0.50	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
142-28-9	* 1,3-Dichloropropane	ND		ug/m ³	0.38	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
106-46-7	1,4-Dichlorobenzene	ND		ug/m ³	0.50	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
123-91-1	1,4-Dioxane	ND		ug/m ³	0.60	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH



Sample Information

Client Sample ID: AA-1_120523

York Sample ID: 23L0226-05

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Outdoor Ambient Air

Collection Date/Time
December 5, 2023 2:15 pm

Date Received
12/05/2023

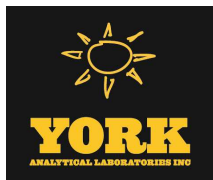
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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	3.5		ug/m ³	0.24	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
591-78-6	* 2-Hexanone	ND		ug/m ³	0.68	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
107-05-1	3-Chloropropene	ND		ug/m ³	1.3	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
108-10-1	4-Methyl-2-pentanone	ND		ug/m ³	0.34	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
67-64-1	Acetone	3.9		ug/m ³	0.39	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
107-13-1	Acrylonitrile	ND		ug/m ³	0.54	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
71-43-2	Benzene	0.58		ug/m ³	0.26	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
100-44-7	Benzyl chloride	ND		ug/m ³	0.43	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-27-4	Bromodichloromethane	ND		ug/m ³	0.55	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-25-2	Bromoform	ND		ug/m ³	0.85	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
74-83-9	Bromomethane	ND		ug/m ³	0.32	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-15-0	Carbon disulfide	ND		ug/m ³	0.26	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
56-23-5	Carbon tetrachloride	0.42		ug/m ³	0.13	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
108-90-7	Chlorobenzene	ND		ug/m ³	0.38	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-00-3	Chloroethane	ND		ug/m ³	0.22	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
67-66-3	Chloroform	ND		ug/m ³	0.40	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
74-87-3	Chloromethane	0.78		ug/m ³	0.17	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m ³	0.082	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m ³	0.37	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
110-82-7	Cyclohexane	ND		ug/m ³	0.28	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
124-48-1	Dibromochloromethane	ND		ug/m ³	0.70	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-71-8	Dichlorodifluoromethane	2.3		ug/m ³	0.41	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH



Sample Information

Client Sample ID: AA-1_120523

York Sample ID: 23L0226-05

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Outdoor Ambient Air

Collection Date/Time
December 5, 2023 2:15 pm

Date Received
12/05/2023

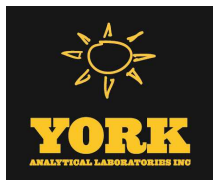
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

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
141-78-6	* Ethyl acetate	ND		ug/m ³	0.60	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
100-41-4	Ethyl Benzene	ND		ug/m ³	0.36	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
87-68-3	Hexachlorobutadiene	ND	TO-CC V, TO-LCS -L	ug/m ³	0.88	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
67-63-0	Isopropanol	0.77		ug/m ³	0.41	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
80-62-6	Methyl Methacrylate	ND		ug/m ³	0.34	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m ³	0.30	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-09-2	Methylene chloride	ND		ug/m ³	0.57	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
142-82-5	n-Heptane	ND		ug/m ³	0.34	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
110-54-3	n-Hexane	0.35		ug/m ³	0.29	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
95-47-6	o-Xylene	ND		ug/m ³	0.36	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
179601-23-1	p- & m- Xylenes	ND		ug/m ³	0.72	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
622-96-8	* p-Ethyltoluene	ND		ug/m ³	0.41	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
115-07-1	* Propylene	ND		ug/m ³	0.14	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
100-42-5	Styrene	ND		ug/m ³	0.35	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
127-18-4	Tetrachloroethylene	0.84		ug/m ³	0.56	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
109-99-9	* Tetrahydrofuran	0.78		ug/m ³	0.49	0.826	EPA TO-15 Certifications:	12/11/2023 10:00	12/12/2023 05:31	VH
108-88-3	Toluene	0.93		ug/m ³	0.31	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m ³	0.33	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m ³	0.37	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
79-01-6	Trichloroethylene	ND		ug/m ³	0.11	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-69-4	Trichlorofluoromethane (Freon 11)	1.2		ug/m ³	0.46	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH



Sample Information

Client Sample ID: AA-1_120523

York Sample ID: 23L0226-05

York Project (SDG) No.
23L0226

Client Project ID
100287503

Matrix
Outdoor Ambient Air

Collection Date/Time
December 5, 2023 2:15 pm

Date Received
12/05/2023

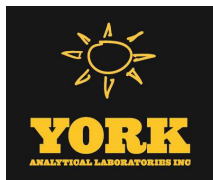
Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes: TO-VAC

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m ³	0.29	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
593-60-2	Vinyl bromide	ND		ug/m ³	0.36	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH
75-01-4	Vinyl Chloride	ND	TO-LCS -L	ug/m ³	0.11	0.826	EPA TO-15 Certifications: NELAC-NY12058,NJDEP-NY037	12/11/2023 10:00	12/12/2023 05:31	VH



Analytical Batch Summary

Batch ID: BL30773 **Preparation Method:** EPA TO15 PREP **Prepared By:** VH

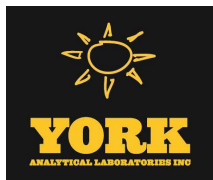
YORK Sample ID	Client Sample ID	Preparation Date
23L0226-01	V2_120523	12/11/23
23L0226-02	V5_120523	12/11/23
23L0226-03	V3_120523	12/11/23
BL30773-BLK1	Blank	12/11/23
BL30773-BS1	LCS	12/11/23
BL30773-DUP1	Duplicate	12/11/23

Batch ID: BL30774 **Preparation Method:** EPA TO15 PREP **Prepared By:** VH

YORK Sample ID	Client Sample ID	Preparation Date
23L0226-05	AA-1_120523	12/11/23
BL30774-BLK1	Blank	12/11/23
BL30774-BS1	LCS	12/11/23

Batch ID: BL30854 **Preparation Method:** EPA TO15 PREP **Prepared By:** YR

YORK Sample ID	Client Sample ID	Preparation Date
23L0226-04	DUP01_120523	12/12/23
BL30854-BLK1	Blank	12/12/23
BL30854-BS1	LCS	12/12/23
BL30854-DUP1	Duplicate	12/12/23



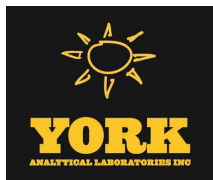
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30773 - EPA TO15 PREP

Blank (BL30773-BLK1)	Blank									Prepared & Analyzed: 12/11/2023
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	1.2	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	0.50	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	"							
n-Heptane	ND	0.41	"							



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

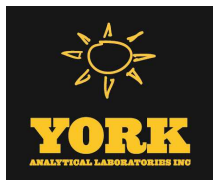
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30773 - EPA TO15 PREP

Blank (BL30773-BLK1)		Blank		Prepared & Analyzed: 12/11/2023							
n-Hexane	ND	0.35	ug/m ³								
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 (BL30773-BS1)		LCS		Prepared & Analyzed: 12/11/2023							
1,1,1,2-Tetrachloroethane	11.0		ppbv	10.0	110	70-130					
1,1,1-Trichloroethane	11.4		"	10.0	114	70-130					
1,1,2,2-Tetrachloroethane	11.3		"	10.0	113	70-130					
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.9		"	10.0	109	70-130					
1,1,2-Trichloroethane	10.6		"	10.0	106	70-130					
1,1-Dichloroethane	11.4		"	10.0	114	70-130					
1,1-Dichloroethylene	11.0		"	10.0	110	70-130					
1,2,4-Trichlorobenzene	12.9		"	10.0	129	70-130					
1,2,4-Trimethylbenzene	12.0		"	10.0	120	70-130					
1,2-Dibromoethane	11.2		"	10.0	112	70-130					
1,2-Dichlorobenzene	12.2		"	10.0	122	70-130					
1,2-Dichloroethane	11.6		"	10.0	116	70-130					
1,2-Dichloropropane	10.5		"	10.0	105	70-130					
1,2-Dichlorotetrafluoroethane	11.5		"	10.0	115	70-130					
1,3,5-Trimethylbenzene	12.2		"	10.0	122	70-130					
1,3-Butadiene	10.9		"	10.0	109	70-130					
1,3-Dichlorobenzene	12.1		"	10.0	121	70-130					
1,3-Dichloropropane	11.0		"	10.0	110	70-130					
1,4-Dichlorobenzene	12.1		"	10.0	121	70-130					
1,4-Dioxane	9.40		"	10.0	94.0	70-130					
2-Butanone	10.8		"	10.0	108	70-130					
2-Hexanone	10.2		"	10.0	102	70-130					
3-Chloropropene	10.8		"	10.0	108	70-130					
4-Methyl-2-pentanone	10.4		"	10.0	104	70-130					
Acetone	10.5		"	10.0	105	70-130					
Acrylonitrile	9.51		"	10.0	95.1	70-130					
Benzene	10.6		"	10.0	106	70-130					
Benzyl chloride	14.1		"	10.0	141	70-130	High Bias				
Bromodichloromethane	11.2		"	10.0	112	70-130					
Bromoform	11.2		"	10.0	112	70-130					
Bromomethane	10.5		"	10.0	105	70-130					
Carbon disulfide	11.5		"	10.0	115	70-130					
Carbon tetrachloride	12.3		"	10.0	123	70-130					



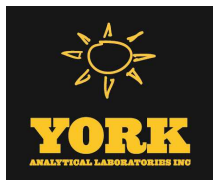
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30773 - EPA TO15 PREP

LCS (BL30773-BS1)	LCS	Prepared & Analyzed: 12/11/2023									
Chlorobenzene	10.9		ppbv	10.0		109	70-130				
Chloroethane	10.6		"	10.0		106	70-130				
Chloroform	11.4		"	10.0		114	70-130				
Chloromethane	10.6		"	10.0		106	70-130				
cis-1,2-Dichloroethylene	9.67		"	10.0		96.7	70-130				
cis-1,3-Dichloropropylene	11.2		"	10.0		112	70-130				
Cyclohexane	10.8		"	10.0		108	70-130				
Dibromochloromethane	10.9		"	10.0		109	70-130				
Dichlorodifluoromethane	11.5		"	10.0		115	70-130				
Ethyl acetate	11.0		"	10.0		110	70-130				
Ethyl Benzene	11.2		"	10.0		112	70-130				
Hexachlorobutadiene	11.2		"	10.0		112	70-130				
Isopropanol	8.85		"	10.0		88.5	70-130				
Methyl Methacrylate	11.5		"	10.0		115	70-130				
Methyl tert-butyl ether (MTBE)	11.2		"	10.0		112	70-130				
Methylene chloride	10.4		"	10.0		104	70-130				
n-Heptane	10.8		"	10.0		108	70-130				
n-Hexane	11.1		"	10.0		111	70-130				
o-Xylene	11.4		"	10.0		114	70-130				
p- & m- Xylenes	22.6		"	20.0		113	70-130				
p-Ethyltoluene	11.8		"	10.0		118	70-130				
Propylene	10.5		"	10.0		105	70-130				
Styrene	12.0		"	10.0		120	70-130				
Tetrachloroethylene	11.0		"	10.0		110	70-130				
Tetrahydrofuran	11.0		"	10.0		110	70-130				
Toluene	10.6		"	10.0		106	70-130				
trans-1,2-Dichloroethylene	11.4		"	10.0		114	70-130				
trans-1,3-Dichloropropylene	11.1		"	10.0		111	70-130				
Trichloroethylene	10.2		"	10.0		102	70-130				
Trichlorofluoromethane (Freon 11)	11.5		"	10.0		115	70-130				
Vinyl acetate	10.9		"	10.0		109	70-130				
Vinyl bromide	10.9		"	10.0		109	70-130				
Vinyl Chloride	9.63		"	10.0		96.3	70-130				



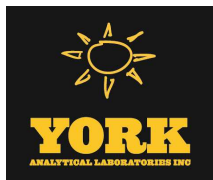
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30773 - EPA TO15 PREP

Duplicate (BL30773-DUP1)	Duplicate	*Source sample: 23L0600-01 (Duplicate)				Prepared & Analyzed: 12/11/2023					
1,1,1,2-Tetrachloroethane	ND	1.0	ug/m ³	ND						25	
1,1,1-Trichloroethane	ND	0.81	"	ND						25	
1,1,2,2-Tetrachloroethane	ND	1.0	"	ND						25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.1	"	ND						25	
1,1,2-Trichloroethane	ND	0.81	"	ND						25	
1,1-Dichloroethane	ND	0.60	"	ND						25	
1,1-Dichloroethylene	ND	0.15	"	ND						25	
1,2,4-Trichlorobenzene	ND	1.1	"	ND						25	
1,2,4-Trimethylbenzene	19	0.73	"	19					0.781	25	
1,2-Dibromoethane	ND	1.1	"	ND						25	
1,2-Dichlorobenzene	ND	0.89	"	ND						25	
1,2-Dichloroethane	ND	0.60	"	ND						25	
1,2-Dichloropropane	ND	0.69	"	ND						25	
1,2-Dichlorotetrafluoroethane	ND	1.0	"	ND						25	
1,3,5-Trimethylbenzene	4.7	0.73	"	4.7					0.00	25	
1,3-Butadiene	ND	0.99	"	ND						25	
1,3-Dichlorobenzene	ND	0.89	"	ND						25	
1,3-Dichloropropane	ND	0.69	"	ND						25	
1,4-Dichlorobenzene	ND	0.89	"	ND						25	
1,4-Dioxane	ND	1.1	"	ND						25	
2-Butanone	28	0.44	"	27					1.11	25	
2-Hexanone	3.5	1.2	"	3.3					5.41	25	
3-Chloropropene	ND	2.3	"	ND						25	
4-Methyl-2-pentanone	1.0	0.61	"	1.2					11.1	25	
Acetone	31	0.71	"	31					0.793	25	
Acrylonitrile	ND	0.32	"	ND						25	
Benzene	4.9	0.48	"	4.7					3.96	25	
Benzyl chloride	ND	0.77	"	ND						25	
Bromodichloromethane	ND	1.0	"	ND						25	
Bromoform	ND	1.5	"	ND						25	
Bromomethane	ND	0.58	"	ND						25	
Carbon disulfide	4.8	0.46	"	4.8					0.966	25	
Carbon tetrachloride	ND	0.23	"	ND						25	
Chlorobenzene	ND	0.68	"	ND						25	
Chloroethane	ND	0.39	"	ND						25	
Chloroform	ND	0.73	"	ND						25	
Chloromethane	ND	0.31	"	ND						25	
cis-1,2-Dichloroethylene	0.18	0.15	"	0.18					0.00	25	
cis-1,3-Dichloropropylene	ND	0.67	"	ND						25	
Cyclohexane	5.4	0.51	"	5.1					4.88	25	
Dibromochloromethane	ND	1.3	"	ND						25	
Dichlorodifluoromethane	3.5	0.74	"	3.5					0.00	25	
Ethyl acetate	ND	1.1	"	ND						25	
Ethyl Benzene	9.6	0.65	"	9.3					2.74	25	
Hexachlorobutadiene	ND	1.6	"	ND						25	
Isopropanol	1.5	0.73	"	1.9					24.2	25	
Methyl Methacrylate	ND	0.61	"	ND						25	
Methyl tert-butyl ether (MTBE)	ND	0.54	"	ND						25	
Methylene chloride	4.3	1.0	"	4.2					2.44	25	
n-Heptane	5.7	0.61	"	5.6					2.15	25	
n-Hexane	9.2	0.52	"	8.9					3.49	25	



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

York Analytical Laboratories, Inc. - Stratford

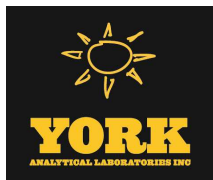
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30773 - EPA TO15 PREP

Duplicate (BL30773-DUP1)	Duplicate	*Source sample: 23L0600-01 (Duplicate)				Prepared & Analyzed: 12/11/2023					
o-Xylene		14	0.65	ug/m ³	14				0.897	25	
p- & m- Xylenes		43	1.3	"	42				1.67	25	
p-Ethyltoluene		16	0.73	"	16				2.26	25	
Propylene		ND	0.26	"	ND					25	
Styrene		ND	0.63	"	ND					25	
Tetrachloroethylene		10	1.0	"	10				2.00	25	
Tetrahydrofuran		ND	0.88	"	ND					25	
Toluene		27	0.56	"	27				0.626	25	
trans-1,2-Dichloroethylene		ND	0.59	"	ND					25	
trans-1,3-Dichloropropylene		ND	0.67	"	ND					25	
Trichloroethylene		ND	0.20	"	0.24					25	
Trichlorofluoromethane (Freon 11)		3.8	0.84	"	3.8				0.00	25	
Vinyl acetate		ND	0.52	"	ND					25	
Vinyl bromide		ND	0.65	"	ND					25	
Vinyl Chloride		ND	0.19	"	ND					25	

Batch BL30774 - EPA TO15 PREP

Blank (BL30774-BLK1)	Blank	Prepared & Analyzed: 12/11/2023									
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		0.30	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	"							



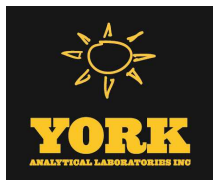
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30774 - EPA TO15 PREP

Blank (BL30774-BLK1)	Blank	Prepared & Analyzed: 12/11/2023									
Carbon tetrachloride	ND	0.16	ug/m ³								
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	"								
n-Heptane	ND	0.41	"								
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	"								



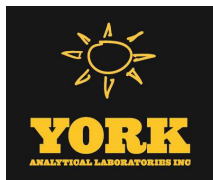
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30774 - EPA TO15 PREP

LCS (BL30774-BS1)	LCS	Prepared & Analyzed: 12/11/2023									
1,1,1,2-Tetrachloroethane	10.6		ppbv	10.0		106	70-130				
1,1,1-Trichloroethane	11.1		"	10.0		111	70-130				
1,1,2,2-Tetrachloroethane	9.85		"	10.0		98.5	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.4		"	10.0		104	70-130				
1,1,2-Trichloroethane	9.93		"	10.0		99.3	70-130				
1,1-Dichloroethane	10.4		"	10.0		104	70-130				
1,1-Dichloroethylene	11.0		"	10.0		110	70-130				
1,2,4-Trichlorobenzene	6.36		"	10.0		63.6	70-130	Low Bias			
1,2,4-Trimethylbenzene	10.7		"	10.0		107	70-130				
1,2-Dibromoethane	10.4		"	10.0		104	70-130				
1,2-Dichlorobenzene	10.8		"	10.0		108	70-130				
1,2-Dichloroethane	10.9		"	10.0		109	70-130				
1,2-Dichloropropane	9.65		"	10.0		96.5	70-130				
1,2-Dichlorotetrafluoroethane	8.13		"	10.0		81.3	70-130				
1,3,5-Trimethylbenzene	10.4		"	10.0		104	70-130				
1,3-Butadiene	8.01		"	10.0		80.1	70-130				
1,3-Dichlorobenzene	9.05		"	10.0		90.5	70-130				
1,3-Dichloropropane	10.0		"	10.0		100	70-130				
1,4-Dichlorobenzene	9.04		"	10.0		90.4	70-130				
1,4-Dioxane	8.50		"	10.0		85.0	70-130				
2-Butanone	9.89		"	10.0		98.9	70-130				
2-Hexanone	9.54		"	10.0		95.4	70-130				
3-Chloropropene	10.6		"	10.0		106	70-130				
4-Methyl-2-pentanone	9.95		"	10.0		99.5	70-130				
Acetone	10.0		"	10.0		100	70-130				
Acrylonitrile	9.71		"	10.0		97.1	70-130				
Benzene	10.5		"	10.0		105	70-130				
Benzyl chloride	8.71		"	10.0		87.1	70-130				
Bromodichloromethane	10.5		"	10.0		105	70-130				
Bromoform	11.9		"	10.0		119	70-130				
Bromomethane	8.15		"	10.0		81.5	70-130				
Carbon disulfide	10.4		"	10.0		104	70-130				
Carbon tetrachloride	12.0		"	10.0		120	70-130				
Chlorobenzene	10.3		"	10.0		103	70-130				
Chloroethane	11.4		"	10.0		114	70-130				
Chloroform	10.7		"	10.0		107	70-130				
Chloromethane	7.46		"	10.0		74.6	70-130				
cis-1,2-Dichloroethylene	10.9		"	10.0		109	70-130				
cis-1,3-Dichloropropylene	10.5		"	10.0		105	70-130				
Cyclohexane	10.8		"	10.0		108	70-130				
Dibromochloromethane	11.1		"	10.0		111	70-130				
Dichlorodifluoromethane	10.3		"	10.0		103	70-130				
Ethyl acetate	9.78		"	10.0		97.8	70-130				
Ethyl Benzene	10.6		"	10.0		106	70-130				
Hexachlorobutadiene	6.55		"	10.0		65.5	70-130	Low Bias			
Isopropanol	9.84		"	10.0		98.4	70-130				
Methyl Methacrylate	10.5		"	10.0		105	70-130				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0		116	70-130				
Methylene chloride	9.59		"	10.0		95.9	70-130				
n-Heptane	10.7		"	10.0		107	70-130				
n-Hexane	10.5		"	10.0		105	70-130				



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

York Analytical Laboratories, Inc. - Stratford

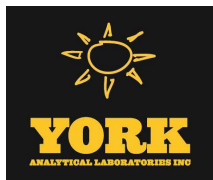
Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30774 - EPA TO15 PREP

LCS (BL30774-BS1)	LCS	Prepared & Analyzed: 12/11/2023									
o-Xylene	10.9		ppbv	10.0		109	70-130				
p- & m- Xylenes	21.7		"	20.0		108	70-130				
p-Ethyltoluene	11.3		"	10.0		113	70-130				
Propylene	9.54		"	10.0		95.4	70-130				
Styrene	11.7		"	10.0		117	70-130				
Tetrachloroethylene	10.3		"	10.0		103	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	9.84		"	10.0		98.4	70-130				
trans-1,2-Dichloroethylene	10.7		"	10.0		107	70-130				
trans-1,3-Dichloropropylene	10.7		"	10.0		107	70-130				
Trichloroethylene	10.6		"	10.0		106	70-130				
Trichlorofluoromethane (Freon 11)	10.6		"	10.0		106	70-130				
Vinyl acetate	10.2		"	10.0		102	70-130				
Vinyl bromide	10.6		"	10.0		106	70-130				
Vinyl Chloride	6.98		"	10.0		69.8	70-130	Low Bias			

Batch BL30854 - EPA TO15 PREP

Blank (BL30854-BLK1)	Blank	Prepared & Analyzed: 12/12/2023									
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	"								



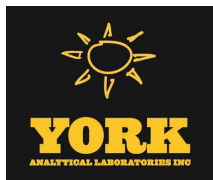
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30854 - EPA TO15 PREP

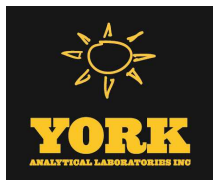
Blank (BL30854-BLK1)	Blank		Prepared & Analyzed: 12/12/2023							
Carbon tetrachloride	ND	0.16	ug/m ³							
Chlorobenzene	ND	0.46	"							
Chloroethane	ND	0.26	"							
Chloroform	ND	0.49	"							
Chloromethane	ND	0.21	"							
cis-1,2-Dichloroethylene	ND	0.099	"							
cis-1,3-Dichloropropylene	ND	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	0.61	0.49	"							
Methyl Methacrylate	ND	0.41	"							
Methyl tert-butyl ether (MTBE)	ND	0.36	"							
Methylene chloride	ND	0.69	"							
n-Heptane	ND	0.41	"							
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	"							



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 BL30854 - EPA TO15 PREP											
LCS (BL30854-BS1)	LCS		Prepared & Analyzed: 12/12/2023								
1,1,1,2-Tetrachloroethane	11.0		ppbv	10.0		110	70-130				
1,1,1-Trichloroethane	11.1		"	10.0		111	70-130				
1,1,2,2-Tetrachloroethane	11.0		"	10.0		110	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.5		"	10.0		105	70-130				
1,1,2-Trichloroethane	10.7		"	10.0		107	70-130				
1,1-Dichloroethane	10.1		"	10.0		101	70-130				
1,1-Dichloroethylene	11.1		"	10.0		111	70-130				
1,2,4-Trichlorobenzene	6.93		"	10.0		69.3	70-130	Low Bias			
1,2,4-Trimethylbenzene	11.6		"	10.0		116	70-130				
1,2-Dibromoethane	10.8		"	10.0		108	70-130				
1,2-Dichlorobenzene	11.4		"	10.0		114	70-130				
1,2-Dichloroethane	10.6		"	10.0		106	70-130				
1,2-Dichloropropane	10.4		"	10.0		104	70-130				
1,2-Dichlorotetrafluoroethane	8.94		"	10.0		89.4	70-130				
1,3,5-Trimethylbenzene	11.3		"	10.0		113	70-130				
1,3-Butadiene	7.52		"	10.0		75.2	70-130				
1,3-Dichlorobenzene	9.66		"	10.0		96.6	70-130				
1,3-Dichloropropane	10.4		"	10.0		104	70-130				
1,4-Dichlorobenzene	9.56		"	10.0		95.6	70-130				
1,4-Dioxane	10.4		"	10.0		104	70-130				
2-Butanone	10.1		"	10.0		101	70-130				
2-Hexanone	11.0		"	10.0		110	70-130				
3-Chloropropene	11.2		"	10.0		112	70-130				
4-Methyl-2-pentanone	10.8		"	10.0		108	70-130				
Acetone	10.2		"	10.0		102	70-130				
Acrylonitrile	10.2		"	10.0		102	70-130				
Benzene	10.5		"	10.0		105	70-130				
Benzyl chloride	9.88		"	10.0		98.8	70-130				
Bromodichloromethane	11.1		"	10.0		111	70-130				
Bromoform	11.9		"	10.0		119	70-130				
Bromomethane	10.8		"	10.0		108	70-130				
Carbon disulfide	10.1		"	10.0		101	70-130				
Carbon tetrachloride	11.8		"	10.0		118	70-130				
Chlorobenzene	10.4		"	10.0		104	70-130				
Chloroethane	12.4		"	10.0		124	70-130				
Chloroform	10.6		"	10.0		106	70-130				
Chloromethane	6.96		"	10.0		69.6	70-130	Low Bias			
cis-1,2-Dichloroethylene	10.9		"	10.0		109	70-130				
cis-1,3-Dichloropropylene	11.4		"	10.0		114	70-130				
Cyclohexane	10.9		"	10.0		109	70-130				
Dibromochloromethane	11.1		"	10.0		111	70-130				
Dichlorodifluoromethane	10.6		"	10.0		106	70-130				
Ethyl acetate	10.2		"	10.0		102	70-130				
Ethyl Benzene	11.0		"	10.0		110	70-130				
Hexachlorobutadiene	6.97		"	10.0		69.7	70-130	Low Bias			
Isopropanol	9.68		"	10.0		96.8	70-130				
Methyl Methacrylate	11.2		"	10.0		112	70-130				
Methyl tert-butyl ether (MTBE)	11.3		"	10.0		113	70-130				
Methylene chloride	10.0		"	10.0		100	70-130				
n-Heptane	11.0		"	10.0		110	70-130				
n-Hexane	10.6		"	10.0		106	70-130				



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

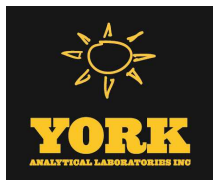
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	Limit	Flag
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Batch BL30854 - EPA TO15 PREP

LCS (BL30854-BS1)	LCS	Prepared & Analyzed: 12/12/2023									
o-Xylene	11.6		ppbv	10.0		116	70-130				
p- & m- Xylenes	22.9		"	20.0		114	70-130				
p-Ethyltoluene	12.1		"	10.0		121	70-130				
Propylene	10.1		"	10.0		101	70-130				
Styrene	12.3		"	10.0		123	70-130				
Tetrachloroethylene	10.5		"	10.0		105	70-130				
Tetrahydrofuran	10.3		"	10.0		103	70-130				
Toluene	10.0		"	10.0		100	70-130				
trans-1,2-Dichloroethylene	10.9		"	10.0		109	70-130				
trans-1,3-Dichloropropylene	11.5		"	10.0		115	70-130				
Trichloroethylene	10.7		"	10.0		107	70-130				
Trichlorofluoromethane (Freon 11)	10.8		"	10.0		108	70-130				
Vinyl acetate	10.4		"	10.0		104	70-130				
Vinyl bromide	10.8		"	10.0		108	70-130				
Vinyl Chloride	6.68		"	10.0		66.8	70-130	Low Bias			

Duplicate (BL30854-DUP1)	Duplicate	*Source sample: 23L0129-06 (Duplicate)									
1,1,1,2-Tetrachloroethane	ND	1.2	ug/m ³		ND						25
1,1,1-Trichloroethane	2.1	0.92	"		1.9				9.09		25
1,1,2,2-Tetrachloroethane	ND	1.2	"		ND						25
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.3	"		ND						25
1,1,2-Trichloroethane	ND	0.92	"		ND						25
1,1-Dichloroethane	ND	0.69	"		ND						25
1,1-Dichloroethylene	ND	0.17	"		ND						25
1,2,4-Trichlorobenzene	ND	1.3	"		ND						25
1,2,4-Trimethylbenzene	2.8	0.83	"		3.2				13.7		25
1,2-Dibromoethane	ND	1.3	"		ND						25
1,2-Dichlorobenzene	ND	1.0	"		ND						25
1,2-Dichloroethane	ND	0.69	"		ND						25
1,2-Dichloropropane	ND	0.78	"		ND						25
1,2-Dichlorotetrafluoroethane	ND	1.2	"		ND						25
1,3,5-Trimethylbenzene	ND	0.83	"		ND						25
1,3-Butadiene	ND	1.1	"		ND						25
1,3-Dichlorobenzene	ND	1.0	"		ND						25
1,3-Dichloropropane	ND	0.78	"		ND						25
1,4-Dichlorobenzene	ND	1.0	"		ND						25
1,4-Dioxane	ND	1.2	"		ND						25
2-Butanone	4.3	0.50	"		4.3				0.00		25
2-Hexanone	ND	1.4	"		ND						25
3-Chloropropene	ND	2.7	"		ND						25
4-Methyl-2-pentanone	ND	0.69	"		ND						25
Acetone	5.0	0.81	"		4.9				3.25		25
Acrylonitrile	ND	0.37	"		ND						25
Benzene	ND	0.54	"		ND						25
Benzyl chloride	19	0.88	"		21				10.5		25
Bromodichloromethane	ND	1.1	"		ND						25
Bromoform	ND	1.8	"		ND						25
Bromomethane	ND	0.66	"		ND						25
Carbon disulfide	ND	0.53	"		ND						25
Carbon tetrachloride	0.32	0.27	"		0.32				0.00		25
Chlorobenzene	ND	0.78	"		ND						25



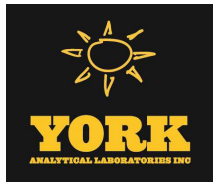
Volatile Organic Compounds in Air by GC/MS - Quality Control Data

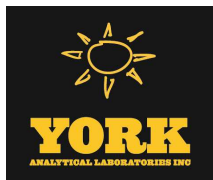
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BL30854 - EPA TO15 PREP

Duplicate (BL30854-DUP1)	Duplicate	*Source sample: 23L0129-06 (Duplicate)				Prepared: 12/12/2023 Analyzed: 12/13/2023					
Chloroethane	ND	0.45	ug/m ³	ND						25	
Chloroform	ND	0.83	"	ND						25	
Chloromethane	ND	0.35	"	ND						25	
cis-1,2-Dichloroethylene	ND	0.17	"	ND						25	
cis-1,3-Dichloropropylene	ND	0.77	"	ND						25	
Cyclohexane	ND	0.58	"	ND						25	
Dibromochloromethane	ND	1.4	"	ND						25	
Dichlorodifluoromethane	2.4	0.84	"	2.2					10.9	25	
Ethyl acetate	ND	1.2	"	ND						25	
Ethyl Benzene	1.3	0.74	"	1.4					5.41	25	
Hexachlorobutadiene	ND	1.8	"	ND						25	
Isopropanol	2.2	0.83	"	2.2					1.87	25	
Methyl Methacrylate	ND	0.69	"	ND						25	
Methyl tert-butyl ether (MTBE)	ND	0.61	"	ND						25	
Methylene chloride	ND	1.2	"	ND						25	
n-Heptane	ND	0.69	"	ND						25	
n-Hexane	ND	0.60	"	ND						25	
o-Xylene	2.0	0.74	"	1.9					3.77	25	
p- & m- Xylenes	5.5	1.5	"	5.4					1.34	25	
p-Ethyltoluene	2.3	0.83	"	2.3					0.00	25	
Propylene	0.50	0.29	"	0.50					0.00	25	
Styrene	1.1	0.72	"	1.2					6.45	25	
Tetrachloroethylene	2.1	1.1	"	2.0					5.71	25	
Tetrahydrofuran	ND	1.0	"	ND						25	
Toluene	4.2	0.64	"	4.2					0.00	25	
trans-1,2-Dichloroethylene	ND	0.67	"	ND						25	
trans-1,3-Dichloropropylene	ND	0.77	"	ND						25	
Trichloroethylene	ND	0.23	"	ND						25	
Trichlorofluoromethane (Freon 11)	ND	0.95	"	ND						25	
Vinyl acetate	ND	0.60	"	ND						25	
Vinyl bromide	ND	0.74	"	ND						25	
Vinyl Chloride	ND	0.22	"	ND						25	





Sample and Data Qualifiers Relating to This Work Order

TO-VAC	The final vacuum in the canister was less than -2 inches Hg vacuum. The time integrated sampling may be affected and not reflect proper sampling over the time period. The data user should take note.
TO-LCS-L	The result reported for this compound may be biased low due to its behavior in the analysis batch LCS where it recovered less 70% of the expected value.
TO-CCV	The value reported is ESTIMATED for this compound due to its behavior during continuing calibration verification (>30% Difference from initial calibration).
ICVE	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.



2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

ATTACHMENT C

Data Usability Summary Report

1 University Square Drive Princeton, NJ 08540 T: 609.282.8000
Mailing Address: 1 University Square Drive Princeton, NJ 08540

To: Allyson Kritzer, Langan Project Engineer
From: Joe Conboy, Langan Senior Staff Chemist
Date: February 13, 2024
Re: Data Usability Summary Report
For 365 Bond Street – Year 8
December 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of air samples collected in December 2023 by Langan Engineering and Environmental Services at the 365 Bond Street site. The samples were analyzed by York Analytical Laboratories, Inc. (NYSDOH NELAP registration # 10854 and 12058) for volatile organic compounds (VOCs) by the methods specified below.

- VOCs by USEPA Method TO-15

Table 1, attached, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

Validation Overview

This data validation was performed in accordance with the following guidelines, where applicable:

- USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15" (September 2016, Revision 6),
- USEPA Contract Laboratory Program "National Functional Guidelines for Organic Superfund Methods Data Review" (EPA 540- R-20-005, November 2020), and
- published analytical methodologies.

Validation includes review of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator.

Tier 1 data validation is based on completeness and compliance checks of sample-related QC results including: sample receipt documentation; analytical holding times; sample preservation; blank results (method, field, and trip); surrogate recoveries; MS/MSD recoveries and RPDs

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street – Year 8
December 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
February 13, 2024 Page 2 of 4

values; field duplicate RPDs, laboratory duplicate RPDs, and LCS/LCSD recoveries and RPDs. The SDG 23L0226 underwent Tier 1 validation review.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- R** – The sample results are unusable because certain criteria were not met when generating the data. The analyte may or may not be present in the sample.
- J** – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ** – The analyte was not detected at a level greater than or equal to the reporting limit; however, the reported reporting limit is approximate and may be inaccurate or imprecise.
- U** – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- NJ** – The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are considered invalid and are not technically usable for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified in Table 2 (attached).

The following acronyms may be used in the discussion of data-quality issues:

%D	Percent Difference	MB	Method Blank
CCV	Continuing Calibration Verification	MDL	Method Detection Limit
FB	Field Blank	MS	Matrix Spike
FD	Field Duplicate	MSD	Matrix Spike Duplicate
ICAL	Initial Calibration	RF	Response Factor
ICV	Initial Calibration Verification	RL	Reporting Limit
ISTD	Internal Standard	RPD	Relative Percent Difference
LCL	Lower Control Limit	RSD	Relative Standard Deviation
LCS	Laboratory Control Sample	TB	Trip Blank
LCSD	Laboratory Control Sample Duplicate	UCL	Upper Control Limit

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street – Year 8
December 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
February 13, 2024 Page 3 of 4

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA Method TO-15:

23L0226

The MB for batch BL30854 exhibited a detection of isopropanol (0.61 ug/m³). The associated results in sample DUP01_120523 are qualified as J because of potential blank contamination.

The LCS for batch BL30774 exhibited percent recoveries below the LCL for 1,2,4-trichlorobenzene (63.6%), vinyl chloride (69.8%), and hexachlorobutadiene (65.5%). The associated results in sample Ambient-1_120523 are qualified as UJ because of potential low bias.

The LCS for batch BL30854 exhibited percent recoveries below the LCL for 1,2,4-trichlorobenzene (69.3%), chloromethane (69.6%), vinyl chloride (66.8%), and hexachlorobutadiene (69.7%). The associated results in sample DUP01_120523 are qualified as J or UJ because of potential low bias.

Samples V2_120523 and DUP01_120523 exhibited a laboratory-measured receipt pressure above -2 in. Hg (-0.84 in. Hg and -0.13 in Hg). The associated results are qualified as J or UJ because of potential indeterminate bias.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by USEPA Method TO-15:

23L0226

The MB for batch BL30773 exhibited detections of acrylonitrile (0.50 ug/m³) and 1,2,4-trichlorobenzene (1.2 ug/m³). The associated results are non-detect. No qualification is necessary.

Technical Memorandum

Data Usability Summary Report
For 365 Bond Street – Year 8
December 2023 Soil Vapor and Ambient Air Samples
Langan Project No.: 100287503
February 13, 2024 Page 4 of 4

The MB for batch BL30774 exhibited a detection of acrylonitrile (0.30 ug/m3). The associated results are non-detect. No qualification is necessary.

The LCS for batch BL30773 exhibited a percent recovery above the UCL for benzyl chloride (141%). The associated results are non-detect. No qualification is necessary.

The MB for batch BK31954 (5970) exhibited a detection of acrylonitrile (309 ug/m3). The associated results are non-detect. No qualification is necessary.

FIELD DUPLICATE:

One field duplicate and parent sample pair was collected and analyzed for all parameters. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than $\pm 1X$ the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 30% for vapor. The following field duplicate and parent sample pair was compared to precision criteria:

- DUP01_120523 and V3_120523

The field duplicate and parent sample (DUP01_120523 and V3_120523) exhibited absolute differences above the RL for chloromethane (0.9 ug/m3), cis-1,2-dichloroethylene (0.15 ug/m3), isopropanol (3 ug/m3), 2-butanone (0.6 ug/m3), and tetrachloroethylene (1.2 ug/m3). The associated results are qualified as J or UJ because of potential indeterminate bias.

CONCLUSION:

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All of the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:



Joe Conboy
Senior Staff Chemist

Data Usability Summary Report
For 365 Bond Street
December 2023 Soil Vapor and Ambient Air Samples
Table 1: Sample Summary

SDG	Lab Sample ID	Client Sample ID	Sample Date	Validation Level	Analytical Parameters
23L0226	23L0226-01	V2_120523	12/5/2023	Tier 1	VOCs by TO-15
23L0226	23L0226-02	V5_120523	12/5/2023	Tier 1	VOCs by TO-15
23L0226	23L0226-03	V3_120523	12/5/2023	Tier 1	VOCs by TO-15
23L0226	23L0226-04	DUP01_120523	12/5/2023	Tier 1	VOCs by TO-15
23L0226	23L0226-05	Ambient-1_120523	12/5/2023	Tier 1	VOCs by TO-15

Data Usability Summary Report
For 365 Bond Street
December 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
Ambient-1_120523	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
Ambient-1_120523	TO15	74-87-3	Chloromethane (Methyl Chloride)	J
Ambient-1_120523	TO15	87-68-3	Hexachlorobutadiene	UJ
Ambient-1_120523	TO15	75-01-4	Vinyl Chloride	UJ
DUP01_120523	TO15	630-20-6	1,1,1,2-Tetrachloroethane	UJ
DUP01_120523	TO15	71-55-6	1,1,1-Trichloroethane (TCA)	UJ
DUP01_120523	TO15	79-34-5	1,1,2,2-Tetrachloroethane	UJ
DUP01_120523	TO15	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	UJ
DUP01_120523	TO15	79-00-5	1,1,2-Trichloroethane	UJ
DUP01_120523	TO15	75-34-3	1,1-Dichloroethane	UJ
DUP01_120523	TO15	75-35-4	1,1-Dichloroethene	UJ
DUP01_120523	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
DUP01_120523	TO15	95-63-6	1,2,4-Trimethylbenzene	J
DUP01_120523	TO15	106-93-4	1,2-Dibromoethane (Ethylene Dibromide)	UJ
DUP01_120523	TO15	95-50-1	1,2-Dichlorobenzene	UJ
DUP01_120523	TO15	107-06-2	1,2-Dichloroethane	UJ
DUP01_120523	TO15	78-87-5	1,2-Dichloropropane	UJ
DUP01_120523	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	UJ
DUP01_120523	TO15	108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	J
DUP01_120523	TO15	106-99-0	1,3-Butadiene	UJ
DUP01_120523	TO15	541-73-1	1,3-Dichlorobenzene	UJ
DUP01_120523	TO15	142-28-9	1,3-Dichloropropane	UJ
DUP01_120523	TO15	106-46-7	1,4-Dichlorobenzene	UJ
DUP01_120523	TO15	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
DUP01_120523	TO15	591-78-6	2-Hexanone	UJ
DUP01_120523	TO15	622-96-8	4-Ethyltoluene	J
DUP01_120523	TO15	67-64-1	Acetone	J
DUP01_120523	TO15	107-13-1	Acrylonitrile	UJ
DUP01_120523	TO15	107-05-1	Allyl Chloride (3-Chloropropene)	UJ
DUP01_120523	TO15	71-43-2	Benzene	J
DUP01_120523	TO15	100-44-7	Benzyl Chloride	UJ
DUP01_120523	TO15	75-27-4	Bromodichloromethane	UJ
DUP01_120523	TO15	75-25-2	Bromoform	UJ
DUP01_120523	TO15	74-83-9	Bromomethane	UJ
DUP01_120523	TO15	75-15-0	Carbon Disulfide	UJ
DUP01_120523	TO15	56-23-5	Carbon Tetrachloride	J
DUP01_120523	TO15	108-90-7	Chlorobenzene	UJ
DUP01_120523	TO15	75-00-3	Chloroethane	UJ
DUP01_120523	TO15	67-66-3	Chloroform	UJ
DUP01_120523	TO15	74-87-3	Chloromethane (Methyl Chloride)	J
DUP01_120523	TO15	156-59-2	Cis-1,2-Dichloroethylene	J
DUP01_120523	TO15	10061-01-5	Cis-1,3-Dichloropropene	UJ
DUP01_120523	TO15	110-82-7	Cyclohexane	J

Data Usability Summary Report
For 365 Bond Street
December 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
DUP01_120523	TO15	124-48-1	Dibromochloromethane	UJ
DUP01_120523	TO15	75-71-8	Dichlorodifluoromethane	J
DUP01_120523	TO15	141-78-6	Ethyl Acetate	UJ
DUP01_120523	TO15	100-41-4	Ethylbenzene	J
DUP01_120523	TO15	87-68-3	Hexachlorobutadiene	UJ
DUP01_120523	TO15	67-63-0	Isopropanol	J
DUP01_120523	TO15	179601-23-1	m,p-Xylene	J
DUP01_120523	TO15	78-93-3	Methyl Ethyl Ketone (2-Butanone)	J
DUP01_120523	TO15	108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	J
DUP01_120523	TO15	80-62-6	Methyl Methacrylate	UJ
DUP01_120523	TO15	75-09-2	Methylene Chloride	UJ
DUP01_120523	TO15	142-82-5	N-Heptane	UJ
DUP01_120523	TO15	110-54-3	N-Hexane	J
DUP01_120523	TO15	95-47-6	O-Xylene (1,2-Dimethylbenzene)	J
DUP01_120523	TO15	115-07-1	Propylene	J
DUP01_120523	TO15	100-42-5	Styrene	UJ
DUP01_120523	TO15	1634-04-4	Tert-Butyl Methyl Ether	UJ
DUP01_120523	TO15	127-18-4	Tetrachloroethylene (PCE)	J
DUP01_120523	TO15	109-99-9	Tetrahydrofuran	J
DUP01_120523	TO15	108-88-3	Toluene	J
DUP01_120523	TO15	156-60-5	Trans-1,2-Dichloroethene	UJ
DUP01_120523	TO15	10061-02-6	Trans-1,3-Dichloropropene	UJ
DUP01_120523	TO15	79-01-6	Trichloroethylene (TCE)	J
DUP01_120523	TO15	75-69-4	Trichlorofluoromethane	J
DUP01_120523	TO15	108-05-4	Vinyl Acetate	UJ
DUP01_120523	TO15	593-60-2	Vinyl Bromide	UJ
DUP01_120523	TO15	75-01-4	Vinyl Chloride	UJ
V2_120523	TO15	630-20-6	1,1,1,2-Tetrachloroethane	UJ
V2_120523	TO15	71-55-6	1,1,1-Trichloroethane (TCA)	UJ
V2_120523	TO15	79-34-5	1,1,2,2-Tetrachloroethane	UJ
V2_120523	TO15	76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane	UJ
V2_120523	TO15	79-00-5	1,1,2-Trichloroethane	UJ
V2_120523	TO15	75-34-3	1,1-Dichloroethane	UJ
V2_120523	TO15	75-35-4	1,1-Dichloroethene	UJ
V2_120523	TO15	120-82-1	1,2,4-Trichlorobenzene	UJ
V2_120523	TO15	95-63-6	1,2,4-Trimethylbenzene	J
V2_120523	TO15	106-93-4	1,2-Dibromoethane (Ethylene Dibromide)	UJ
V2_120523	TO15	95-50-1	1,2-Dichlorobenzene	UJ
V2_120523	TO15	107-06-2	1,2-Dichloroethane	UJ
V2_120523	TO15	78-87-5	1,2-Dichloropropane	UJ
V2_120523	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	UJ
V2_120523	TO15	108-67-8	1,3,5-Trimethylbenzene (Mesitylene)	J
V2_120523	TO15	106-99-0	1,3-Butadiene	UJ

Data Usability Summary Report
For 365 Bond Street
December 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
V2_120523	TO15	541-73-1	1,3-Dichlorobenzene	UJ
V2_120523	TO15	142-28-9	1,3-Dichloropropane	UJ
V2_120523	TO15	106-46-7	1,4-Dichlorobenzene	UJ
V2_120523	TO15	123-91-1	1,4-Dioxane (P-Dioxane)	UJ
V2_120523	TO15	591-78-6	2-Hexanone	UJ
V2_120523	TO15	622-96-8	4-Ethyltoluene	J
V2_120523	TO15	67-64-1	Acetone	J
V2_120523	TO15	107-13-1	Acrylonitrile	UJ
V2_120523	TO15	107-05-1	Allyl Chloride (3-Chloropropene)	UJ
V2_120523	TO15	71-43-2	Benzene	J
V2_120523	TO15	100-44-7	Benzyl Chloride	UJ
V2_120523	TO15	75-27-4	Bromodichloromethane	UJ
V2_120523	TO15	75-25-2	Bromoform	UJ
V2_120523	TO15	74-83-9	Bromomethane	UJ
V2_120523	TO15	75-15-0	Carbon Disulfide	UJ
V2_120523	TO15	56-23-5	Carbon Tetrachloride	J
V2_120523	TO15	108-90-7	Chlorobenzene	UJ
V2_120523	TO15	75-00-3	Chloroethane	UJ
V2_120523	TO15	67-66-3	Chloroform	J
V2_120523	TO15	74-87-3	Chloromethane (Methyl Chloride)	J
V2_120523	TO15	156-59-2	Cis-1,2-Dichloroethylene	J
V2_120523	TO15	10061-01-5	Cis-1,3-Dichloropropene	UJ
V2_120523	TO15	110-82-7	Cyclohexane	J
V2_120523	TO15	124-48-1	Dibromochloromethane	UJ
V2_120523	TO15	75-71-8	Dichlorodifluoromethane	J
V2_120523	TO15	141-78-6	Ethyl Acetate	UJ
V2_120523	TO15	100-41-4	Ethylbenzene	J
V2_120523	TO15	87-68-3	Hexachlorobutadiene	UJ
V2_120523	TO15	67-63-0	Isopropanol	J
V2_120523	TO15	179601-23-1	m,p-Xylene	J
V2_120523	TO15	78-93-3	Methyl Ethyl Ketone (2-Butanone)	J
V2_120523	TO15	108-10-1	Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	J
V2_120523	TO15	80-62-6	Methyl Methacrylate	UJ
V2_120523	TO15	75-09-2	Methylene Chloride	UJ
V2_120523	TO15	142-82-5	N-Heptane	J
V2_120523	TO15	110-54-3	N-Hexane	J
V2_120523	TO15	95-47-6	O-Xylene (1,2-Dimethylbenzene)	J
V2_120523	TO15	115-07-1	Propylene	UJ
V2_120523	TO15	100-42-5	Styrene	UJ
V2_120523	TO15	1634-04-4	Tert-Butyl Methyl Ether	UJ
V2_120523	TO15	127-18-4	Tetrachloroethylene (PCE)	J
V2_120523	TO15	109-99-9	Tetrahydrofuran	J
V2_120523	TO15	108-88-3	Toluene	J

Data Usability Summary Report
For 365 Bond Street
December 2023 Soil Vapor and Ambient Air Samples
Table 2: Validator-Applied Qualification

Client Sample ID	Analysis	CAS #	Analyte	Validator Qualifier
V2_120523	TO15	156-60-5	Trans-1,2-Dichloroethene	UJ
V2_120523	TO15	10061-02-6	Trans-1,3-Dichloropropene	UJ
V2_120523	TO15	79-01-6	Trichloroethylene (TCE)	J
V2_120523	TO15	75-69-4	Trichlorofluoromethane	J
V2_120523	TO15	108-05-4	Vinyl Acetate	UJ
V2_120523	TO15	593-60-2	Vinyl Bromide	UJ
V2_120523	TO15	75-01-4	Vinyl Chloride	UJ
V3_120523	TO15	74-87-3	Chloromethane (Methyl Chloride)	J
V3_120523	TO15	156-59-2	Cis-1,2-Dichloroethylene	J
V3_120523	TO15	67-63-0	Isopropanol	J
V3_120523	TO15	78-93-3	Methyl Ethyl Ketone (2-Butanone)	J
V3_120523	TO15	127-18-4	Tetrachloroethylene (PCE)	UJ

APPENDIX C

Site Inspection Forms and Photographic Documentation

COMPOSITE COVER SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street

Location: Brooklyn, NY

Project Number: 100287501

Inspector Name: Esther Arthur

Date: 6/20/2022

Weather Conditions: Clear, 60s -70s°F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site is occupied by a five- to twelve- story mixed-use commercial/residential building with a partial basement.
2	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
3	If YES to number 3, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?	--	--	--	--	
	Subgrade Parking Area Slab/First Floor Slab					
4	Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
5	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Outdoor Paving/Sidewalks					
6	Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
7	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Landscaped Areas					
8	Is there adequate top soil cover present? (i.e. Is the underlying demarcation adequately covered?)	X				
9	Are there any signs of erosion?		X			

**

If the answer to any of the above questions indicate non-compliance with ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks:

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: 1st Street sidewalk, facing southeast. 20 June 2022.



Photo 2: 2nd Street sidewalk, facing northwest. 20 June 2022.



Photo 3: Bond Street sidewalk, facing southwest. 20 June 2022.



Photo 4: Paved and landscaped eastern esplanade areas, facing southwest.



Photo 5: Paved and landscaped esplanade areas, facing southwest. 20 June 2022.



Photo 6: Sidewalk on 1st Street and landscaped esplanade area, facing south. 20 June 2022.



Photo 7: Sidewalk on 2nd Street and entrance into east esplanade area, facing northeast. 30 March 2021.

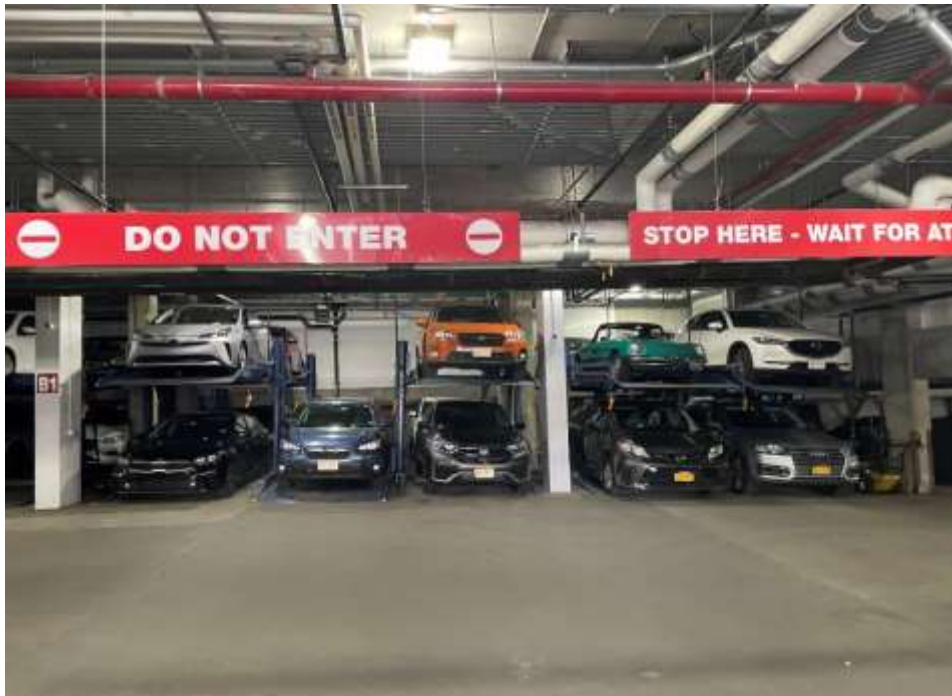


Photo 8: Subgrade parking garage entrance on 2nd Street, facing north. 20 June 2022.



Photo 9: Typical hairline/surficial crack observed, facing north. Cracks did not breach to the subsurface. 20 June 2022.



Photo 10: Subgrade parking garage concrete slab, facing northwest. 20 June 2022.



Photo 11: Subgrade parking garage concrete slab, facing southeast. 20 June 2022.

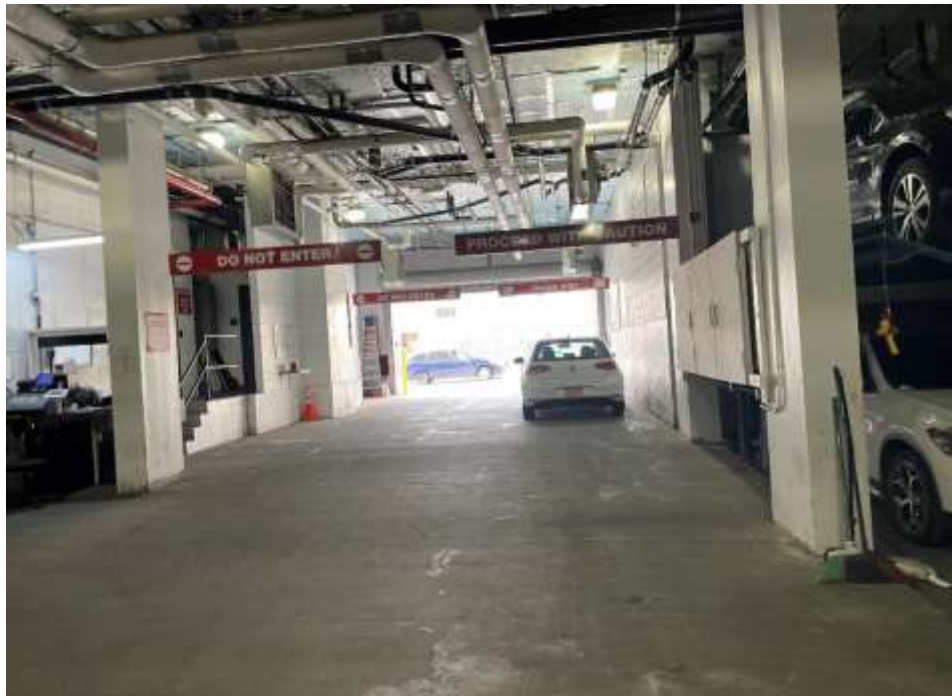


Photo 12: Subgrade parking garage concrete slab, facing north. 20 June 2022.



Photo 13: Subgrade parking garage foundation wall (beneath the first floor), facing northwest. 20 June 2022.



Photo 14: Concrete slab in subgrade boat house located within the southern portion of the building, facing northwest. 20 June 2022.



Photo 15: First floor concrete slab covered in tile flooring within the commercial space, facing northwest. 20 June 2022.

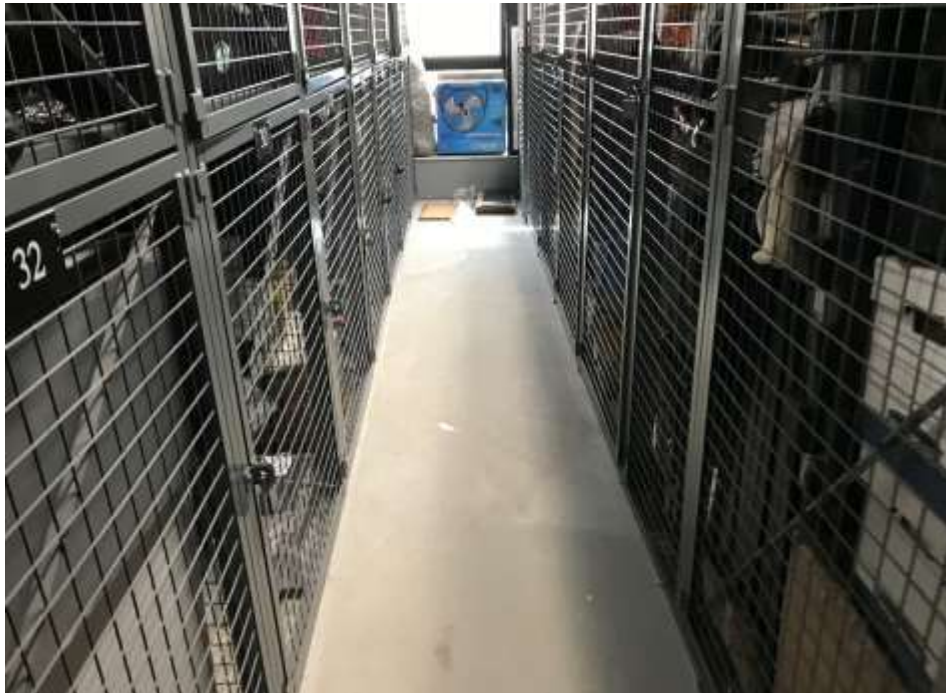


Photo 16: First floor concrete slab in tenant storage space, facing southwest. 20 June 2022.



Photo 17: First floor concrete slab covered with carpet, facing northwest. 20 June 2022.

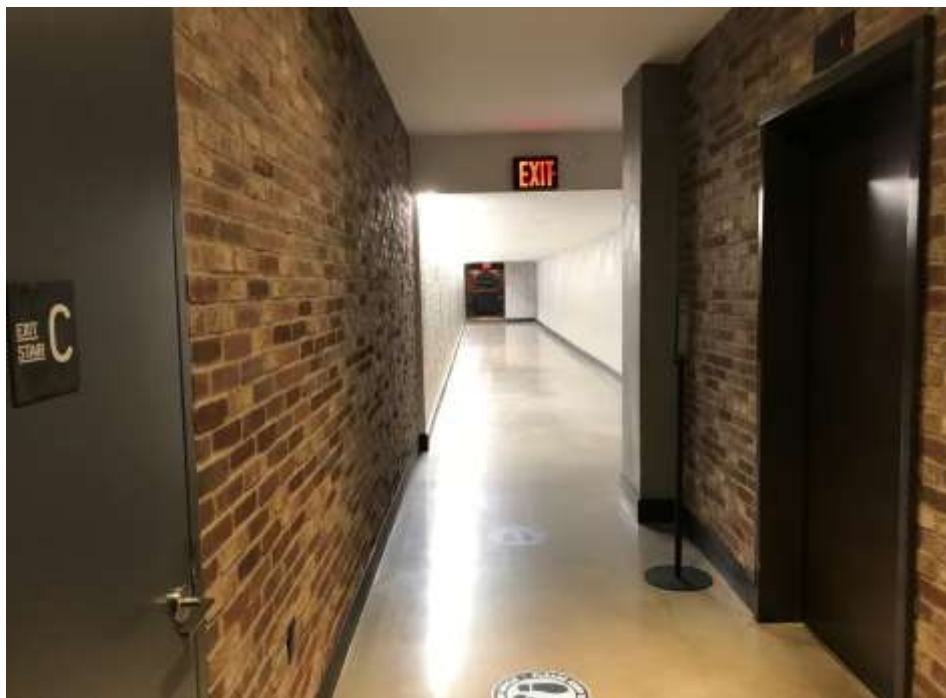


Photo 18: First floor concrete slab covered with flooring, facing west. 20 June 2022.



Photo 19: First floor concrete slab within the utility room, facing northeast. 20 June 2022.



Photo 20: First floor concrete slab covered with soft tiles within the gym, facing southeast. 30 March 2021.



Photo 21: First floor concrete slab covered with wood within a typical residential tenant space, facing northeast. 20 June 2022.

SITE WIDE INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Esther Arthur Date: 06/20/2022 Weather Conditions: 70s

Reason for Inspection (i.e., routine, severe condition, etc.): Periodic Report

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		Y	N	NA	Normal Situation	Remarks
General						
1	What are the current site conditions?	--	--	--	--	The site is stabilized
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) maintained on site, complete, and up to date?			X		
Site Use Restrictions						
3	Has site use (restricted residential) remained the same?	X				
4	Are there any on-site vegetable gardens?		X			
5	Is groundwater being withdrawn for potable or non-potable use?		X			
Soil Cover System						
6	Note the date of the most recent site cap inspection.	--	--	--	--	
<i>If the Soil Cover System inspection is not being competed concurrently with this inspection, complete the following.</i>						
7	Are there any indications of a breach in the capping system at the time of this inspection?		X			
8	Are there any cracks in the building slabs?		X			
9	Are there any cracks in the building walls?		X			
10	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
11	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?					

*** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks: _____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: V1 riser in good condition, facing east. 20 June 2022.



Photo 2: V1 riser and sample port in good condition, facing east. 20 June 2022.



Photo 3: V2 subgrade sampling port in good condition, facing north. 20 June 2022.



Photo 4: V3 riser in good condition, facing east. 20 June 2022.



Photo 5: V3 riser and sample port in good condition, facing east. 20 June 2022.



Photo 6: V3 subgrade sampling port in good condition, facing east. 20 June 2022.



Photo 7: V4 riser in good condition, facing west. 20 June 2022.



Photo 8: V4 riser and sample port in good condition, facing east. 20 June 2022.



Photo 9: V5 riser in good condition, facing southeast. 20 June 2022.



Photo 10: V5 riser and sample port in good condition, facing southeast. 20 June 2022.

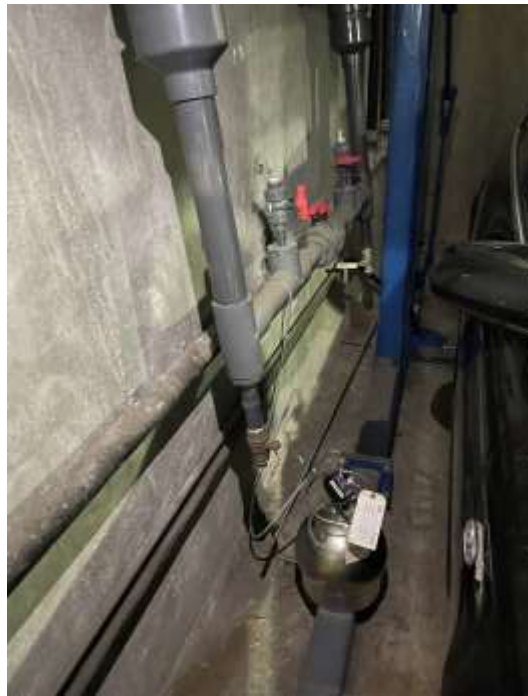


Photo 11: V5 subgrade sampling port in good condition, facing south. 20 June 2022.

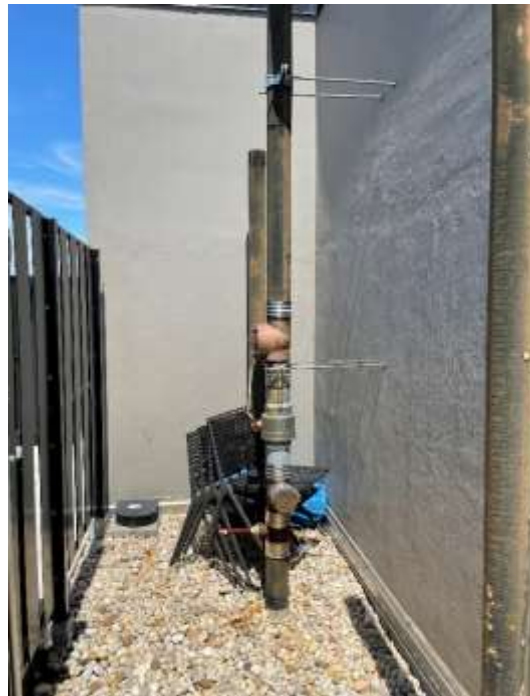


Photo 12: V6 riser and sample port in good condition, facing northwest. 20 June 2022.



Photo 13: V6 riser and sample port in good condition, facing northwest. 20 June 2022.

COMPOSITE COVER SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street

Location: Brooklyn, NY

Project Number: 100287501

Inspector Name: Esther Arthur

Date: 03/02/2023

Weather Conditions: Cloudy, 40s°F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		Y	N	NA	Normal Situation	Remarks
	General					
1	What are the current site conditions?	--	--	--	--	The site is occupied by a five- to twelve- story mixed-use commercial/residential building with a partial basement.
2	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
3	If YES to number 3, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?	--	--	--	--	
	Subgrade Parking Area Slab/First Floor Slab					
4	Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
5	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Outdoor Paving/Sidewalks					
6	Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
7	Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
	Landscaped Areas					
8	Is there adequate top soil cover present? (i.e. Is the underlying demarcation adequately covered?)	X				
9	Are there any signs of erosion?		X			

**

If the answer to any of the above questions indicate non-compliance with ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks:

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: 1st Street sidewalk, facing southeast. 02 March 2023.



Photo 2: 2nd Street sidewalk, facing northwest. 02 March 2023.



Photo 3: Bond Street sidewalk, facing southwest. 02 March 2023.



Photo 4: Paved and landscaped eastern esplanade areas, facing southwest. 02 March 2023.



Photo 5: Paved and landscaped esplanade areas, facing southwest. 02 March 2023.



Photo 6: Sidewalk on 1st Street and landscaped esplanade area, facing south. 02 March 2023.



Photo 7: Sidewalk on 2nd Street and entrance into east esplanade area, facing northeast. 02 March 2023.



Photo 8: Subgrade parking garage entrance on 2nd Street, facing north. 02 March 2023.



Photo 9: Typical hairline/surficial crack observed, facing north. Cracks did not breach to the subsurface. 02 March 2023.



Photo 10: Subgrade parking garage concrete slab, facing northwest. 02 March 2023.



Photo 11: Subgrade parking garage concrete slab, facing southeast. 02 March 2023.



Photo 12: Subgrade parking garage concrete slab, facing north. 02 March 2023.



Photo 13: Subgrade parking garage foundation wall (beneath the first floor), facing northwest. 02 March 2023.



Photo 14: Concrete slab in subgrade boat house located within the southern portion of the building, facing northwest. 02 March 2023.



Photo 15: First floor concrete slab covered in tile flooring within the commercial space, facing northwest. 02 March 2023.



Photo 16: First floor concrete slab in tenant storage space, facing southwest. 02 March 2023.



Photo 17: First floor concrete slab covered with flooring, facing northwest. 02 March 2023.



Photo 18: First floor concrete slab covered with flooring, facing west. 02 March 2023.



Photo 19: First floor concrete slab within the utility room, facing northeast. 02 March 2023.



Photo 20: First floor concrete slab covered with soft tiles within the gym, facing southeast. 02 March 2023.



Photo 21: First floor concrete slab covered with wood within a typical residential tenant space, facing northeast. 02 March 2023.

SITE WIDE INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Esther Arthur Date: 03/02/2023 Weather Conditions: 40s, Cloudy

Reason for Inspection (i.e., routine, severe condition, etc.): Periodic Report

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		Y	N	NA	Normal Situation	Remarks
General						
1	What are the current site conditions?	--	--	--	--	The site is stabilized
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) maintained on site, complete, and up to date?			X		
Site Use Restrictions						
3	Has site use (restricted residential) remained the same?	X				
4	Are there any on-site vegetable gardens?		X			
5	Is groundwater being withdrawn for potable or non-potable use?		X			
Soil Cover System						
6	Note the date of the most recent site cap inspection.	--	--	--	--	
<i>If the Soil Cover System inspection is not being competed concurrently with this inspection, complete the following.</i>						
7	Are there any indications of a breach in the capping system at the time of this inspection?		X			
8	Are there any cracks in the building slabs?		X			
9	Are there any cracks in the building walls?		X			
10	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
11	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?					

*** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks: _____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: V1 riser in good condition, facing east. 02 March 2023.



Photo 2: V1 riser and sample port in good condition, facing east. 02 March 2023.



Photo 3: V2 subgrade sampling port in good condition, facing north. 02 March 2023.



Photo 4: V3 riser in good condition, facing east. 02 March 2023.



Photo 5: V3 riser and sample port in good condition, facing east. 02 March 2023.



Photo 6: V3 subgrade sampling port in good condition, facing east. 02 March 2023.



Photo 7: V4 riser in good condition, facing west. 02 March 2023.



Photo 8: V4 riser and sample port in good condition, facing east. 02 March 2023.



Photo 9: V5 riser in good condition, facing southeast. 02 March 2023.



Photo 10: V5 riser and sample port in good condition, facing southeast. 02 March 2023.



Photo 11: V5 subgrade sampling port in good condition, facing south. 02 March 2023.



Photo 12: V6 riser and sample port in good condition, facing northwest. 02 March 2023.



Photo 13: V6 riser and sample port in good condition, facing northwest. 8 April 2021.

COMPOSITE COVER SYSTEM INSPECTION CHECKLIST

Site Name: 365 Bond Street

Location: Brooklyn, NY

Project Number: 100287501

Inspector Name: Esther Arthur

Date: 12/5/2023

Weather Conditions: Sunny, 37°F

Reason for Inspection (i.e., routine, severe condition, etc.): Annual Inspection/Periodic Review Report

Check one of the following: Y: Yes N: No NA: Not Applicable

	Y	N	NA	Normal Situation	Remarks
General					
1 What are the current site conditions?	--	--	--	--	The site is occupied by a five- to twelve- story mixed-use commercial/residential building with a partial basement.
2 Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
3 If YES to number 3, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?	--	--	--	--	
First Floor Building Slab					
4 Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
5 Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
Subgrade Parking Area Slab and Walls					
6 Are there any signs of cracking or damage?		X			Hairline/surficial cracks observed. Cracks were not observed to breach to the subsurface.
7 Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
Subgrade Boathouse Slab and Walls					
8 Are there any signs of cracking or damage?	X				
9 Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
Outdoor Paving/Sidewalks					
10 Are there any signs of cracking or damage?		X			
11 Are there any areas of where greater than 25% of the surface is cracked or damaged?		X			
Landscaped Areas					
12 Is there adequate top soil cover present? (i.e. Is the underlying demarcation adequately covered?)		X			
13 Are there any signs of erosion?		X			

**** If the answer to any of the above questions indicate non-compliance with ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.**

Additional remarks: _____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: 1st Street sidewalk, facing southeast. 05 December 2023.



Photo 2: 2nd Street sidewalk, facing northwest. 05 December 2023.



Photo 3: Bond Street sidewalk, facing southeast. 05 December 2023.



Photo 4: Paved and landscaped eastern esplanade areas, facing southwest. 05 December 2023.



Photo 5: Paved and landscaped esplanade areas, facing southwest. 05 December 2023.



Photo 6: Sidewalk on 1st Street and landscaped esplanade area, facing south. 05 December 2023.



Photo 7: Esplanade area, facing northeast. 05 December 2023.



Photo 8: Subgrade parking garage entrance on 2nd Street, facing north. 05 December 2023.



Photo 9: Typical hairline/surficial crack observed in the parking garage, facing north. Cracks did not breach to the subsurface. 02 March 2023.



Photo 10: Subgrade parking garage concrete slab, facing northwest. 05 December 2023.



Photo 11: Subgrade parking garage concrete slab, facing southeast. 05 December 2023.



Photo 12: Subgrade parking garage concrete slab, facing north. 05 December 2023.



Photo 13: Subgrade parking garage foundation wall (beneath the first floor), facing northwest. 05 December 2023.



Photo 14: Concrete slab in subgrade boat house located within the southern portion of the building, facing northwest. 05 December 2023.



Photo 15: First floor concrete slab covered in tile flooring within the commercial space, facing northwest. 05 December 2023.

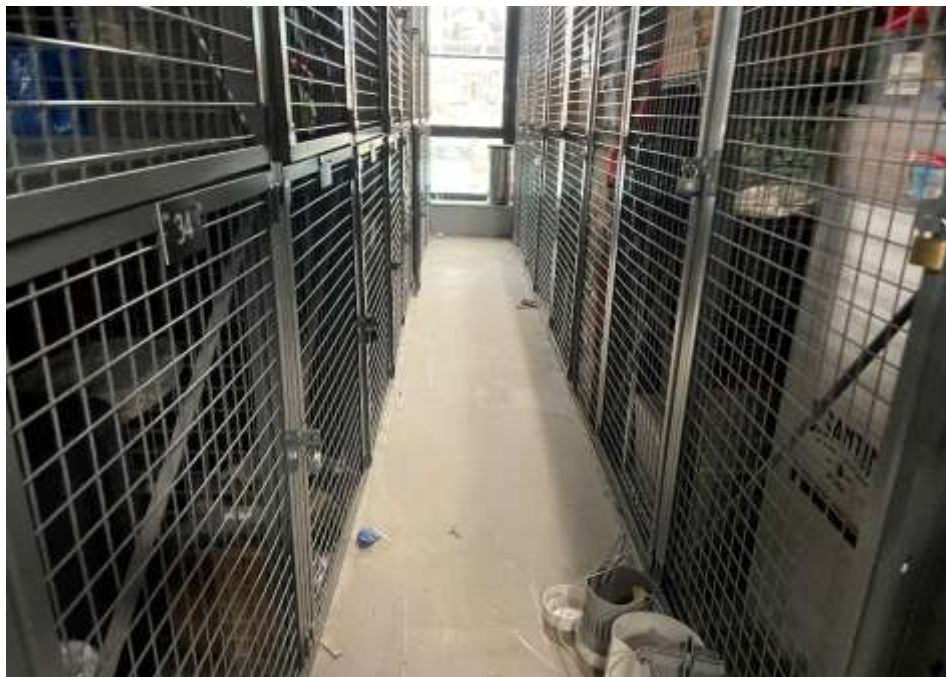


Photo 16: First floor concrete slab in tenant storage space, facing southwest. 05 December 2023.



Photo 17: First floor concrete slab covered with flooring, facing northwest. 05 December 2023.

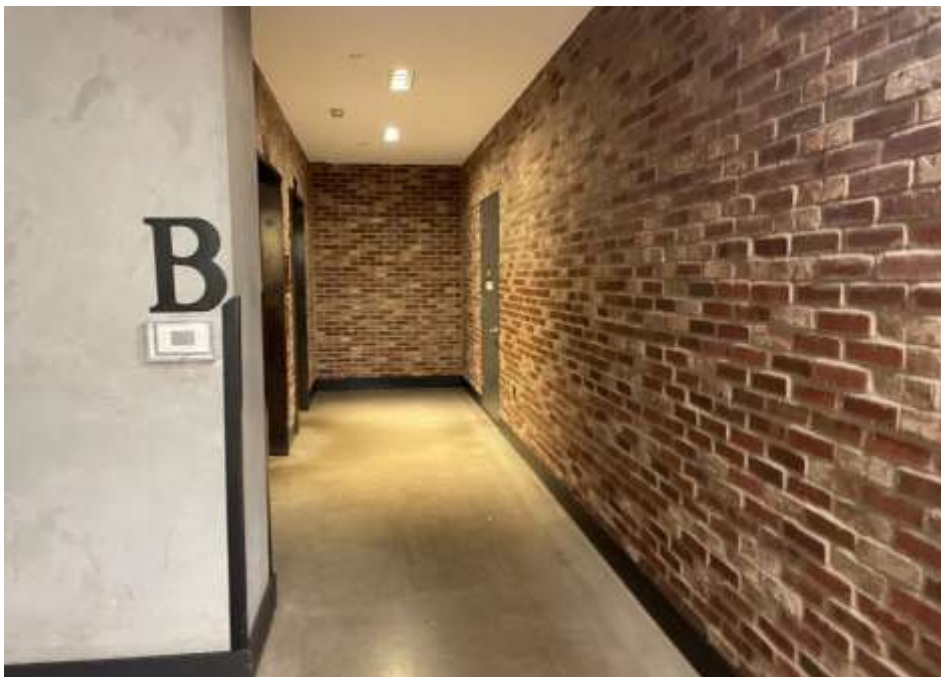


Photo 18: First floor concrete slab covered with flooring, facing west. 05 December 2023.



Photo 19: First floor concrete slab within the utility room, facing northeast. 05 December 2023.



Photo 20: First floor concrete slab covered with soft tiles within the gym, facing southeast. 02 March 2023.



Photo 21: First floor concrete slab covered with wood within a typical residential tenant space, facing northeast. 02 March 2023.

SITE WIDE INSPECTION CHECKLIST

Site Name: 365 Bond Street Location: Brooklyn, NY Project Number: 100287501

Inspector Name: Esther Arthur Date: 12/5/2023 Weather Conditions: Sunny, 30s

Reason for Inspection (i.e., routine, severe condition, etc.): Periodic Report

Check one of the following: **Y:** Yes **N:** No **NA:** Not Applicable

		Y	N	NA	Normal Situation	Remarks
General						
1	What are the current site conditions?	--	--	--	--	The site is stabilized
2	Are all applicable site records (e.g., documentation of construction activity, most current easement, etc.) maintained on site, complete, and up to date?			X		
Site Use Restrictions						
3	Has site use (restricted residential) remained the same?	X				
4	Are there any on-site vegetable gardens?		X			
5	Is groundwater being withdrawn for potable or non-potable use?		X			
Soil Cover System						
6	Note the date of the most recent site cap inspection.	--	--	--	--	
<i>If the Soil Cover System inspection is not being competed concurrently with this inspection, complete the following.</i>						
7	Are there any indications of a breach in the capping system at the time of this inspection?		X			
8	Are there any cracks in the building slabs?		X			
9	Are there any cracks in the building walls?		X			
10	Is there any construction activity, or indication of any construction activity within the past certification year (including any tenant improvements), that included the breaching of the capping system, on-site at the time of this inspection?		X			
11	If YES to number 8, is there documentation that the Soil Management Plan, HASP, and CAMP for the site was/is being followed?					

*** If the answer to any of the above questions indicate non-compliance with any IC/ECs for the site, additional remarks must be provided and, where applicable, documentation attached to this checklist detailing additional inspection and repair activities.

Additional remarks: _____

Minimum Inspection Schedule: Site-wide inspections will be conducted annually, per certification year, at a minimum. Additional inspections will also be conducted at times of severe condition events. All inspection events will utilize this checklist.



Photo 1: V1 riser in good condition, facing east. 05 December 2023.



Photo 2: V1 riser and sample port in good condition, facing east. 05 December 2023.



Photo 3: V2 subgrade sampling port in good condition, facing north. 05 December 2023.



Photo 4: V3 riser in good condition, facing east. 02 March 2023.



Photo 5: V3 riser and sample port in good condition, facing east. 05 December 2023.

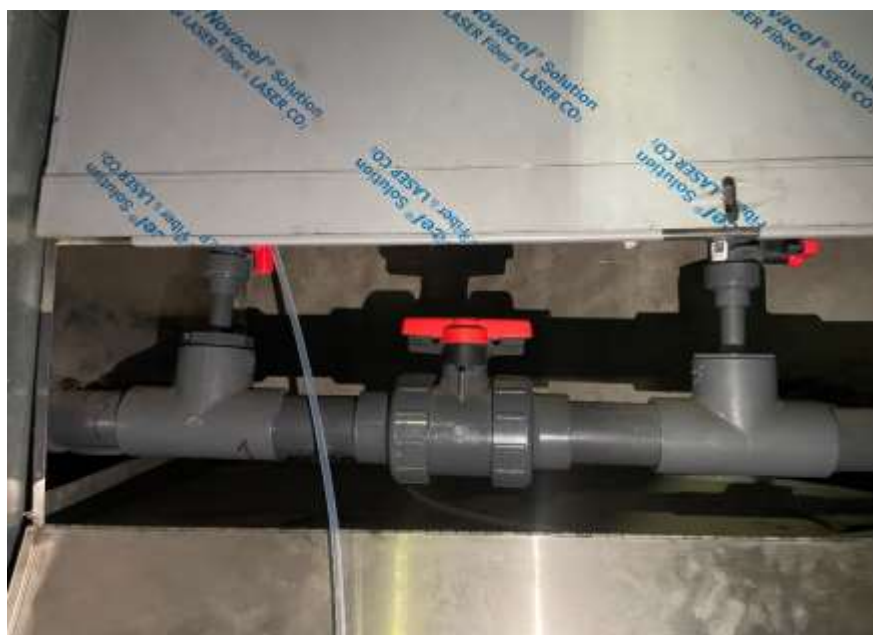


Photo 6: V3 subgrade sampling port in good condition, facing east. 02 March 2023.



Photo 7: V4 riser in good condition, facing west. 05 December 2023.



Photo 8: V4 riser and sample port in good condition, facing east. 05 December 2023.



Photo 9: V5 riser in good condition, facing southeast. 05 December 2023.



Photo 10: V5 riser and sample port in good condition, facing southeast. 05 December 2023.



Photo 11: V5 subgrade sampling port in good condition, facing south. 02 March 2023.



Photo 12: V6 riser and sample port in good condition, facing northwest. 05 December 2023.



Photo 13: V6 riser and sample port in good condition, facing northwest. 05 December 2023.

APPENDIX D

ICEC Certification Form



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



Site Details

Box 1

Site No. **C224174**

Site Name 365 Bond Street

Site Address: 365 Bond Street Zip Code: 11231
City/Town: Brooklyn
County: Kings
Site Acreage: 2.066

Reporting Period: February 28, 2021 to February 28, 2024

YES NO

1. Is the information above correct? ☒ ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? ☐ ☒

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ ☒

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☐ ☒

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development? ☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below? ☒ ☐
Restricted-Residential, Commercial, and Industrial

7. Are all ICs in place and functioning as designed? ☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

Box 2A

YES NO

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

☐☒

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

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

☒☐

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

SITE NO. C224174**Box 3****Description of Institutional Controls**ParcelOwnerInstitutional Control**458-1**

LSG 365 Bond Street LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Site Management Plan
IC/EC Plan

O&M Plan

The site remedy requires that an environmental easement be placed on the property to:

- implement, maintain and monitor the Engineering Controls;
- prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and,
- limit the use and development of the site to Restricted Residential uses only.

Box 4**Description of Engineering Controls**ParcelEngineering Control**458-1**

Vapor Mitigation
Cover System

Cover System: Maintenance of a composite cover system to prevent human exposure to residual contaminated soils remaining under the site. This system consists of concrete building foundations, building slab, sidewalks, paved areas, and a temporary soil cover.

Sub-Slab Depressurization System: Installation of a passive SMDS (Sub Membrane Depressurization System) to prevent vapor migration into the building which consists of a sub-grade PVC SSDS piping and screen system that is constructed beneath a 15-mil Stego wrap vapor barrier.

Periodic Review Report (PRR) Certification Statements

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

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

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

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

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

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

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

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

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

YES NO

☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

**IC CERTIFICATIONS
SITE NO. C224174**

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Joseph E. Teichman at 299 Park Avenue
New York, New York 10171
print name print business address

am certifying as LSG 365 Bond Street, LLC (Owner or Remedial Party)

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



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

August 5, 2024
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.
300 Kimball Drive

I Ronald Boyer at Parsippany, New Jersey 07054,
print name print business address

am certifying as a Professional Engineer for the LSG 365 Bond Street, LLC
(Owner or Remedial Party)



Ronald D. Boyer

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

Stamp
(Required for PE)

8/08/2024
Date