

**BUILDING 700 (FORMERLY 330D)
HES SEMICONDUCTOR PARTS
MANUFACTURING SPACE
INDOOR AIR QUALITY TESTING
SUMMARY REPORT**

AT

**IPARK 84
FORMER IBM EAST FISHKILL FACILITY**

**SEPTEMBER 2020
(UPDATED MARCH 2021 TO INCLUDE
DATA USABILITY SUMMARY REPORT)**

PREPARED FOR:

**JESSICA LACLAIR
NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
DEPT. OF ENVIRONMENTAL REMEDIATION
625 BROADWAY
ALBANY, NEW YORK 12233-7013**

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
Industry Leader in Environmental Engineering Consulting

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



Sent via email to jess.laclair@dec.ny.gov

September 8, 2020
iPARK0118.40

Ms. Jessica LaClair
Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: iPark 84, Former IBM East Fishkill Facility
Building 700 (Formerly Building 330D)
Semiconductor Parts Manufacturer (HES)
Indoor Air Quality Testing Summary Report

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC (Walden) has prepared this letter to summarize the results of the indoor air quality (IAQ) testing conducted on July 7th, 2020 in Building 700 (formerly Building 330D). Building 700 is owned by iPark East Fishkill, LLC (iPark); a semiconductor parts manufacturer (HES) is leasing the space in this building immediately south of the Crepini space. Refer to Figure 1 for the site location map. The purpose of the IAQ testing was to verify that indoor air quality is acceptable in the HES space.

Walden, at the request of iPark, performed the IAQ testing in accordance with prescribed protocols previously approved by NYSDEC. All work was performed in accordance with the *RCRA Facility Investigation (RFI) VOC Source Assessment Work Plan* (RFI Work Plan) dated June 15, 2009, prepared by Sanborn, Head Engineering, PC and Walden's IAQ Testing Plan letter (Testing Plan) dated June 15, 2020 which was approved by NYSDEC on June 30, 2020. A copy of the approved Testing Plan is included in Appendix A.

Summary of HVAC Conditions Within the Building

The HES space in Building 700 is served by the existing HVAC system which has been re-energized; two units (Units #6B1, and #12) serve the space. During the July 7th IAQ sampling, iPark operated the HVAC system under normal conditions.



Various chemicals associated with manufacturing activities and cleaning were observed within the HES space. A copy of the Indoor Air Quality Questionnaire and Building Inventory completed during the IAQ sampling event is presented in Appendix B.

Summary of IAQ Testing

IAQ testing was conducted in accordance with the procedures outlined in the NYSDEC-approved RFI Work Plan and Testing Plan. Samples were collected using 6-liter, individually certified clean, stainless-steel Summa[®] canisters. The Summa[®] Canisters were calibrated by the laboratory with individually certified flow controllers to obtain 8-hour time-averaged samples. Indoor air samples were collected from a height of approximately two and a half (2.5) to five (5) feet above the floor at the following four (4) locations throughout the HES space; the sampling locations are depicted on Figure 2:

- IA-1: Office space on west side of building
- IA-2: Machining Center Hallway
- IA-3: CNC Machining Center
- IA-4: Open Area/Storage and Inventory

A duplicate sample (DUPLICATE) was collected at location IA-1: Office space on west side of building. One (1) outdoor ambient air sample (AA-01) was collected adjacent to one of the air intakes for the HVAC system to assess background conditions and any potential impacts on the IAQ results.

PID readings were collected at each sample location immediately before sample collection began to evaluate whether VOCs were present in the HES space and had the potential to impact the IAQ results. The following PID readings were recorded:

Sample ID	PID Readings (ppm)
IA-1	0.0
IA-2	0.2
IA-3	0.5
IA-4	0.6
AA-1	0.0

These PID screening measurements are considered negligible and indicate no apparent air quality impacts. The presence of cleaning materials and alcohol substances associated with



manufacturing activities were noted in the HES tenant space (refer to Appendix B). No open containers of any chemicals were observed in the vicinity of the indoor air sampling locations.

All samples were transferred to Phoenix Labs of Manchester, CT, a NYSDOH ELAP certified laboratory (NYSDOH ELAP #11301) under chain of custody for analysis of volatile organic compound (VOC) analytes via modified Method TO-15 (full list) to achieve lower reporting limits via selective ion monitoring for TCE, vinyl chloride and carbon tetrachloride. A summary of field sampling information is provided in Table 1. The IAQ laboratory analytical data are provided in Table 2. Photos taken during the sampling are provided in Appendix C. The full laboratory analytical report is provided in Appendix D. A Data Usability Summary Report (DUSR) is being prepared and will be submitted under separate cover.

Results and Discussion

The HES IAQ analytical data were compared to the typical indoor air background concentrations published in USEPA's 2001 Building Assessment and Survey Evaluation (BASE) database. When developing BASE, USEPA collected indoor air samples at randomly selected office and commercial buildings using Summa[®] canisters. Table 2 presents the HES IAQ data compared to the 75th, 90th, 95th and 99th percentile indoor air BASE concentrations for reference in comparing the VOC data to typical indoor background concentrations.

All of the VOC concentrations detected in the HES IAQ samples were within or below the range of background concentrations listed in the USEPA BASE database as noted in Table 2, indicating that indoor air quality is acceptable. Based on the results from the IAQ testing presented herein, please confirm that the HES space within Building 700 is suitable for tenant occupancy.

Please call me at (516) 624-7200 if you have any questions or need any additional information.

Very truly yours,
Walden Environmental Engineering, PLLC

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

Ms. Jessica LaClair
Building 700 (Former 330D) HES Space IAQ Testing
September 8, 2020

- 4 -



Attachments:

Figure 1 – Site Location Map

Figure 2 – Sampling Locations

Table 1 – Summary of Field Information

Table 2 – Summary of IAQ Analysis (Updated based on DUSR)

Appendix A - IAQ Testing Plan (Walden, June 15, 2020)

Appendix B – Indoor Air Quality Questionnaire and Building Inventory

Appendix C – Photographic Log of Sampling Locations

Appendix D – Laboratory Analytical Report (Category B Deliverables)

Appendix E - Data Usability Summary Report (added March 2021)

cc: J. Kenney, NYSDOH
C. Monheit, iPark
M. Buckley, iPark
D. Chartrand, IBM

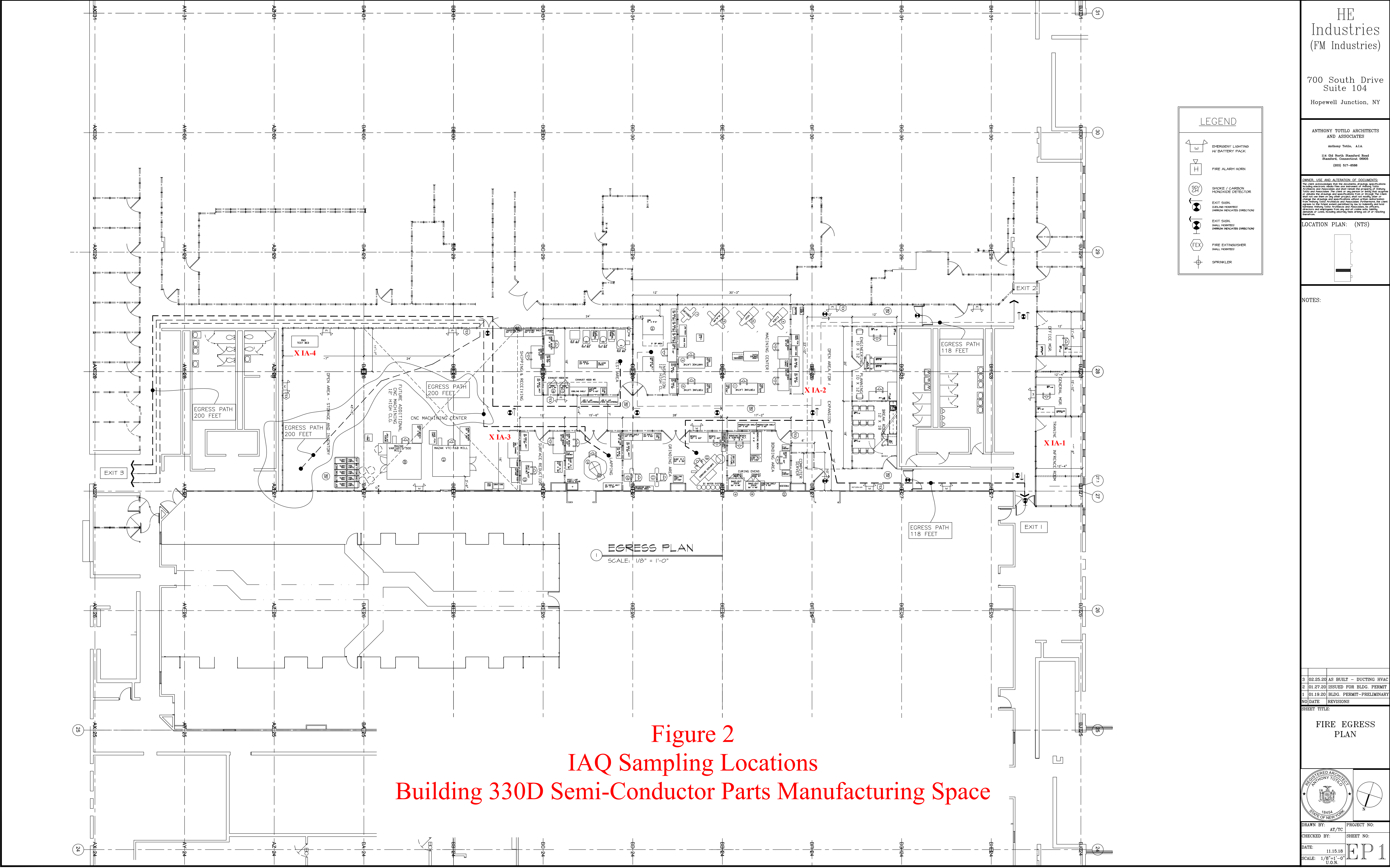
Z:\iPark0118\iPark0118.40 Bldg 700 former 330D\IAQ Sampling\IAQ Summary Report\B330D HES IAQ Testing Report 9.8.2020.docx



SITE PLAN
N.T.S.

REVISION		
No.	DATE	COMMENTS

FOR: BUILDING 700 (FORMER 330D) iPark 84 Campus 2070 State Route 52 Hopewell Junction, NY 12533		DRAWING TITLE: SITE PLAN BUILDING 700- SEMI-CONDUCTOR PARTS MANUFACTURING OPERATION			FIGURE NO: 1	ISSUED
DESIGNED BY: NMB	DRAWN BY: EJK	JOB NO: IPARK0118.40	DATE: 11/26/19	11x17	SHEET NO: 1 OF 2	REVISION NO: 0
APPROVED BY: JMH		SCALE: AS NOTED CAD FILE NAME: 2:\IPark0118\IPark0118.40 Bldg 700 former 330D\Acad\IPark0118.40 Bldg 700 former 330D.dwg				



HE Industries
(FM Industries)

700 South Drive
Suite 104
Hopewell Junction, NY

ANTHONY TOFILO ARCHITECTS
AND ASSOCIATES
Anthony Tofilo, AIA
114 Old North Stamford Road
Stamford, Connecticut 06905
(203) 517-6566

OWNER, USE AND ALTERATION OF DOCUMENTS:
The user acknowledges that the drawings, designs, specifications, and any other documents created by or for the Architect are the property of the Architect. The user agrees to indemnify and hold the Architect harmless from and against all claims, damages, costs and expenses, including reasonable attorneys' fees, arising from or due to the use or alteration of the drawings, designs, specifications, and any other documents created by or for the Architect, whether or not such use or alteration is in whole or in part for the same project as the project for which the drawings, designs, specifications, and any other documents were created, and whether or not such use or alteration is made in whole or in part for the same project as the project for which the drawings, designs, specifications, and any other documents were created, and whether or not such use or alteration is made in whole or in part for the same project as the project for which the drawings, designs, specifications, and any other documents were created.

LOCATION PLAN: (NTS)

NOTES:

3	02.25.20	AS BUILT - DUCTING HVAC
2	01.27.20	ISSUED FOR BLDG. PERMIT
1	01.19.20	BLDG. PERMIT-PRELIMINARY
NO	DATE	REVISIONS

REGISTERED ARCHITECT
ANTHONY TOFILO
18484
STATE OF NEW YORK

DRAWN BY: AT/TC

PROJECT NO:

CHECKED BY:

SHEET NO:

DATE: 11.15.18

SCALE: 1/8"=1'-0"

U.O.N.

EP1

iPARK 84 Campus
2070 NY-Route 52
Hopewell Junction, New York

TABLE 1
SUMMARY OF INDOOR AIR SAMPLE INFORMATION (JULY 7, 2020)
BUILDING 700 (FORMER 330D) - HES SEMI-CONDUCTOR PARTS MANUFACTURING SPACE

Sample Location	Building Floor	Sample Matrix	Canister Number	Regulator Number	Sample Height (feet above floor)	Start Time (24-hour format)	Start Pressure (mmHg)	PID Reading (ppm)	Stop Time (24-hour format)	Stop Pressure (mmHg)	Temperature (°F)	Location Description	Chemicals Observed Near Sample Location
IA-1	Ground	Indoor Air	23346	5986	3.5	820	-26	0.0	1510	-5	72	Office Space on West Side	Hand sanitizer and clorox wipes
IA-2	Ground	Indoor Air	12864	5673	4	823	-30	0.2	1608	-5	72	Machining Center	None observed
IA-3	Ground	Indoor Air	23350	5389	2.5	827	-30	0.5	1610	-2	72	CNC Machining Center	None observed
IA-4	Ground	Indoor Air	495	6987	2.5	828	-30	0.6	1612	-5	72	Open Area/Storage and Inventory	None observed
Duplicate	Ground	Indoor Air	28583	3263	3.5	820	-30	0.0	1606	-6	72	Office Space on West Side	Hand sanitizer and clorox wipes
Ambient Air	Ground	Ambient Air	28571	7011	1	838	-30	0.0	1537	-3.5	85 (AM) ; 90 (PM)	Northwest corner of building under air intake	None observed

iPARK 84 Campus
2070 NY-Route 52
Hopewell Junction, New York

TABLE 2
SUMMARY OF IAQ ANALYSIS (JULY 7, 2020)
BUILDING 700 (FORMER 330D) - HES SEMICONDUCTOR MANUFACTURING SPACE

CAS Registry Number		USEPA BASE Database Tables - Typical Background Concentrations for Indoor Air				Collection Date Sample ID Matrix Location Units	7/7/2020 IA-1 Air Office Space on West Side Result RL		7/7/2020 DUPLICATE Air Office Space on West Side Result RL		7/7/2020 IA-2 Air Machining Center Result RL		7/7/2020 IA-3 Air CNC Machining Center RL		7/7/2020 IA-4 Air Open Area Result RL		7/7/2020 AMBIENT AIR Air Outdoor Air Intake Result RL		
	NYSDOH Air Guideline Value	75th Percentile	90th Percentile	95th Percentile	99th Percentile		Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	Result	RL	
Volatiles (TO15) By TO15																			
1,1,1-Trichloroethane	71-55-6		10.8	20.6	33.0	737.9	ug/m3	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09	< 1.09	1.09
1,1-Dichloroethene	75-35-4		<1.2	<1.4	<1.6	<1.7	ug/m3	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20
1,2,4-Trichlorobenzene	120-82-1		<1.2	<6.8	<7.2	<8.1	ug/m3	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85	< 1.85	1.85
1,2-Dichlorobenzene	95-50-1		<1.0	<1.2	<1.3	10.5	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,3-Dichlorobenzene	541-73-1		<1.1	<2.4	<2.5	<2.8	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
1,4-Dichlorobenzene	106-46-7		1.4	5.5	12.5	80.5	ug/m3	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90	< 0.90	0.90
Acetone	67-64-1		59.8	98.9	120.2	226.6	ug/m3	7.19	2.37	7.62	2.37	20.4	2.37	29.2	2.37	32.5	2.37	5.98	2.37
Benzene	71-43-2		5.1	9.4	12.5	25.0	ug/m3	0.17	0.16	0.18	0.16	0.26	0.16	0.56	0.16	0.58	0.16	0.17	0.16
Carbon Tetrachloride	56-23-5		<1.1	<1.3	0.7	0.9	ug/m3	0.47	0.13	0.5	0.13	0.47	0.13	0.48	0.13	0.47	0.13	0.48	0.13
Chlorobenzene	108-90-7		<0.8	<0.9	<1.0	1.0	ug/m3	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92	< 0.92	0.92
Cis-1,2-Dichloroethene	156-59-2		<1.2	<1.9	<2.0	<2.2	ug/m3	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20
Dichlorodifluoromethane	75-71-8		10.5	16.5	32.9	81.3	ug/m3	2.32	0.99	2.39	0.99	2.5	0.99	2.55	0.99	2.7	0.99	2.29	0.99
Ethylbenzene	100-41-4		3.4	5.7	7.6	18.5	ug/m3	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65
m,p-Xylene	179601-23-1		12.2	22.2	28.5	67.6	ug/m3	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65
Methylene Chloride	75-09-2	60	5.0	10.0	16.0	1155.6	ug/m3	< 1.39	1.39	< 1.39	1.39	< 1.39	1.39	< 1.39	1.39	< 1.39	1.39	< 1.39	1.39
o-Xylene	95-47-6		4.4	7.9	11.2	20.1	ug/m3	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65	< 0.65	0.65
Tetrachloroethene	127-18-4	30	5.9	15.9	25.4	55.6	ug/m3	0.99	0.68	1.18	0.68	6.32	0.68	4.54	0.68	4.44	0.68	< 0.68	0.68
Toluene	108-88-3		25.9	43.0	70.8	348.9	ug/m3	< 0.75	0.75	< 0.75	0.75	0.92	0.75	0.98	0.75	0.97	0.75	< 0.75	0.75
Trichloroethene	79-01-6	2	1.2	4.2	6.5	57.0	ug/m3	< 0.20	0.20	< 0.20	0.20	0.48	0.20	0.34	0.20	0.35	0.20	< 0.20	0.20
Trichlorofluoromethane	75-69-4		6.7	18.1	54.0	860.6	ug/m3	1.48	0.84	1.58	0.84	1.65	0.84	1.53	0.84	1.59	0.84	1.4	0.84
Trichlorotrifluoroethane	76-13-1		<3.0	3.5	9.4	19.7	ug/m3	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15	< 1.15	1.15
Vinyl Chloride	75-01-4		<1.0	<1.9	<2.2	<2.6	ug/m3	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05

Notes:

Concentrations are provided in micrograms per cubic meter (µg/m³).

Highlighted analytes are included in the NYSDOH Decision Matrices.

Result Detected

APPENDIX A
IAQ TESTING PLAN (WALDEN, JUNE 15, 2020)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau D

625 Broadway, 12th Floor, Albany, NY 12233-7013

P: (518) 402-9676 | F: (518) 402-9773

www.dec.ny.gov

June 30, 2020

Joseph Cotter
iPark 84
200 North Drive
Hopewell Junction, NY 12533

Re: Building 330D – Semiconductor Parts
Revised Indoor Air Quality Testing Plan
Former IBM East Fishkill Facility, East Fishkill, New York
NYSDEC Site No. 314054, EPA ID NYD000707901

Dear Mr. Cotter:

The Department of Environmental Conservation and Department of Health (Departments) have reviewed the revised Indoor Air Quality (IAQ) Testing Plan submitted by Walden Environmental Engineering, PLLC on behalf of National Resources on June 15, 2020 and the additional site figures sent on June 25, 2020. The IAQ testing plan will evaluate the indoor air quality in the Semiconductor Parts space located on the first floor of Building 330D. This space is just south of the Crepini space, which has a sub-slab depressurization system (SSDS) operating. The majority of the Semiconductor Parts space will be covered by the SSDS. The locations for indoor air samples to be collected are acceptable.

The Departments' previous comments have been addressed and this IAQ Testing Plan is approved. Please notify the Departments when sampling will be performed. If you have any questions, please feel free to contact me at (518) 402-9821.

Sincerely,



Jessica LaClair
Project Manager
Remedial Section A, Remedial Bureau D
Division of Environmental Remediation

ec: M. Buckley, iPark
C. Monheit, National Resources
N. Brew, Walden
J. Heaney, Walden
D. Chartrand, IBM
E. Lutz, GF
G. Marone, GF



Department of
Environmental
Conservation



S. Edwards, NYSDEC - DER
J. Armitage, NYSDEC - DER
B. Conlon, NYSDEC - OGC
J. Kenney, NYSDOH
M. Schuck, NYSDOH



Sent via email to jess.laclair@dec.ny.gov

June 15, 2020
iPARK0118.40

Jessica LaClair
Environmental Engineer
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

Re: iPark 84, Former IBM East Fishkill Facility
Building 330D – HES Semiconductor Parts Manufacturer
Indoor Air Quality Testing Plan

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC (Walden) has prepared this letter to summarize the Indoor Air Quality (IAQ) testing proposed to evaluate indoor air quality within Building 330D at the Former IBM East Fishkill facility (Facility). This plan has been revised in accordance with the comments presented in NYSDEC's letter dated May 19, 2020. A semiconductor parts manufacturer (HES) that employs eleven (11) people is leasing space in Building 330D immediately south of the Crepini space. It is understood that NYSDEC and NYSDOH require this sampling to be completed and the results reported to the State to verify that IAQ is acceptable in this space.

Initially, a Sub Slab Depressurization System (SSDS) was installed beneath the Crepini space by Sanborn Head in October of 2010. An IAQ test was performed throughout Building 330D in July 2011. The test involved the collection of two (2) IAQ samples within the HES space. Samples IA BE-28 and IA BA-28 indicated that tetrachloroethylene (PCE) (maximum 3.3ug/m³), carbon tetrachloride (maximum 0.45 ug/mg³), acetone (maximum 8.5 ug/mg³), freon 11(maximum 2.6 ug/mg³) and freon 12 (maximum 2.6 ug/mg³) were present in space.

Additional sampling performed in 2016 indicated that elevated concentrations of PCE were present beneath the western and southeastern portions of the building. Therefore, two (2) interim SSDS VE-5 and VE-6 were installed in February 2017 to serve the central and southern portions of the building, respectively. As summarized in *Subslab Depressurization System Completion*



and Startup Report–Building 330D North System Former IBM East Fishkill Facility (December 13, 2019), a portion of the HES space is depressurized by the existing systems. This area of influence is indicated in Attachment A.

Walden, at the request of iPark, shall perform the IAQ testing in accordance with the procedures detailed in the June 15, 2009 *RCRA Facility Investigation (RFI) VOC Source Assessment Work Plan (RFI Work Plan)*, prepared on behalf of IBM) which was previously approved by NYSDEC. The proposed IAQ sampling locations are shown on Figure 1 and listed below. The actual sampling locations will be determined in the field. Any significant changes from the locations shown on Figure 1 will be discussed with NYSDEC and NYSDOH to gain the State's concurrence before sample collection begins. The HES space in Building 330D is served by the existing HVAC system which was re-energized in November 2019. Two units (Units #6B1, and #12) serve the space. The HVAC system will be operating during the IAQ sampling.

Sample ID	Representative Square Footage (ft ²)	Area Use
IA-1	600	Office space on west side of building (Office manager, general manager, conference room/training center)
IA-2	690	Machining Center (Office space with open floor area)
IA-3	1,290	CNC Machining Center (open area)
IA-4	432	Open Area/Storage and Inventory

In addition to the samples referenced above, one duplicate sample (IA-Duplicate) will be collected at one of the sample locations which will be determined in the field. One outdoor ambient air sample (AA-01) will be collected at the HVAC unit intake to assess background conditions and identify any background impacts to IAQ. Various chemicals are used and stored within the tenant space. A list of these chemicals is provided in Appendix A.

All samples will be submitted to Phoenix Labs of Manchester, CT, a NYSDOH ELAP certified laboratory (NYSDOH ELAP #11301) for analysis of VOC analytes via Method TO-15 (full list). A modified Method TO-15 as specified in the June 2009 *RFI Work Plan* will be used to achieve lower reporting limits via selective ion monitoring for TCE, vinyl chloride and carbon tetrachloride. The IAQ data will be evaluated, validated and presented in a summary report that will be submitted to NYSDEC and NYSDOH for review. Data generated during these Building 330D IAQ sampling activities will be shared with IBM. Note that iPark will provide the results of the IAQ sampling to the tenant within 45 days of receiving the validated data.

Ms. Jessica LaClair
B330D HES Semiconductor IAQ Testing Plan
June 15, 2020 - 3 -



Please call me at (516) 624-7200 if you have any questions or need any additional information.

Very truly yours,
Walden Environmental Engineering, PLLC

A handwritten signature in cursive script that reads "Nora M. Brew".

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

cc: J. Kenney, NYSDOH
C. Monheit, National Resources
M. Buckley, National Resources
D. Chartrand, IBM

Z:\iPark0118\iPark0118.40 Bldg 700 former 330D\B330D SemiConductor Mfg IAQ Testing Plan Letter 6.15.2020.docx

FIGURE 1
SITE PLAN



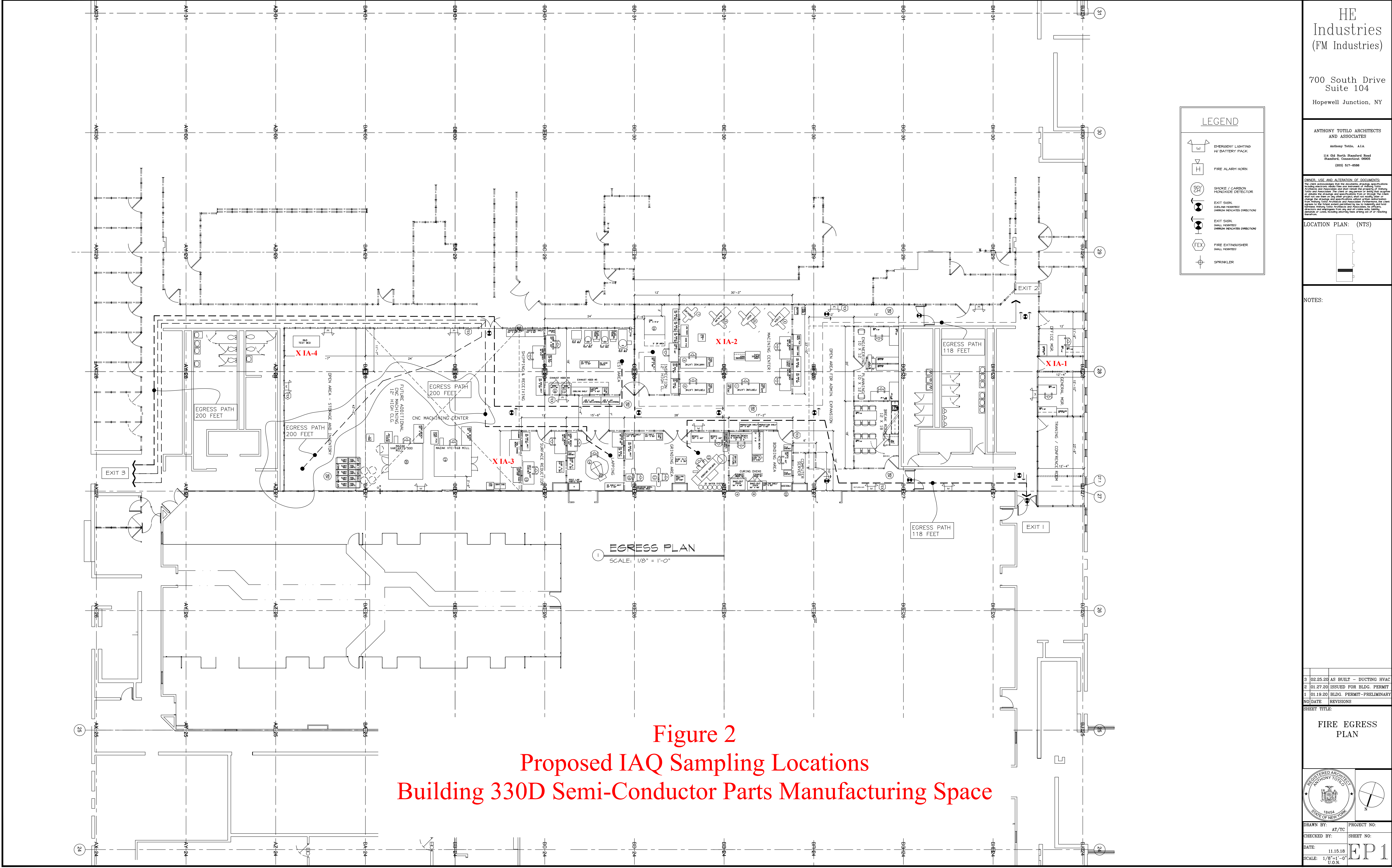
PROPOSED WORK AREA

SITE PLAN
N.T.S.

REVISION		
No.	DATE	COMMENTS

FOR: BUILDING 700 (FORMER 330D) iPark 84 Campus 2070 State Route 52 Hopewell Junction, NY 12533		DRAWING TITLE: SITE PLAN BUILDING 700- SEMI-CONDUCTOR PARTS MANUFACTURING OPERATION			FIGURE NO: 1	ISSUED: 0
DESIGNED BY: NMB	DRAWN BY: EJK	JOB NO: IPARK0118.40	DATE: 11/26/19	11x17	SHEET NO: 1 OF 2	REVISION NO:
APPROVED BY: JMH	SCALE: AS NOTED	CAD FILE NAME: 2:\IPark0118\IPark0118.40 Bldg 700 former 330D\Acad\IPark0118.40 Bldg 700 former 330D.dwg				

FIGURE 2
IAQ SAMPLING LOCATIONS



ATTACHMENT A

EXISTING SSDS INFLUENCE IN NORTHERN SYSTEM

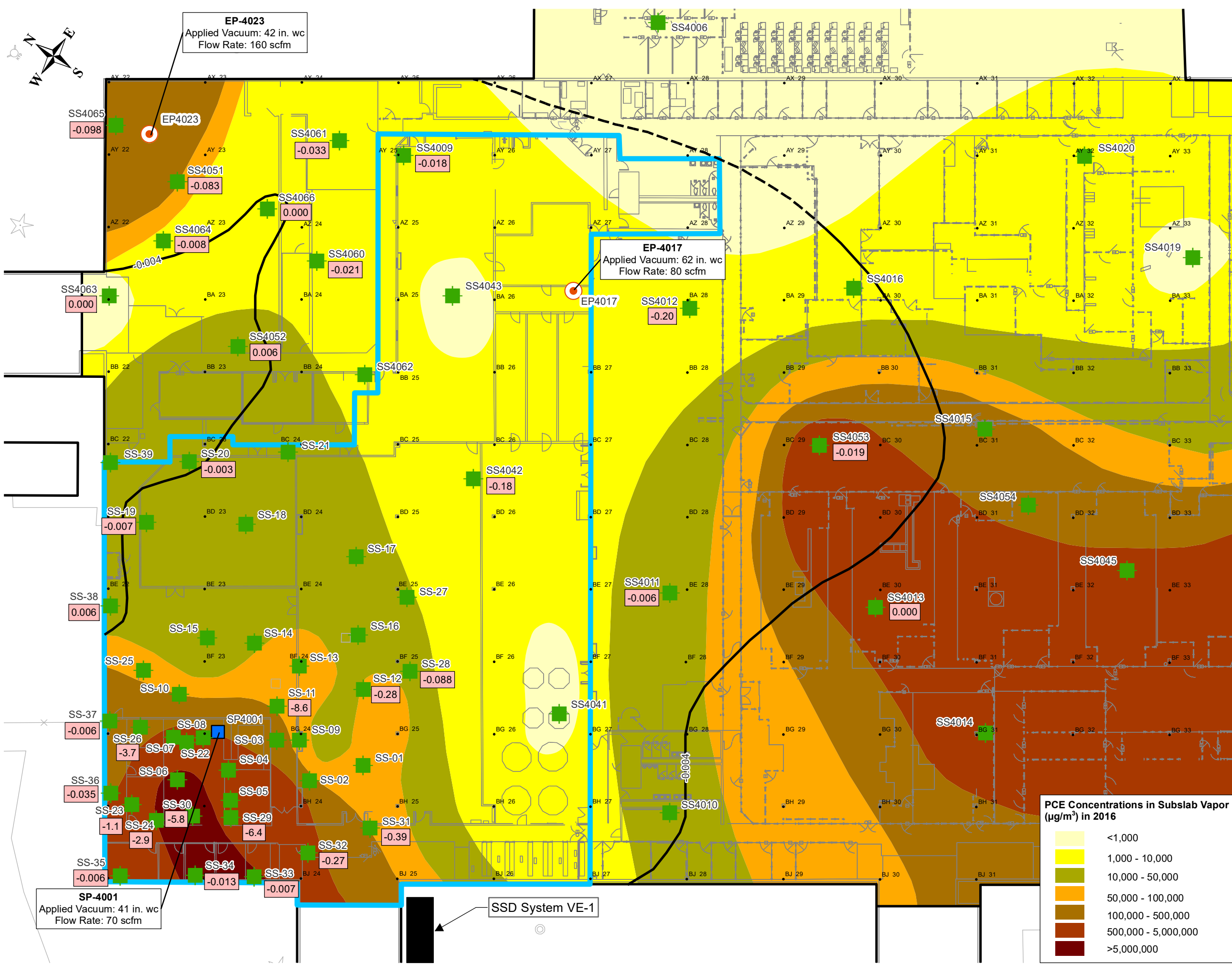


Figure 4

Subslab Pressure Response to Vapor Extraction

Subslab Depressurization Completion and Startup Report - Building 330D North System

Former IBM East Fishkill Facility
Hopewell Junction, New York

Drawn By:	H. Pothier \ E. Wright
Designed By:	J. Corsello
Reviewed By:	D. Shea
Project No:	2999.05
Date:	December 2019

Figure Narrative

This figure shows the inferred subslab pressure response from the B330D North subslab depressurization (SSD) system extracting vapor from SP4001, EP4017, and EP4023, and the measurements recorded at those extraction points upon startup. The subslab pressure response footprint represents the outer limit of the -0.004 inches of water column differential pressure based on measurements recorded on September 5, 2019. Other interpretations are possible.

The differential pressure contours overlay the inferred subslab vapor tetrachloroethene (PCE) concentration isopleths based on subslab vapor samples collected in 2016.

Legend

- Subslab Vapor Monitoring Port
- Subslab Vapor Extraction Port connected to the B330D North SSD system
- Subslab Vapor Suction Pit connected to the B330D North SSD system
- 0.004 Differential pressure contour (inches of water column).
- SP4001**
in. wc Applied Vacuum inches of water column (in. wc.)
scfm Flow Rate (std. cu. ft. per min.)
- 0.004 Observed pressure differential between the subslab and room after SSD start-up (in. wc). Negative values indicate subslab pressure is less than indoor air pressure.
- Crepini Tenant Space

PCE Concentrations in Subslab Vapor (µg/m³) in 2016

<1,000
1,000 - 10,000
10,000 - 50,000
50,000 - 100,000
100,000 - 500,000
500,000 - 5,000,000
>5,000,000

15 7.5 0 15 30 Feet

SANBORN HEAD ENGINEERING

APPENDIX B
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

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

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

Preparer's Name Herriwright Date/Time Prepared 7/7/20

Preparer's Affiliation Propec + Scientists Phone No. 845 207 3043

Purpose of Investigation Indoor air quality 118.40
HES

1. OCCUPANT:

Interviewed: ☒ Y ☐ N

Last Name: Vitija First Name: Dardan (Danny)

Address: 200 North Drive

County: Dutchess

Home Phone: _____ Office Phone: _____

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

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

Interviewed: ☒ Y ☐ N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

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

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: <u>NO</u>

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) Semiconductor manufacturer

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

Other characteristics:

Number of floors 1

Building age 1980s

Is the building insulated? Y / N

How air tight? Tight / Average / Not Tight

4. AIRFLOW

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

Airflow between floors

N/A

Airflow near source

N/A

Outdoor air infiltration

N/A

Infiltration into air ducts

moderate

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

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

Basement/Lowest level depth below grade: N/A (feet) lowest level on grade

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

floor drains

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

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

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

The primary type of fuel used is:

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

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other top floor

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

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

Recently updated HVAC

7. OCCUPANCY

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

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

Basement

1st Floor

HES manufacturing space

2nd Floor

3rd Floor

4th Floor

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage?

Y / ☒ N

b. Does the garage have a separate heating unit?

Y / ☒ N / NA

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

Y / N / ☒ NA

Please specify _____

d. Has the building ever had a fire?

Y / ☒ N

When? _____

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

Y / ☒ N

Where? _____

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

☒ Y / N

Where & Type? semi conductor

g. Is there smoking in the building?

Y / ☒ N

How frequently? _____

h. Have cleaning products been used recently?

☒ Y / N

When & Type? hand sanitizer disinfect

i. Have cosmetic products been used recently?

Y / N

When & Type? _____

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

Do any of the building occupants use solvents at work? Y / N *See attached*
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

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

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

Yes, use dry-cleaning regularly (weekly)	No
Yes, use dry-cleaning infrequently (monthly or less)	Unknown
Yes, work at a dry-cleaning service	

Is there a radon mitigation system for the building/structure? Y / ☒ N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply:	☒ Public Water	Drilled Well	Driven Well	Dug Well	Other: <u>GFWWTP</u>
Sewage Disposal:	Public Sewer	Septic Tank	Leach Field	Dry Well	Other: <u>P</u>

10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: _____
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

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

Basement:

See attached

First Floor:

See attached

12. OUTDOOR PLOT

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

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

See attached

See Attached MSDS

[illegible]

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Indoor Air Quality Questionnaire and Building Inventory
Product Inventory Photographs-July 7, 2020
Former IBM East Fishkill Facility – Building 330D – HES SEMI-CONDUCTOR
MANUFACTURER



Photo #1: Office



Photo #2: Office

Hybrid Electrostatic Industries, LLC													
MSDS List													
Name	Manufacturer	Manufacturer Alias	Synonyms	Revision Date	Product CAS #	Product Code	Supplier	Document ID	Last Verified	Last Changed	Status	Regulatory Formats	
Electro-Wash PX	ITW Professional Brands	CHEMTRONICS	CFC-Free Electro-Wash 2000	06/18/2019		ES110, ES510, ES5510, ES810L	CHEMTRONICS	48868755	09/29/2019	10/28/2019	Active	GHS SDS, US ANSI	
FoamBust	BOSSE LUBRICANTS	BOSSE LUBRICANTS	Synthetic Water-Miscible Metalworking Fluid, Machining & Sawing Metalworking Fluid	05/15/2015		BOSADDFOAMBUS-032, BOSADDFOAMBUS-001, BOSADDFOAMBUS-005		47491144	07/16/2019	08/06/2019	Active	EU MSDS, GHS SDS	
WROUGHT ALUMINUM PRODUCTS, 6xxx SERIES ALLOYS	Arconic Inc.	Arconic Inc.	6xxx series alloys, Alclad 6061 * C02U, C03T, C03U, C04J, C04T, C05T, C14N, C16N, C17T, C211, C25T, C333, C34P, C36P, C38P, C39P, C400, C40H, C41P, C420, C43P, C44P, C456, C45A, C45E, C593, C638, C703, C704, C73H, C74H, C76E, C87H, C95T, C989, CA65, CB90	03/27/2017		SDS number 668		45618657	08/02/2017	04/12/2019	Active	GHS SDS, US ANSI	
3M Diamond Lapping Film, 631X, 638X (PSA), 641X, 651X, 661X, 661XA, 661XU, 661XY, 662XW, 663X, 664X, 666X, 666XW, 668X(PSA)	3M Corporation	3M - Electronics Materials Solutions Division	Abrasive Product, 60-0000-1585-3, 60-0000-1586-1, 60-0000-1600-0, 60-0000-1601-8, 60-0000-1602-6, 60-0000-2374-1, 60-0000-2412-9, 60-0000-2413-7, 60-0000-2414-5, 60-0000-2852-6, 60-0000-2855-9, 60-0000-2856-7, 60-0000-2857-5, 60-0000-2858-3	11/06/2015	24650-42-8, 103-11-7, 79-10-7	11-6904-4, 60-0000-1234-8, 60-0000-1235-5, 60-0000-1236-3, 60-0000-1282-7, 60-0000-1283-5, 60-0000-1284-3, 60-0000-1325-4, 60-0000-1326-2, 60-0000-1327-0, 60-0000-1328-8, 60-0000-1329-6, 60-0000-1330-4, 60-0000-1331-2, 60-0000-1332-0, 60-0000-1390-8		45293051	N/A	02/25/2019	Active	GHS SDS, US ANSI	
MOBIL VACUOLINE 1409	Exxon Mobil Corporation	Exxon Mobil Corporation	Base Oil and Additives, Hydraulic/way oil	10/23/2018	1070-03-7, 298-07-7, 112-90-3	201560902020, 601328-00, 970465		45037238	08/29/2019	08/04/2019	Active	GHS SDS, US ANSI	
WD-40 Aerosol	WD-40 Company	WD-40 Company		12/28/2017	64742-47-8, 64742-56-9, 64742-65-0, 64742-53-6, 124-38-9		WD-40 Company	43346108	11/21/2019	08/06/2018	Active	GHS SDS, US ANSI	
Simple Green All-Purpose Cleaner	Sunshine Makers, Inc.	Sunshine Makers, Inc.	Cleaner & Degreaser for water tolerant surfaces, 043318130052, 043318480140, 043318480416, 043318480492, 043318002052, 043318001222, 043318001390, 043318561405, 043318001468, 043318004889	05/31/2018	7732-18-5, 68439-46-3, 68-04-2	043318130366, 043318131035, 043318130014, 043318130021, 043318130229, 043318000034, 0433180000300, 043318130137, 043318000652, 043318130335, 0433180000393, 043318130144, 043318000539, 043318000645, 043318000669, 043318000799, 043318001383, 043318002021		42751680	Discontinued	02/18/2019	Active	GHS SDS, US ANSI	
ALKALINE BATTERIES	Duracell, a division of P & G	Duracell, a division of P & G	PROFESSIONAL USE CONSUMER PRODUCT, PROCELL, PC 2400, PC 2400, PC 2400, PC 2400, PC 1604, PC 9100, PC 7K67, PC 903, PC 908	09/18/2012	1313-13-9, 7440-66-6, 1310-58-3, 7782-42-5	20IH92, 20IH93		42748983	N/A	06/08/2018	Active	GHS SDS, US ANSI	
WINDEX ORIGINAL GLASS CLEANER	S.C. Johnson and Son, Limited	S.C. Johnson and Son, Limited		05/23/2017	No CAS numbers		S.C. Johnson and Son, Limited	41080619	08/13/2019	11/30/2018	Active	GHS SDS, US ANSI	
Isopropanol	Acros Organics BVBA	Acros Organics BVBA	2-Propanol; IPA; Isopropyl alcohol; Propan-2-ol	09/26/2017	67-63-0	389710000; 389710025; 389710100; 389710250	Acros Organics BVBA	40696128	01/04/2018	03/20/2019	Active	GHS SDS	
DOW CORNING 3-4241 DIELECTRIC TOUGH GEL KIT (PART B information is below)	The Dow Chemical Company	Dow Corning Corporation		05/18/2017	68909-20-6, 556-67-2	0000000000004011362		39799639	09/08/2017	01/30/2019	Active	GHS SDS, US ANSI	
MOBIL VACTRAOIL NO. 2	Exxon Mobil Corporation	Imperial Oil Products Division		05/26/2011	128-37-0			39014117	N/A	07/09/2019	Active	Not Determined	
Kool Rite 2560	JTM PRODUCTS, INC.	JTM PRODUCTS, INC.	Lubricant	01/15/2016	102-71-6			38981238	N/A	06/06/2018	Active	Canadian WHMIS, GHS SDS, US ANSI	
Hyprez Diamond Slurry S4889	ENGIS CORPORATION	ENGIS CORPORATION		11/06/2014	107-21-1, 7782-40-3	4889		38892451	N/A	06/06/2018	Active	GHS SDS, US ANSI	
Cleaner Formula APC	Marking Methods	Marking Methods		06/01/2015	No CAS numbers			38892400	10/03/2019	06/06/2018	Active	GHS SDS, US ANSI	
Electrolyte Formula MSC1	Marking Methods	Marking Methods		06/01/2015	6915-15-7, 126-92-1, 77-92-9			38892391	07/03/2019	06/06/2018	Active	GHS SDS, US ANSI	
Vacseal Vacuum Leak Sealant With Brush, Original Formula Clear	Structure Probe, Inc - SPI Supplies Division	Structure Probe, Inc - SPI Supplies Division	Vacseal Vacuum Leak Sealant, Original	12/21/2015	79-01-6, 1330-20-7, 100-41-4	05049-AB, 05052-AB, 05053-AB		37624806	N/A	07/06/2018	Active	Canadian WHMIS, GHS SDS, US ANSI	
Apiezon N Grease, Part Number CONS000108	AGILENT TECHNOLOGIES, INC.	AGILENT TECHNOLOGIES, INC.		08/31/2016	8012-95-1	CONS000108	AGILENT TECHNOLOGIES, INC.	35957484	04/23/2019	06/05/2018	Active	GHS SDS, US ANSI	
DEIONIZED WATER - FM GENERATED	UNIVAR	UNIVAR	WATER DEIONIZED WATER,PURIFIED WATER,DEMINERALISED WATER,TAP WATER,HI-SPEC DEMIN WATER	03/08/2016	7732-18-5	21089	FM Industries, Inc.	34532214	N/A	10/28/2019	Active	GHS SDS	
MOBIL DTE OIL LIGHT	Exxon Mobil Corporation	Exxon Mobil Corporation	Base Oil and Additives, Turbine oil	07/11/2016	128-39-2	201560501560, 600148-00, 970294		34518940	11/09/2019	11/30/2018	Active	GHS SDS, US ANSI	
3M Repositionable Spray Adhesive 75	3M Corporation	3M - Industrial Adhesives and Tapes		03/30/2016	67-64-1, 64742-49-0, 75-28-5, 74-98-6	07-7835-7, 62-4669-4830-4, 62-4669-4835-3, 62-4669-4836-1, AS-0105-9409-6	3M - Minnesota Mining & Manufacturing Corporation	32930264	07/31/2019	06/05/2018	Active	GHS SDS, US ANSI	
Epo-Tek OE100-T, Part A, EPO-TEK OE100-T, Part B - KIT	EPOXY TECHNOLOGY	EPOXY TECHNOLOGY		10/30/2006				31806368	N/A	10/06/2016	Active	US ANSI	
HYPREZ W LUBRICANT	ENGIS CORPORATION	ENGIS CORPORATION		11/26/2014	25265-71-8	6337	ENGIS CORPORATION	30790122	N/A	10/06/2016	Active	GHS SDS, US ANSI	
TORLON 4203 and 4203L	SOLVAY SPECIALTY POLYMERS USA, LLC	SOLVAY SPECIALTY POLYMERS USA, LLC	Torlon 4203 EXT, Torlon 4203L-HF, Torlon 4203L-HF-GE, Torlon 4203L-HF MM, Torlon 4203L-LF	09/25/2014				30513146	N/A	10/06/2016	Active	GHS SDS, US ANSI	
Blasocut BC40SW, Blasocut BC20SW	Blaser Swisslube	Blaser Swisslube	Blasocut BC20SW	08/10/2010		40018 40017		29876007	N/A	08/05/2017	Active	US ANSI	
Blasocut BC 25 SW UHV	Blaser Swisslube	Blaser Swisslube		02/07/2013	64742-52-5			29835338	N/A	11/13/2019	Active	US ANSI	
DOW CORNING 3-4241 DIELECTRIC TOUGH GEL KIT	The Dow Chemical Company	Dow Corning Corporation		10/15/2014		DCC000004873	Dow Corning Corporation	26405450	N/A	01/30/2019	Active	GHS SDS, US ANSI	
3M CITRUS BASE CLEANER (AEROSOL)	3M Corporation	3M - Industrial Adhesives and Tapes		09/02/2014		62-4615-1730-2, 62-4615-4930-5, 62-4615-4935-4	3M - Minnesota Mining & Manufacturing Corporation	26404960	N/A	10/06/2016	Active	Canadian WHMIS, US ANSI	
KRAZY GLUE ALL PURPOSE	Elmer's Products, Inc.	Elmer's Products, Inc.	Cyanoacrylate Adhesive	01/13/2005		KG-583; KG-585; KG-517	Elmer's Products, Inc.	18368927	N/A	10/06/2016	Active	Not Determined	
Macor													
Deylrin													
Ultrem													
Brass													
Titanium													
Meldin													

APPENDIX C
PHOTOGRAPHIC LOG OF SAMPLING LOCATIONS

Site Photographs

Photograph #1



Sample Location AA-1, located Front of Building Under Air Intake for HES

Photograph #2



Sample Location IA-2, Machining Center (Office space with open floor area)

Photograph #3



Sample Location IA-3, CNC Machining Center (open area)

Photograph #4



Sample Location IA-4, located in Open Area/Storage and Inventory

APPENDIX D
LABORATORY ANALYTICAL REPORT (CATEGORY B DELIVERABLES)



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

NY ANALYTICAL SERVICES PROTOCOL DATA PACKAGE

Walden Environmental Engineering PLLC

I PARK0118.40

GCG29884

Ver 2

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Wednesday, October 28, 2020

Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Project ID: I PARK0118.40
SDG ID: GCG29884
Sample ID#s: CG29884 - CG29889

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



**NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE**

Client: Walden Environmental Engineering PLLC
Project: I PARK0118.40
Laboratory Project: GCG29884



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



NY Analytical Services Protocol Format

October 28, 2020

SDG I.D.: GCG29884

Walden Environmental Engineering PLLC I PARK0118.40

Methodology Summary

Volatiles in Air

Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15, Second Edition, U. S. Environmental Protection Agency, January 1999.



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NY Analytical Services Protocol Format

October 28, 2020

SDG I.D.: GCG29884

Walden Environmental Engineering PLLC I PARK0118.40

Laboratory Chronicle

Sample	Analysis	Collection Date	Prep Date	Analysis Date	Analyst	Hold Time Met
CG29884	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y
CG29885	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y
CG29886	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y
CG29887	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y
CG29888	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y
CG29889	Volatiles (TO15)	07/07/20	07/09/20	07/09/20	KCA	Y



Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

October 28, 2020

SDG I.D.: GCG29884

Any compound that is not detected above the MDL/LOD is reported as ND on the report and is reported in the electronic deliverables (EDD) as <RL or U at the RL per state and EPA guidance.

Version 1: Analysis results minus raw data.

Version 2: Complete report with raw data.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

October 28, 2020

SDG I.D.: GCG29884

Project ID: I PARK0118.40

Client Id	Lab Id	Matrix
IA-4 (HES)	CG29884	AIR
IA-3 (HES)	CG29885	AIR
IA-2 (HES)	CG29886	AIR
AA-1 (HES)	CG29887	AIR
IA-DUP (HES)	CG29888	AIR
IA-1 (HES)	CG29889	AIR



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 495

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 16:12
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29884

Project ID: I PARK0118.40
Client ID: IA-4 (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	13.7	1.00	1.00	32.5	2.37	2.37	07/09/20	KCA	1
Benzene	0.181	0.050	0.050	0.58	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.075	0.020	0.020	0.47	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.546	0.200	0.200	2.70	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	0.655	0.100	0.100	4.44	0.68	0.68	07/09/20	KCA	1
Toluene	0.258	0.200	0.200	0.97	0.75	0.75	07/09/20	KCA	1
Trichloroethene	0.066	0.037	0.037	0.35	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.284	0.150	0.150	1.59	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	93	%	%	93	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	87	%	%	87	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	91	%	%	91	%	%	07/09/20	KCA	1

Client ID: IA-4 (HES)

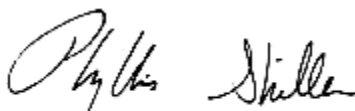
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By
% IS-Chlorobenzene-d5	92	%	%	92	%	%	07/09/20	KCA

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 23350

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 16:10
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29885

Project ID: I PARK0118.40
Client ID: IA-3 (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	12.3	1.00	1.00	29.2	2.37	2.37	07/09/20	KCA	1
Benzene	0.176	0.050	0.050	0.56	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.076	0.020	0.020	0.48	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.515	0.200	0.200	2.55	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	0.670	0.100	0.100	4.54	0.68	0.68	07/09/20	KCA	1
Toluene	0.260	0.200	0.200	0.98	0.75	0.75	07/09/20	KCA	1
Trichloroethene	0.063	0.037	0.037	0.34	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.272	0.150	0.150	1.53	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	93	%	%	93	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	85	%	%	85	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	89	%	%	89	%	%	07/09/20	KCA	1

Client ID: IA-3 (HES)

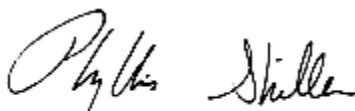
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By
% IS-Chlorobenzene-d5	89	%	%	89	%	%	07/09/20	KCA

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 12864

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 16:08
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29886

Project ID: I PARK0118.40
Client ID: IA-2 (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	8.58	1.00	1.00	20.4	2.37	2.37	07/09/20	KCA	1
Benzene	0.082	0.050	0.050	0.26	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.075	0.020	0.020	0.47	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.506	0.200	0.200	2.50	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	0.933	0.100	0.100	6.32	0.68	0.68	07/09/20	KCA	1
Toluene	0.244	0.200	0.200	0.92	0.75	0.75	07/09/20	KCA	1
Trichloroethene	0.089	0.037	0.037	0.48	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.293	0.150	0.150	1.65	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	94	%	%	94	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	85	%	%	85	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	90	%	%	90	%	%	07/09/20	KCA	1

Client ID: IA-2 (HES)

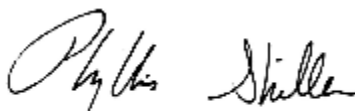
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By
% IS-Chlorobenzene-d5	88	%	%	88	%	%	07/09/20	KCA

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 28571

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 15:37
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29887

Project ID: I PARK0118.40
Client ID: AA-1 (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	2.52	1.00	1.00	5.98	2.37	2.37	07/09/20	KCA	1
Benzene	0.052	0.050	0.050	0.17	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.077	0.020	0.020	0.48	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.463	0.200	0.200	2.29	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	ND	0.100	0.100	ND	0.68	0.68	07/09/20	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	07/09/20	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.250	0.150	0.150	1.40	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	91	%	%	91	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	85	%	%	85	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	92	%	%	92	%	%	07/09/20	KCA	1

Client ID: AA-1 (HES)

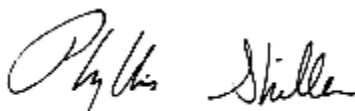
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By
% IS-Chlorobenzene-d5	88	%	%	88	%	%	07/09/20	KCA

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 28583

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 16:06
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29888

Project ID: I PARK0118.40
Client ID: IA-DUP (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	3.21	1.00	1.00	7.62	2.37	2.37	07/09/20	KCA	1
Benzene	0.055	0.050	0.050	0.18	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.080	0.020	0.020	0.50	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.483	0.200	0.200	2.39	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	0.174	0.100	0.100	1.18	0.68	0.68	07/09/20	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	07/09/20	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.281	0.150	0.150	1.58	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
<u>QA/QC Surrogates/Internals</u>									
% Bromofluorobenzene	93	%	%	93	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	86	%	%	86	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	93	%	%	93	%	%	07/09/20	KCA	1

Client ID: IA-DUP (HES)

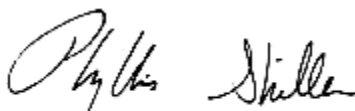
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	
% IS-Chlorobenzene-d5	90	%	%	90	%	%	07/09/20	KCA	1

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

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Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Sample Information

Matrix: AIR
Location Code: WALDENE-IPARK
Rush Request: 72 Hour
P.O.#: 0118.33+.40
Canister Id: 23346

Custody Information

Collected by: EJ
Received by: SW
Analyzed by: see "By" below

Date

07/07/20 15:10
07/08/20 16:37

Time

Laboratory Data

SDG ID: GCG29884
Phoenix ID: CG29889

Project ID: I PARK0118.40
Client ID: IA-1 (HES)

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
Volatiles (TO15)									
1,1,1-Trichloroethane	ND	0.200	0.200	ND	1.09	1.09	07/09/20	KCA	1
1,1-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.250	0.250	ND	1.85	1.85	07/09/20	KCA	1
1,2-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,3-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
1,4-Dichlorobenzene	ND	0.150	0.150	ND	0.90	0.90	07/09/20	KCA	1
Acetone	3.03	1.00	1.00	7.19	2.37	2.37	07/09/20	KCA	1
Benzene	0.054	0.050	0.050	0.17	0.16	0.16	07/09/20	KCA	1
Carbon Tetrachloride	0.074	0.020	0.020	0.47	0.13	0.13	07/09/20	KCA	1
Chlorobenzene	ND	0.200	0.200	ND	0.92	0.92	07/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	0.050	0.050	ND	0.20	0.20	07/09/20	KCA	1
Dichlorodifluoromethane	0.470	0.200	0.200	2.32	0.99	0.99	07/09/20	KCA	1
Ethylbenzene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
m,p-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Methylene Chloride	ND	0.400	0.400	ND	1.39	1.39	07/09/20	KCA	1
o-Xylene	ND	0.150	0.150	ND	0.65	0.65	07/09/20	KCA	1
Tetrachloroethene	0.146	0.100	0.100	0.99	0.68	0.68	07/09/20	KCA	1
Toluene	ND	0.200	0.200	ND	0.75	0.75	07/09/20	KCA	1
Trichloroethene	ND	0.037	0.037	ND	0.20	0.20	07/09/20	KCA	1
Trichlorofluoromethane	0.264	0.150	0.150	1.48	0.84	0.84	07/09/20	KCA	1
Trichlorotrifluoroethane	ND	0.150	0.150	ND	1.15	1.15	07/09/20	KCA	1
Vinyl Chloride	ND	0.020	0.020	ND	0.05	0.05	07/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	92	%	%	92	%	%	07/09/20	KCA	1
% IS-1,4-Difluorobenzene	86	%	%	86	%	%	07/09/20	KCA	1
% IS-Bromochloromethane	95	%	%	95	%	%	07/09/20	KCA	1

Client ID: IA-1 (HES)

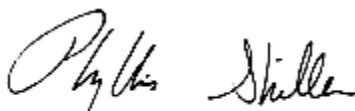
Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By
% IS-Chlorobenzene-d5	91	%	%	91	%	%	07/09/20	KCA

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

October 28, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Canister Sampling Information

October 28, 2020

FOR: Attn: Nora Brew
Walden Environmental Engineering PLLC
16 Spring Street
Oyster Bay, NY 11771

Location Code: WALDENE-IPARK

SDG I.D.: GCG29884

Project ID: I PARK0118.40

Client Id	Lab Id	Canister		Reg. Id	Chk Out Date	Laboratory					Field			
		Id	Type			Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
IA-4 (HES)	CG29884	495	6.0L	6987	06/29/20	-30	-5	10.8	12.1	11.4	-30	-5	07/07/20 08:28	07/07/20 16:12
IA-3 (HES)	CG29885	23350	6.0L	5389	06/29/20	-30	-2	10.8	11.9	9.7	-30	-2	07/07/20 08:27	07/07/20 16:10
IA-2 (HES)	CG29886	12864	6.0L	5673	06/29/20	-30	-5	10.8	11.1	2.7	-30	-5	07/07/20 08:23	07/07/20 16:08
AA-1 (HES)	CG29887	28571	6.0L	7011	06/29/20	-30	-3	10.8	11.5	6.3	-30	-3.5	07/07/20 08:38	07/07/20 15:37
IA-DUP (HES)	CG29888	28583	6.0L	3263	06/29/20	-30	-6	10.8	10.7	0.9	-30	-6	07/07/20 08:20	07/07/20 16:06
IA-1 (HES)	CG29889	23346	6.0L	6986	06/29/20	-30	-8	10.8	11	1.8	-26	-5	07/07/20 08:20	07/07/20 15:10



Environmental Laboratories, Inc.
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QA/QC Report

October 28, 2020

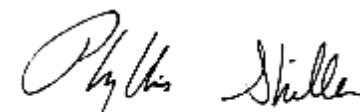
QA/QC Data

SDG I.D.: GCG29884

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	LCSD %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 549288 (ppbv), QC Sample No: CG29882 (CG29884, CG29885, CG29886, CG29887, CG29888, CG29889)													
Volatiles													
1,1,1-Trichloroethane	ND	0.200	ND	1.09	108	110	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.050	ND	0.20	106	107	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.250	ND	1.85	128	129	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.150	ND	0.90	117	117	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.150	ND	0.90	116	116	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.150	ND	0.90	118	117	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	1.00	ND	2.37	106	109	20.5	20.4	8.65	8.60	0.6	70 - 130	25
Benzene	ND	0.050	ND	0.16	114	117	0.26	0.26	0.080	0.083	NC	70 - 130	25
Carbon Tetrachloride	ND	0.020	ND	0.13	110	112	0.52	0.48	0.083	0.077	NC	70 - 130	25
Chlorobenzene	ND	0.200	ND	0.92	103	102	ND	ND	ND	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.050	ND	0.20	108	118	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	110	111	4.88	4.94	0.988	1.00	NC	70 - 130	25
Ethylbenzene	ND	0.150	ND	0.65	107	107	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.150	ND	0.65	105	106	1.06	1.05	0.244	0.243	NC	70 - 130	25
Methylene Chloride	ND	0.400	ND	1.39	100	101	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.150	ND	0.65	104	103	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.100	ND	0.68	108	109	1.18	1.13	0.174	0.167	NC	70 - 130	25
Toluene	ND	0.200	ND	0.75	120	120	20.0	20.5	5.30	5.45	2.8	70 - 130	25
Trichloroethene	ND	0.037	ND	0.20	106	107	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.150	ND	0.84	104	106	44.9	45.6	8.00	8.12	1.5	70 - 130	25
Trichlorotrifluoroethane	ND	0.150	ND	1.15	103	105	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.020	ND	0.05	109	110	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	92	%	92	%	102	100	94	94	94	94	NC	70 - 130	25
% IS-1,4-Difluorobenzene	93	%	93	%	107	107	91	90	91	90	NC	60 - 140	25
% IS-Bromochloromethane	100	%	100	%	102	101	98	98	98	98	NC	60 - 140	25
% IS-Chlorobenzene-d5	95	%	95	%	114	114	99	97	99	97	NC	60 - 140	25

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference


Phyllis Shiller, Laboratory Director
October 28, 2020

Sample Criteria Exceedances Report

Criteria: NY: AIRIA

GCG29884 - WALDENE-IPARK

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CG29884	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	0.655	0.100	0.443	0.443	ppbv
CG29884	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.066	0.037	0.037	0.037	ppbv
CG29884	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.075	0.020	0.032	0.032	ppbv
CG29884	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.47	0.13	0.2	0.2	ug/m3
CG29884	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	4.44	0.68	3	3	ug/m3
CG29884	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.35	0.20	0.2	0.2	ug/m3
CG29885	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.076	0.020	0.032	0.032	ppbv
CG29885	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	0.670	0.100	0.443	0.443	ppbv
CG29885	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.063	0.037	0.037	0.037	ppbv
CG29885	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.34	0.20	0.2	0.2	ug/m3
CG29885	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.48	0.13	0.2	0.2	ug/m3
CG29885	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	4.54	0.68	3	3	ug/m3
CG29886	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	0.933	0.100	0.443	0.443	ppbv
CG29886	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.089	0.037	0.037	0.037	ppbv
CG29886	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.075	0.020	0.032	0.032	ppbv
CG29886	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.47	0.13	0.2	0.2	ug/m3
CG29886	\$AIR_WALDEN	Tetrachloroethene	NY / Air Guideline Values / Indor Air	6.32	0.68	3	3	ug/m3
CG29886	\$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.48	0.20	0.2	0.2	ug/m3
CG29887	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.077	0.020	0.032	0.032	ppbv
CG29887	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.48	0.13	0.2	0.2	ug/m3
CG29888	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.080	0.020	0.032	0.032	ppbv
CG29888	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.50	0.13	0.2	0.2	ug/m3
CG29889	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.074	0.020	0.032	0.032	ppbv
CG29889	\$AIR_WALDEN	Carbon Tetrachloride	NY / Air Guideline Values / Indor Air	0.47	0.13	0.2	0.2	ug/m3

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045

Individual Canister Certification

October 28, 2020

Sample Information

Matrix: AIR

Canister Id: 495

Certification Date: 05/11/20 12:37 PM

Data File: H:\AIR2020\CHEM20\05MAY\10\0510_27.D\0510_27-20_AIR_0510.rr

Project ID: I PARK0118.40

Client ID: IA-4 (HES)

SDG ID: GCG29884

Phoenix ID: CG29884

Analyte	Result (ppbv)	Analyte	Result (ppbv)
1,1,1-Trichloroethane	<0.20	1,1-Dichloroethene	<0.05
1,2,4-Trichlorobenzene	<0.25	1,2-Dichlorobenzene	<0.15
1,3-Dichlorobenzene	<0.15	1,4-Dichlorobenzene	<0.15
Acetone	<1.0	Benzene	<0.050
Carbon Tetrachloride	<0.02	Chlorobenzene	<0.20
Cis-1,2-Dichloroethene	<0.05	Dichlorodifluoromethane	<0.20
Ethylbenzene	<0.15	m,p-Xylene	<0.15
Methylene Chloride	<0.40	o-Xylene	<0.15
Tetrachloroethene	<0.10	Toluene	<0.20
Trichloroethene	<0.037	Trichlorofluoromethane	<0.15
Trichlorotrifluoroethane	<0.15	Vinyl Chloride	<0.02



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045

Individual Canister Certification

October 28, 2020

Sample Information

Matrix: AIR

Canister Id: 23350

Certification Date: 05/18/20 4:35 PM

Data File: H:\AIR2020\CHEM20\05MAY\18\0518_07.D\0518_07-20_AIR_0510.rr

Project ID: I PARK0118.40

Client ID: IA-3 (HES)

SDG ID: GCG29884

Phoenix ID: CG29885

Analyte	Result (ppbv)	Analyte	Result (ppbv)
1,1,1-Trichloroethane	<0.20	1,1-Dichloroethene	<0.05
1,2,4-Trichlorobenzene	<0.25	1,2-Dichlorobenzene	<0.15
1,3-Dichlorobenzene	<0.15	1,4-Dichlorobenzene	<0.15
Acetone	<1.0	Benzene	<0.050
Carbon Tetrachloride	<0.02	Chlorobenzene	<0.20
Cis-1,2-Dichloroethene	<0.05	Dichlorodifluoromethane	<0.20
Ethylbenzene	<0.15	m,p-Xylene	<0.15
Methylene Chloride	<0.40	o-Xylene	<0.15
Tetrachloroethene	<0.10	Toluene	<0.20
Trichloroethene	<0.037	Trichlorofluoromethane	<0.15
Trichlorotrifluoroethane	<0.15	Vinyl Chloride	<0.02



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045

Individual Canister Certification

October 28, 2020

Sample Information

Matrix: AIR
Canister Id: 12864
Certification Date: 05/18/20 8:47 PM
Data File: H:\AIR2020\CHEM20\05MAY\18\0518_11.D\0518_11-20_AIR_0510.rr
Project ID: I PARK0118.40
Client ID: IA-2 (HES)

SDG ID: GCG29884
Phoenix ID: CG29886

Analyte	Result (ppbv)	Analyte	Result (ppbv)
1,1,1-Trichloroethane	<0.20	1,1-Dichloroethene	<0.05
1,2,4-Trichlorobenzene	<0.25	1,2-Dichlorobenzene	<0.15
1,3-Dichlorobenzene	<0.15	1,4-Dichlorobenzene	<0.15
Acetone	<1.0	Benzene	<0.050
Carbon Tetrachloride	<0.02	Chlorobenzene	<0.20
Cis-1,2-Dichloroethene	<0.05	Dichlorodifluoromethane	<0.20
Ethylbenzene	<0.15	m,p-Xylene	<0.15
Methylene Chloride	<0.40	o-Xylene	<0.15
Tetrachloroethene	<0.10	Toluene	<0.20
Trichloroethene	<0.037	Trichlorofluoromethane	<0.15
Trichlorotrifluoroethane	<0.15	Vinyl Chloride	<0.02



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045

Individual Canister Certification

October 28, 2020

Sample Information

Matrix: AIR
Canister Id: 28583
Certification Date: 06/24/20 10:37 PM
Data File: H:\AIR2020\CHEM20\06JUN\24\0624_18.D\0624_18-20_AIR_0615.rr
Project ID: I PARK0118.40
Client ID: IA-DUP (HES)

SDG ID: GCG29884
Phoenix ID: CG29888

Analyte	Result (ppbv)	Analyte	Result (ppbv)
1,1,1-Trichloroethane	<0.20	1,1-Dichloroethene	<0.05
1,2,4-Trichlorobenzene	<0.25	1,2-Dichlorobenzene	<0.15
1,3-Dichlorobenzene	<0.15	1,4-Dichlorobenzene	<0.15
Acetone	<1.0	Benzene	<0.050
Carbon Tetrachloride	<0.02	Chlorobenzene	<0.20
Cis-1,2-Dichloroethene	<0.05	Dichlorodifluoromethane	<0.20
Ethylbenzene	<0.15	m,p-Xylene	<0.15
Methylene Chloride	<0.40	o-Xylene	<0.15
Tetrachloroethene	<0.10	Toluene	<0.20
Trichloroethene	<0.037	Trichlorofluoromethane	<0.15
Trichlorotrifluoroethane	<0.15	Vinyl Chloride	<0.02



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045

Individual Canister Certification

October 28, 2020

Sample Information

Matrix: AIR

Canister Id: 23346

Certification Date: 05/11/20 1:16 PM

Data File: H:\AIR2020\CHEM20\05MAY\10\0510_28.D\0510_28-20_AIR_0510.rr

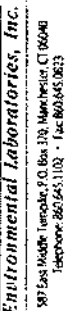
Project ID: I PARK0118.40

Client ID: IA-1 (HES)

SDG ID: GCG29884

Phoenix ID: CG29889

Analyte	Result (ppbv)	Analyte	Result (ppbv)
1,1,1-Trichloroethane	<0.20	1,1-Dichloroethene	<0.05
1,2,4-Trichlorobenzene	<0.25	1,2-Dichlorobenzene	<0.15
1,3-Dichlorobenzene	<0.15	1,4-Dichlorobenzene	<0.15
Acetone	<1.0	Benzene	<0.050
Carbon Tetrachloride	<0.02	Chlorobenzene	<0.20
Cis-1,2-Dichloroethene	<0.05	Dichlorodifluoromethane	<0.20
Ethylbenzene	<0.15	m,p-Xylene	<0.15
Methylene Chloride	<0.40	o-Xylene	<0.15
Tetrachloroethene	<0.10	Toluene	<0.20
Trichloroethene	<0.037	Trichlorofluoromethane	<0.15
Trichlorotrifluoroethane	<0.15	Vinyl Chloride	<0.02



Page 30 of 176



Phoenix Environmental Laboratories, Inc.
300 East Middle Turnpike, P.O. Box 370, Worcester, MA 01609
Telephone: 800.845.1107 • Fax: 508.845.0031

CHAIN OF CUSTODY RECORD AIR ANALYSES

800-827-5426
email: greg@phoenixlabs.com

P.O. # 1 Park 0118-33 + 466 Page 2 of 2

Data Delivery

Fax #:

Email: n.brown@walden-associates.com

Phone #: 516-624-7200

Report to:	Kern Wright	Project Name:	Call center
Customer:	Walden	Invoice to:	Nora Brew, P.E.
Address:	200 North Drive (Park)		16 Spring St, Oyster Bay NY 11771
	Hopewell Junction, NY	Sampled by:	Eric Johnston

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (PSI)	Incoming Canister Pressure (PSI)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (PSI)	Canister Pressure at End (PSI)	Matrix	TO-15	APE
29887	AA-1 (HES)	28581	60	-30	-3	7811	108	8:38	15:37	7/7/20	-30	-3.5	X	G	
		12855				10799									
	IA-1 (Call center)	28348				5659		8:59	15:41	7/7/20	-30	-5	X	G	
		28624				6338									
		28584				5564									
29888	AA-1 (Call center)	28539				7023		9:07	10:10	7/7/20	-29	-9	X	G	
	IA-2 (HES)	28583			-6	2863		8:20	16:00	7/7/20	-30	-6	X	G	
	IA-2 (Call center)	19026				6981		8:45	15:45	7/7/20	-30	-1	X	G	
	IA-3 (Call center)	28570				7846		8:53	16:21	7/7/20	-30	-6	X	G	
29889	IA-1 (HES)	28346			-8	5886		8:20	15:10	7/7/20	-36	-5	X	G	

Receiving by:	Accepted by:	Date:	Time:	Signature:	Date:
Kern Wright	Eric Johnston	7/8/20	11:05	[Signature]	7/7/20
State Where Samples Collected:	Requested Criteria:	MA:	NI:	PA:	NE:
NY	CL:	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	TAC/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	TAC/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	SVWC/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	SVWC/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	GMV/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential
	GMV/IC	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential	Indoor Air: Residential

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

TO-15 "special code" 1st needed. (10/16/20)

See Bobbi/Greg, Modified TO-15 (8/12)

analyses per project QAPP provided IND-CERT

Please separate "call center" + "HES" samples in 2 reports

PLEASE AS ORIGINAL (28)

Shannon Wilhelm

Subject: FW: Walden COC
Attachments: 20200708115817.pdf

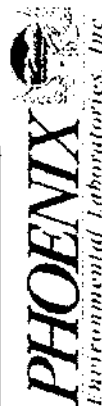
From: Michael Lapman
Sent: Wednesday, July 08, 2020 1:04 PM
To: Shannon Wilhelm
Subject: FW: Walden COC

Please cancel line item IA3 (Call Center) on the second COC. They also noted they want separate reports for "Call Centers" and "HES".

3-Day Rush TAT, they have a special reporting list as well.

Thank you.

Regards,
Michael Lapman
Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
Manchester, CT 06040
Direct Line: 917.449.0850
Laboratory: 860.812.0086
www.phoenixlabs.com



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587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE

Client: Walden Environmental Engineering PLLC

I PARK0118.40

Laboratory Project: GCG29884

Volatile TO15
Ver 2

Organic Data Flags

LOD(MDL): Limit of Detection or Method Detection Limit
The minimum reportable concentration that can be measured with confidence.

PQL(RL): Practical Quantitation Level or Reporting Level
This value is at or above the MDL and is supported by the lowest calibration standard.

Q Qualifiers:

U - The compound was analyzed for but not detected at or above the MDL. The number immediately preceding the "U" represents the PQL reporting level corrected for percent solids, weight and/or volume calculations, and dilution factors.

J - Indicates an estimated value, may indicate one of the following, depending on the situation:
a) The reported value is estimated and below the MDL
b) Used when estimating a concentration for TIC where a 1:1 response is assumed or when the result indicates the presence of a compound that meets the identification criteria, but the results is less than the quantitation limit, but greater than zero.
c) QC associated with this analyte is within warning limits.

X - The concentration is not reported. This quantitation file was not evaluated for this compound at this dilution; a volatile purging or related issue may be the cause.

L - Biased Low

N - The concentration is based on the response of the nearest internal. This flag is used on the TIC form for all compounds identified.

S - This compound is a solvent that is used in the laboratory. Laboratory contamination is suspected if concentration is less than five times the reporting level.

B - This compound was also present in the method blank

D - The reported concentration is the result of a diluted analysis. Samples that require dilution may result in elevated reporting limits that exceed requested criteria for one or more analytes.

E - The reported value is estimated because the concentration exceeded the calibration range.

A - Indicates that the tentatively identified compound is a suspected aldol condensation product. Aldol condensation products are produced during the extraction process.

Q - For TICS, this compound was quantitated using a calibration curve. This compound is part of the instrument method, but not part of the client target list.

P - Percent difference is greater than 25% between the two GC columns and the lower result is reported.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06040
Tel. (860) 645-1102 Fax (860) 645-0823



SDG: GCG29884

Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: I PARK0118.40, Walden Environmental Engineering PLLC

Form 1 (Analysis):

No observations noted.

Form 2 (Surrogates):

All surrogates met criteria with the following exceptions: None.

Form 3 (Laboratory Control/Matrix Spike):

Sample: CG29882 LCS

All LCS recoveries met criteria with the following exceptions: None.

Sample: CG29882 LCS

All LCS recoveries met criteria with the following exceptions: None.

Form 4 (Method Blank):

File: CHEM20 0708_23.D

All compounds were non-detect with the following exceptions: None

Form 5 (Tune):

File: CHEM20 0708_06.D

All Tune criteria was met with the following exceptions: None.

Form 6 (Initial Calibration):

Calibration: CHEM20 07/08/20 - 07/08/20

100% of method compounds met criteria.

The following compounds did not meet maximum % deviations: None.

Calibration: CHEM20 07/08/20 - 07/08/20

100% of method compounds met criteria.

The following compounds did not meet maximum % deviations: None.

Form 7 (Continuing Calibration):

File: CHEM20 0708_18.D (Opening)

98% of method compounds met criteria.

The following compounds did not meet maximum % deviations: Ethylbenzene 35.0% (20), m,p-Xylene 41.2% (20), o-Xylene 30.0% (20)

Samples were analyzed within twelve hours of ICAL, injection of the last ICAL standard was used as the starting time reference for evaluation per method.

No Opening CCAL is provided.



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Tel. (860) 645-1102 Fax (860) 645-0823



SDG: GCG29884

Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: I PARK0118.40, Walden Environmental Engineering PLLC

Form 8 (Internal Standard and Retention Time):

File: CHEM20 - 20_AIR_0708_wal.M / 0708_18.D Full

All samples met internal standard area and retention time criteria with the following exceptions: None.

File: CHEM20 - 20_AIR_0708_wal.M / 0708_18.D Sim

All samples met internal standard area and retention time criteria with the following exceptions: None.

File: CHEM20 - 20_AIR_0708_wal.M / Average Full

All samples met internal standard area and retention time criteria with the following exceptions: None.

File: CHEM20 - 20_AIR_0708_wal.M / Average Sim

All samples met internal standard area and retention time criteria with the following exceptions: None.

10/14/20

Alejandro Paredes

Project Manager

Lab Name:	Phoenix Environmental Labs	Client:	WALDENE-IPARK
Lab Code:	Phoenix	Case No.:	SDG: GCG29884
QC Batch Id:	549288	QC Sample Id:	CG29882

	CLIENT ID	LAB ID	SMC1 BFB #				TOT OUT
01	CG29882 LCS	CG29882 LCS	102				0
02	CG29882 LCSD	CG29882 LCSD	100				0
03	CG29882 BLANK	CG29882 BLANK	92				0
04	CG29882 QC	CG29882 QC	94				0
05	29882 dup	CG29882 DUP	94				0
06	IA-4 (HES)	CG29884	93				0
07	IA-3 (HES)	CG29885	94				0
08	IA-2 (HES)	CG29886	94				0
09	AA-1 (HES)	CG29887	91				0
10	IA-DUP (HES)	CG29888	93				0
11	IA-1 (HES)	CG29889	92				0
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

Page 37 of 176

4A
AIR METHOD BLANK SUMMARY

Client ID

CG29882 BLANK

Lab Name: Phoenix Environmental Labs

Client: _____

Lab Code: Phoenix Case No.: _____

SAS No.: _____

SDG No.: GCG29884

Lab File ID: 0708_23.D

Lab Sample ID: CG29882 BLK

Date Analyzed: 07/09/2020

Time Analyzed: 00:03

GC Column: RTX-1 60M

Lab Batch ID: 549288

Instrument ID: CHEM20

Heated Purge:(Y/N) Y

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	CG29882 LCS	CG29882 LCS	0708_20.D	22:16
02	CG29882 LCSD	CG29882 LCS	0708_21.D	22:54
03	CG29882 QC	CG29882	0708_29.D	04:04
04	29882 dup	CG29882 DUP	0708_30.D	04:44
05	IA-4 (HES)	CG29884	0708_31.D	05:24
06	IA-3 (HES)	CG29885	0708_32.D	06:04
07	IA-2 (HES)	CG29886	0708_33.D	06:44
08	AA-1 (HES)	CG29887	0708_34.D	07:24
09	IA-DUP (HES)	CG29888	0708_35.D	08:05
10	IA-1 (HES)	CG29889	0708_36.D	08:45
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

COMMENTS:

FORM IV AIR

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884

Lab File ID: 0708_06.D BFB Injection Date: 07/08/20

Instrument ID: CHEM20 BFB Injection Time: 13:40

GC Column: RTX-1 60M Heated Purge: (Y/N) Y

AutoFind: Scans 806, 807, 808; Background Corrected with Scan 801

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	18.9
75	30.0 - 66.0% of mass 95	53.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.6 (0.9)1
174	50.0 - 120.0% of mass 95	69.9
175	4.0 - 9.0% of mass 174	7.2 (5.0)1
176	93.0 - 101.0% of mass 174	95.3 (66.6)1
177	5.0 - 9.0% of mass 176	6.5 (4.3)1

1-Value is % mass 95

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED	
01	ICAL 0.02	0.02	0708_07.D	07/08/20	14:16	
02	ICAL 0.035	0.035	0708_08.D	07/08/20	14:52	
03	ICAL 0.05	0.05	0708_09.D	07/08/20	15:28	
04	ICAL 0.1	0.10	0708_10.D	07/08/20	16:04	
05	ICAL 0.2	0.2	0708_11.D	07/08/20	16:41	
06	ICAL 0.5	0.50	0708_12.D	07/08/20	17:19	
07	ICAL 2.5	2.5	0708_13.D	07/08/20	17:57	
08	ICAL 5	5.0	0708_14.D	07/08/20	18:33	
09	ICAL 25	25	0708_15.D	07/08/20	19:11	
10	ICAL 40	40	0708_16.D	07/08/20	19:51	
11	ICAL 1	1	0708_18.D	07/08/20	21:02	
12	ICAL 10	10	0708_19.D	07/08/20	21:38	
13	CG29882 LCS	CG29882 LCS	0708_20.D	07/08/20	22:16	
14	CG29882 LCSD	CG29882 LCSD	0708_21.D	07/08/20	22:54	
15	CG29882 BLANK	CG29882 BLANK	0708_23.D	07/09/20	00:03	
16	CG29882 QC	CG29882 QC	0708_29.D	07/09/20	04:04	
17	29882 dup	CG29882 DUP	0708_30.D	07/09/20	04:44	
18	IA-4 (HES)	CG29884	0708_31.D	07/09/20	05:24	
19	IA-3 (HES)	CG29885	0708_32.D	07/09/20	06:04	
20	IA-2 (HES)	CG29886	0708_33.D	07/09/20	06:44	
21	AA-1 (HES)	CG29887	0708_34.D	07/09/20	07:24	
22	IA-DUP (HES)	CG29888	0708_35.D	07/09/20	08:05	
23	IA-1 (HES)	CG29889	0708_36.D	07/09/20	08:45	
24						
25						

(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_06.D
 Acq On : 8 Jul 2020 1:40 pm
 Operator :
 Sample : 0/0
 Misc :
 ALS Vial : 8 Sample Multiplier: 1

Integration File signal 1: rteint.p
 Integration File signal 2: rteint2.p

Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:37:03 2020

AutoFind: Scans 806, 807, 808; Background Corrected with Scan 801

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.9	79629	PASS
75	95	30	66	53.6	225472	PASS
95	95	100	100	100.0	420517	PASS
96	95	5	9	6.7	28022	PASS
173	174	0.00	2	0.9	2686	PASS
174	95	50	120	69.9	293851	PASS
175	174	4	9	7.2	21146	PASS
176	174	93	101	95.3	280043	PASS
177	176	5	9	6.5	18267	PASS

20_AIR_0708.M Fri Jul 10 08:26:10 2020

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884

Lab Method / File Id: 20_AIR_0708_wal.M / 0708_18.D Date Analyzed: 07/08/20

Instrument ID: CHEM20 Time Analyzed: 21:02

GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #			LAB FILE ID
12 HOUR STD	320265	6.76	1252324	7.97	696930	10.51			0708_18.D
UPPER LIMIT	449972	7.09	1759515	8.30	979187	10.84			0708_18.D
LOWER LIMIT	190558	6.43	745133	7.64	414673	10.18			0708_18.D
CLIENT ID									
01 ICAL 1	320265	6.76	1252324	7.97	696930	10.51			0708_18.D
02 CG29882 LCS	327065	6.77	1337116	7.97	793174	10.51			0708_20.D
03 CG29882 LCSD	323684	6.76	1339925	7.97	792644	10.51			0708_21.D
04 CG29882 BLANK	320188	6.75	1168285	7.96	664144	10.51			0708_23.D
05 CG29882 QC	313063	6.75	1142973	7.97	689370	10.51			0708_29.D
06 29882 dup	313522	6.76	1122484	7.97	679189	10.51			0708_30.D
07 IA-4 (HES)	290712	6.76	1092292	7.97	640149	10.51			0708_31.D
08 IA-3 (HES)	285666	6.75	1058678	7.97	619530	10.51			0708_32.D
09 IA-2 (HES)	287712	6.75	1070104	7.96	615651	10.51			0708_33.D
10 AA-1 (HES)	293833	6.75	1066721	7.97	616333	10.51			0708_34.D
11 IA-DUP (HES)	298586	6.75	1075365	7.96	626325	10.51			0708_35.D
12 IA-1 (HES)	302866	6.75	1079995	7.96	637022	10.51			0708_36.D
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: _____
 Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884
 Lab Method / File Id: 20_AIR_0708_wal.M / 0708_18.D Date Analyzed: 07/08/20
 Instrument ID: CHEM20 Time Analyzed: 21:02
 GC Column: RTX-1 60M ID: 0.18 (mm) Heated Purge:(Y/N) Y

	IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #			LAB FILE ID
12 HOUR STD	363595	6.77	1252324	7.97	696930	10.51			0708_18.D
UPPER LIMIT	510851	7.10	1759515	8.30	979187	10.84			0708_18.D
LOWER LIMIT	216339	6.44	745133	7.64	414673	10.18			0708_18.D
CLIENT ID									
01 ICAL 1	363595	6.77	1252324	7.97	696930	10.51			0708_18.D
02 CG29882 LCS	372104	6.77	1337116	7.97	793174	10.51			0708_20.D
03 CG29882 LCSD	368160	6.77	1339925	7.97	791488	10.51			0708_21.D
04 CG29882 BLANK	362910	6.76	1168285	7.96	664144	10.51			0708_23.D
05 CG29882 QC	353584	6.76	1142973	7.97	689370	10.51			0708_29.D
06 29882 dup	351486	6.77	1122484	7.97	679189	10.51			0708_30.D
07 IA-4 (HES)	330238	6.77	1092310	7.97	640149	10.51			0708_31.D
08 IA-3 (HES)	322038	6.76	1058678	7.97	619530	10.51			0708_32.D
09 IA-2 (HES)	324596	6.75	1070104	7.96	615651	10.51			0708_33.D
10 AA-1 (HES)	334076	6.76	1066721	7.97	616333	10.51			0708_34.D
11 IA-DUP (HES)	342391	6.76	1075195	7.96	626325	10.51			0708_35.D
12 IA-1 (HES)	341611	6.76	1079500	7.96	637022	10.51			0708_36.D
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
 AREA LOWER LIMIT = - 60% of internal standard area
 RT UPPER LIMIT = +0.33 minutes of internal standard RT
 RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884

Lab Method / File Id: 20_AIR_0708_wal.M / Average Date Analyzed: 07/08/20

Instrument ID: CHEM20 Time Analyzed: 21:02

GC Column: _____ ID: 0.18 (mm) Heated Purge:(Y/N) Y

	IS1 (BCM) Area Avg #	RT Avg #	IS2 (DFB) Area Avg #	RT Avg #	IS3 (CBZ) Area Avg #	RT Avg #			LAB FILE ID
12 HOUR STD	328005	6.75	1256659	7.96	751102	10.51			Average
UPPER LIMIT	460847	7.08	1765606	8.29	1055298	10.84			Average
LOWER LIMIT	195163	6.42	747712	7.63	446905	10.18			Average
CLIENT ID									
01 ICAL 0.2	325569	6.74	1168972	7.96	661512	10.51			0708_11.D
02 ICAL 0.5	328003	6.74	1188017	7.96	681268	10.51			0708_12.D
03 ICAL 2.5	322279	6.74	1244591	7.96	700408	10.51			0708_13.D
04 ICAL 5	324710	6.75	1264202	7.96	729716	10.51			0708_14.D
05 ICAL 25	330935	6.77	1293948	7.97	839178	10.51			0708_15.D
06 ICAL 40	341781	6.77	1365202	7.98	922588	10.51			0708_16.D
07 ICAL 1	320265	6.76	1252324	7.97	696930	10.51			0708_18.D
08 ICAL 10	330497	6.77	1276015	7.97	777213	10.51			0708_19.D
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
AREA LOWER LIMIT = - 60% of internal standard area
RT UPPER LIMIT = +0.33 minutes of internal standard RT
RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: _____
 Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884
 Lab Method / File Id: 20_AIR_0708_wal.M / Average Date Analyzed: 07/08/20
 Instrument ID: CHEM20 Time Analyzed: 21:02
 GC Column: _____ ID: 0.18 (mm) Heated Purge:(Y/N) Y

	IS1 (BCM) Area Avg #	RT Avg #	IS2 (DFB) Area Avg #	RT Avg #	IS3 (CBZ) Area Avg #	RT Avg #			LAB FILE ID
12 HOUR STD	361060	6.75	1358589	7.97	726171	10.51			Average
UPPER LIMIT	507290	7.08	1908818	8.30	1020270	10.84			Average
LOWER LIMIT	214831	6.42	808361	7.64	432072	10.18			Average
CLIENT ID									
01 ICAL 0.02	355402	6.76	1304768	7.96	686083	10.51			0708_07.D
02 ICAL 0.035	355185	6.76	1324610	7.97	698392	10.51			0708_08.D
03 ICAL 0.05	356270	6.75	1306937	7.96	686422	10.51			0708_09.D
04 ICAL 0.1	356670	6.76	1317369	7.96	694918	10.51			0708_10.D
05 ICAL 0.2	356661	6.75	1341266	7.96	708958	10.51			0708_11.D
06 ICAL 0.5	361652	6.75	1381949	7.96	725736	10.51			0708_12.D
07 ICAL 2.5	363676	6.75	1430056	7.96	753167	10.51			0708_13.D
08 ICAL 5	368761	6.75	1449730	7.96	782270	10.51			0708_14.D
09 ICAL 1	363595	6.77	1252324	7.97	696930	10.51			0708_18.D
10 ICAL 10	372731	6.77	1476883	7.98	828830	10.51			0708_19.D
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

IS1 (BCM) = Bromochloromethane
 IS2 (DFB) = 1,4-Difluorobenzene
 IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +140% of internal standard area
 AREA LOWER LIMIT = - 60% of internal standard area
 RT UPPER LIMIT = +0.33 minutes of internal standard RT
 RT LOWER LIMIT = -0.33 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

FORM VIII VOA

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_31.D
 Acq On : 9 Jul 2020 5:24 am
 Operator :
 Client ID : IA-4 (HES)
 Lab ID : CG29884
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Oct 13 15:09:35 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

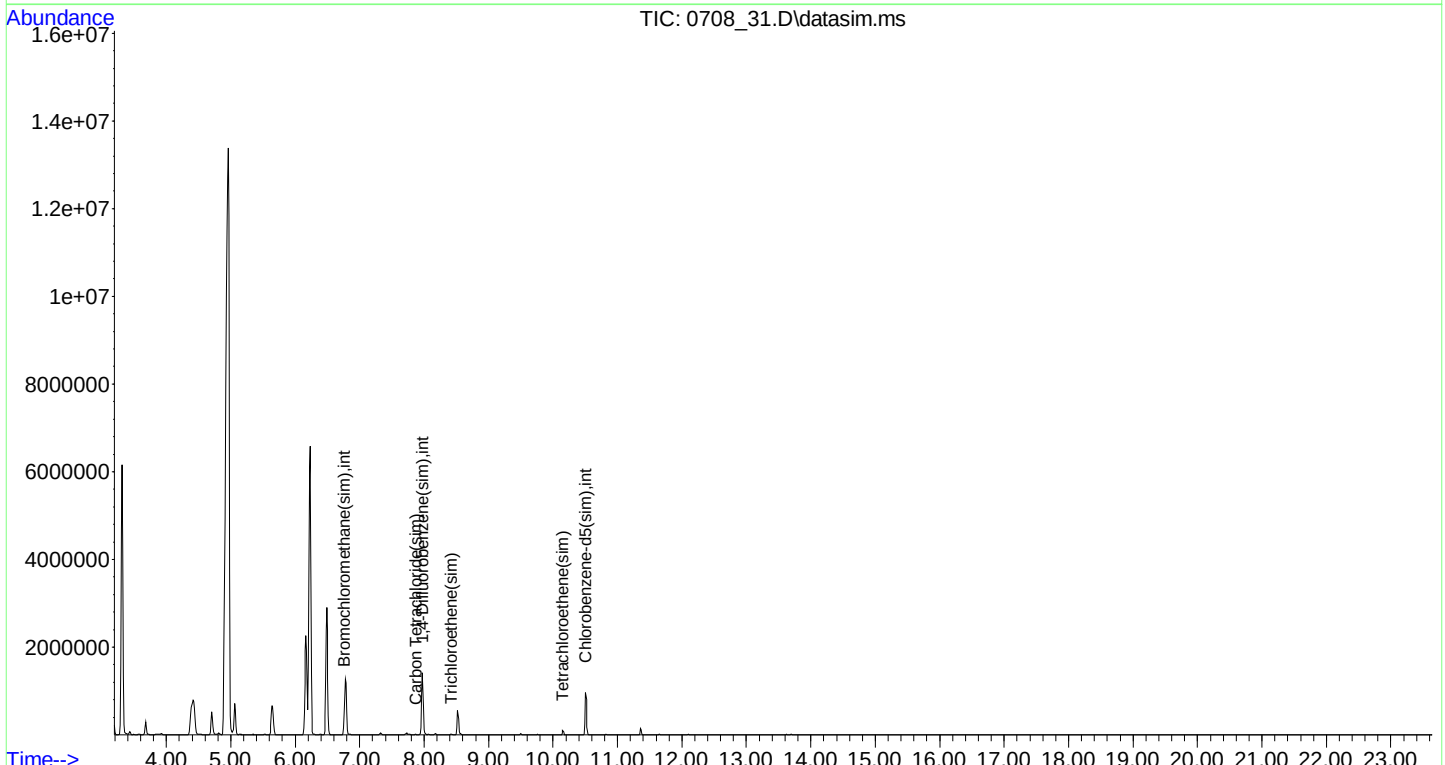
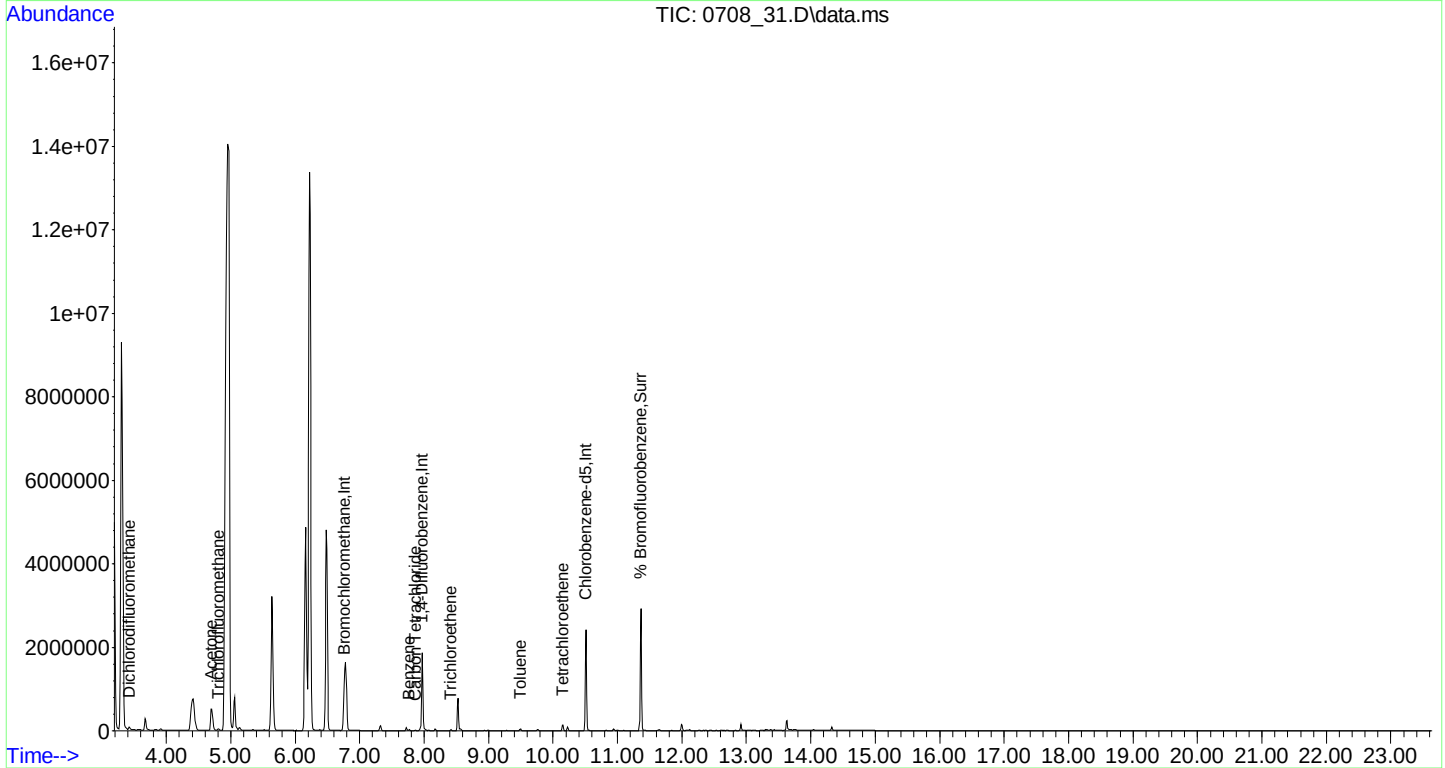
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.762	130	290712	10.000	ng	0.02
15) 1,4-Difluorobenzene	7.969	114	1092292	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	640149	10.000	ng	0.00
30) Bromochloromethane(sim)	6.768	130	330238	10.000	ng	# 0.02
41) 1,4-Difluorobenzene(sim)	7.969	114	1092310	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	640149	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	820070	9.330	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.30%
Target Compounds						
2) Dichlorodifluoromethane	3.425	85	61995	0.546	ppbv#	Qvalue 87
4) Acetone	4.697	43	606495	13.690	ppbv#	89
5) Trichlorofluoromethane	4.805	101	29026	0.284	ppbv	93
13) Benzene	7.768	78	16118	0.181	ppbv#	93
14) Carbon Tetrachloride	7.868	117	5888	0.071	ppbv	95
17) Trichloroethene	8.414	130	1958	0.050	ppbv	93
18) Toluene	9.494	91	25584	0.258	ppbv	97
19) Tetrachloroethene	10.154	166	30219	0.655	ppbv	87
35) Carbon Tetrachloride(sim)	7.868	117	5888	0.074	ppbv#	95
44) Trichloroethene(sim)	8.420	130	2330	0.066	ppbv	97
46) Tetrachloroethene(sim)	10.150	166	41712	1.078	ppbv	93

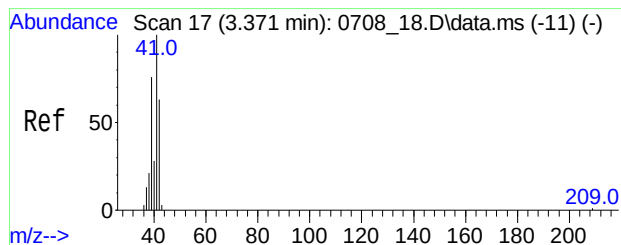
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_31.D
 Acq On : 9 Jul 2020 5:24 am
 Operator :
 Client ID : IA-4 (HES)
 Lab ID : CG29884
 ALS Vial : 27 Sample Multiplier: 1

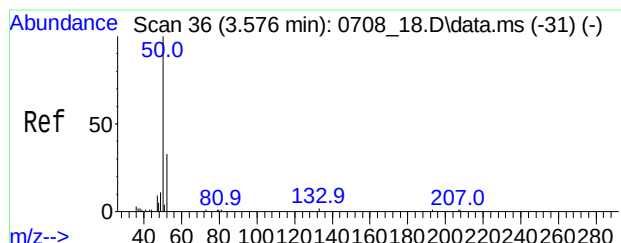
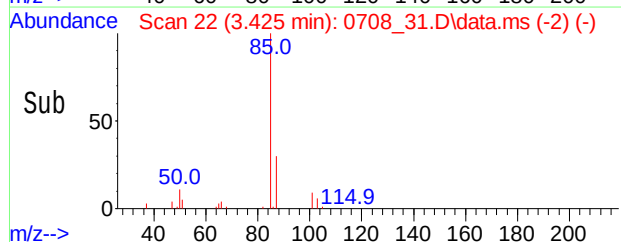
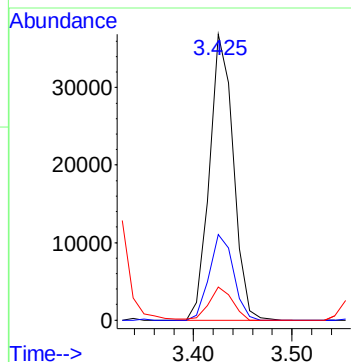
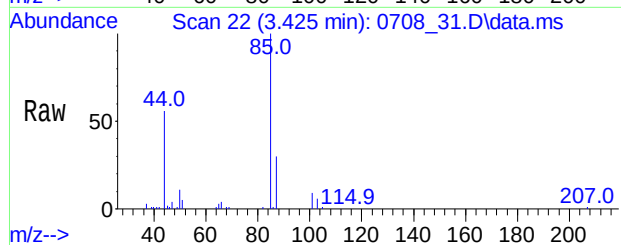
Quant Time: Oct 13 15:09:35 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration





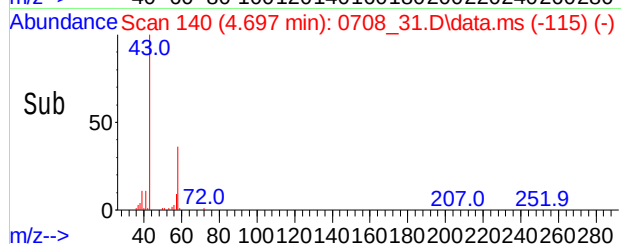
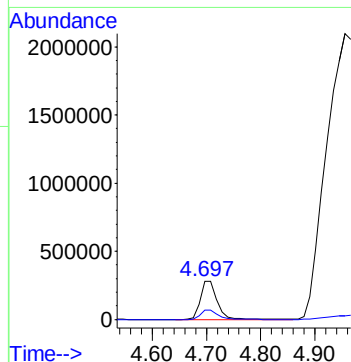
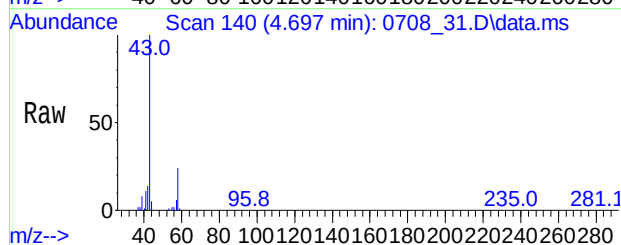
#2
Dichlorodifluoromethane
Conc: 8\$ 0.546 ppbv
RT: 3.425 min Scan# 22
Delta R.T. 0.011 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

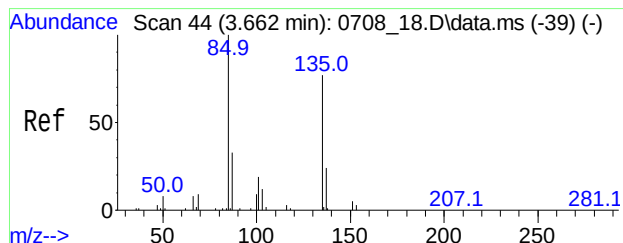
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	61995		
87	30.3	31.4	47.2#	
50	11.5	11.8	17.8#	



#4
Acetone
Conc: 8\$ 13.690 ppbv
RT: 4.697 min Scan# 140
Delta R.T. -0.032 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

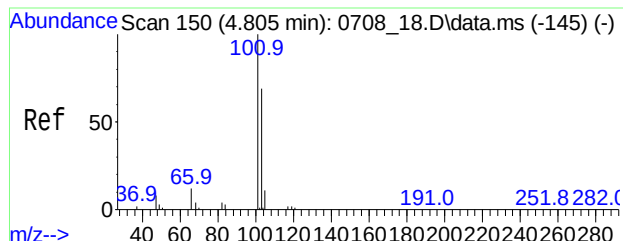
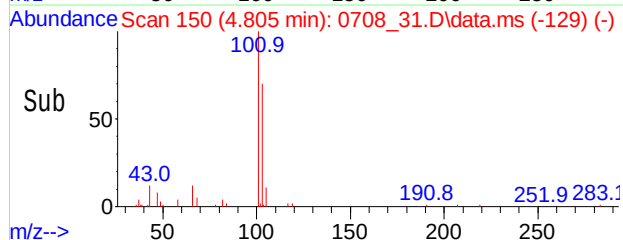
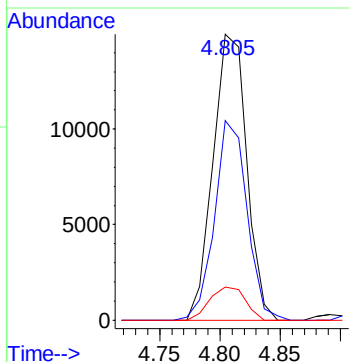
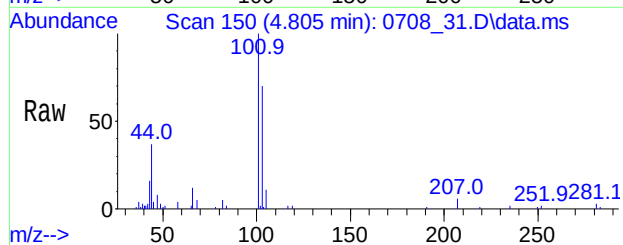
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	606495		
58	25.3	16.2	24.2#	





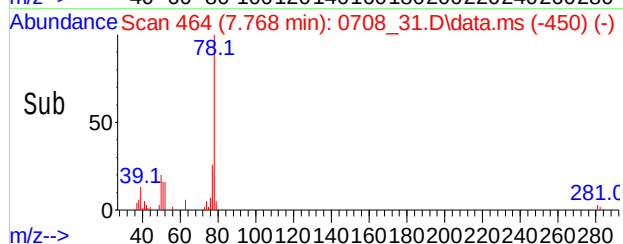
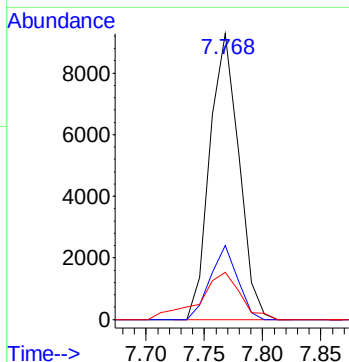
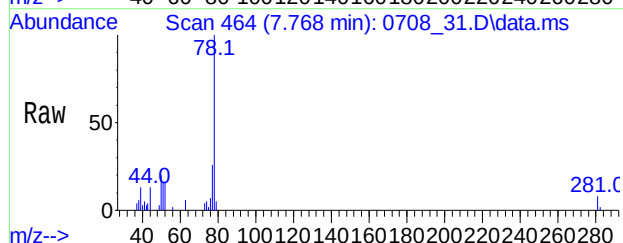
#5
 Trichlorofluoromethane
 Conc: 8\$ 0.284 ppbv
 RT: 4.805 min Scan# 150
 Delta R.T. 0.022 min
 Lab File: 0708_31.D
 Acq: 9 Jul 2020 5:24 am

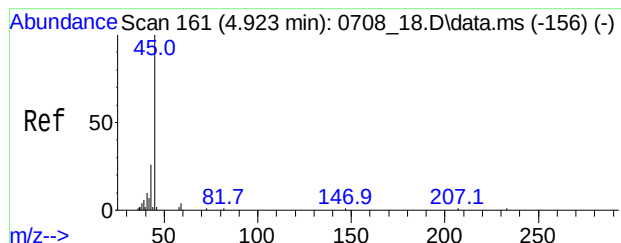
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	29026		
103	67.3	49.0	73.6	
66	12.3	10.7	16.1	



#13
 Benzene
 Conc: 8\$ 0.181 ppbv
 RT: 7.768 min Scan# 464
 Delta R.T. 0.022 min
 Lab File: 0708_31.D
 Acq: 9 Jul 2020 5:24 am

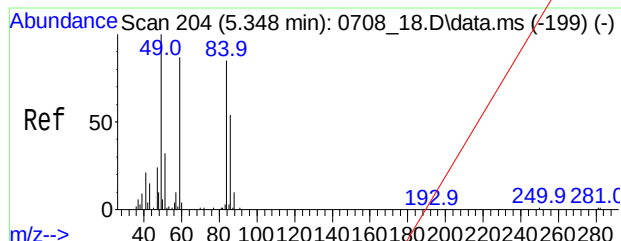
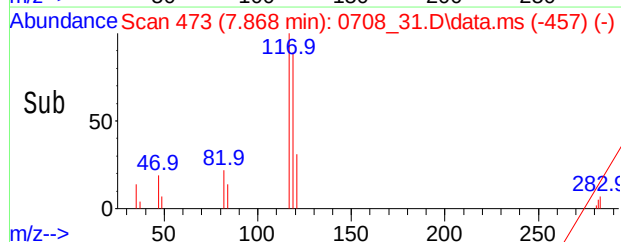
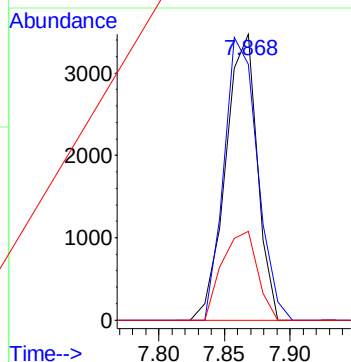
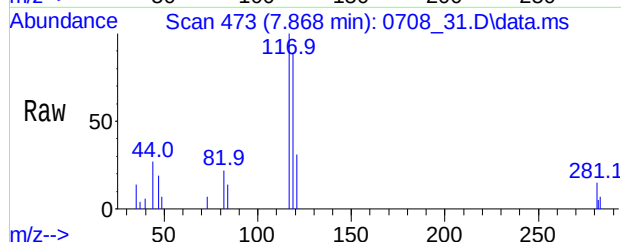
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	16118		
77	24.3	18.6	28.0	
51	22.9	13.9	20.9	





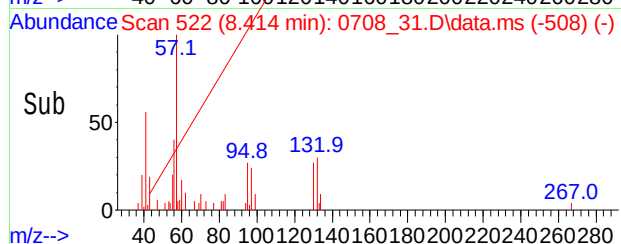
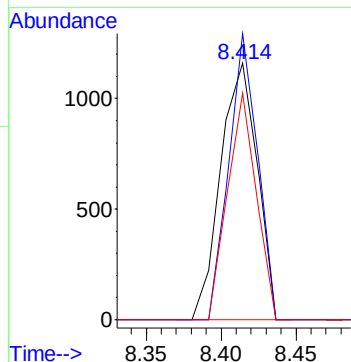
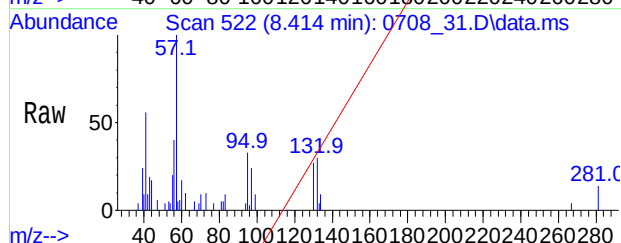
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.868 min Scan# 473
Delta R.T. 0.033 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

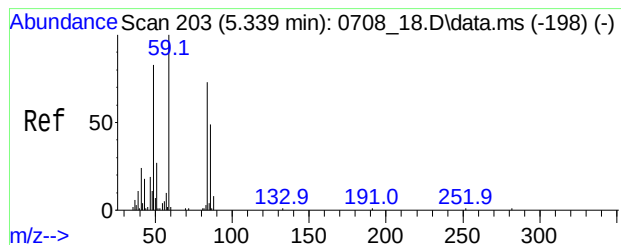
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5888		
119	103.8	87.1	127.1	
121	34.4	7.2	47.2	



#17
Trichloroethene
Conc: 8\$ Below Cal
RT: 8.414 min Scan# 522
Delta R.T. 0.011 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

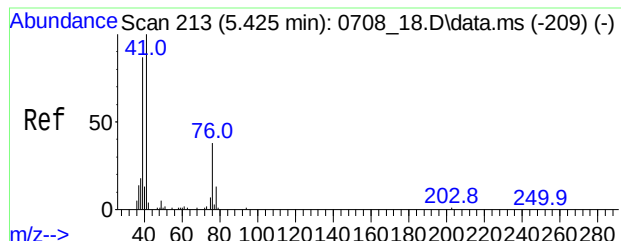
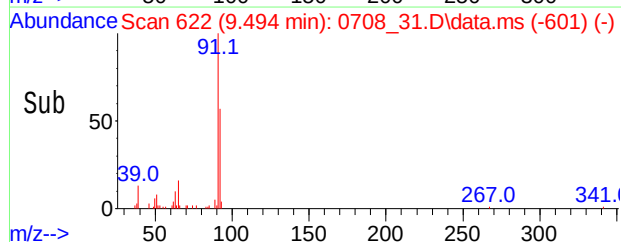
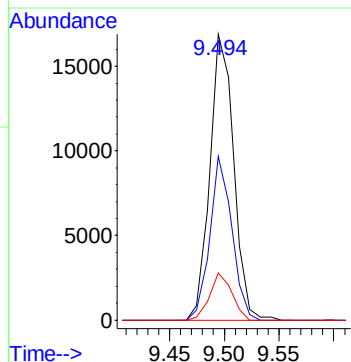
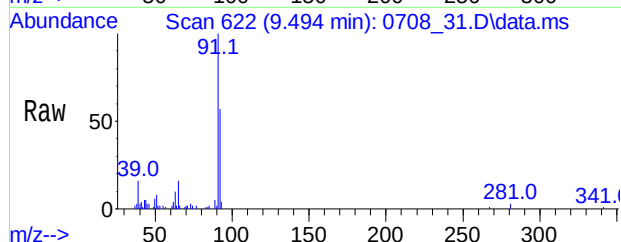
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	1958		
132	88.0	74.8	112.2	
97	69.7	61.6	92.4	





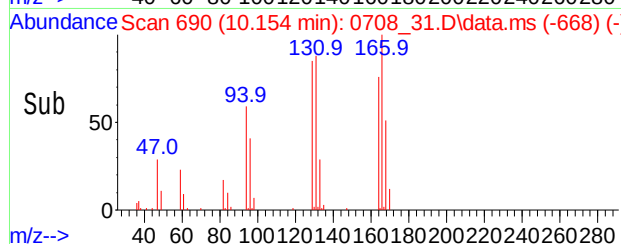
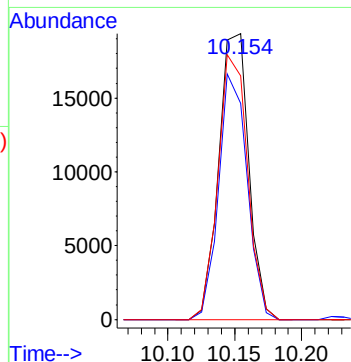
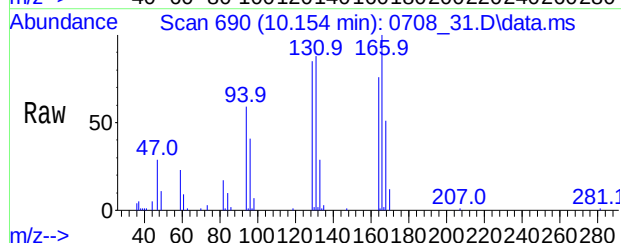
#18
Toluene
Conc: 8\$ 0.258 ppbv
RT: 9.494 min Scan# 622
Delta R.T. 0.000 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

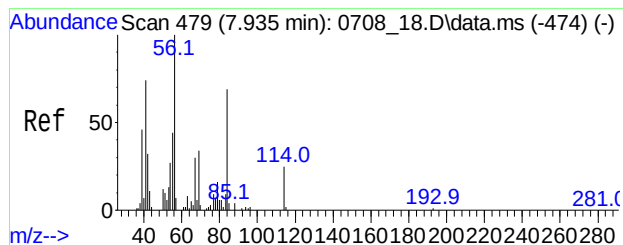
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	25584		
92	53.0	40.9	61.3	
65	15.4	11.7	17.5	



#19
Tetrachloroethene
Conc: 8\$ 0.655 ppbv
RT: 10.154 min Scan# 690
Delta R.T. 0.009 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

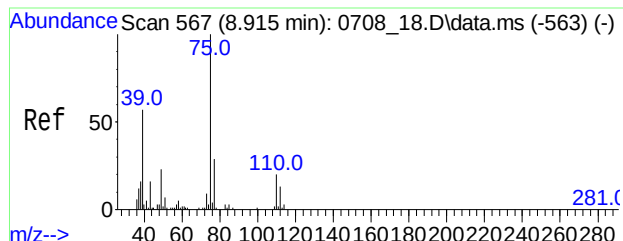
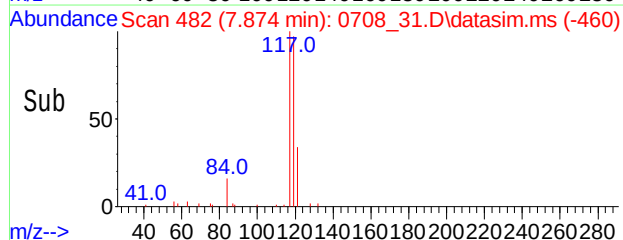
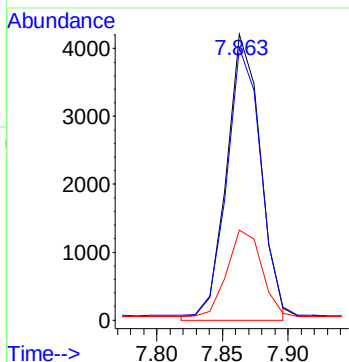
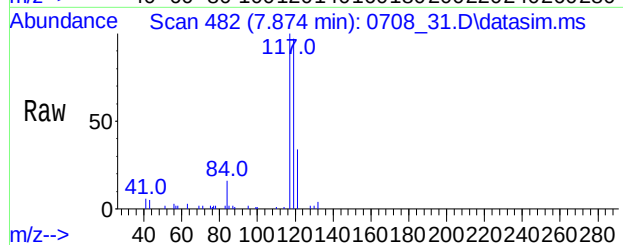
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	30219		
164	81.5	56.0	84.0	
129	91.3	64.2	96.4	





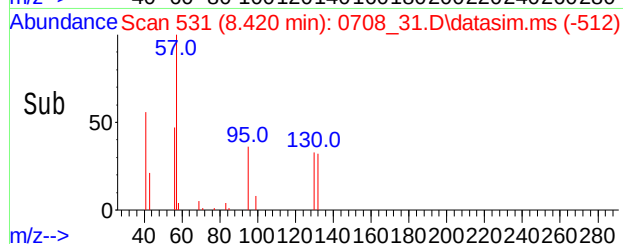
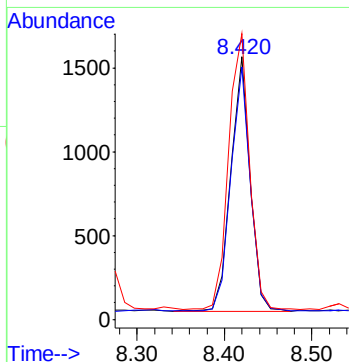
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.074 ppbv
RT: 7.868 min Scan# 482
Delta R.T. 0.033 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

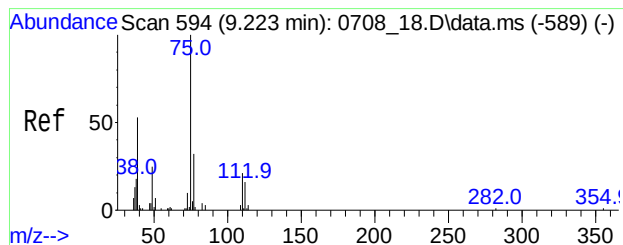
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5888		
119	103.8	85.7	128.5	
121	34.4	21.8	32.6#	



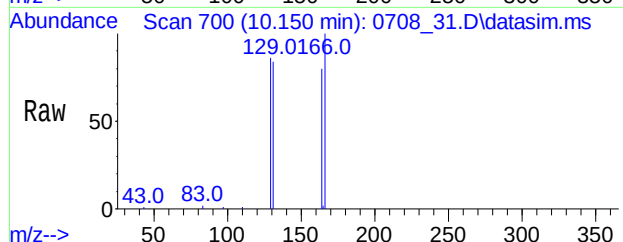
#44
Trichloroethene(sim)
Conc: 8\$ 0.066 ppbv
RT: 8.420 min Scan# 531
Delta R.T. 0.017 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am

Tgt Ion	Ratio	Resp	Lower	Upper
130	100	2330		
132	96.5	74.8	112.2	
95	117.8	92.1	138.1	

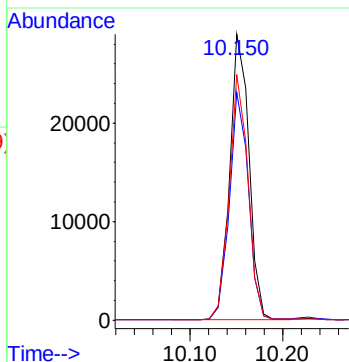
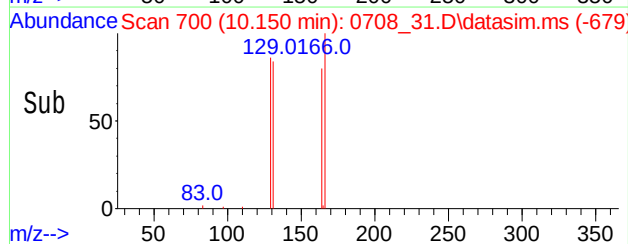




#46
Tetrachloroethene(sim)
Conc: 8\$ 1.078 ppbv
RT: 10.150 min Scan# 700
Delta R.T. 0.005 min
Lab File: 0708_31.D
Acq: 9 Jul 2020 5:24 am



Tgt Ion: 166 Resp: 41712
Ion Ratio Lower Upper
166 100
164 78.1 50.0 90.0
129 83.5 60.3 100.3



IA-3 (HES)

Lab Sample ID: CG29885

Lab File ID: 0708_32.D

Date Received: 07/08/20

Date Analyzed: 07/09/20

Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

[illegible]

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_32.D
 Acq On : 9 Jul 2020 6:04 am
 Operator :
 Client ID : IA-3 (HES)
 Lab ID : CG29885
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Oct 13 15:09:55 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

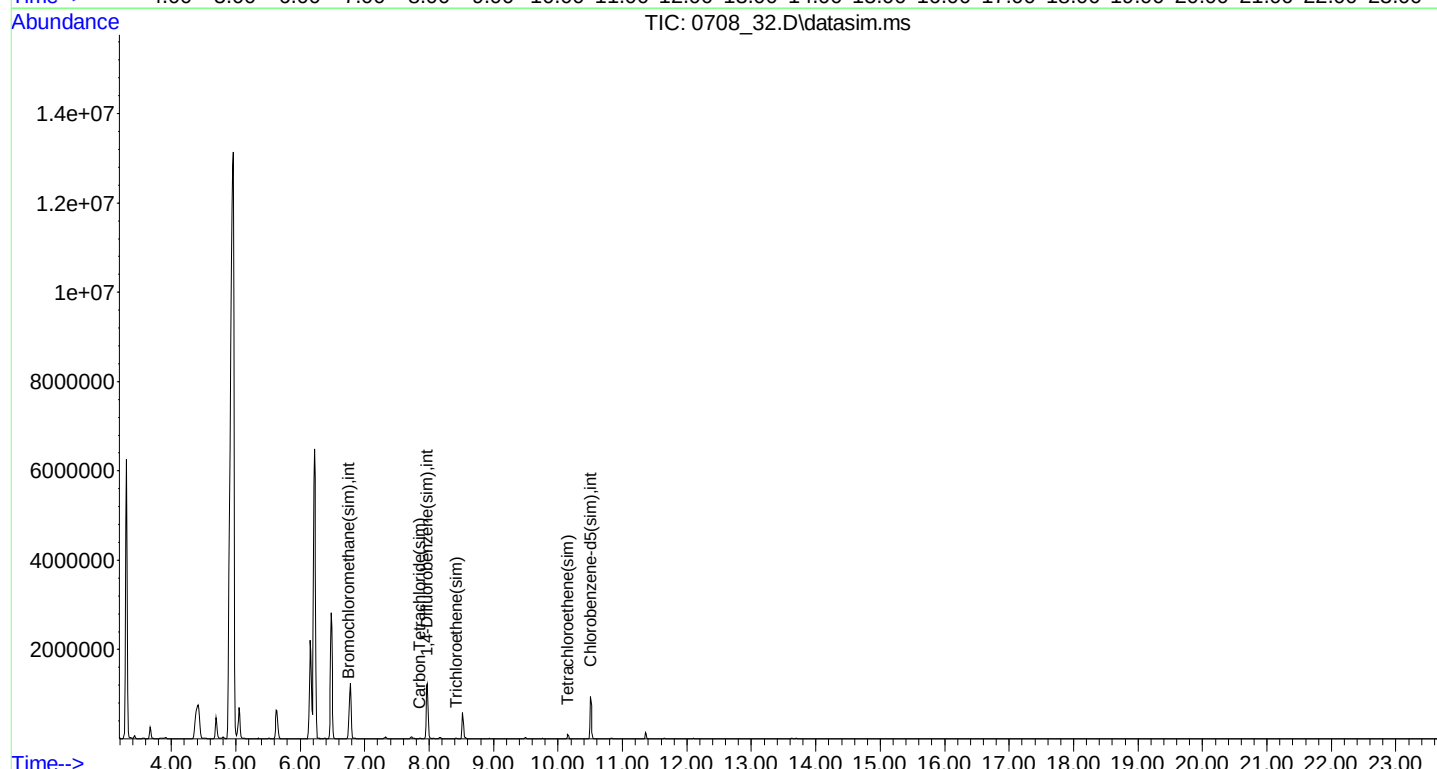
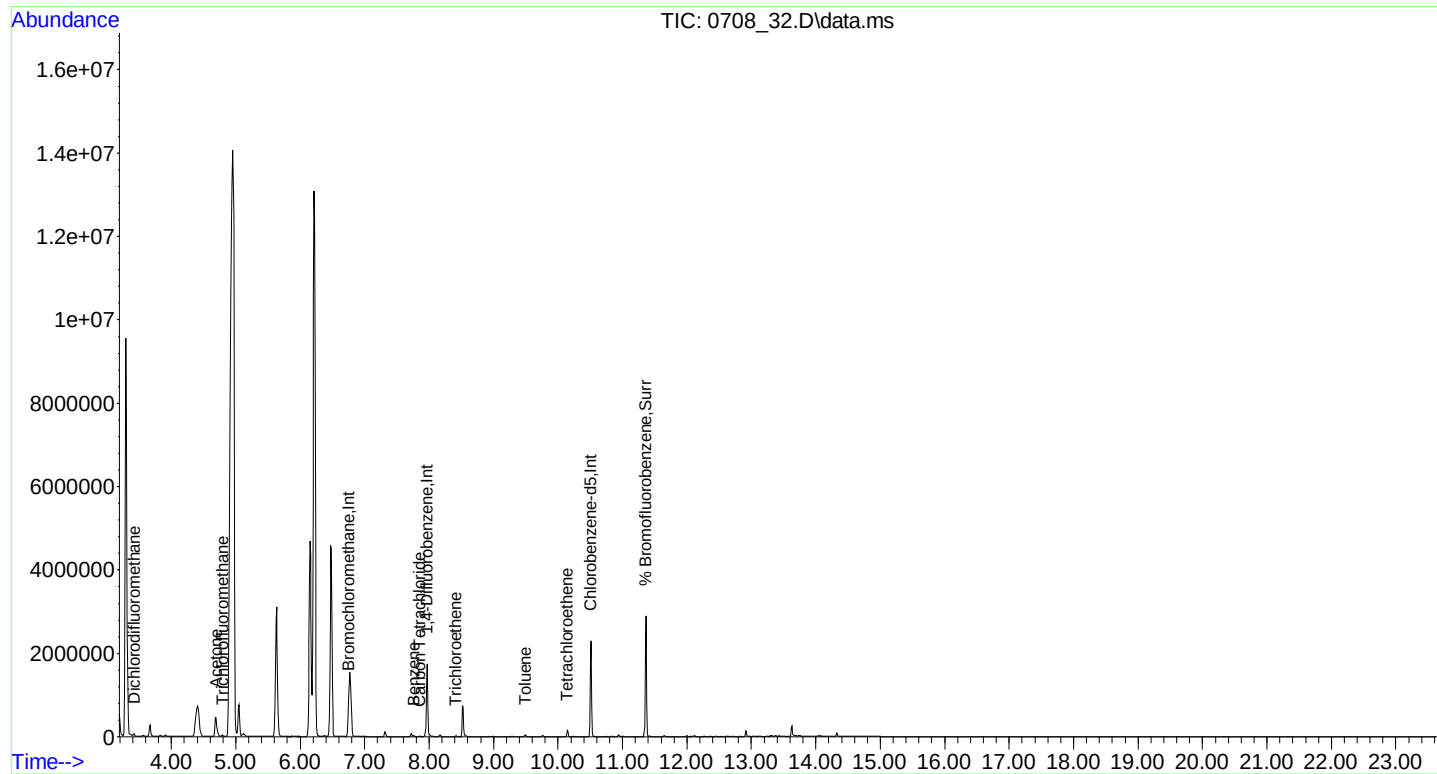
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	285666	10.000	ng	0.01
15) 1,4-Difluorobenzene	7.969	114	1058678	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	619530	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	322038	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.969	114	1058678	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	619530	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.363	95	795244	9.348	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.50%
Target Compounds						
2) Dichlorodifluoromethane	3.425	85	57486	0.515	ppbv#	Qvalue 90
4) Acetone	4.697	43	537052	12.337	ppbv#	89
5) Trichlorofluoromethane	4.794	101	27311	0.272	ppbv	95
13) Benzene	7.768	78	15401	0.176	ppbv#	93
14) Carbon Tetrachloride	7.857	117	5849	0.072	ppbv	91
17) Trichloroethene	8.414	130	1827	0.048	ppbv	94
18) Toluene	9.494	91	24979	0.260	ppbv	98
19) Tetrachloroethene	10.145	166	29961	0.670	ppbv	85
35) Carbon Tetrachloride(sim)	7.857	117	5849	0.076	ppbv	91
44) Trichloroethene(sim)	8.420	130	2177	0.063	ppbv	94
46) Tetrachloroethene(sim)	10.150	166	40134	1.070	ppbv	93

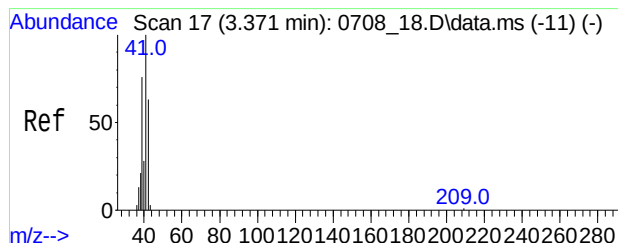
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_32.D
 Acq On : 9 Jul 2020 6:04 am
 Operator :
 Client ID : IA-3 (HES)
 Lab ID : CG29885
 ALS Vial : 28 Sample Multiplier: 1

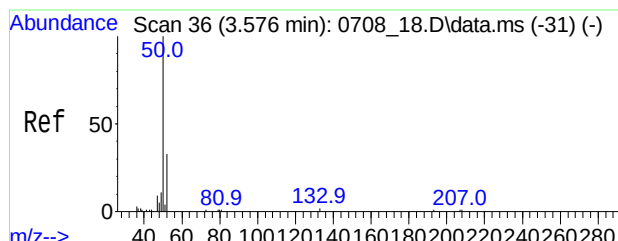
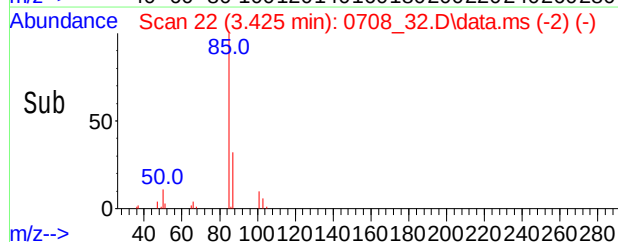
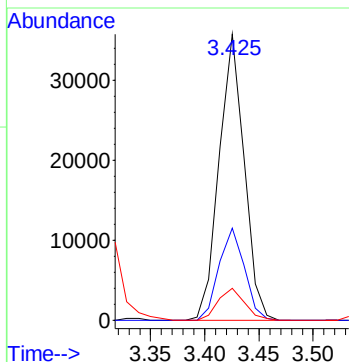
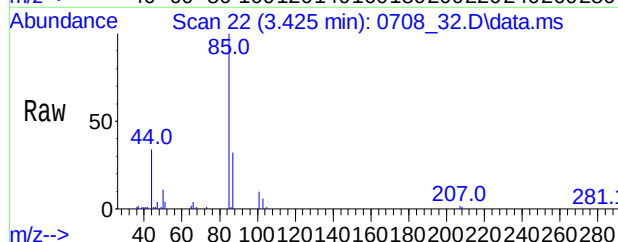
Quant Time: Oct 13 15:09:55 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration





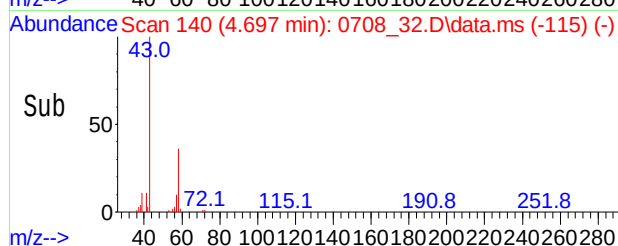
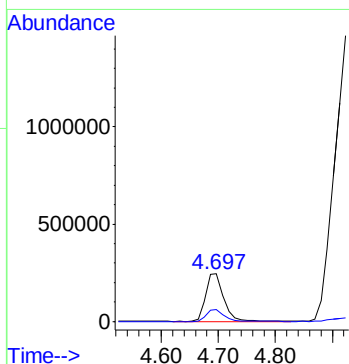
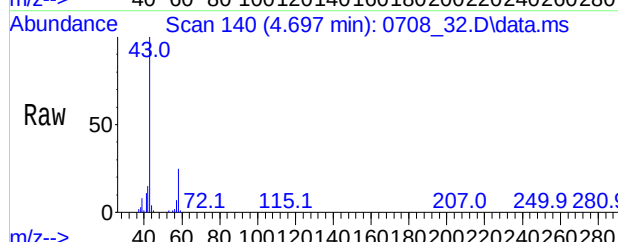
#2
Dichlorodifluoromethane
Conc: 8\$ 0.515 ppbv
RT: 3.425 min Scan# 22
Delta R.T. 0.011 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

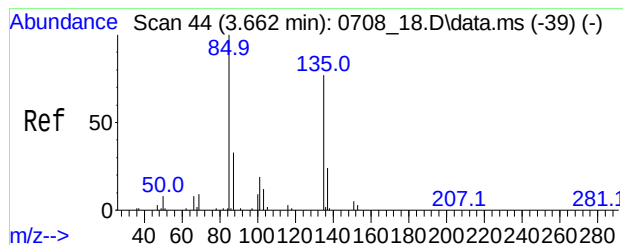
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	57486		
87	32.8	31.4	47.2	
50	11.8	11.8	17.8#	



#4
Acetone
Conc: 8\$ 12.337 ppbv
RT: 4.697 min Scan# 140
Delta R.T. -0.032 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

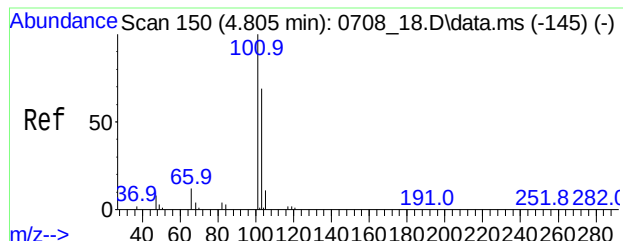
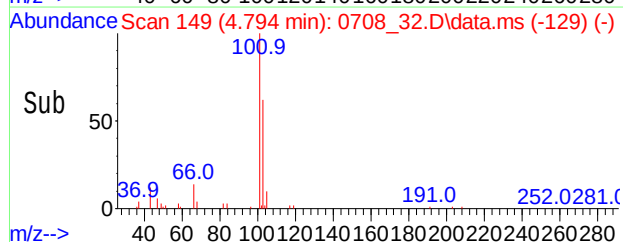
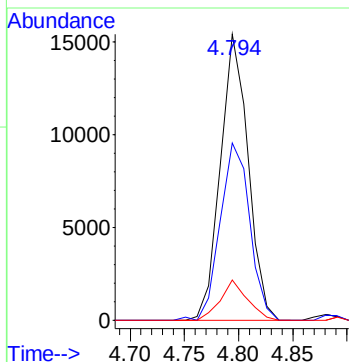
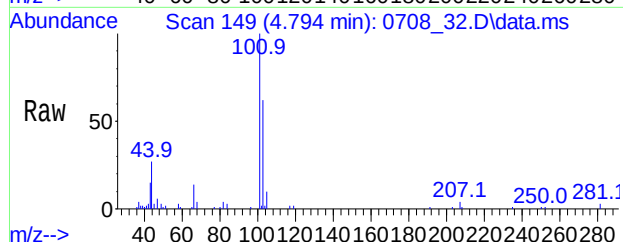
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	537052		
58	25.1	16.2	24.2#	





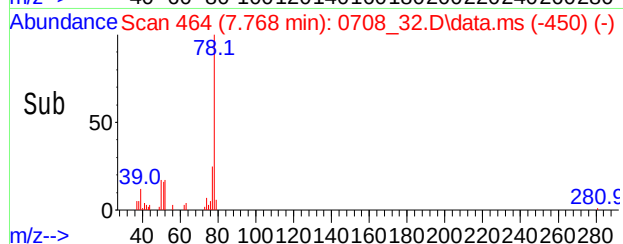
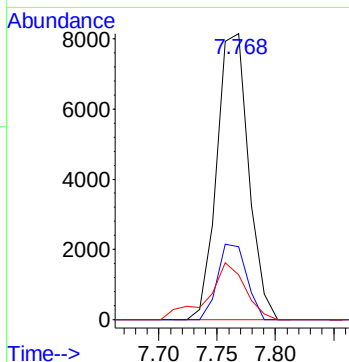
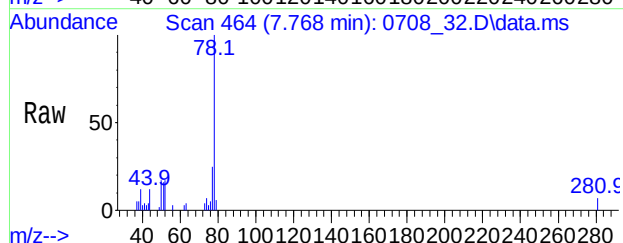
#5
 Trichlorofluoromethane
 Conc: 8\$ 0.272 ppbv
 RT: 4.794 min Scan# 149
 Delta R.T. 0.011 min
 Lab File: 0708_32.D
 Acq: 9 Jul 2020 6:04 am

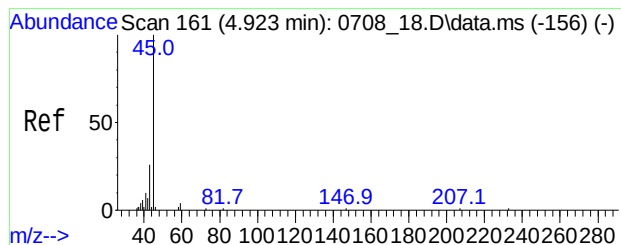
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	27311		
103	66.1	49.0	73.6	
66	13.5	10.7	16.1	



#13
 Benzene
 Conc: 8\$ 0.176 ppbv
 RT: 7.768 min Scan# 464
 Delta R.T. 0.022 min
 Lab File: 0708_32.D
 Acq: 9 Jul 2020 6:04 am

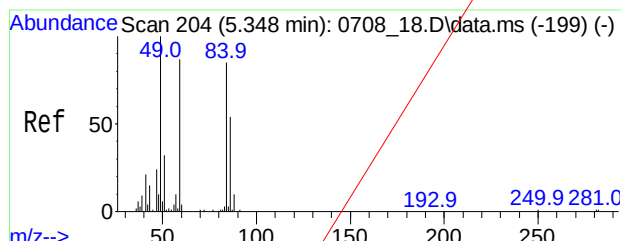
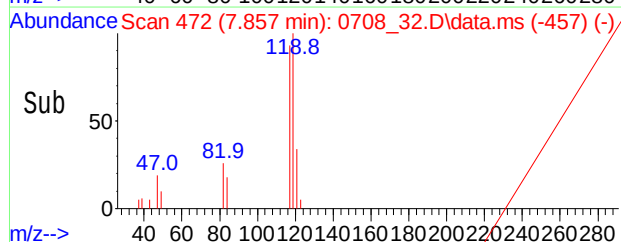
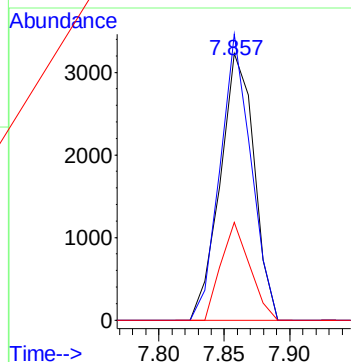
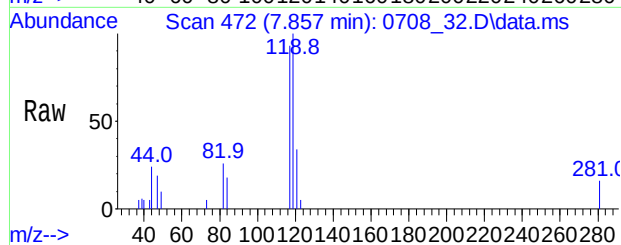
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	15401		
77	24.1	18.6	28.0	
51	23.1	13.9	20.9	





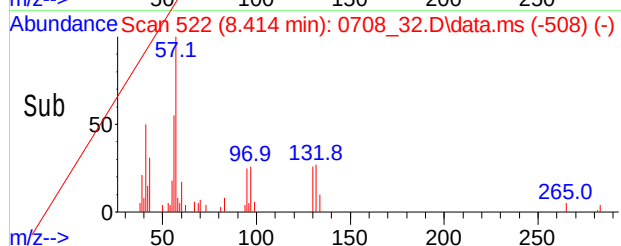
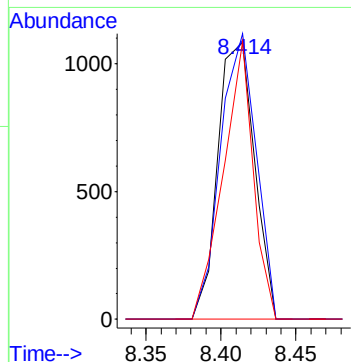
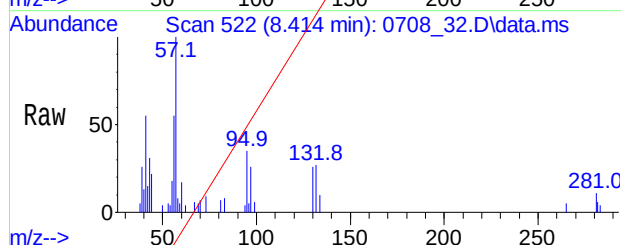
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.857 min Scan# 472
Delta R.T. 0.022 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

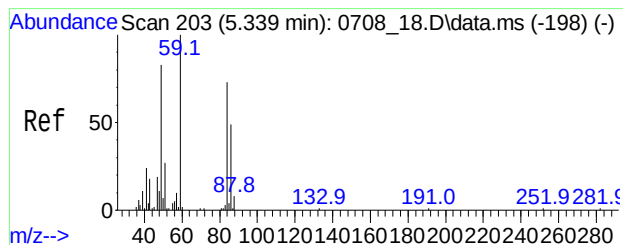
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5849		
119	97.9	87.1	127.1	
121	31.2	7.2	47.2	



#17
Trichloroethene
Conc: 8\$ Below Cal
RT: 8.414 min Scan# 522
Delta R.T. 0.011 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

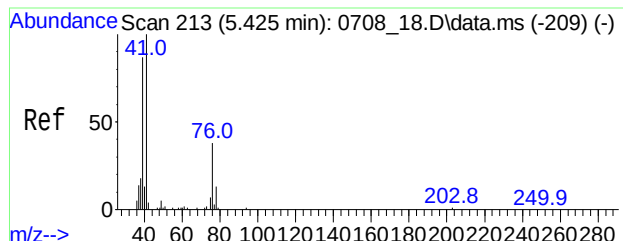
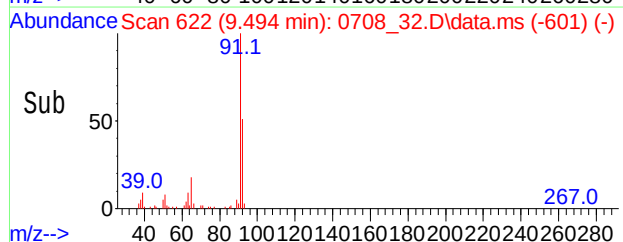
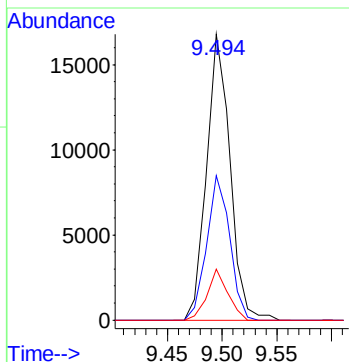
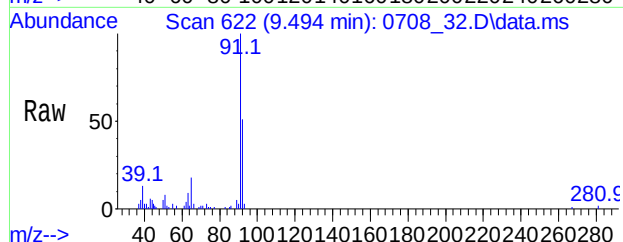
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	1827		
132	100.2	74.8	112.2	
97	82.1	61.6	92.4	





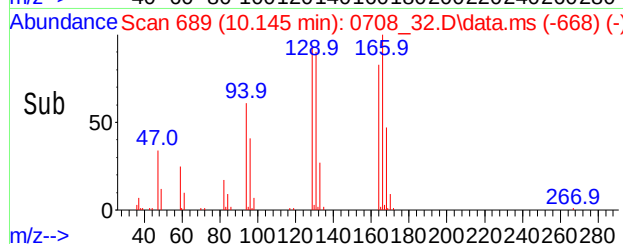
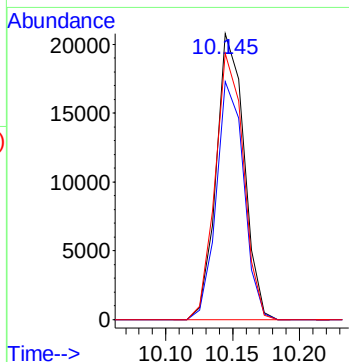
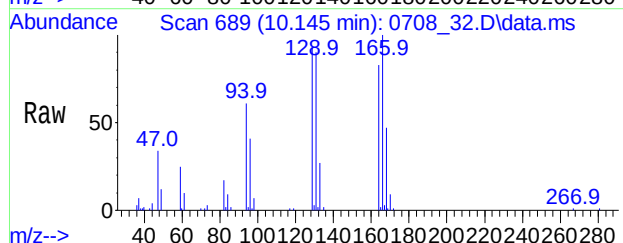
#18
Toluene
Conc: 8\$ 0.260 ppbv
RT: 9.494 min Scan# 622
Delta R.T. 0.000 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

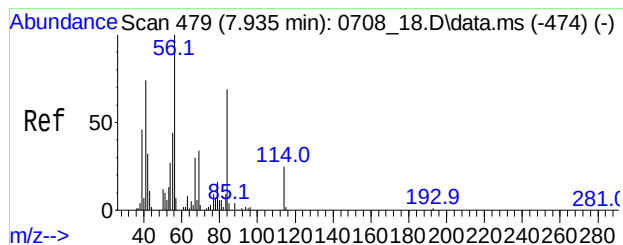
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	24979		
92	49.6	40.9	61.3	
65	15.7	11.7	17.5	



#19
Tetrachloroethene
Conc: 8\$ 0.670 ppbv
RT: 10.145 min Scan# 689
Delta R.T. -0.000 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

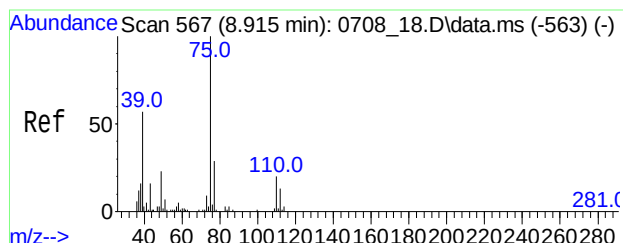
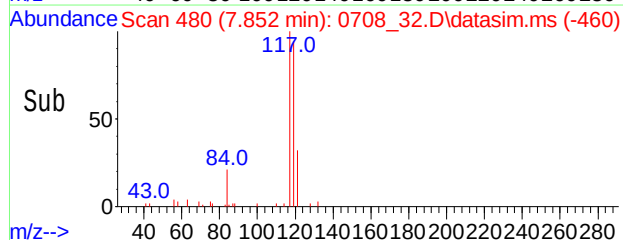
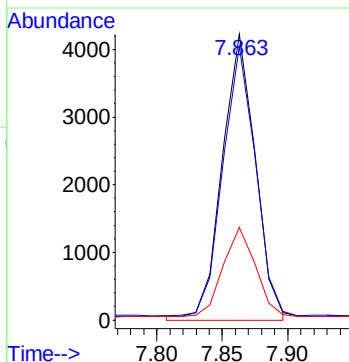
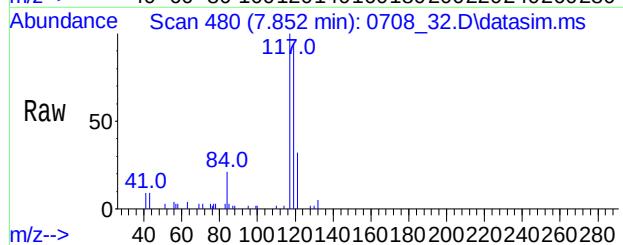
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	29961		
164	82.2	56.0	84.0	
129	94.3	64.2	96.4	





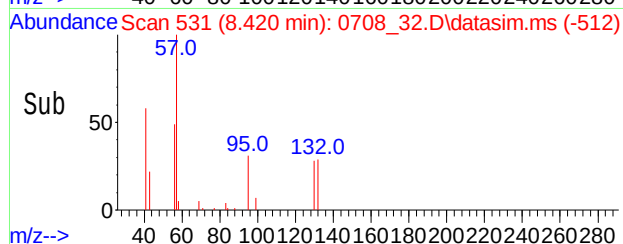
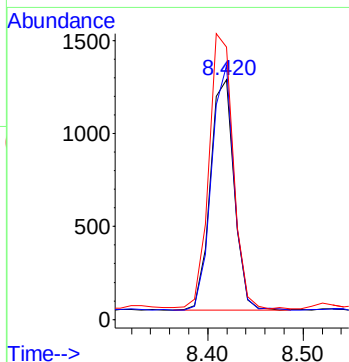
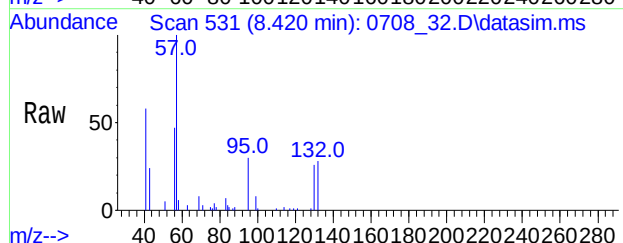
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.076 ppbv
RT: 7.857 min Scan# 480
Delta R.T. 0.022 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

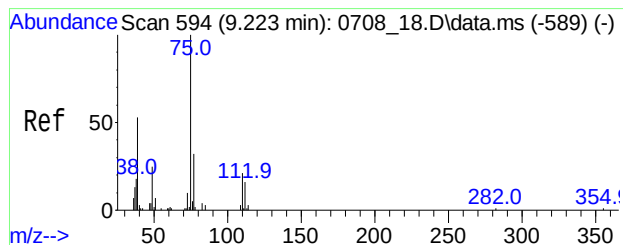
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5849		
119	97.9	85.7	128.5	
121	31.2	21.8	32.6	



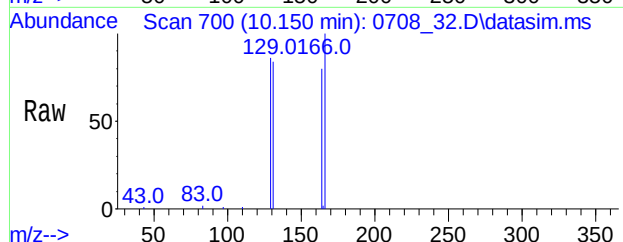
#44
Trichloroethene(sim)
Conc: 8\$ 0.063 ppbv
RT: 8.420 min Scan# 531
Delta R.T. 0.017 min
Lab File: 0708_32.D
Acq: 9 Jul 2020 6:04 am

Tgt Ion	Ratio	Resp	Lower	Upper
130	100	2177		
132	99.9	74.8	112.2	
95	121.2	92.1	138.1	

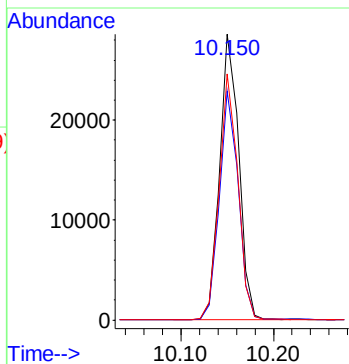
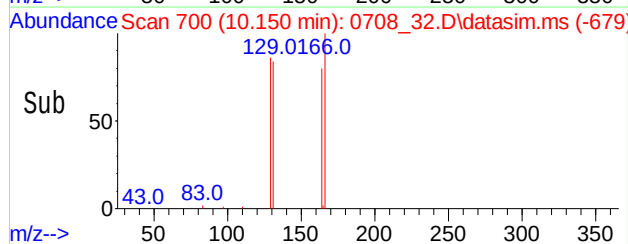




#46
 Tetrachloroethene(sim)
 Conc: 8\$ 1.070 ppbv
 RT: 10.150 min Scan# 700
 Delta R.T. 0.005 min
 Lab File: 0708_32.D
 Acq: 9 Jul 2020 6:04 am



Tgt Ion	Ratio	Resp	Lower	Upper
166	100	40134		
164	78.8	50.0	90.0	
129	84.0	60.3	100.3	



Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_33.D
 Acq On : 9 Jul 2020 6:44 am
 Operator :
 Client ID : IA-2 (HES)
 Lab ID : CG29886
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: Oct 13 15:10:16 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

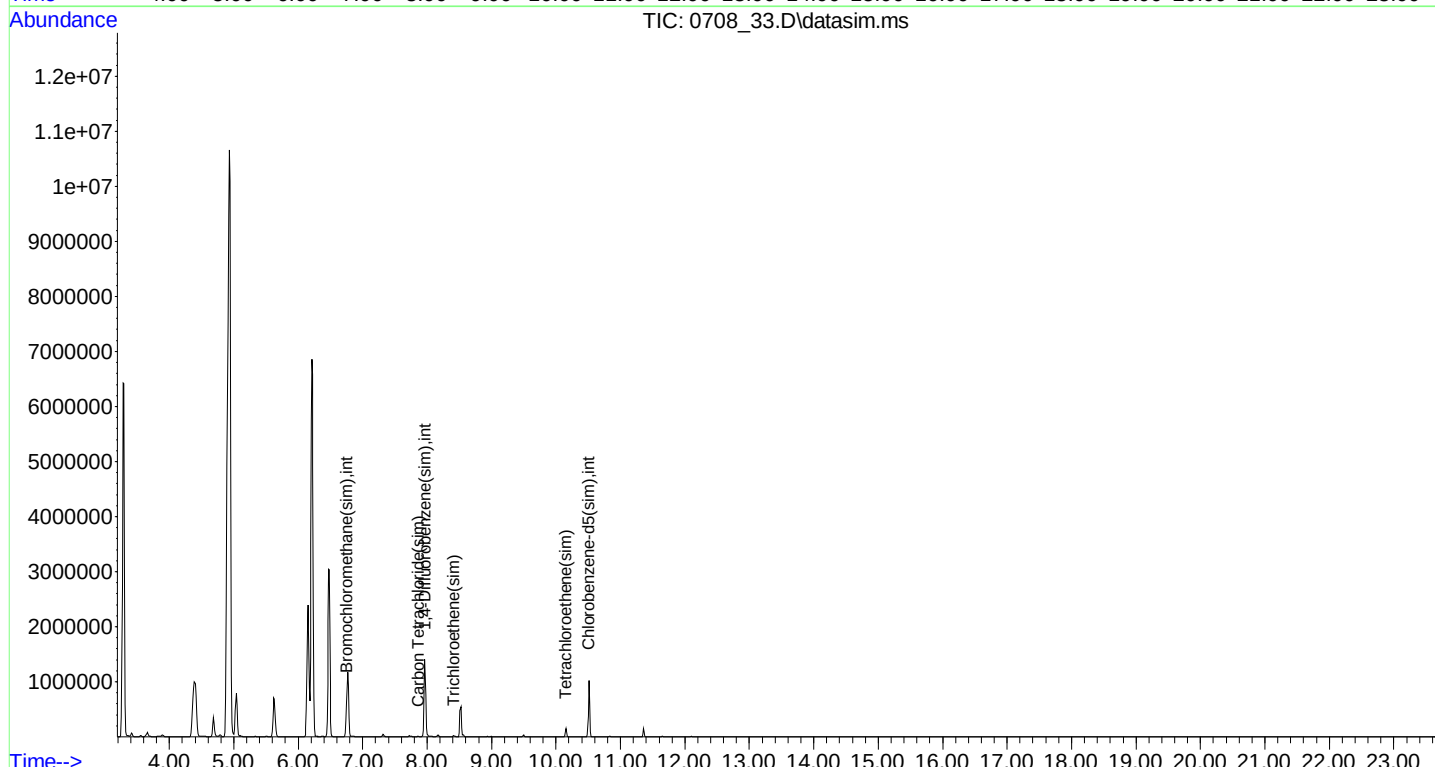
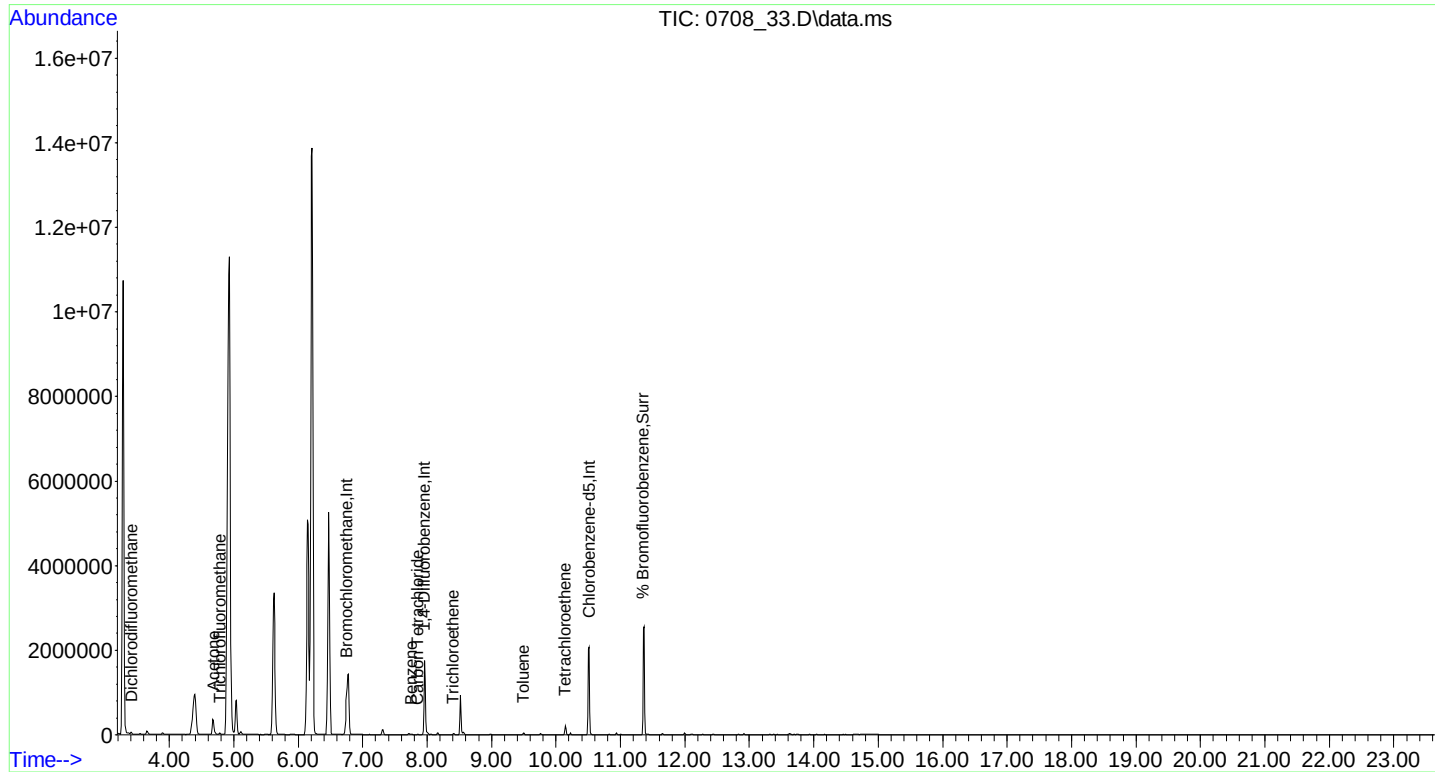
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.755	130	287712	10.000	ng	0.01
15) 1,4-Difluorobenzene	7.960	114	1070104	10.000	ng	0.00
20) Chlorobenzene-d5	10.513	82	615651	10.000	ng	0.01
30) Bromochloromethane(sim)	6.750	130	324596	10.000	ng	# 0.00
41) 1,4-Difluorobenzene(sim)	7.960	114	1070104	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.513	82	615651	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.354	95	797285	9.431	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	94.30%
Target Compounds						
2) Dichlorodifluoromethane	3.414	85	56851	0.506	ppbv#	Qvalue 90
4) Acetone	4.686	43	376297	8.582	ppbv#	91
5) Trichlorofluoromethane	4.783	101	29695	0.293	ppbv	95
13) Benzene	7.760	78	7240	0.082	ppbv#	82
14) Carbon Tetrachloride	7.860	117	5809	0.071	ppbv	95
17) Trichloroethene	8.406	130	2342	0.061	ppbv#	87
18) Toluene	9.496	91	23724	0.244	ppbv	99
19) Tetrachloroethene	10.146	166	42212	0.933	ppbv	87
35) Carbon Tetrachloride(sim)	7.860	117	5809	0.075	ppbv	95
44) Trichloroethene(sim)	8.411	130	3081	0.089	ppbv	96
46) Tetrachloroethene(sim)	10.151	166	57929	1.528	ppbv	93

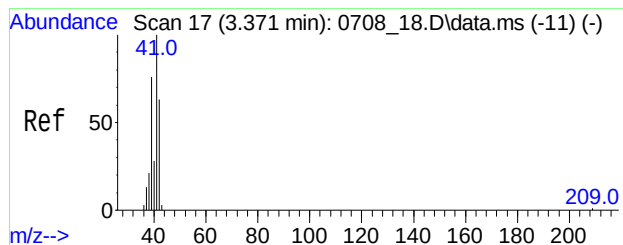
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_33.D
 Acq On : 9 Jul 2020 6:44 am
 Operator :
 Client ID : IA-2 (HES)
 Lab ID : CG29886
 ALS Vial : 29 Sample Multiplier: 1

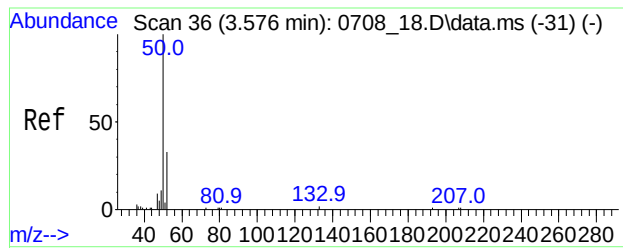
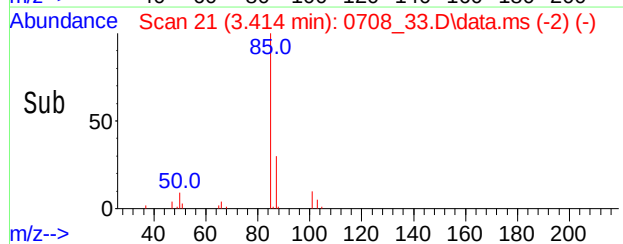
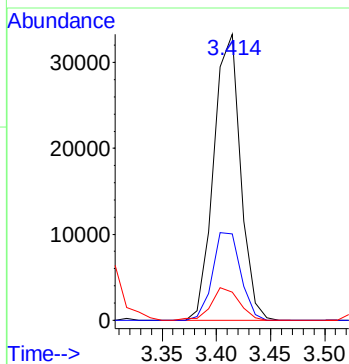
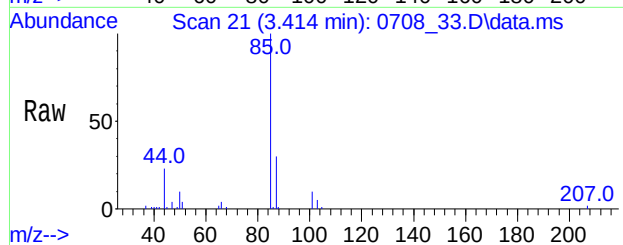
Quant Time: Oct 13 15:10:16 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration





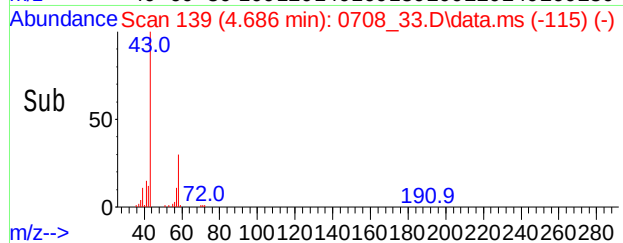
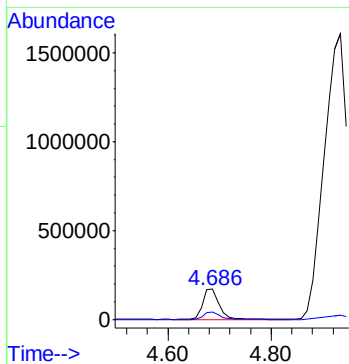
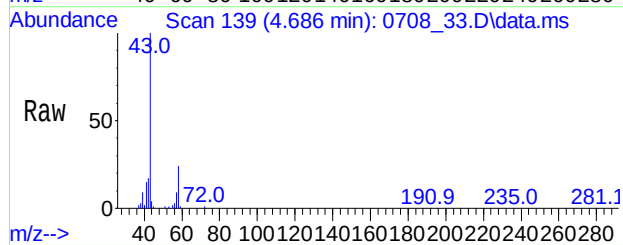
#2
Dichlorodifluoromethane
Conc: 8\$ 0.506 ppbv
RT: 3.414 min Scan# 21
Delta R.T. 0.000 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

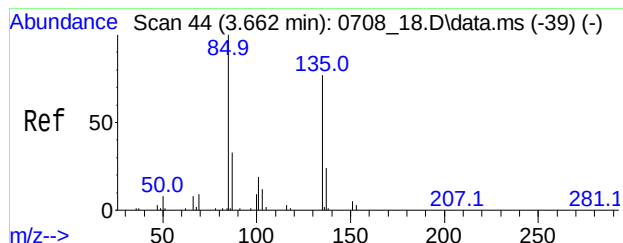
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	56851		
87	32.3	31.4	47.2	
50	11.8	11.8	17.8#	



#4
Acetone
Conc: 8\$ 8.582 ppbv
RT: 4.686 min Scan# 139
Delta R.T. -0.043 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

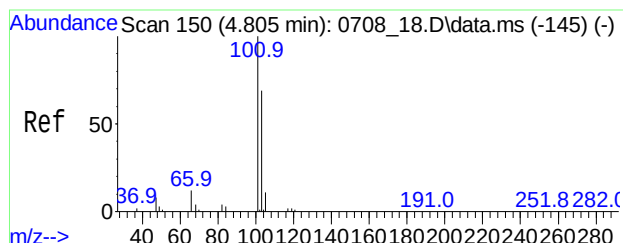
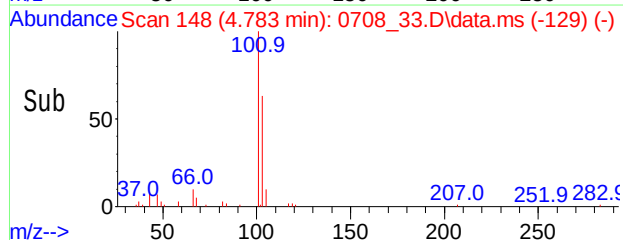
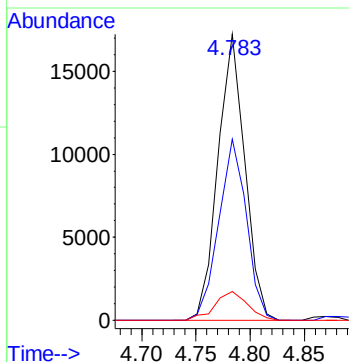
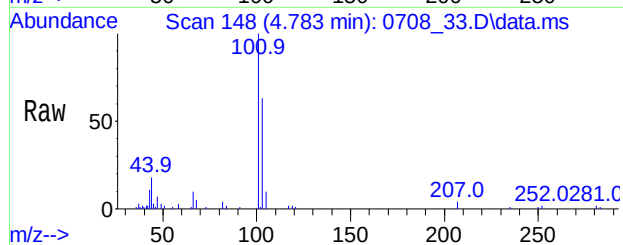
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	376297		
58	24.6	16.2	24.2#	





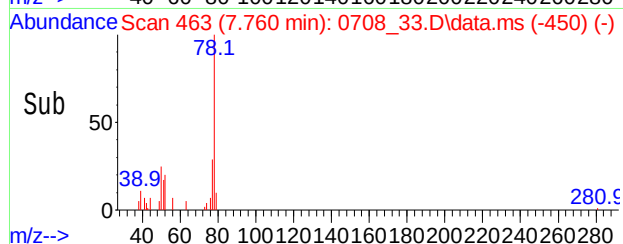
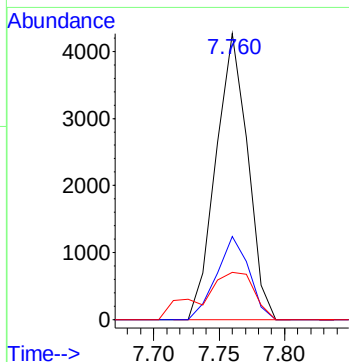
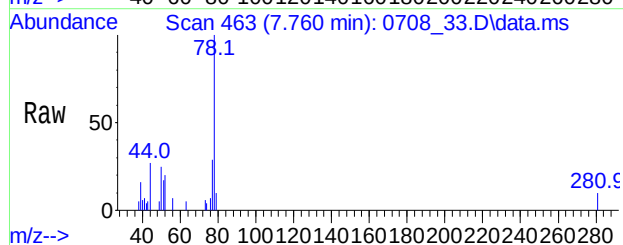
#5
 Trichlorofluoromethane
 Conc: 8\$ 0.293 ppbv
 RT: 4.783 min Scan# 148
 Delta R.T. 0.000 min
 Lab File: 0708_33.D
 Acq: 9 Jul 2020 6:44 am

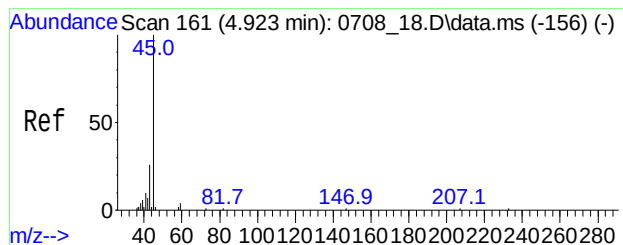
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	29695		
103	65.2	49.0	73.6	
66	12.1	10.7	16.1	



#13
 Benzene
 Conc: 8\$ 0.082 ppbv
 RT: 7.760 min Scan# 463
 Delta R.T. 0.014 min
 Lab File: 0708_33.D
 Acq: 9 Jul 2020 6:44 am

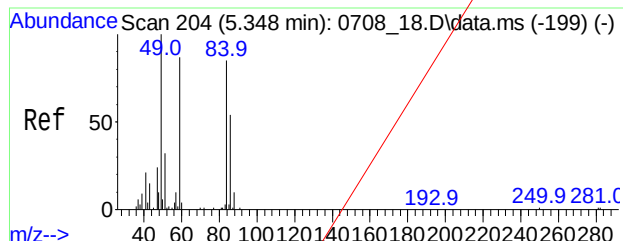
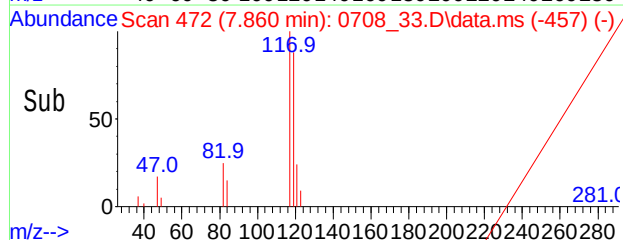
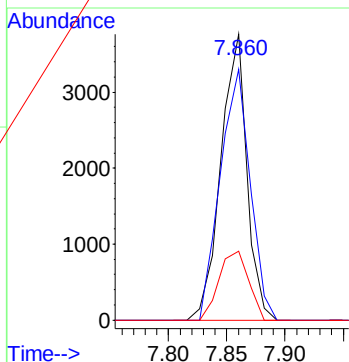
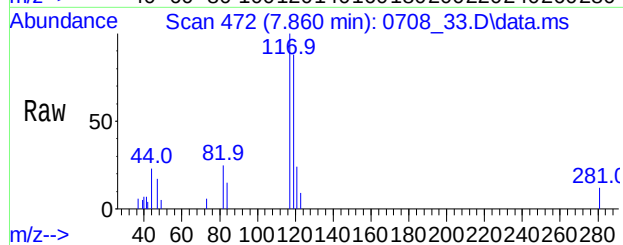
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	7240		
77	29.8	18.6	28.0#	
51	27.7	13.9	20.9#	





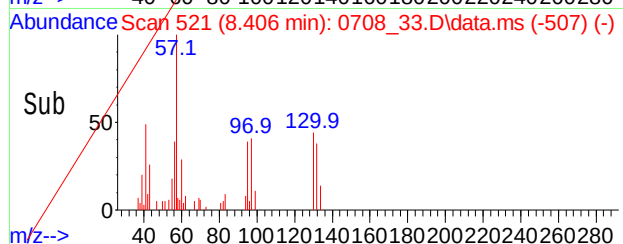
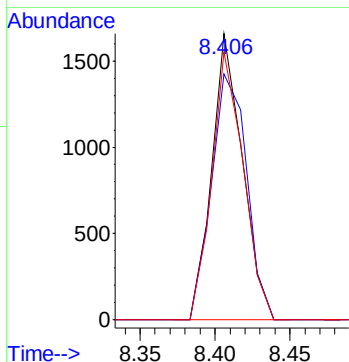
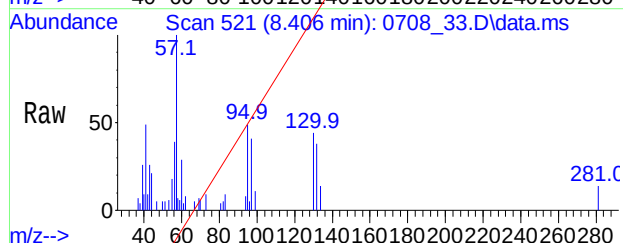
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.860 min Scan# 472
Delta R.T. 0.025 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

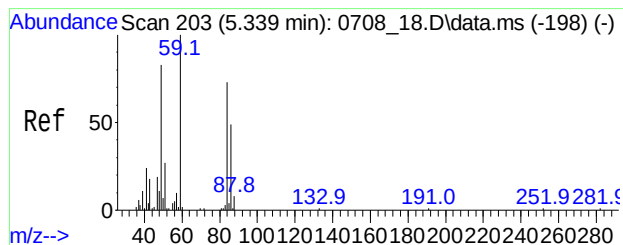
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5809		
119	101.2	87.1	127.1	
121	27.5	7.2	47.2	



#17
Trichloroethene
Conc: 8\$ Below Cal
RT: 8.406 min Scan# 521
Delta R.T. 0.003 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

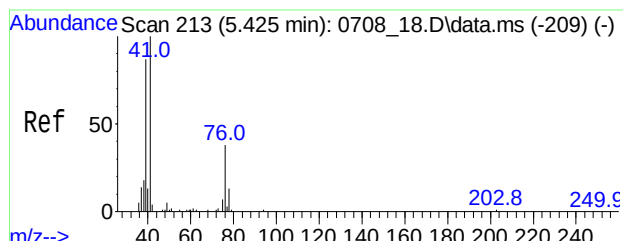
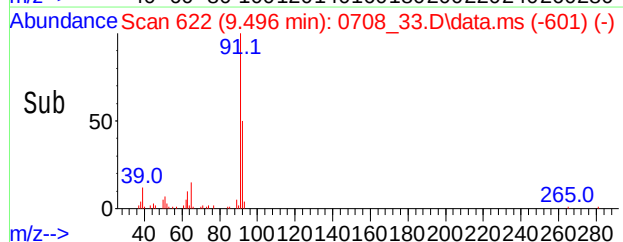
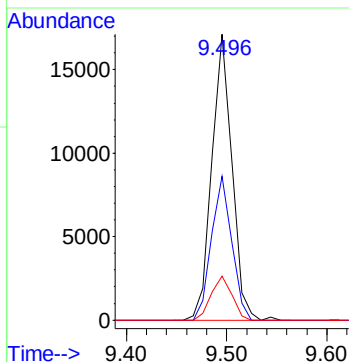
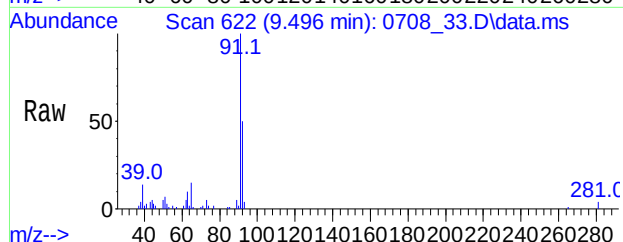
Tgt Ion	Ratio	Resp	Lower	Upper
130	100	2342		
132	98.5	74.8	112.2	
97	95.9	61.6	92.4#	





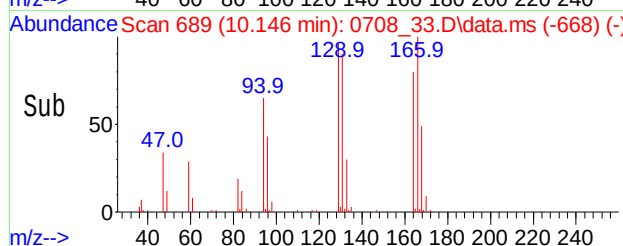
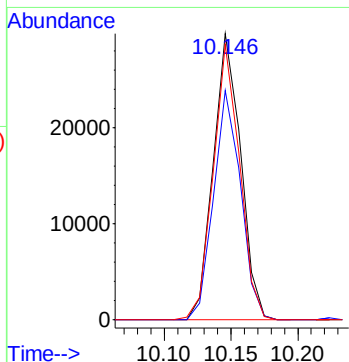
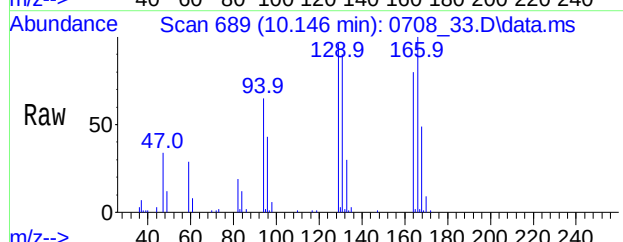
#18
Toluene
Conc: 8\$ 0.244 ppbv
RT: 9.496 min Scan# 622
Delta R.T. 0.002 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

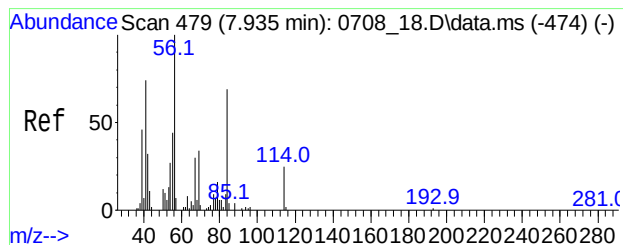
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	23724		
92	50.7	40.9	61.3	
65	15.9	11.7	17.5	



#19
Tetrachloroethene
Conc: 8\$ 0.933 ppbv
RT: 10.146 min Scan# 689
Delta R.T. 0.001 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

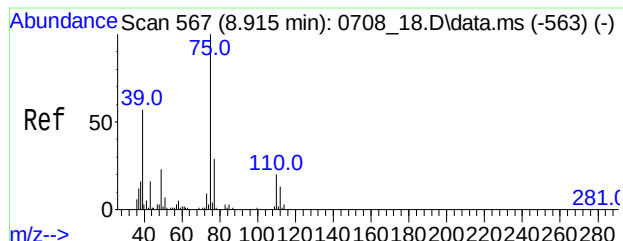
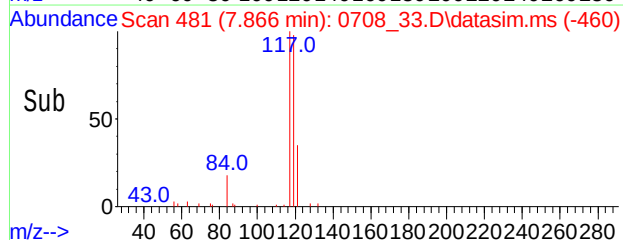
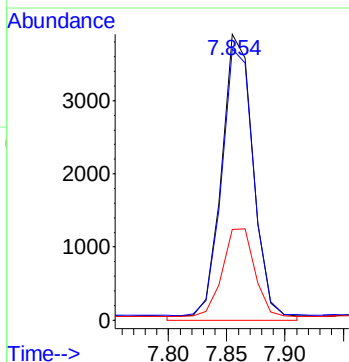
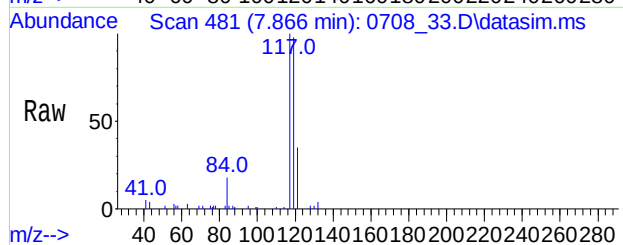
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	42212		
164	79.2	56.0	84.0	
129	93.1	64.2	96.4	





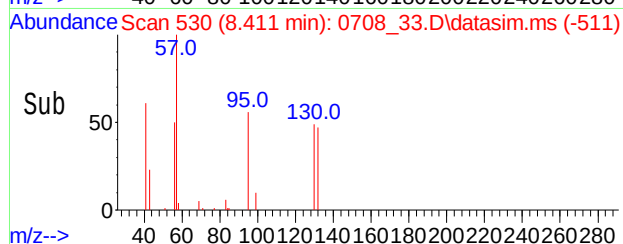
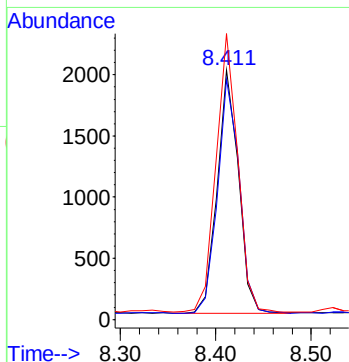
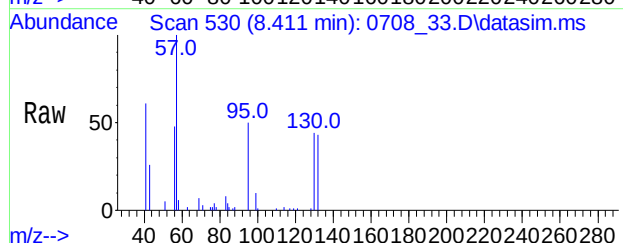
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.075 ppbv
RT: 7.860 min Scan# 481
Delta R.T. 0.025 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

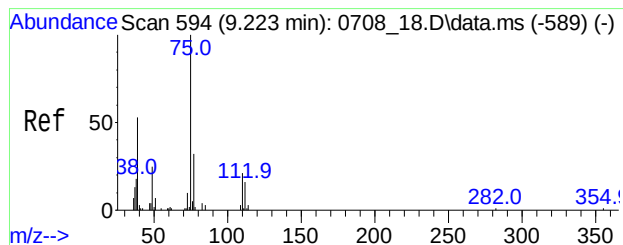
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5809		
119	101.2	85.7	128.5	
121	27.5	21.8	32.6	



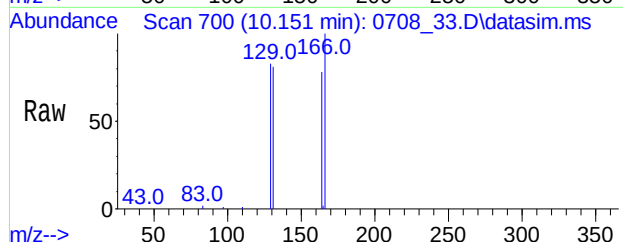
#44
Trichloroethene(sim)
Conc: 8\$ 0.089 ppbv
RT: 8.411 min Scan# 530
Delta R.T. 0.008 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am

Tgt Ion	Ratio	Resp	Lower	Upper
130	100	3081		
132	99.3	74.8	112.2	
95	117.0	92.1	138.1	

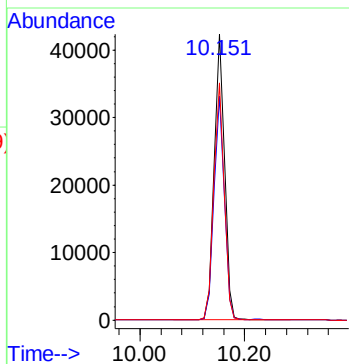
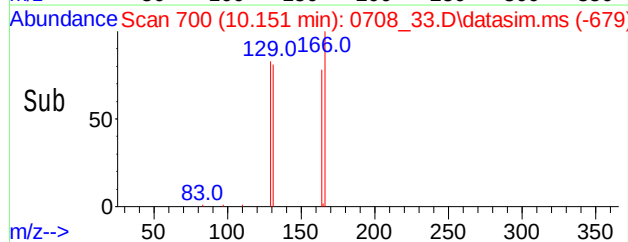




#46
Tetrachloroethene(sim)
Conc: 8\$ 1.528 ppbv
RT: 10.151 min Scan# 700
Delta R.T. 0.006 min
Lab File: 0708_33.D
Acq: 9 Jul 2020 6:44 am



Tgt Ion	Ratio	Resp	Lower	Upper
166	100	57929		
164	78.5	50.0	90.0	
129	83.5	60.3	100.3	



CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

FORM I AIR

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Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_34.D
 Acq On : 9 Jul 2020 7:24 am
 Operator :
 Client ID : AA-1 (HES)
 Lab ID : CG29887
 ALS Vial : 30 Sample Multiplier: 1

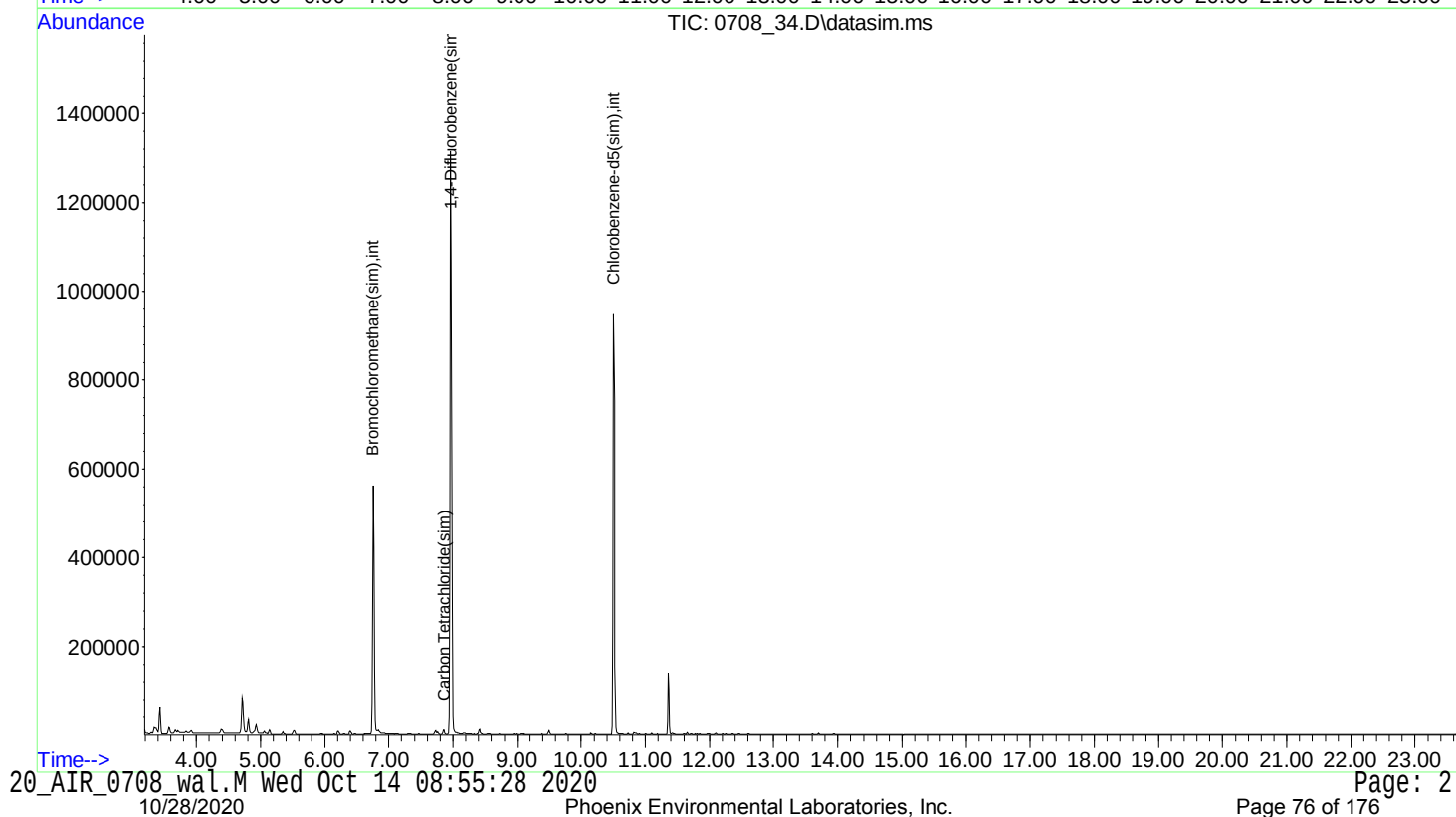
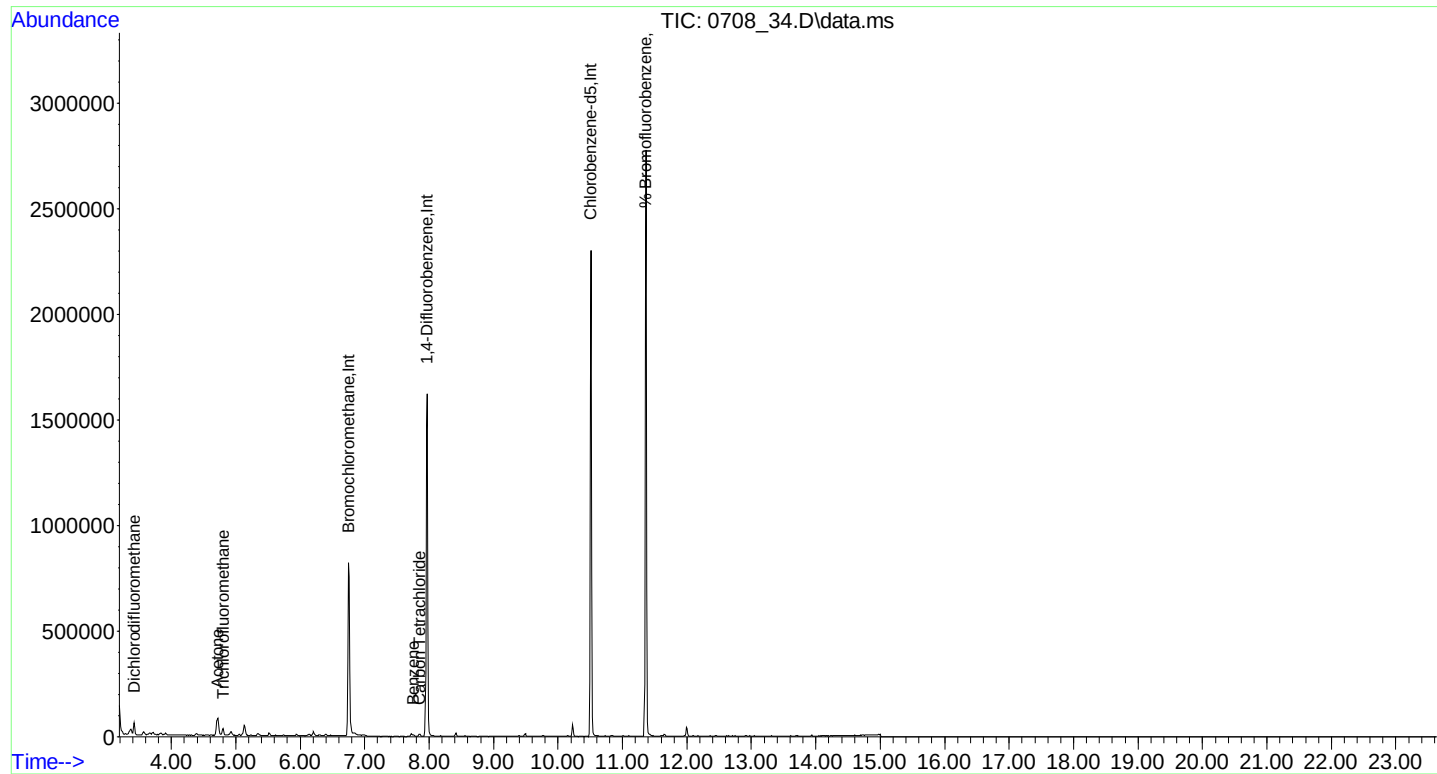
Quant Time: Oct 13 15:00:04 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

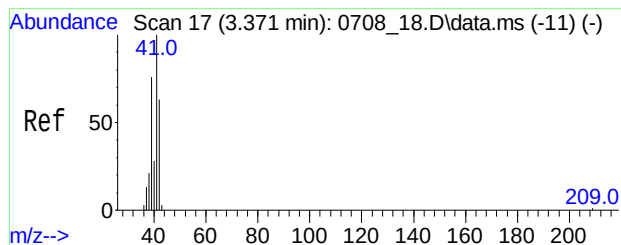
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	293833	10.000	ng	0.00
15) 1,4-Difluorobenzene	7.969	114	1066721	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	616333	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	334076	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.969	114	1066721	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	616333	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	769869	9.097	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.00%
Target Compounds						
2) Dichlorodifluoromethane	3.425	85	53157	0.463	ppbv	Qvalue 91
4) Acetone	4.718	43	112818	2.519	ppbv#	84
5) Trichlorofluoromethane	4.805	101	25847	0.250	ppbv	95
13) Benzene	7.757	78	4653	0.052	ppbv	96
14) Carbon Tetrachloride	7.857	117	6144	0.074	ppbv	87
35) Carbon Tetrachloride(sim)	7.857	117	6144	0.077	ppbv	87

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_34.D
Acq On : 9 Jul 2020 7:24 am
Operator :
Client ID : AA-1 (HES)
Lab ID : CG29887
ALS Vial : 30 Sample Multiplier: 1

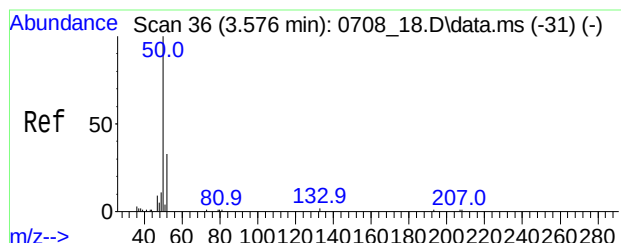
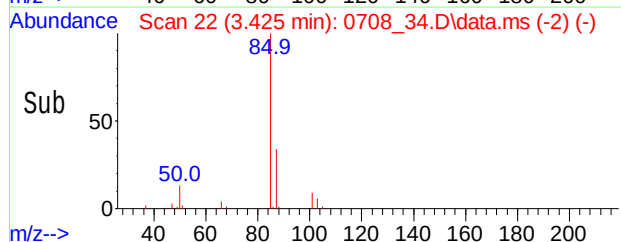
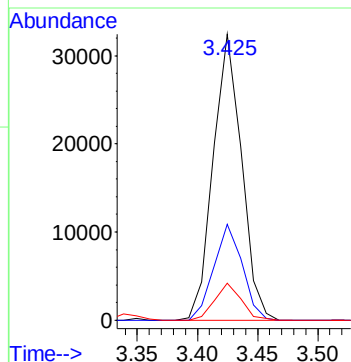
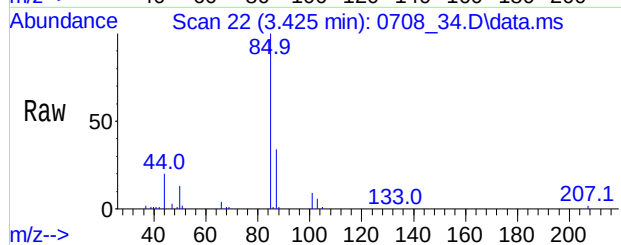
Quant Time: Oct 13 15:00:04 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration





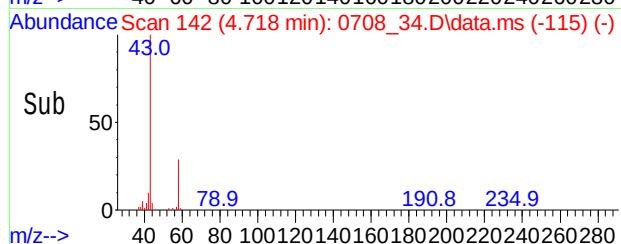
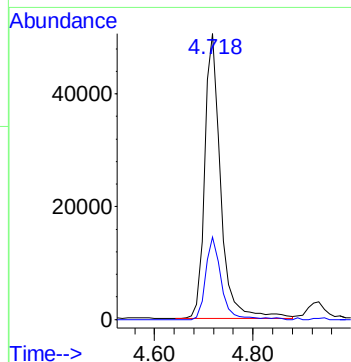
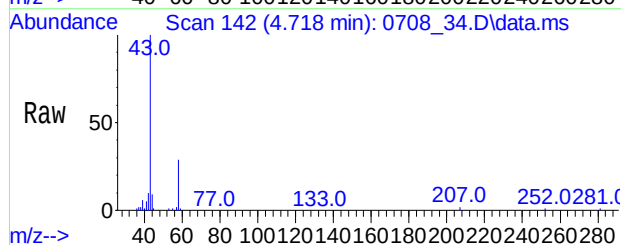
#2
Dichlorodifluoromethane
Conc: 8\$ 0.463 ppbv
RT: 3.425 min Scan# 22
Delta R.T. 0.011 min
Lab File: 0708_34.D
Acq: 9 Jul 2020 7:24 am

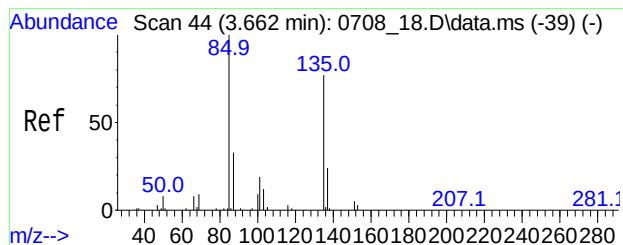
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	53157		
87	33.7	31.4	47.2	
50	12.0	11.8	17.8	



#4
Acetone
Conc: 8\$ 2.519 ppbv
RT: 4.718 min Scan# 142
Delta R.T. -0.011 min
Lab File: 0708_34.D
Acq: 9 Jul 2020 7:24 am

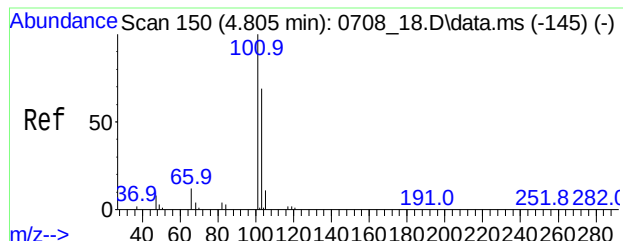
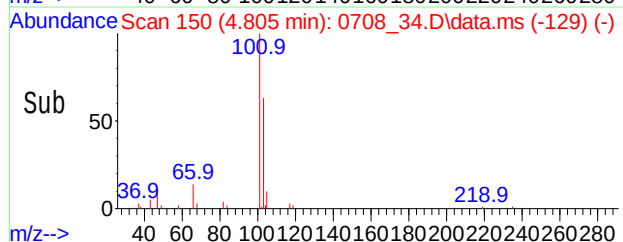
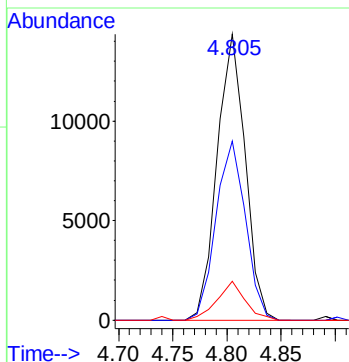
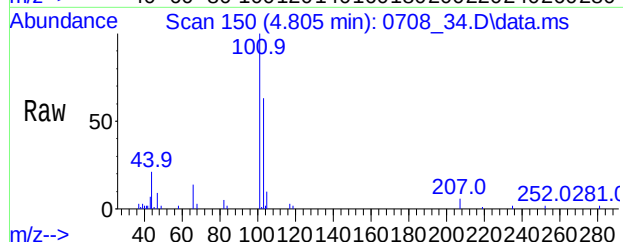
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	112818		
58	27.7	16.2	24.2#	





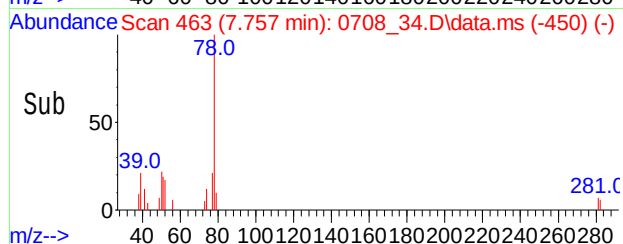
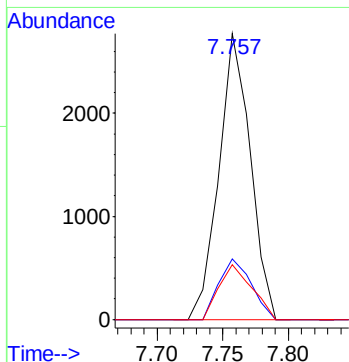
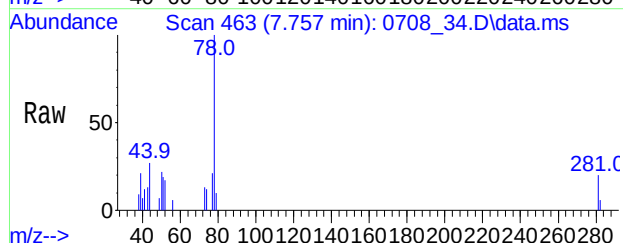
#5
 Trichlorofluoromethane
 Conc: 8\$ 0.250 ppbv
 RT: 4.805 min Scan# 150
 Delta R.T. 0.022 min
 Lab File: 0708_34.D
 Acq: 9 Jul 2020 7:24 am

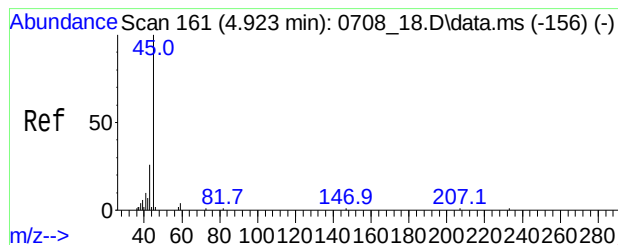
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	25847		
103	65.7	49.0	73.6	
66	13.6	10.7	16.1	



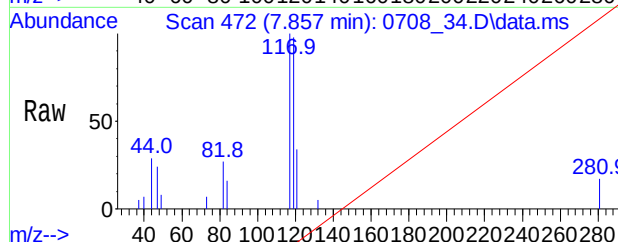
#13
 Benzene
 Conc: 8\$ 0.052 ppbv
 RT: 7.757 min Scan# 463
 Delta R.T. 0.011 min
 Lab File: 0708_34.D
 Acq: 9 Jul 2020 7:24 am

Tgt Ion	Ratio	Resp	Lower	Upper
78	100	4653		
77	21.9	18.6	28.0	
51	20.1	13.9	20.9	

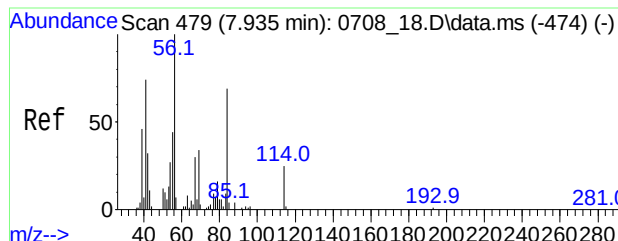
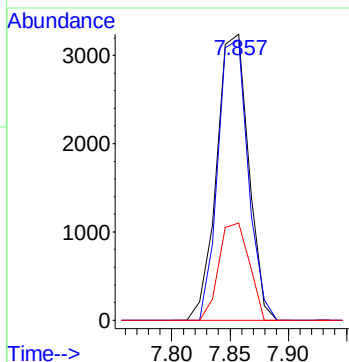
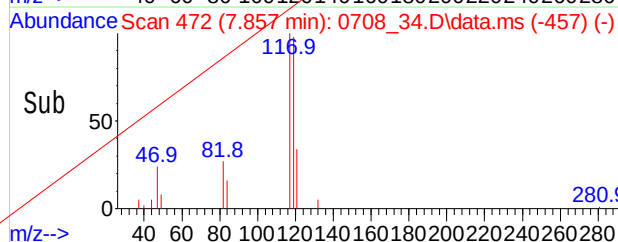




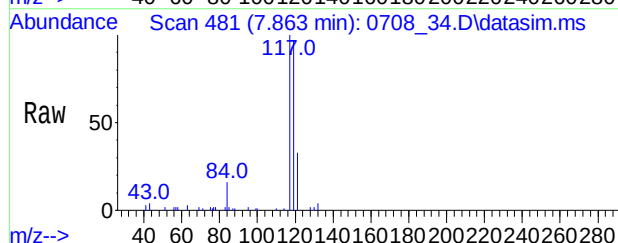
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.857 min Scan# 472
Delta R.T. 0.022 min
Lab File: 0708_34.D
Acq: 9 Jul 2020 7:24 am



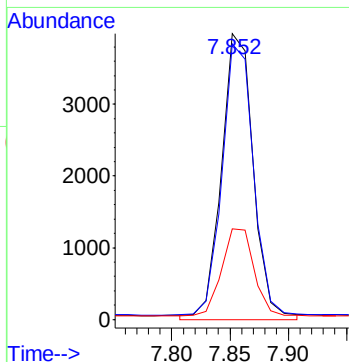
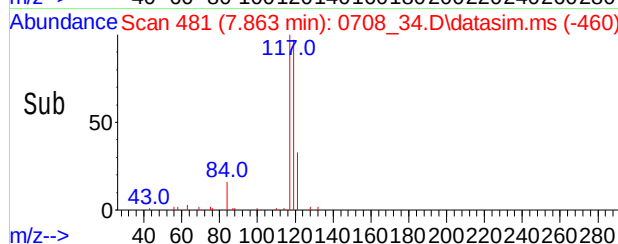
Tgt Ion: 117 Resp: 6144
Ion Ratio Lower Upper
117 100
119 92.8 87.1 127.1
121 32.1 7.2 47.2



#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.077 ppbv
RT: 7.857 min Scan# 481
Delta R.T. 0.022 min
Lab File: 0708_34.D
Acq: 9 Jul 2020 7:24 am



Tgt Ion: 117 Resp: 6144
Ion Ratio Lower Upper
117 100
119 92.8 85.7 128.5
121 32.1 21.8 32.6



IA-DUP (HES)

ppbv

CAS NO.

CONC.

Q

MDL

PQL

R

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_35.D
 Acq On : 9 Jul 2020 8:05 am
 Operator :
 Client ID : IA-DUP (HES)
 Lab ID : CG29888
 ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 13 15:00:07 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

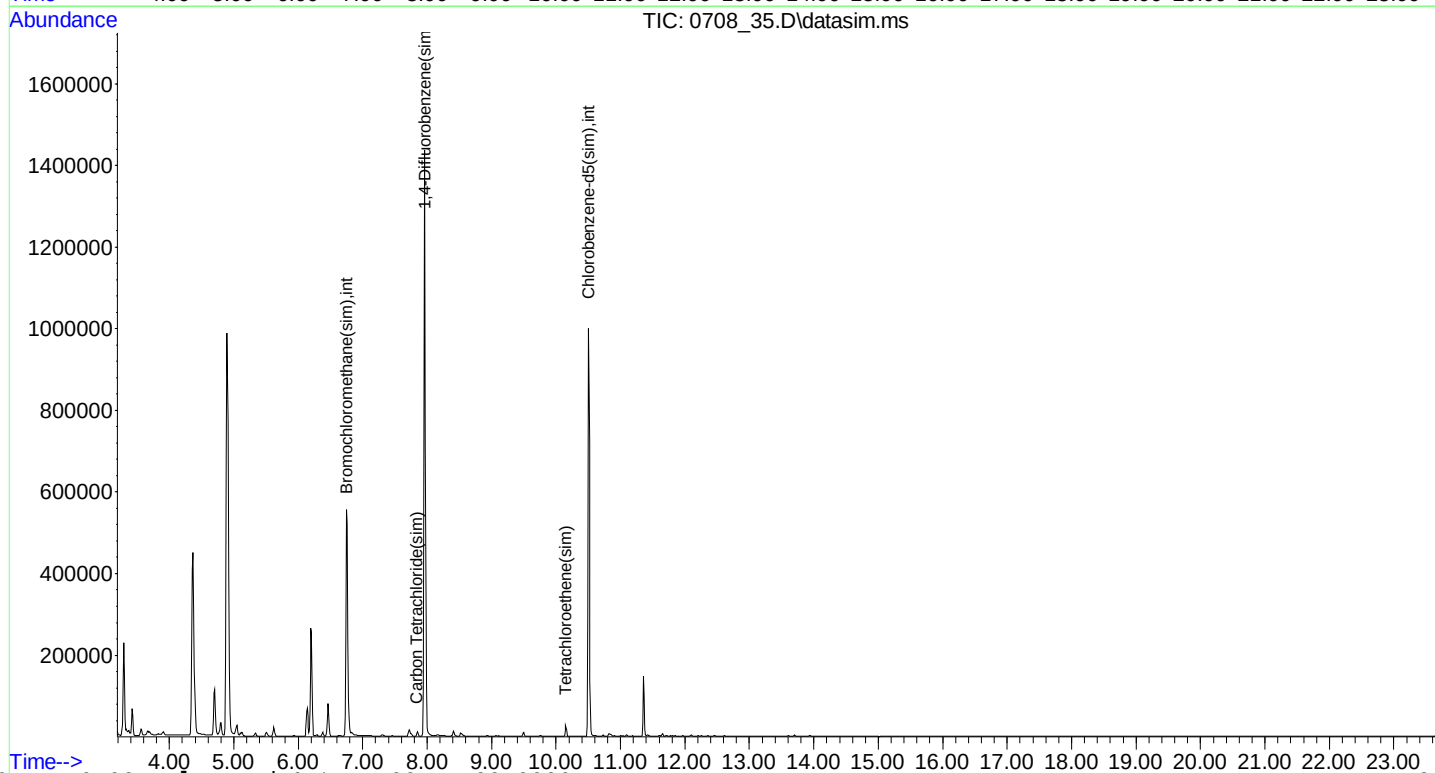
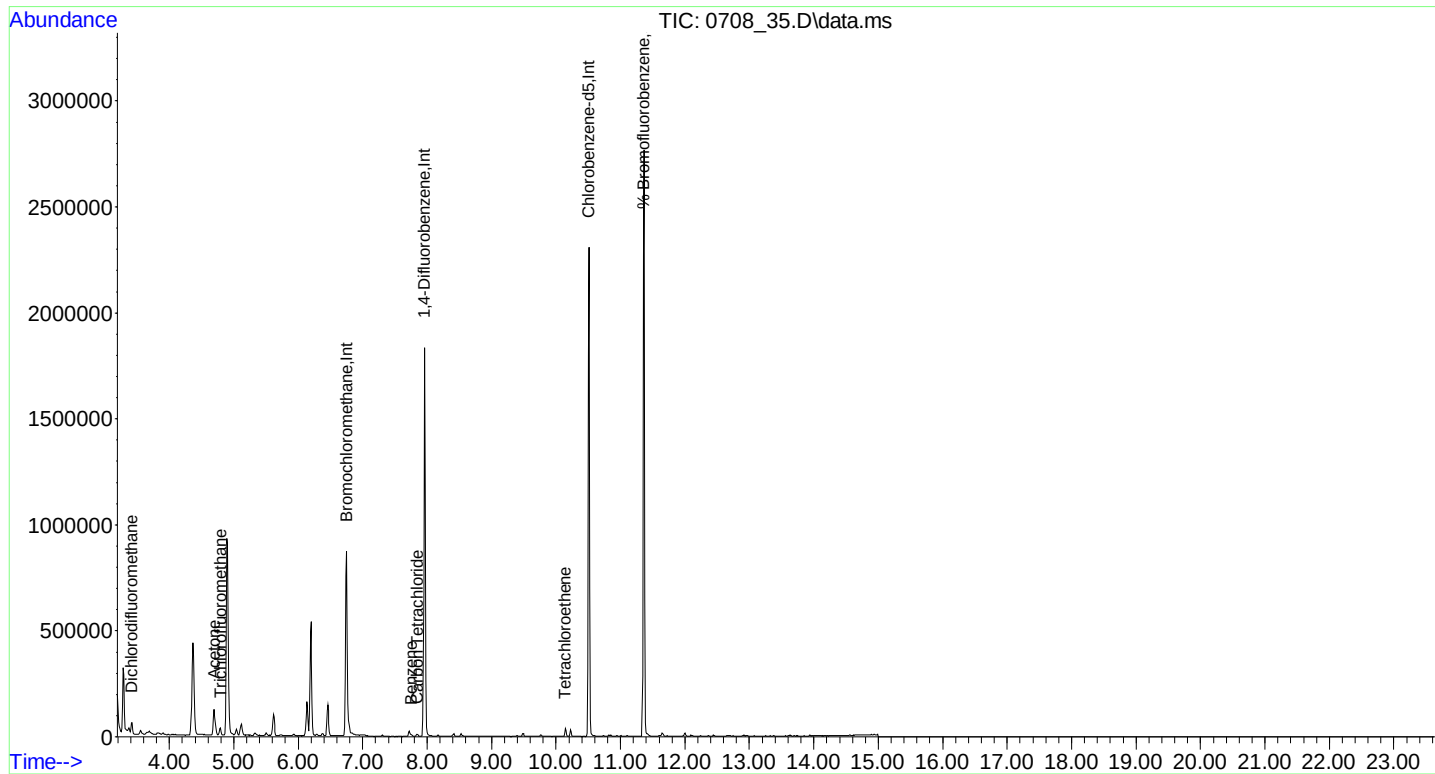
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	298586	10.000	ng	0.01
15) 1,4-Difluorobenzene	7.957	114	1075365	10.000	ng	0.00
20) Chlorobenzene-d5	10.512	82	626325	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	342391	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.957	114	1075195	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	626325	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	797865	9.277	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.80%
Target Compounds						
2) Dichlorodifluoromethane	3.414	85	56337	0.483	ppbv#	90
4) Acetone	4.697	43	146064	3.210	ppbv#	86
5) Trichlorofluoromethane	4.794	101	29526	0.281	ppbv	98
13) Benzene	7.757	78	4978	0.054	ppbv#	91
14) Carbon Tetrachloride	7.846	117	6578	0.078	ppbv	89
19) Tetrachloroethene	10.145	166	7916	0.174	ppbv	93
35) Carbon Tetrachloride(sim)	7.846	117	6578	0.080	ppbv	89
46) Tetrachloroethene(sim)	10.150	166	10724	0.282	ppbv	94

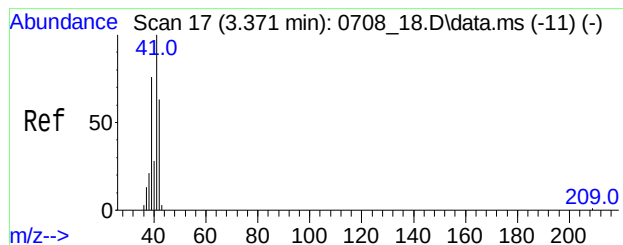
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_35.D
 Acq On : 9 Jul 2020 8:05 am
 Operator :
 Client ID : IA-DUP (HES)
 Lab ID : CG29888
 ALS Vial : 31 Sample Multiplier: 1

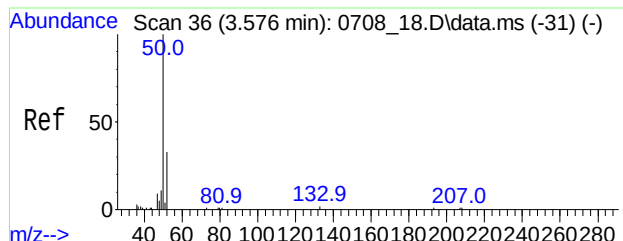
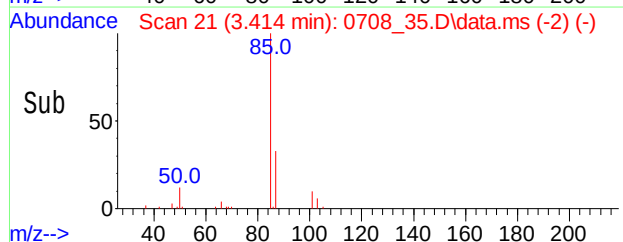
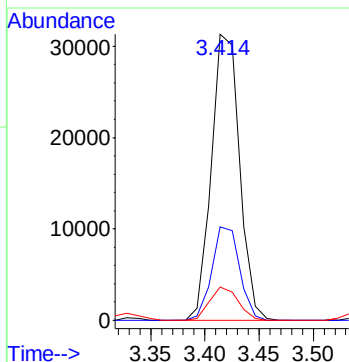
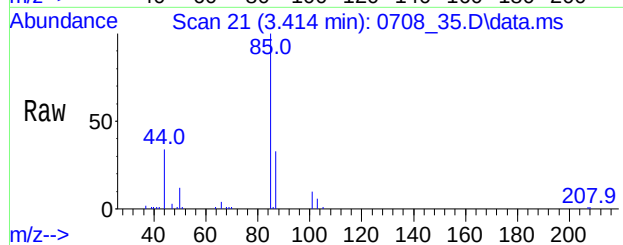
Quant Time: Oct 13 15:00:07 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration





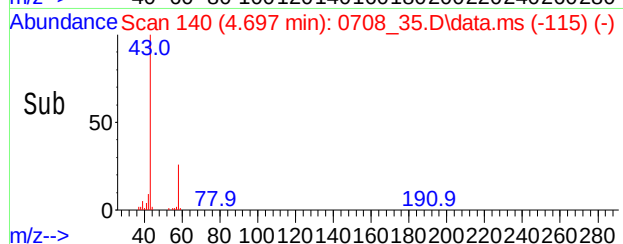
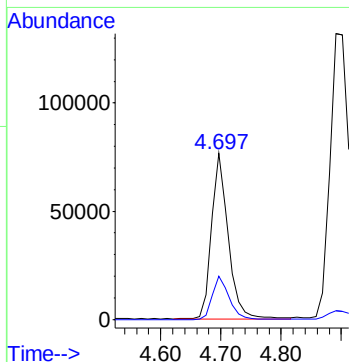
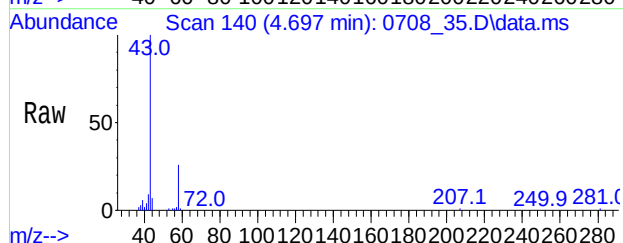
#2
Dichlorodifluoromethane
Conc: 8\$ 0.483 ppbv
RT: 3.414 min Scan# 21
Delta R.T. 0.000 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

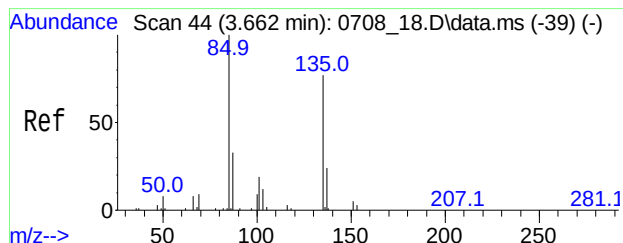
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	56337		
87	32.2	31.4	47.2	
50	11.7	11.8	17.8#	



#4
Acetone
Conc: 8\$ 3.210 ppbv
RT: 4.697 min Scan# 140
Delta R.T. -0.032 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

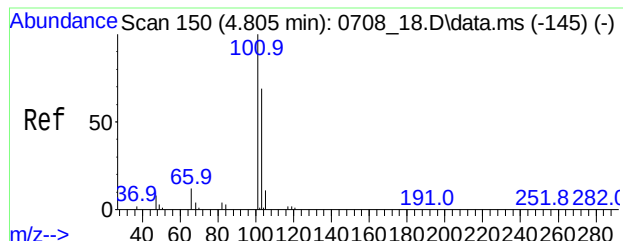
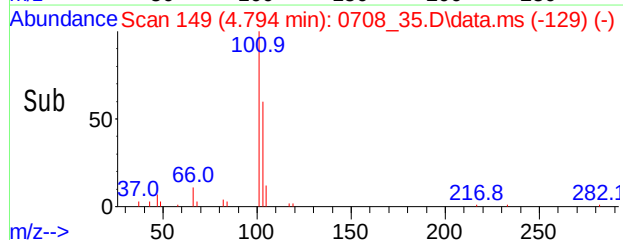
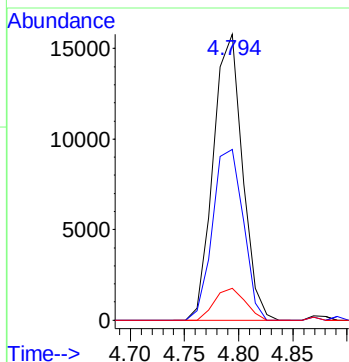
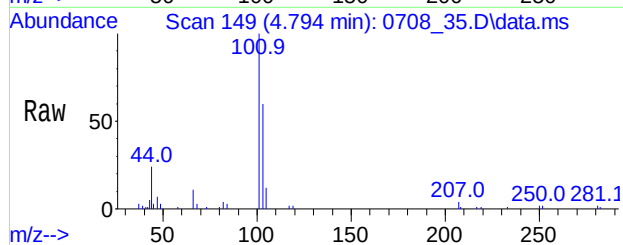
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	146064		
58	26.8	16.2	24.2#	





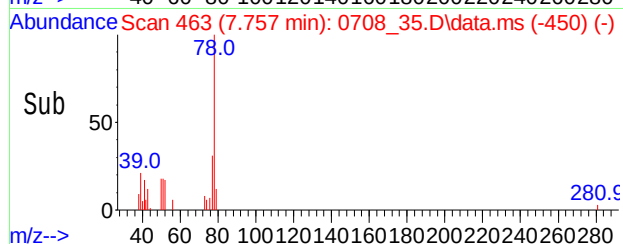
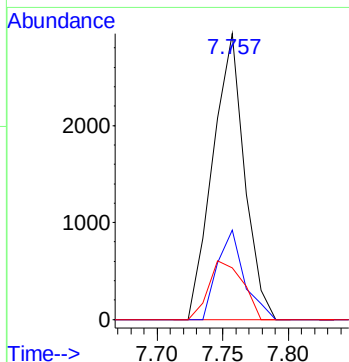
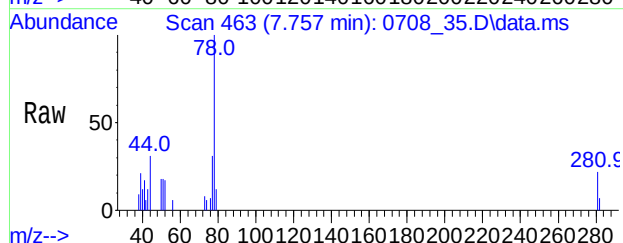
#5
Trichlorofluoromethane
Conc: 8\$ 0.281 ppbv
RT: 4.794 min Scan# 149
Delta R.T. 0.011 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

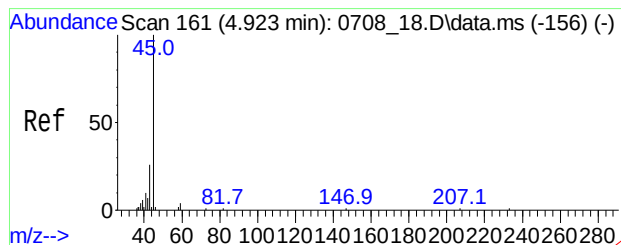
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	29526		
103	62.9	49.0	73.6	
66	11.6	10.7	16.1	



#13
Benzene
Conc: 8\$ 0.054 ppbv
RT: 7.757 min Scan# 463
Delta R.T. 0.011 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

Tgt Ion	Ratio	Resp	Lower	Upper
78	100	4978		
77	26.6	18.6	28.0	
51	22.1	13.9	20.9	

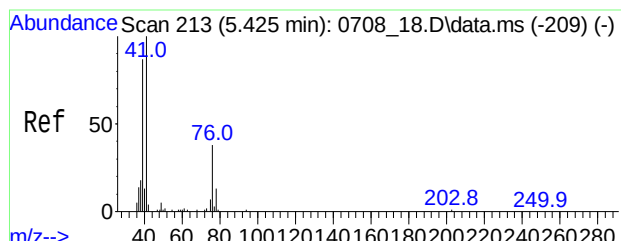
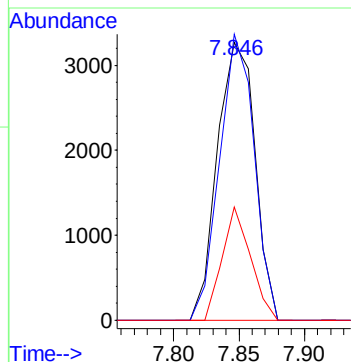
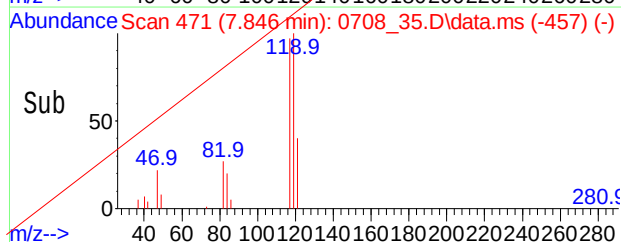




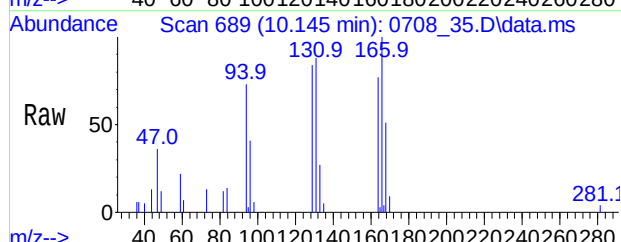
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.846 min Scan# 471
Delta R.T. 0.011 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am



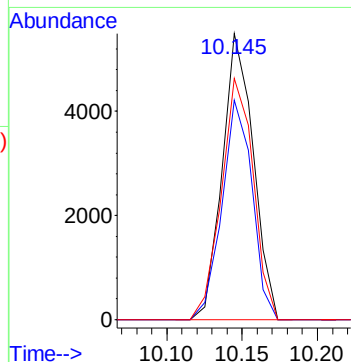
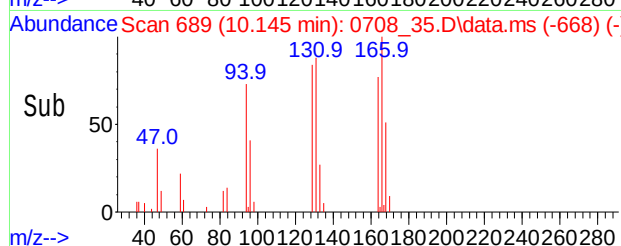
Tgt Ion: 117 Resp: 6578
Ion Ratio Lower Upper
117 100
119 94.3 87.1 127.1
121 30.8 7.2 47.2

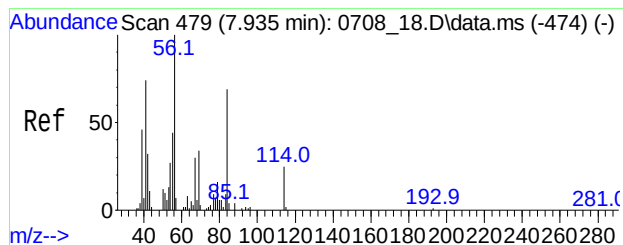


#19
Tetrachloroethene
Conc: 8\$ 0.174 ppbv
RT: 10.145 min Scan# 689
Delta R.T. -0.000 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am



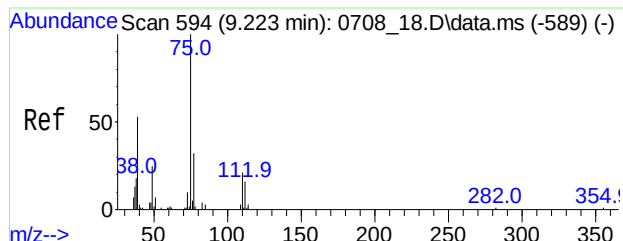
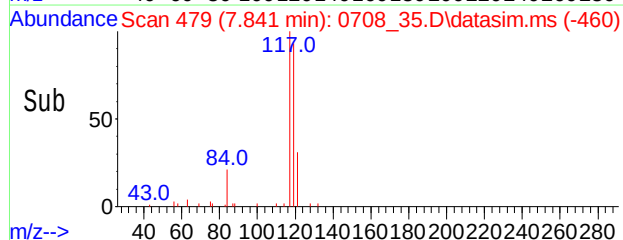
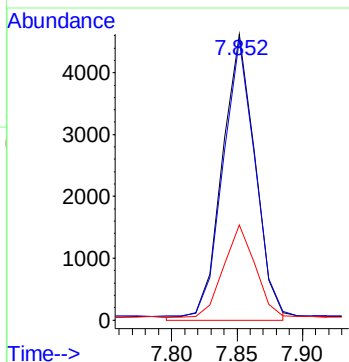
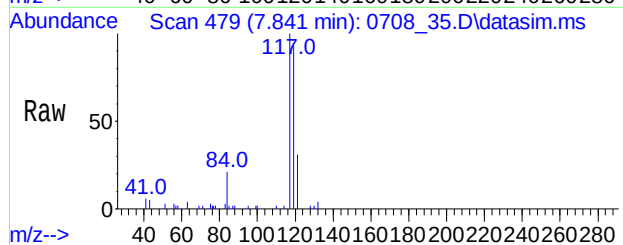
Tgt Ion: 166 Resp: 7916
Ion Ratio Lower Upper
166 100
164 74.7 56.0 84.0
129 87.0 64.2 96.4





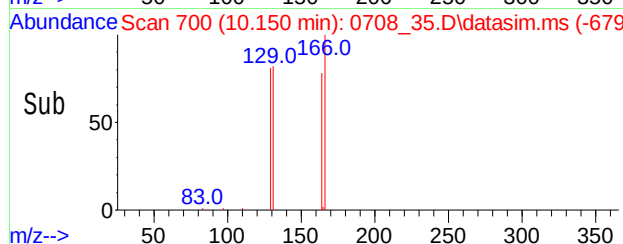
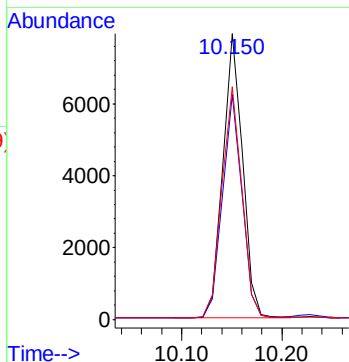
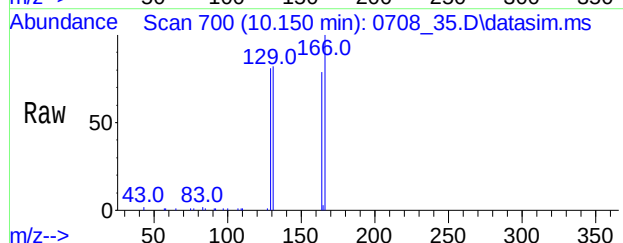
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.080 ppbv
RT: 7.846 min Scan# 479
Delta R.T. 0.011 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

Tgt Ion	Ratio	Resp	Lower	Upper
117	100	6578		
119	94.3	85.7	128.5	
121	30.8	21.8	32.6	



#46
Tetrachloroethene(sim)
Conc: 8\$ 0.282 ppbv
RT: 10.150 min Scan# 700
Delta R.T. 0.005 min
Lab File: 0708_35.D
Acq: 9 Jul 2020 8:05 am

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	10724		
164	77.8	50.0	90.0	
129	82.7	60.3	100.3	



Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_36.D
 Acq On : 9 Jul 2020 8:45 am
 Operator :
 Client ID : IA-1 (HES)
 Lab ID : CG29889
 ALS Vial : 32 Sample Multiplier: 1

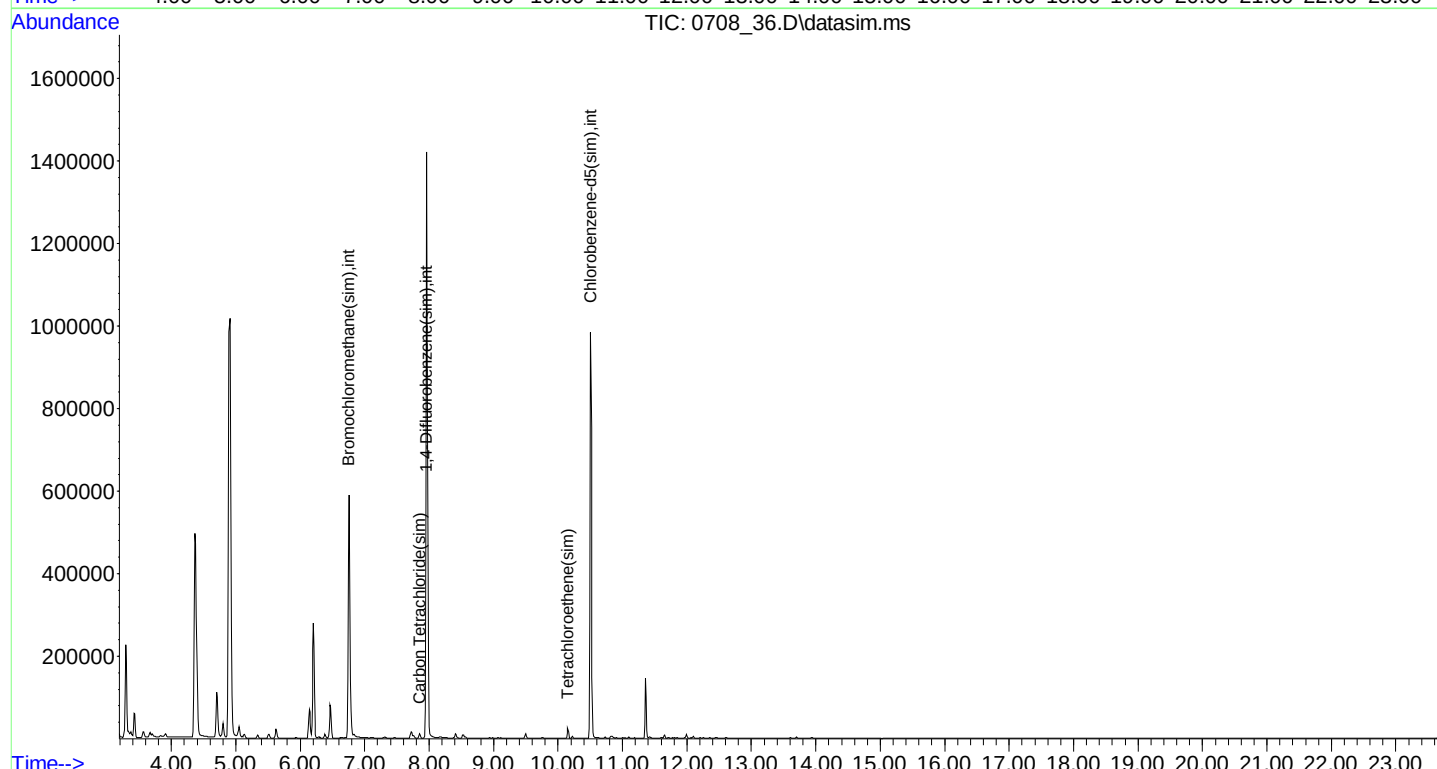
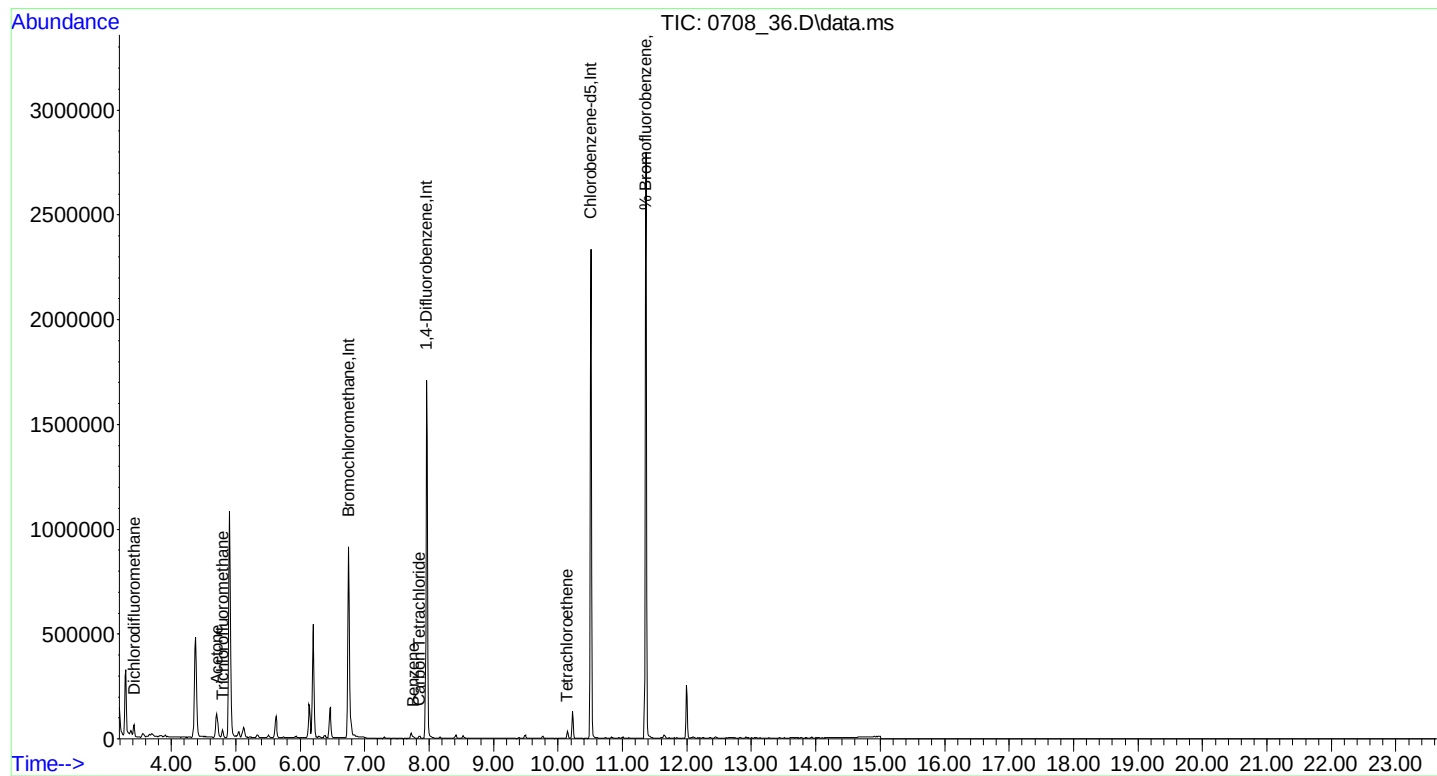
Quant Time: Oct 13 15:00:10 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

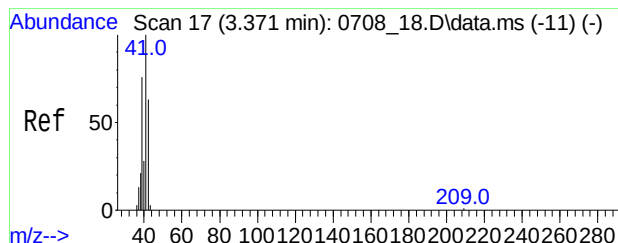
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	302866	10.000	ng	0.01
15) 1,4-Difluorobenzene	7.957	114	1079995	10.000	ng	0.00
20) Chlorobenzene-d5	10.512	82	637022	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	341611	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.957	114	1079500	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	637022	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	804408	9.196	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.00%
Target Compounds						
2) Dichlorodifluoromethane	3.425	85	55630	0.470	ppbv#	Qvalue 91
4) Acetone	4.708	43	139838	3.030	ppbv#	85
5) Trichlorofluoromethane	4.794	101	28119	0.264	ppbv	97
13) Benzene	7.757	78	5004	0.054	ppbv#	90
14) Carbon Tetrachloride	7.846	117	6068	0.071	ppbv	91
19) Tetrachloroethene	10.145	166	6671	0.146	ppbv#	81
35) Carbon Tetrachloride(sim)	7.846	117	6068	0.074	ppbv#	91
46) Tetrachloroethene(sim)	10.150	166	9685	0.253	ppbv	92

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_36.D
Acq On : 9 Jul 2020 8:45 am
Operator :
Client ID : IA-1 (HES)
Lab ID : CG29889
ALS Vial : 32 Sample Multiplier: 1

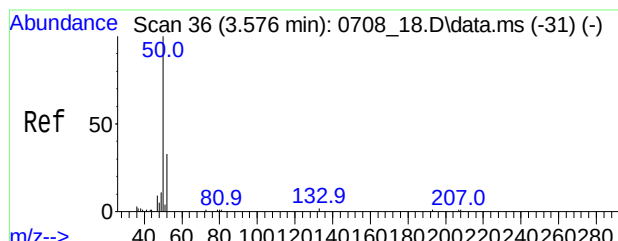
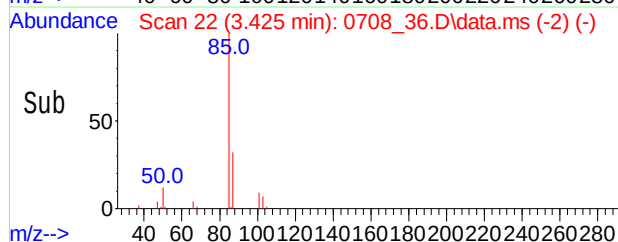
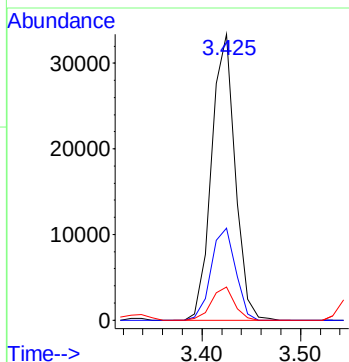
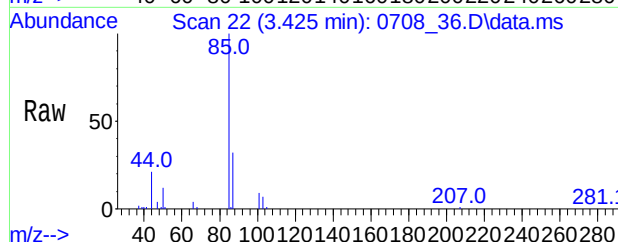
Quant Time: Oct 13 15:00:10 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration





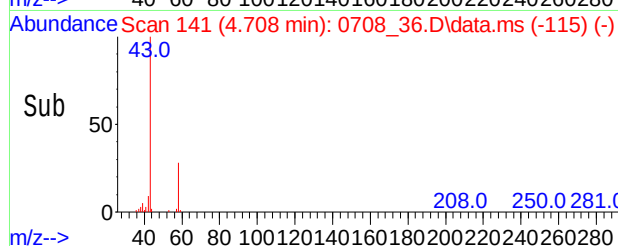
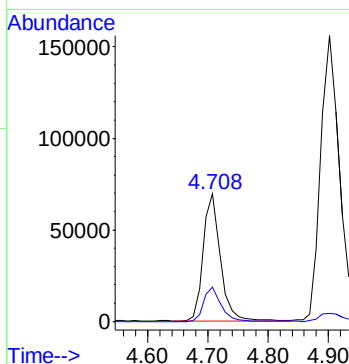
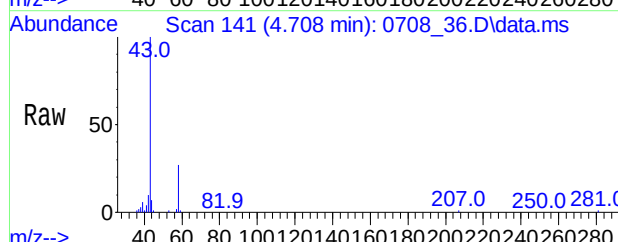
#2
Dichlorodifluoromethane
Conc: 8\$ 0.470 ppbv
RT: 3.425 min Scan# 22
Delta R.T. 0.011 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am

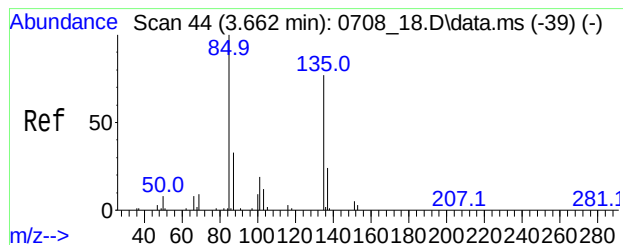
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	55630		
87	33.3	31.4	47.2	
50	11.3	11.8	17.8#	



#4
Acetone
Conc: 8\$ 3.030 ppbv
RT: 4.708 min Scan# 141
Delta R.T. -0.021 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am

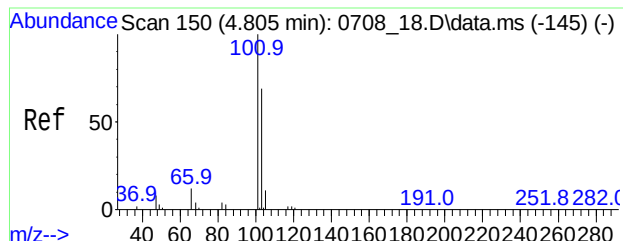
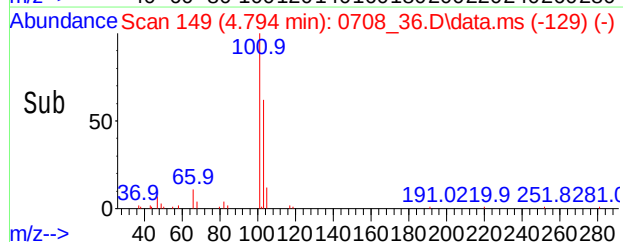
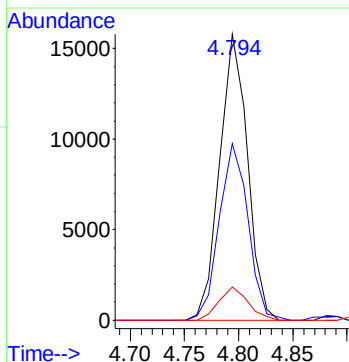
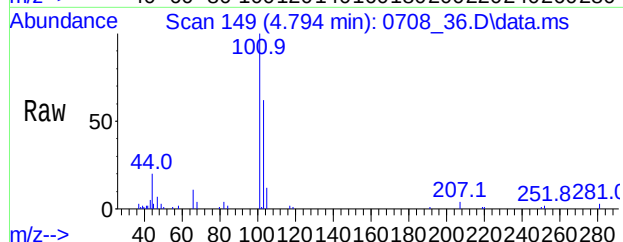
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	139838		
58	27.3	16.2	24.2#	





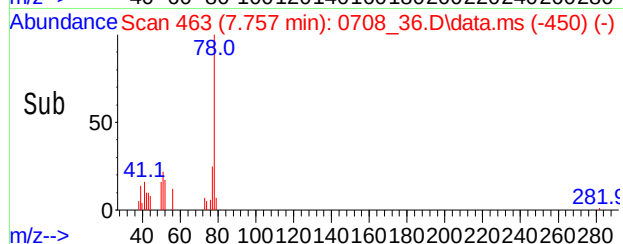
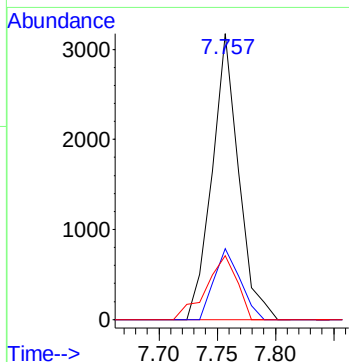
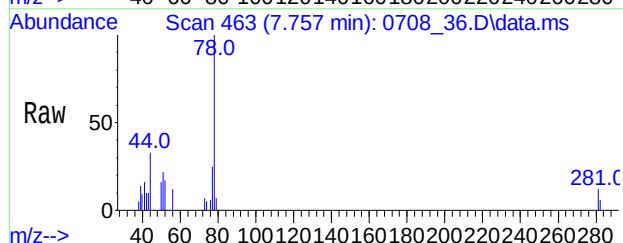
#5
 Trichlorofluoromethane
 Conc: 8\$ 0.264 ppbv
 RT: 4.794 min Scan# 149
 Delta R.T. 0.011 min
 Lab File: 0708_36.D
 Acq: 9 Jul 2020 8:45 am

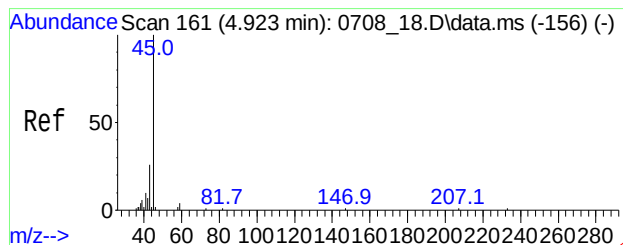
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	28119		
103	64.0	49.0	73.6	
66	12.1	10.7	16.1	



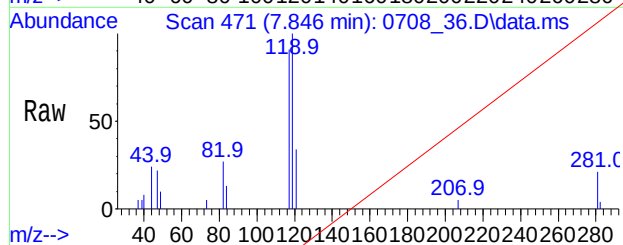
#13
 Benzene
 Conc: 8\$ 0.054 ppbv
 RT: 7.757 min Scan# 463
 Delta R.T. 0.011 min
 Lab File: 0708_36.D
 Acq: 9 Jul 2020 8:45 am

Tgt Ion	Ratio	Resp	Lower	Upper
78	100	5004		
77	24.4	18.6	28.0	
51	26.1	13.9	20.9	

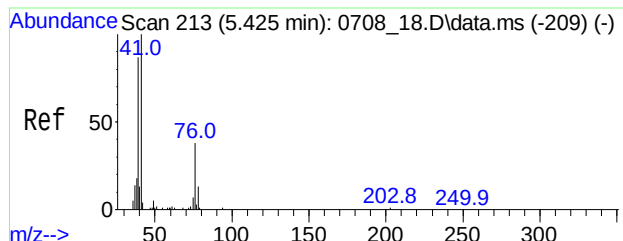
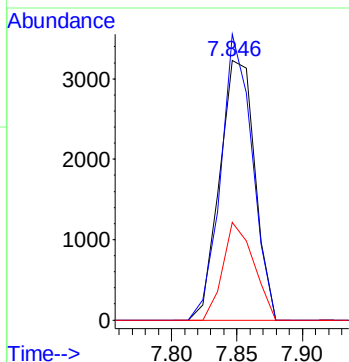
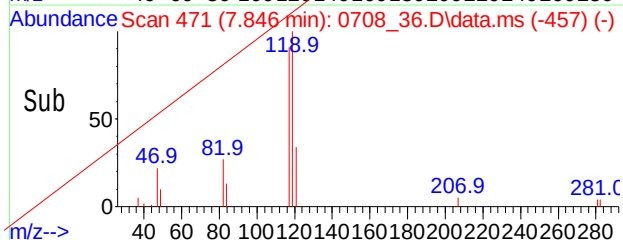




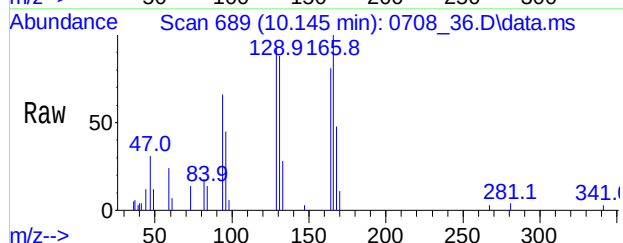
#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.846 min Scan# 471
Delta R.T. 0.011 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am



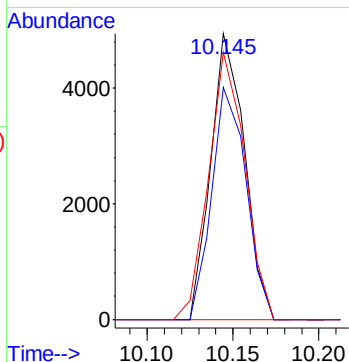
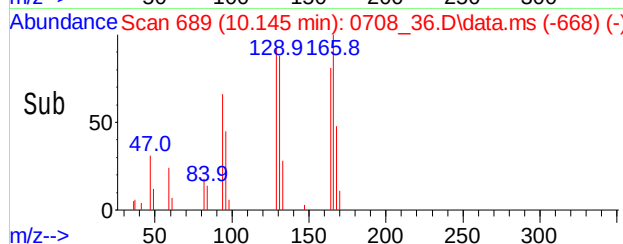
Tgt Ion: 117 Resp: 6068
Ion Ratio Lower Upper
117 100
119 98.2 87.1 127.1
121 33.1 7.2 47.2

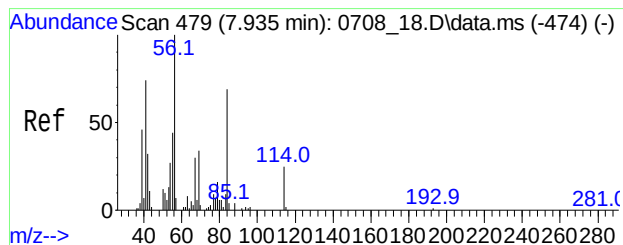


#19
Tetrachloroethene
Conc: 8\$ 0.146 ppbv
RT: 10.145 min Scan# 689
Delta R.T. -0.000 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am

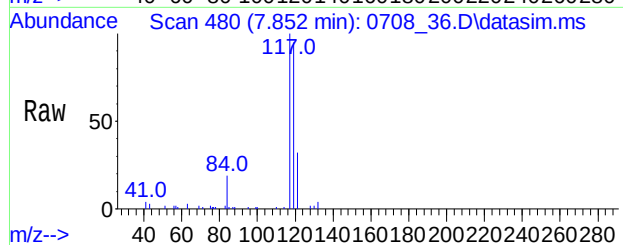


Tgt Ion: 166 Resp: 6671
Ion Ratio Lower Upper
166 100
164 82.4 56.0 84.0
129 100.4 64.2 96.4#

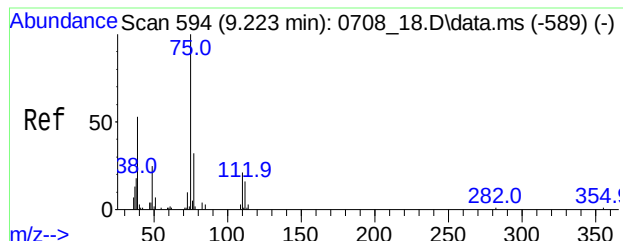
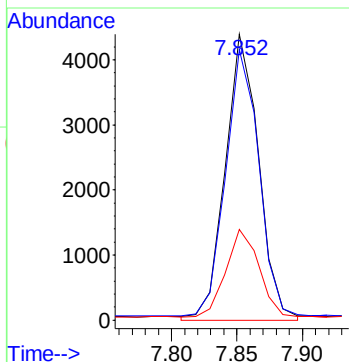
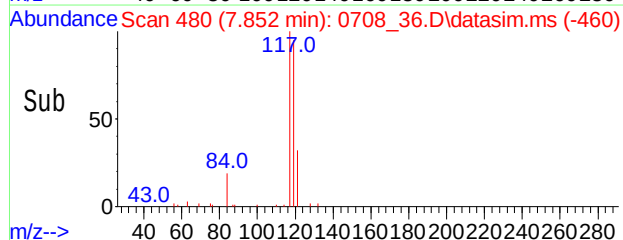




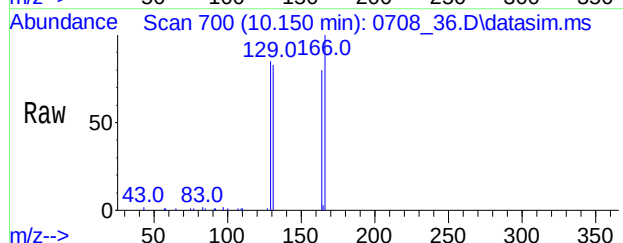
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.074 ppbv
RT: 7.846 min Scan# 480
Delta R.T. 0.011 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am



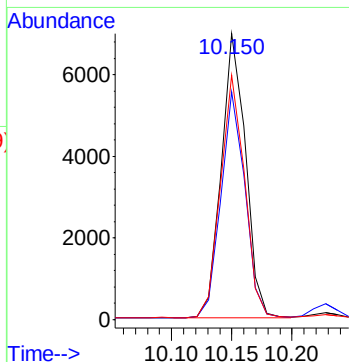
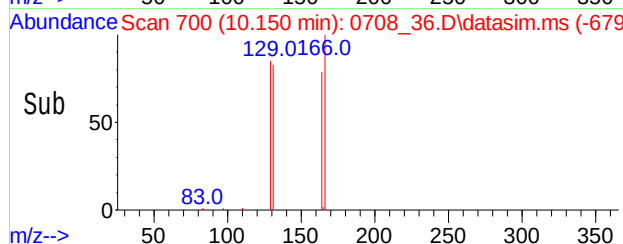
Tgt Ion:117 Resp: 6068
Ion Ratio Lower Upper
117 100
119 98.2 85.7 128.5
121 33.1 21.8 32.6#



#46
Tetrachloroethene(sim)
Conc: 8\$ 0.253 ppbv
RT: 10.150 min Scan# 700
Delta R.T. 0.005 min
Lab File: 0708_36.D
Acq: 9 Jul 2020 8:45 am



Tgt Ion:166 Resp: 9685
Ion Ratio Lower Upper
166 100
164 78.9 50.0 90.0
129 85.0 60.3 100.3



Response Factor Report CHEM20

Method Path : H:\AIR2020\CHEM20\METHODS\
 Method File : 20_AIR_0708_wal.M
 Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:37:03 2020
 Response Via : Initial Calibration

Calibration Files (Note: Curves (l,lf,q,qf) display calculated conc and corr. coefficient.)
 .035=0708_08.D 0.05=0708_09.D 0.10=0708_10.D 0.2=0708_11.D 0.5=0708_12.D 1.0=0708_18.D 2.5=0708_13.D 5.0=0708_14.D
 10=0708_19.D 25=0708_15.D 40=0708_16.D 0.02=0708_07.D

Compound		.035	0.05	0.10	0.2	0.5	1.0	2.5	5.0	10	25	40	0.02	Avg	%RSD	
1)	Int Bromochloromethane	-----ISTD-----														
2)	Dichlorodifluo...				3.816	3.683	3.771	3.784	4.325	3.965	4.014	3.891		3.906	5.13	
3)	Vinyl Chloride				0.915	0.917	0.938	0.918	1.051	0.964	0.976	0.962		0.955	4.74	
4)	Acetone				1.813	1.527	1.452	1.436	1.580	1.478	1.463	1.442		1.524	8.31	
5)	Trichlorofluor...				3.467	3.561	3.481	3.511	3.869	3.566	3.418	3.264		3.517	4.88	
6)	1,1-Dichloroet...				1.625	1.591	1.593	1.575	1.789	1.674	1.637	1.613		1.637	4.20	
7)	Methylene Chlo...				1.176	1.052	1.046	0.991	1.101	1.007	0.982	0.961		1.039	6.85	
8)	Trichlorotrifl...				2.296	2.278	2.303	2.220	2.515	2.329	2.219	2.130		2.286	4.90	
10)	Cis-1,2-Dichlo...					1.035	1.386	1.140	1.347	1.399	1.305	1.194		1.258	10.97	
12)	1,1,1-Trichlor...				2.611	2.496	2.684	2.542	2.883	2.800	2.782	2.802		2.700	5.15	
13)	Benzene				2.638	2.576	2.916	2.864	3.399	3.338	3.377	3.387		3.062	11.52	
14)	Carbon Tetrach...				2.612	2.622	2.735	2.607	3.026	2.998	3.025	3.066		2.836	7.41	
15)	Int 1,4-Difluorobenzene	-----ISTD-----														
17)	Trichloroethene				0.305	0.331	0.334	0.354	0.412	0.405	0.387	0.366		0.362	10.48	
18)	Toluene				0.596	0.658	0.742	0.844	1.076	1.118	1.141	1.091		0.908	24.69	
19)	Tetrachloroethene				0.353	0.355	0.374	0.387	0.449	0.469	0.495	0.498		0.423	14.68	
20)	Int Chlorobenzene-d5	-----ISTD-----														
21)	Chlorobenzene				1.526	1.469	1.488	1.455	1.574	1.488	1.377	1.265		1.455	6.55	
22)	qfi Ethylbenzene				0.108	0.282	0.650	2.020	5.212	10.66	26.30	38.96		Coef R2	1.00	
23)	qfi m,p-Xylene				0.186	0.540	1.467	4.517	10.60	21.47	52.09	77.91		Coef R2	1.00	
24)	qfi o-Xylene				0.087	0.257	0.696	2.196	5.319	10.50	26.19	38.87		Coef R2	1.00	
25)	Surr% Bromofluorob...				1.354	1.374	1.393	1.436	1.413	1.390	1.344	1.280		1.373	3.49	
26)	1,3-Dichlorobe...				1.026	1.223	1.495	1.513	1.727	1.694	1.629	1.444		1.469	16.33	
27)	1,4-Dichlorobe...				0.898	1.137	1.369	1.441	1.625	1.620	1.571	1.369		1.379	18.38	
28)	1,2-Dichlorobe...				0.984	1.210	1.396	1.434	1.637	1.638	1.604	1.444		1.418	16.09	
29)	1,2,4-Trichlor...				0.501	0.536	0.772	0.752	0.810	0.875	0.978	0.929		0.769	22.47	
30)	int Bromochloromethane...	-----ISTD-----														
31)	Vinyl Chloride...	1.072	1.016	0.989	0.934	0.912	0.907	0.906	1.032				1.090	0.984	7.38	
35)	Carbon Tetrach...	2.528	2.266	2.440	2.384	2.378	2.405	2.311					2.445	2.395	3.41	
36)	1,1-Dichloroet...	1.783	1.758	1.756	1.639	1.619	1.611	1.611	1.763				1.932	1.719	6.30	
40)	Cis-1,2-Dichlo...	1.258	1.251	1.246	1.131	1.068	1.131	1.072	1.204				1.342	1.189	7.89	
41)	int 1,4-Difluorobenzen...	-----ISTD-----														
44)	Trichloroethen...	0.344	0.302	0.321	0.265	0.285	0.291	0.308	0.359				0.447	0.325	16.71	
46)	Tetrachloroeth...	0.338	0.378	0.331	0.307	0.305	0.326	0.337	0.392	0.406			0.422	0.354	11.80	
47)	int Chlorobenzene-d5(sim)	-----ISTD-----														
48)	qfi m,p-Xylene(sim)	0.055	0.077	0.151	0.298	0.864	2.104	5.253	9.908					Coef R2	1.00	
50)	qfi 1,4-Dichlorobe...	0.027	0.035	0.072	0.156	0.480	1.099	2.528	4.979				0.020	Coef R2	1.00	

Response Factor Report CHEM20

Method Path : H:\AIR2020\CHEM20\METHODS\
Method File : 20_AIR_0708_wal.M
Title : VOA Standards for 5 point calibration

(#,\$,@)=Out of Range l=linear lf=linear(0,0) q=Quadratic qf=Quadratic(0,0)

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs
Lab Code: Phoenix
Instrument ID: CHEM20
Heated Purge (Y/N): Y
GC Column: RTX-1 60M

Client: _____
SDG No.: GCG29884
Calibration Date From: 07/08/20 16:41
Calibration Date Thru: 07/08/20 21:38
Method File: 20_AIR_0708_wal.M

Laboratory File Ids

RRF1	0708_07.D	RRF2	0708_08.D	RRF3	0708_09.D	RRF4	0708_10.D	RRF5	0708_11.D	RRF6	0708_12.D	RRF7	0708_18.D	RRF8	0708_13.D	RRF9	0708_14.D	RRF10	0708_19.D	RRF11	0708_15.D	RRF12	0708_16.D		
COMPOUND		RRF1 0.02	RRF2 0.035	RRF3 0.05	RRF4 0.1	RRF5 0.2	RRF6 0.5	RRF7 1	RRF8 2.5	RRF9 5	RRF10 10	RRF11 25	RRF12 40	— RRF	% RSD										
Dichlorodifluoromethane						3.816	3.683	3.771	3.784	4.325	3.965	4.014	3.891	3.906	5.13										
Vinyl Chloride						0.915	0.917	0.938	0.918	1.051	0.964	0.976	0.962	0.955	4.74										
Acetone						1.813	1.527	1.452	1.436	1.580	1.478	1.463	1.442	1.524	8.31										
Trichlorofluoromethane						3.467	3.561	3.481	3.511	3.869	3.566	3.418	3.264	3.517	4.88										
1,1-Dichloroethene						1.625	1.591	1.593	1.575	1.789	1.674	1.637	1.613	1.637	4.20										
Methylene Chloride						1.176	1.052	1.046	0.991	1.101	1.007	0.982	0.961	1.039	6.85										
Trichlorotrifluoroethane						2.296	2.278	2.303	2.220	2.515	2.329	2.219	2.130	2.286	4.90										
Cis-1,2-Dichloroethene							1.035	1.386	1.140	1.347	1.399	1.305	1.194	1.258	10.97										
1,1,1-Trichloroethane						2.611	2.496	2.684	2.542	2.883	2.800	2.782	2.802	2.700	5.15										
Benzene						2.638	2.576	2.916	2.864	3.399	3.338	3.377	3.387	3.062	11.52										
Carbon Tetrachloride						2.612	2.622	2.735	2.607	3.026	2.998	3.025	3.066	2.836	7.41										
Trichloroethene						0.305	0.331	0.334	0.354	0.412	0.405	0.387	0.366	0.362	10.48										
Toluene						0.596	0.658	0.742	0.844	1.076	1.118	1.141	1.091	0.908	24.69										
Tetrachloroethene						0.353	0.355	0.374	0.387	0.449	0.469	0.495	0.498	0.423	14.68										
Chlorobenzene						1.526	1.469	1.488	1.455	1.574	1.488	1.377	1.265	1.455	6.55										
Ethylbenzene	qfi					0.108	0.282	0.650	2.020	5.212	10.660	26.300	38.960	Coef R2	1.00										
m,p-Xylene	qfi					0.186	0.540	1.467	4.517	10.600	21.470	52.090	77.910	Coef R2	1.00										
o-Xylene	qfi					0.087	0.257	0.696	2.196	5.319	10.500	26.190	38.870	Coef R2	1.00										
1,3-Dichlorobenzene						1.026	1.223	1.495	1.513	1.727	1.694	1.629	1.444	1.469	16.33										
1,4-Dichlorobenzene						0.898	1.137	1.369	1.441	1.625	1.620	1.571	1.369	1.379	18.38										
1,2-Dichlorobenzene						0.984	1.210	1.396	1.434	1.637	1.638	1.604	1.444	1.418	16.09										
1,2,4-Trichlorobenzene						0.501	0.536	0.772	0.752	0.810	0.875	0.978	0.929	0.769	22.47										
Vinyl Chloride(sim)		1.090	1.072	1.016	0.989	0.934	0.912	0.907	0.906	1.032				0.984	7.38										
Carbon Tetrachloride(sim)		2.445	2.528	2.266	2.440	2.384	2.378	2.405	2.311					2.395	3.41										
1,1-Dichloroethene(sim)		1.932	1.783	1.758	1.756	1.639	1.619	1.611	1.611	1.763				1.719	6.30										

(#) The maximum %RSD was not met for this compound Note: m,p-xylene TV is 2 times the TV Listed

(l) linear (q) quadratic (i) inverse conc weight (i2) inverse conc weight squared (f) force through zero

Compounds not using average response (l, li, lfi, li2, lfi2, q, qi, qfi, qi2, qfi2) display concentrations and not response factors

Phoenix Environmental Laboratories, Inc.

6B

Client:

SDG No.: GCG29884

Calibration Date From: 07/08/20 16:41

Calibration Date Thru: 07/08/20 21:38

Method File: 20 AIR 0708 wal.M

[illegible]

(#) The maximum %RSD was not met for this compound

Note: m,p-xylene TV is 2 times the TV Listed

(l) linear (q) quadratic (i) inverse conc weight (i2) inverse conc weight squared (f) force through zero

Compounds not using average response (l, li, lfi, li2, lfi2, q, qi, qfi, qi2, qfi2) display concentrations and not response factors

Phoenix Environmental Laboratories, Inc.

FORM VI AIR

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_07.D
 Acq On : 8 Jul 2020 2:16 pm
 Operator :
 Client ID : ICAL 0.02
 Lab ID : 0.02
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 11:28:43 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:27:58 2020
 Response via : Initial Calibration

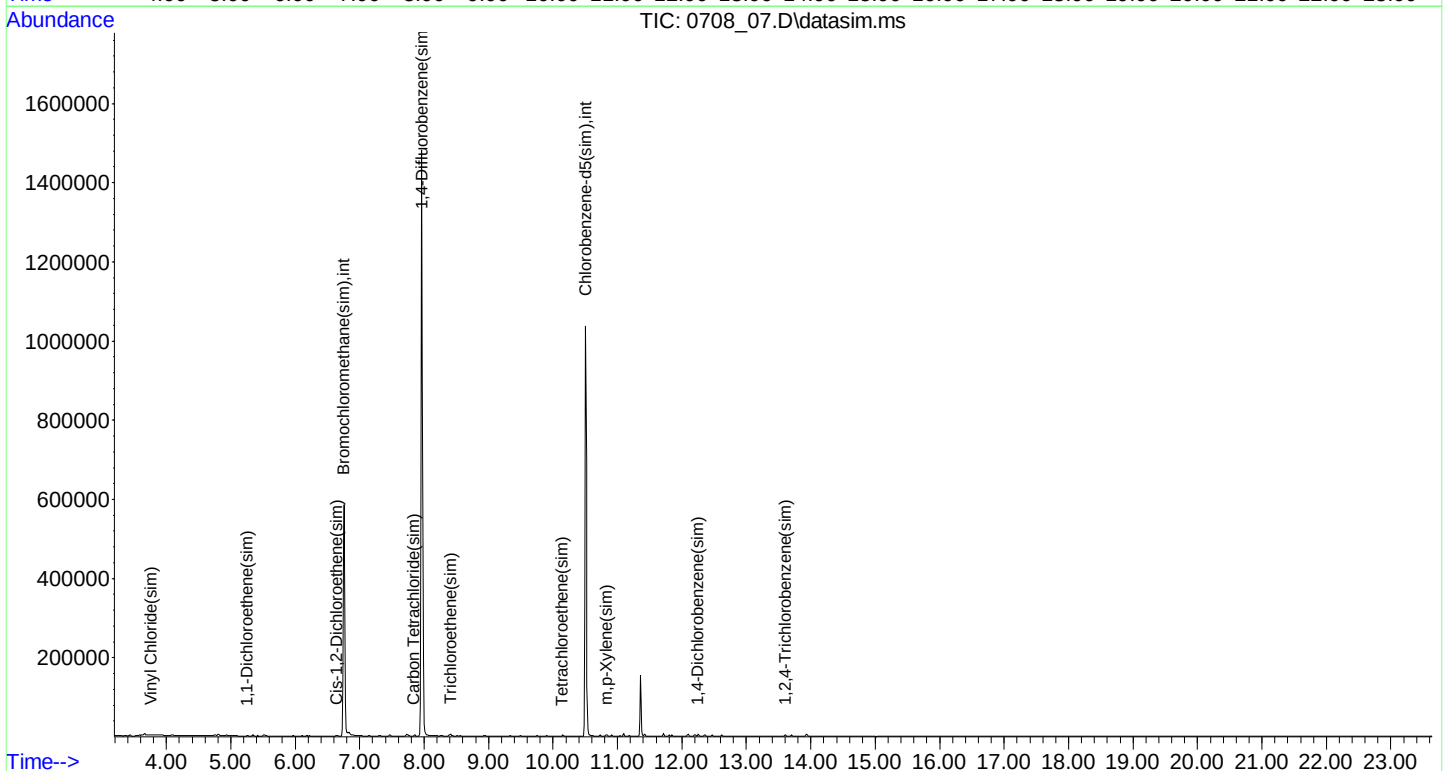
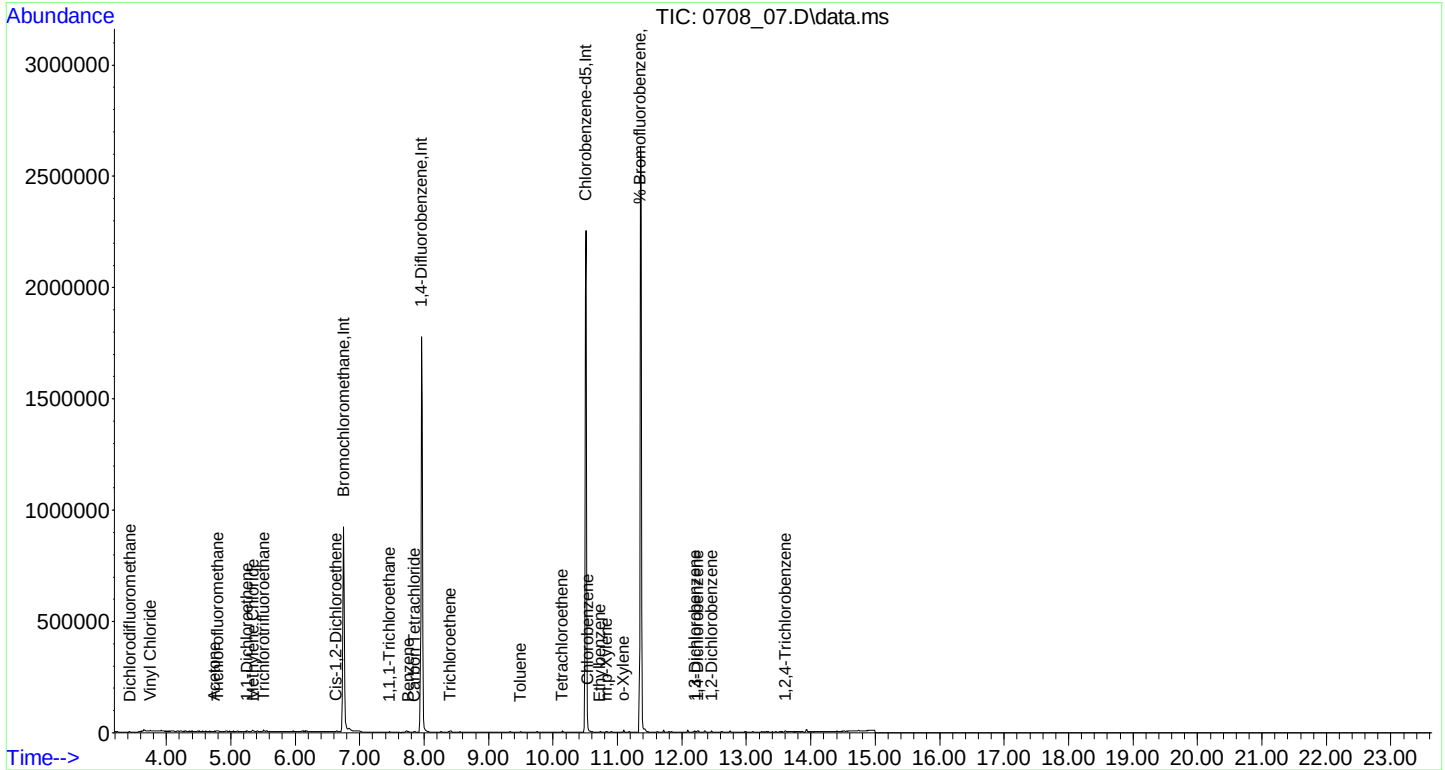
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	309748	10.000	ng	0.01
36) 1,4-Difluorobenzene	7.958	114	1137045	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	644807	10.000	ng	0.00
80) Bromochloromethane(sim)	6.758	130	355402	10.000	ng	# 0.01
94) 1,4-Difluorobenzene(sim)	7.963	114	1304768	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	686083	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.352	95	825024	9.318	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.20%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.436	85	3067	0.025	ppbv#	91
6) Vinyl Chloride	3.759	62	605	0.020	ppbv	73
12) Acetone	4.751	43	2463	0.052	ppbv#	71
13) Trichlorofluoromethane	4.794	101	2903	0.027	ppbv	96
16) 1,1-Dichloroethene	5.253	61	1444	0.028	ppbv	93
17) Methylene Chloride	5.339	49	2257	0.070	ppbv	93
21) Trichlorotrifluoroethane	5.512	101	1935	0.027	ppbv#	86
26) Cis-1,2-Dichloroethene	6.638	61	1169	0.030	ppbv#	87
32) 1,1,1-Trichloroethane	7.460	97	2091	0.025	ppbv	95
33) Benzene	7.757	78	2026	0.021	ppbv	95
34) Carbon Tetrachloride	7.846	117	1738	0.020	ppbv#	83
39) Trichloroethene	8.403	130	778	0.019	ppbv	88
48) Toluene	9.494	91	2051	0.020	ppbv#	80
52) Tetrachloroethene	10.145	166	1102	0.023	ppbv	92
55) Chlorobenzene	10.532	112	2569	0.027	ppbv#	1
56) Ethylbenzene	10.727	91	2292	0.018	ppbv	91
57) m,p-Xylene	10.830	91	2862	0.027	ppbv#	92
61) o-Xylene	11.096	91	1450	0.013	ppbv	94
71) 1,3-Dichlorobenzene	12.204	146	1634	0.017	ppbv#	89
72) 1,4-Dichlorobenzene	12.245	146	1630	0.018	ppbv	91
75) 1,2-Dichlorobenzene	12.460	146	1962	0.021	ppbv	95
77) 1,2,4-Trichlorobenzene	13.609	180	1786	0.036	ppbv#	79
82) Vinyl Chloride(sim)	3.765	62	775m	0.022	ppbv	90
87) Carbon Tetrachloride(sim)	7.846	117	1738	0.020	ppbv#	83
88) 1,1-Dichloroethene(sim)	5.259	61	1373	0.022	ppbv	91
92) Cis-1,2-Dichloroethene...	6.643	61	954	0.023	ppbv	94
97) Trichloroethene(sim)	8.409	130	1167m	0.028	ppbv	80
103) Tetrachloroethene(sim)	10.145	166	1102	0.024	ppbv	92
106) m,p-Xylene(sim)	10.825	91	3402	0.037	ppbv	97
112) 1,4-Dichlorobenzene(sim)	12.250	146	1839	0.020	ppbv	100
117) 1,2,4-Trichlorobenzene...	13.609	180	1786	0.043	ppbv#	79

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_07.D
 Acq On : 8 Jul 2020 2:16 pm
 Operator :
 Client ID : ICAL 0.02
 Lab ID : 0.02
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 09 11:28:43 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:27:58 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_08.D
 Acq On : 8 Jul 2020 2:52 pm
 Operator :
 Client ID : ICAL 0.035
 Lab ID : 0.035
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 09 11:29:15 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:29:11 2020
 Response via : Initial Calibration

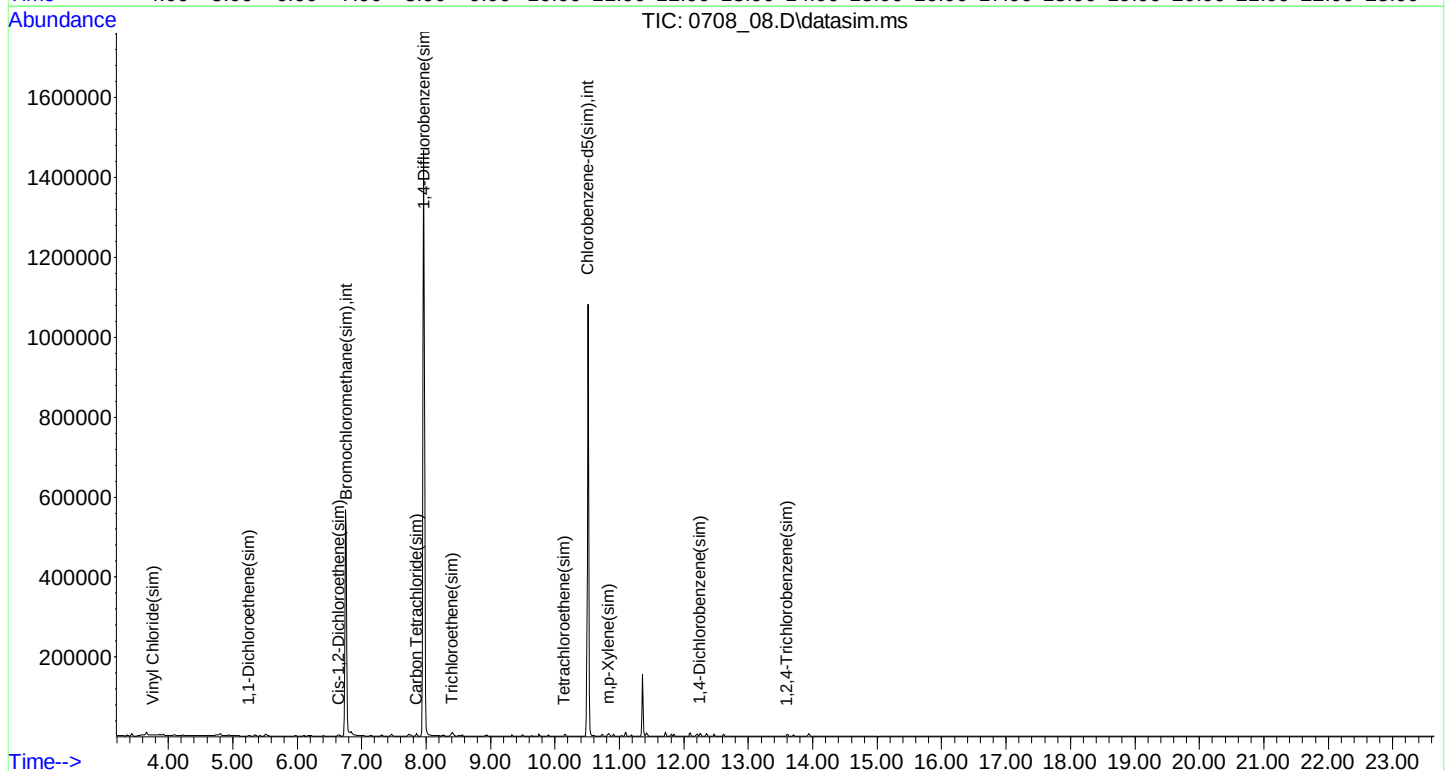
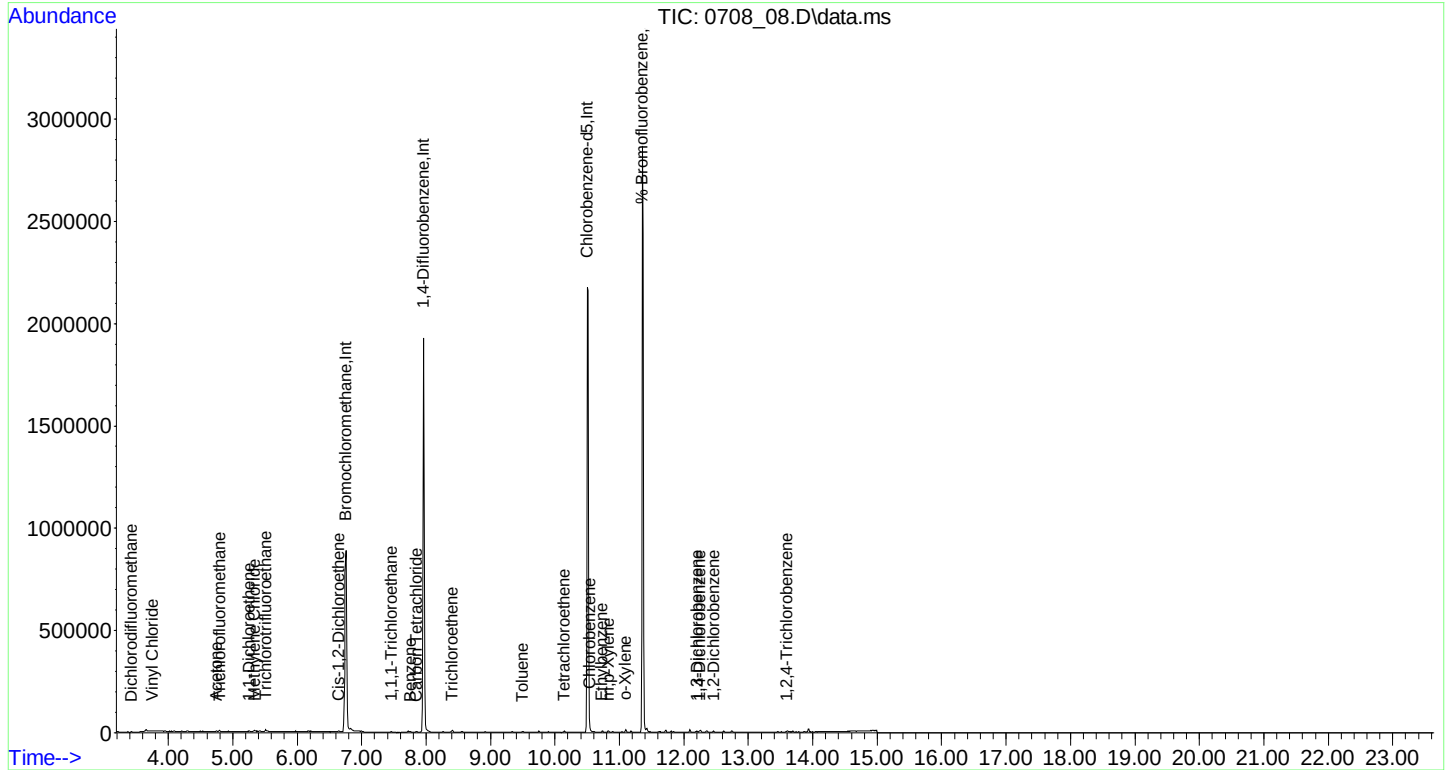
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.755	130	321836	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.960	114	1142017	10.000	ng	0.00
53) Chlorobenzene-d5	10.503	82	657495	10.000	ng	0.00
80) Bromochloromethane(sim)	6.760	130	355185	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.966	114	1324610	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.508	82	698392	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.354	95	837628	9.278	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.80%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.425	85	4398	0.035	ppbv#	95
6) Vinyl Chloride	3.759	62	1123	0.037	ppbv	92
12) Acetone	4.751	43	3902	0.080	ppbv#	90
13) Trichlorofluoromethane	4.794	101	4474	0.040	ppbv#	90
16) 1,1-Dichloroethene	5.253	61	1705	0.032	ppbv#	34
17) Methylene Chloride	5.339	49	2576	0.077	ppbv#	85
21) Trichlorotrifluoroethane	5.512	101	2704	0.037	ppbv#	73
26) Cis-1,2-Dichloroethene	6.640	61	1824	0.045	ppbv	94
32) 1,1,1-Trichloroethane	7.463	97	2913	0.034	ppbv	93
33) Benzene	7.760	78	3506	0.036	ppbv	95
34) Carbon Tetrachloride	7.849	117	3143	0.034	ppbv	93
39) Trichloroethene	8.406	130	1594	0.039	ppbv#	71
48) Toluene	9.496	91	3164	0.031	ppbv#	86
52) Tetrachloroethene	10.146	166	1569	0.033	ppbv	91
55) Chlorobenzene	10.534	112	4112	0.043	ppbv#	43
56) Ethylbenzene	10.728	91	3315	0.026	ppbv	91
57) m,p-Xylene	10.831	91	4687	0.044	ppbv	94
61) o-Xylene	11.097	91	2400	0.021	ppbv	95
71) 1,3-Dichlorobenzene	12.205	146	2456	0.025	ppbv#	77
72) 1,4-Dichlorobenzene	12.246	146	1819	0.020	ppbv	94
75) 1,2-Dichlorobenzene	12.461	146	2537	0.027	ppbv	96
77) 1,2,4-Trichlorobenzene	13.600	180	1933	0.038	ppbv#	91
82) Vinyl Chloride(sim)	3.765	62	1333	0.038	ppbv#	4
87) Carbon Tetrachloride(sim)	7.849	117	3143	0.037	ppbv	93
88) 1,1-Dichloroethene(sim)	5.250	61	2216	0.036	ppbv	93
92) Cis-1,2-Dichloroethene...	6.646	61	1564	0.037	ppbv	97
97) Trichloroethene(sim)	8.406	130	1594	0.037	ppbv	93
103) Tetrachloroethene(sim)	10.146	166	1569	0.033	ppbv	91
106) m,p-Xylene(sim)	10.826	91	5058	0.055	ppbv	98
112) 1,4-Dichlorobenzene(sim)	12.252	146	2452	0.026	ppbv	99
117) 1,2,4-Trichlorobenzene...	13.600	180	1933	0.046	ppbv	91

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_08.D
 Acq On : 8 Jul 2020 2:52 pm
 Operator :
 Client ID : ICAL 0.035
 Lab ID : 0.035
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 09 11:29:15 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:29:11 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_09.D
 Acq On : 8 Jul 2020 3:28 pm
 Operator :
 Client ID : ICAL 0.05
 Lab ID : 0.05
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 09 11:31:10 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:30:57 2020
 Response via : Initial Calibration

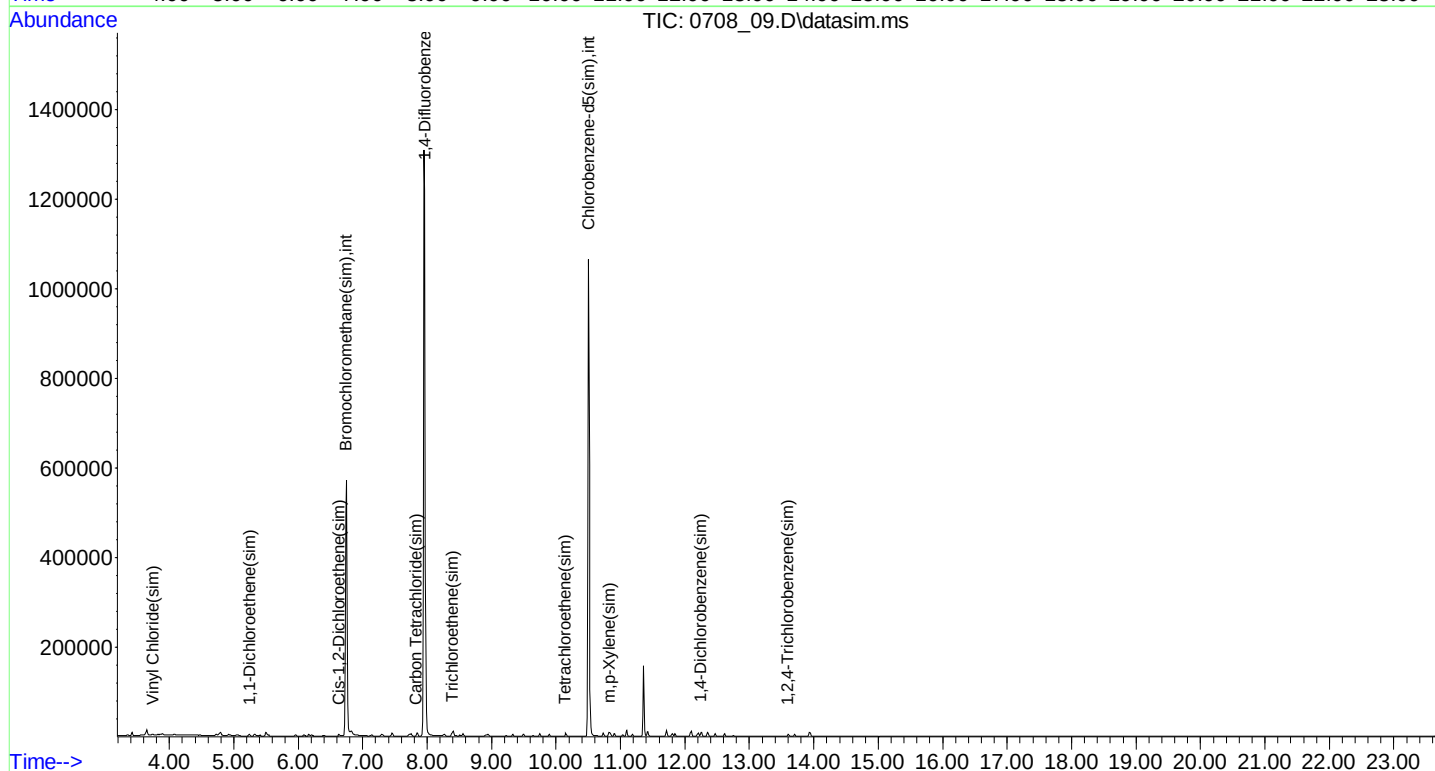
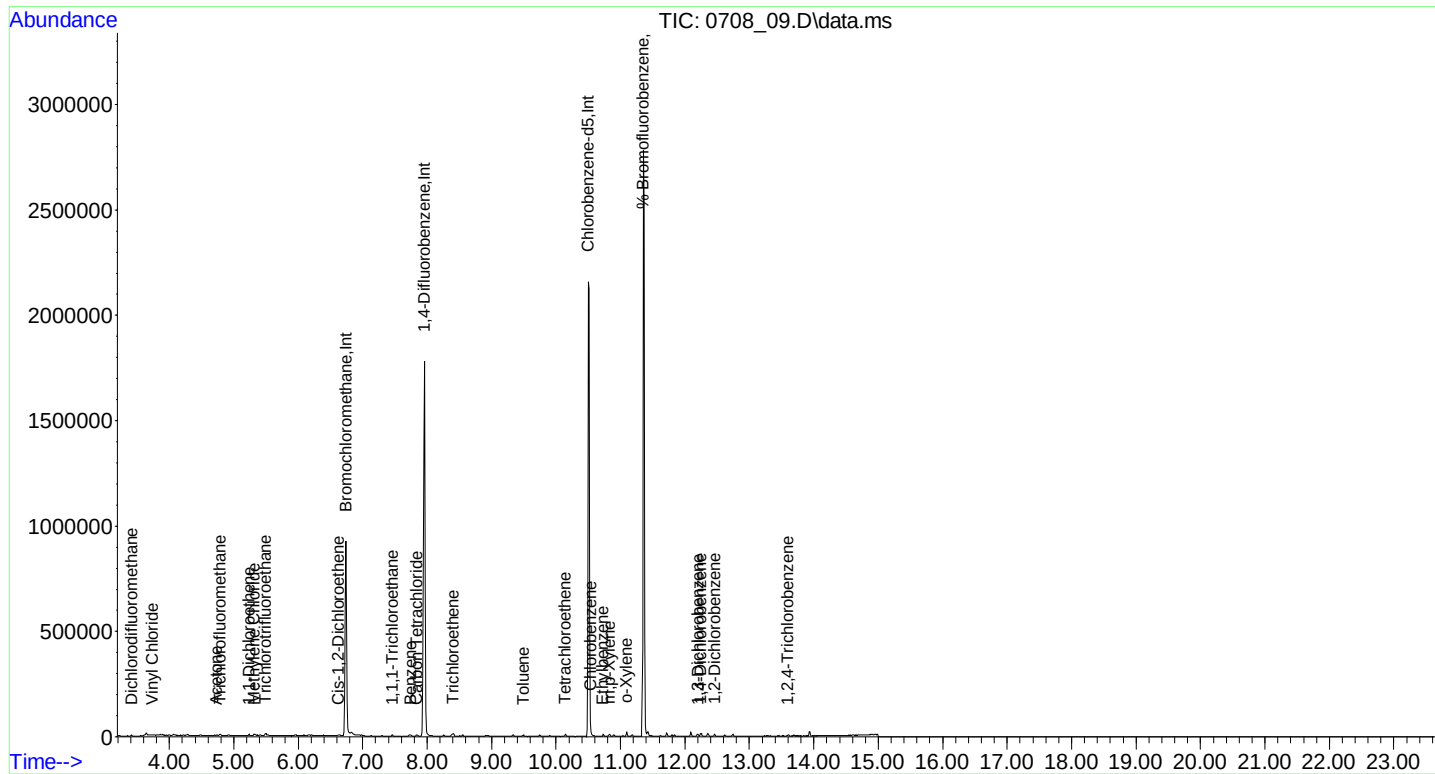
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.742	130	311366	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.958	114	1143194	10.000	ng	0.00
53) Chlorobenzene-d5	10.502	82	643574	10.000	ng	0.00
80) Bromochloromethane(sim)	6.747	130	356270	10.000	ng	#-0.01
94) 1,4-Difluorobenzene(sim)	7.963	114	1306937	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	686422	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.352	95	841601	9.524	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	95.20%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.414	85	6037	0.050	ppbv#	85
6) Vinyl Chloride	3.738	62	1665	0.056	ppbv	88
12) Acetone	4.729	43	3993	0.084	ppbv#	90
13) Trichlorofluoromethane	4.783	101	6494	0.059	ppbv	86
16) 1,1-Dichloroethene	5.236	61	2926	0.057	ppbv#	60
17) Methylene Chloride	5.313	49	3246	0.100	ppbv#	84
21) Trichlorotrifluoroethane	5.495	101	4206	0.059	ppbv#	82
26) Cis-1,2-Dichloroethene	6.627	61	2147	0.055	ppbv#	80
32) 1,1,1-Trichloroethane	7.461	97	4321	0.051	ppbv	94
33) Benzene	7.746	78	4398	0.046	ppbv#	93
34) Carbon Tetrachloride	7.835	117	4036	0.046	ppbv	98
39) Trichloroethene	8.403	130	1976	0.048	ppbv#	79
48) Toluene	9.494	91	3839	0.037	ppbv#	94
52) Tetrachloroethene	10.145	166	2472	0.051	ppbv	95
55) Chlorobenzene	10.532	112	5228	0.056	ppbv#	75
56) Ethylbenzene	10.727	91	4349	0.035	ppbv	92
57) m,p-Xylene	10.830	91	6462	0.062	ppbv#	90
61) o-Xylene	11.096	91	3018	0.027	ppbv	94
71) 1,3-Dichlorobenzene	12.204	146	3387	0.036	ppbv	91
72) 1,4-Dichlorobenzene	12.245	146	3059	0.034	ppbv#	90
75) 1,2-Dichlorobenzene	12.460	146	3598	0.039	ppbv#	94
77) 1,2,4-Trichlorobenzene	13.599	180	2094	0.042	ppbv#	88
82) Vinyl Chloride(sim)	3.743	62	1809	0.052	ppbv	96
87) Carbon Tetrachloride(sim)	7.835	117	4036	0.047	ppbv	98
88) 1,1-Dichloroethene(sim)	5.241	61	3131	0.051	ppbv	97
92) Cis-1,2-Dichloroethene...	6.633	61	2228	0.053	ppbv	96
97) Trichloroethene(sim)	8.403	130	1976	0.047	ppbv#	80
103) Tetrachloroethene(sim)	10.145	166	2472	0.053	ppbv	95
106) m,p-Xylene(sim)	10.825	91	6939	0.076	ppbv	99
112) 1,4-Dichlorobenzene(sim)	12.250	146	3190	0.035	ppbv	98
117) 1,2,4-Trichlorobenzene...	13.599	180	2094	0.050	ppbv	88

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_09.D
 Acq On : 8 Jul 2020 3:28 pm
 Operator :
 Client ID : ICAL 0.05
 Lab ID : 0.05
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 09 11:31:10 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:30:57 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_10.D
 Acq On : 8 Jul 2020 4:04 pm
 Operator :
 Client ID : ICAL 0.1
 Lab ID : 0.10
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 09 11:26:58 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 11:26:53 2020
 Response via : Initial Calibration

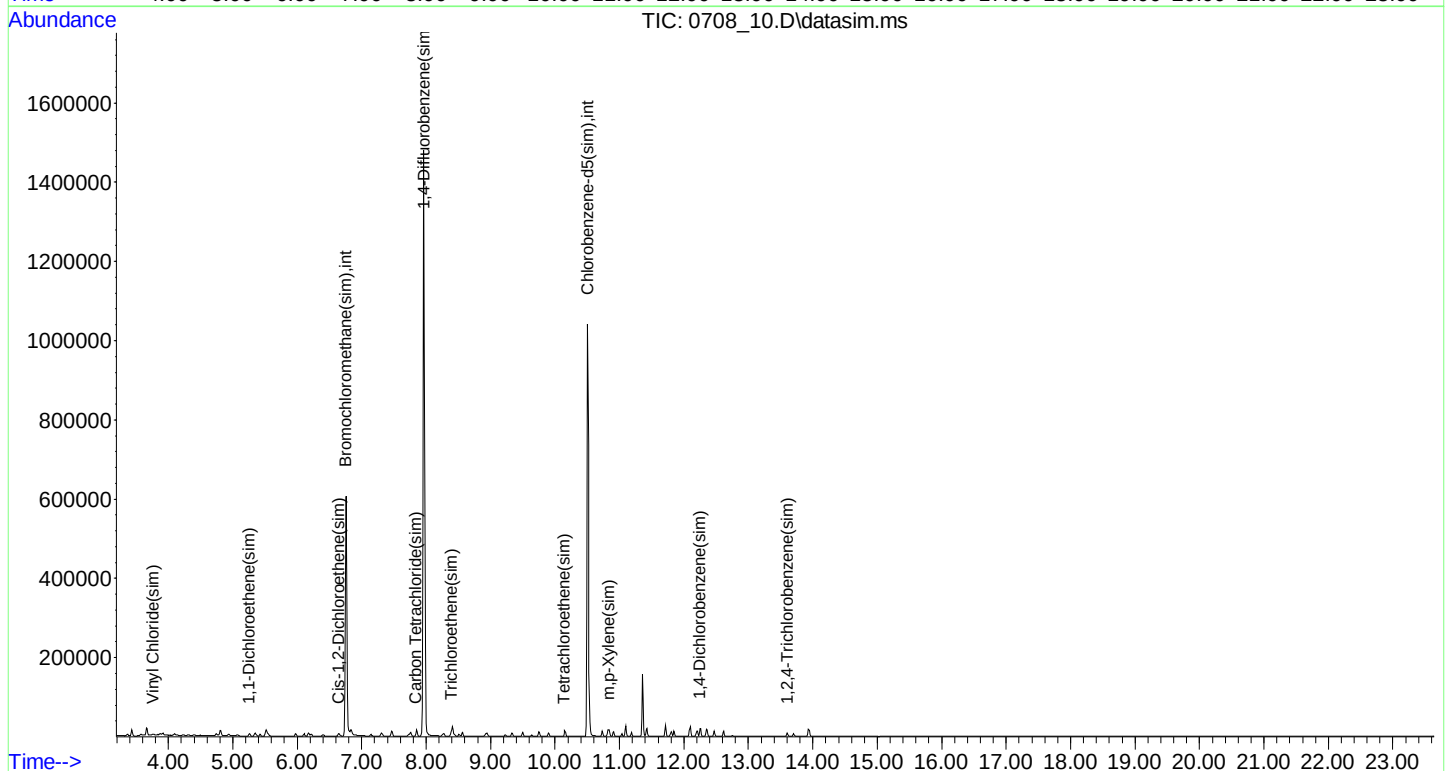
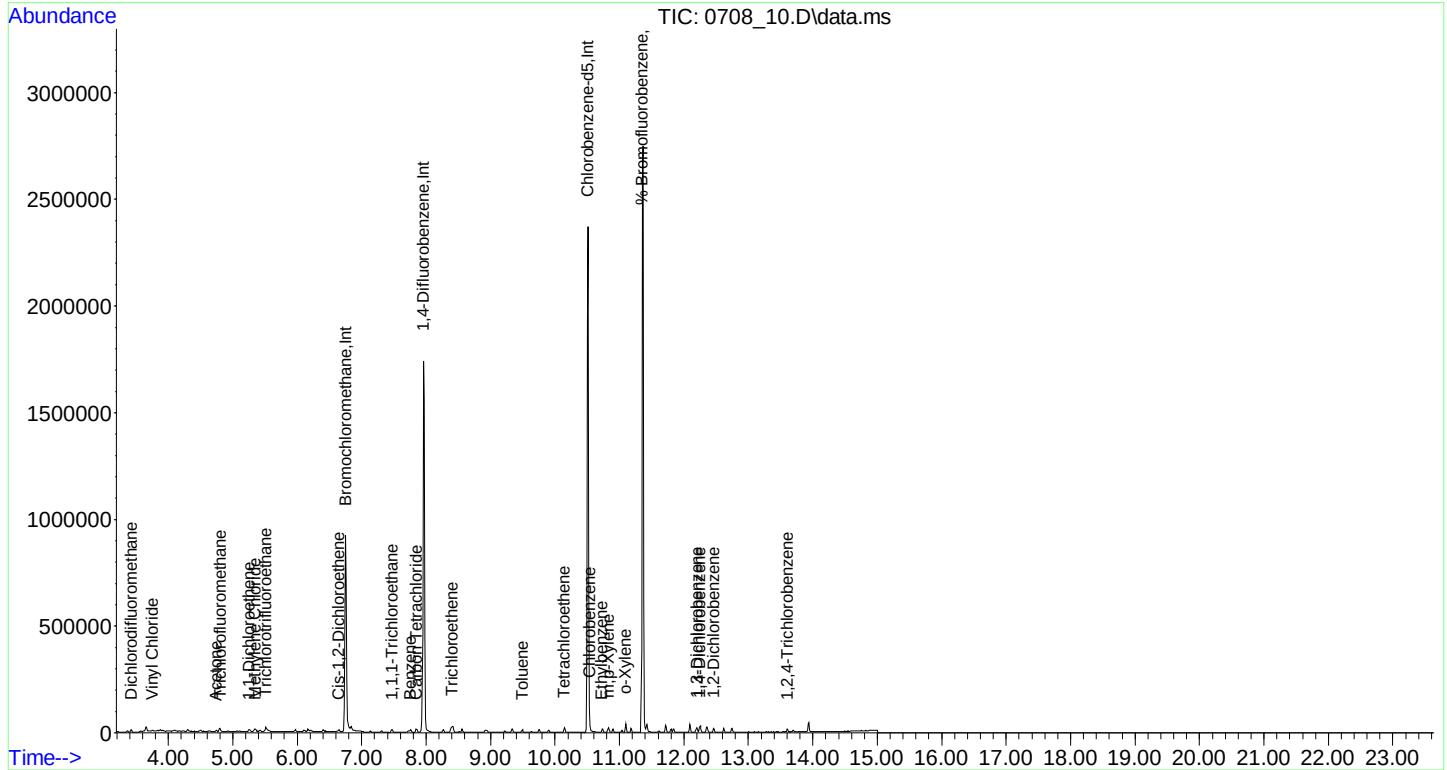
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	313628	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.957	114	1149609	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	649459	10.000	ng	0.00
80) Bromochloromethane(sim)	6.758	130	356670	10.000	ng	# 0.01
94) 1,4-Difluorobenzene(sim)	7.963	114	1317369	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	694918	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.352	95	858562	9.691	ppbv	-0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	96.90%
Target Compounds						
						Qvalue
3) Dichlorodifluoromethane	3.425	85	12700	0.104	ppbv	99
6) Vinyl Chloride	3.759	62	3377	0.113	ppbv	96
12) Acetone	4.740	43	6376	0.133	ppbv	96
13) Trichlorofluoromethane	4.805	101	11743	0.106	ppbv	93
16) 1,1-Dichloroethene	5.253	61	5605	0.109	ppbv	97
17) Methylene Chloride	5.339	49	4588	0.141	ppbv	95
21) Trichlorotrifluoroethane	5.512	101	8095	0.113	ppbv	95
26) Cis-1,2-Dichloroethene	6.648	61	4810	0.122	ppbv	97
32) 1,1,1-Trichloroethane	7.471	97	8981	0.106	ppbv	99
33) Benzene	7.757	78	8692	0.091	ppbv	97
34) Carbon Tetrachloride	7.846	117	8704	0.098	ppbv	97
39) Trichloroethene	8.403	130	4229	0.102	ppbv#	80
48) Toluene	9.494	91	7556	0.072	ppbv	98
52) Tetrachloroethene	10.144	166	4361	0.090	ppbv	95
55) Chlorobenzene	10.532	112	10132	0.107	ppbv#	58
56) Ethylbenzene	10.727	91	8376	0.066	ppbv	94
57) m,p-Xylene	10.829	91	11983	0.116	ppbv	96
61) o-Xylene	11.096	91	6397	0.057	ppbv	97
71) 1,3-Dichlorobenzene	12.204	146	6437	0.067	ppbv	96
72) 1,4-Dichlorobenzene	12.245	146	4822	0.054	ppbv	93
75) 1,2-Dichlorobenzene	12.460	146	6633	0.072	ppbv	92
77) 1,2,4-Trichlorobenzene	13.609	180	3308	0.066	ppbv#	81
82) Vinyl Chloride(sim)	3.765	62	3527	0.100	ppbv	95
87) Carbon Tetrachloride(sim)	7.846	117	8704	0.102	ppbv	97
88) 1,1-Dichloroethene(sim)	5.258	61	6263	0.102	ppbv	99
92) Cis-1,2-Dichloroethene...	6.643	61	4445	0.105	ppbv	99
97) Trichloroethene(sim)	8.403	130	4229	0.099	ppbv#	86
103) Tetrachloroethene(sim)	10.144	166	4361	0.093	ppbv	95
106) m,p-Xylene(sim)	10.835	91	13921	0.159	ppbv	100
112) 1,4-Dichlorobenzene(sim)	12.250	146	6556	0.070	ppbv	99
117) 1,2,4-Trichlorobenzene...	13.609	180	3308	0.080	ppbv#	81

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_10.D
 Acq On : 8 Jul 2020 4:04 pm
 Operator :
 Client ID : ICAL 0.1
 Lab ID : 0.10
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 09 11:26:58 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:26:53 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_11.D
 Acq On : 8 Jul 2020 4:41 pm
 Operator :
 Client ID : ICAL 0.2
 Lab ID : 0.2
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 09 11:26:34 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:26:30 2020
 Response via : Initial Calibration

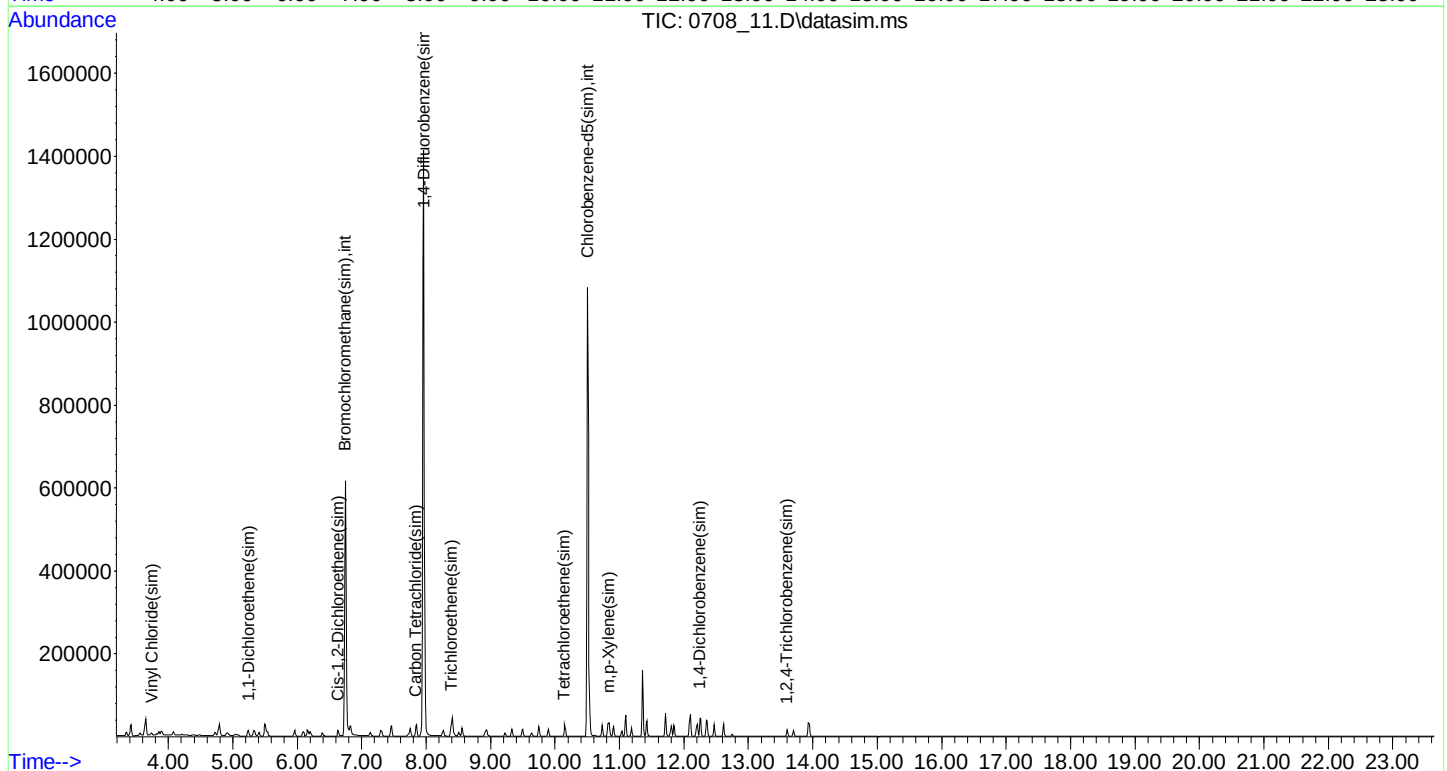
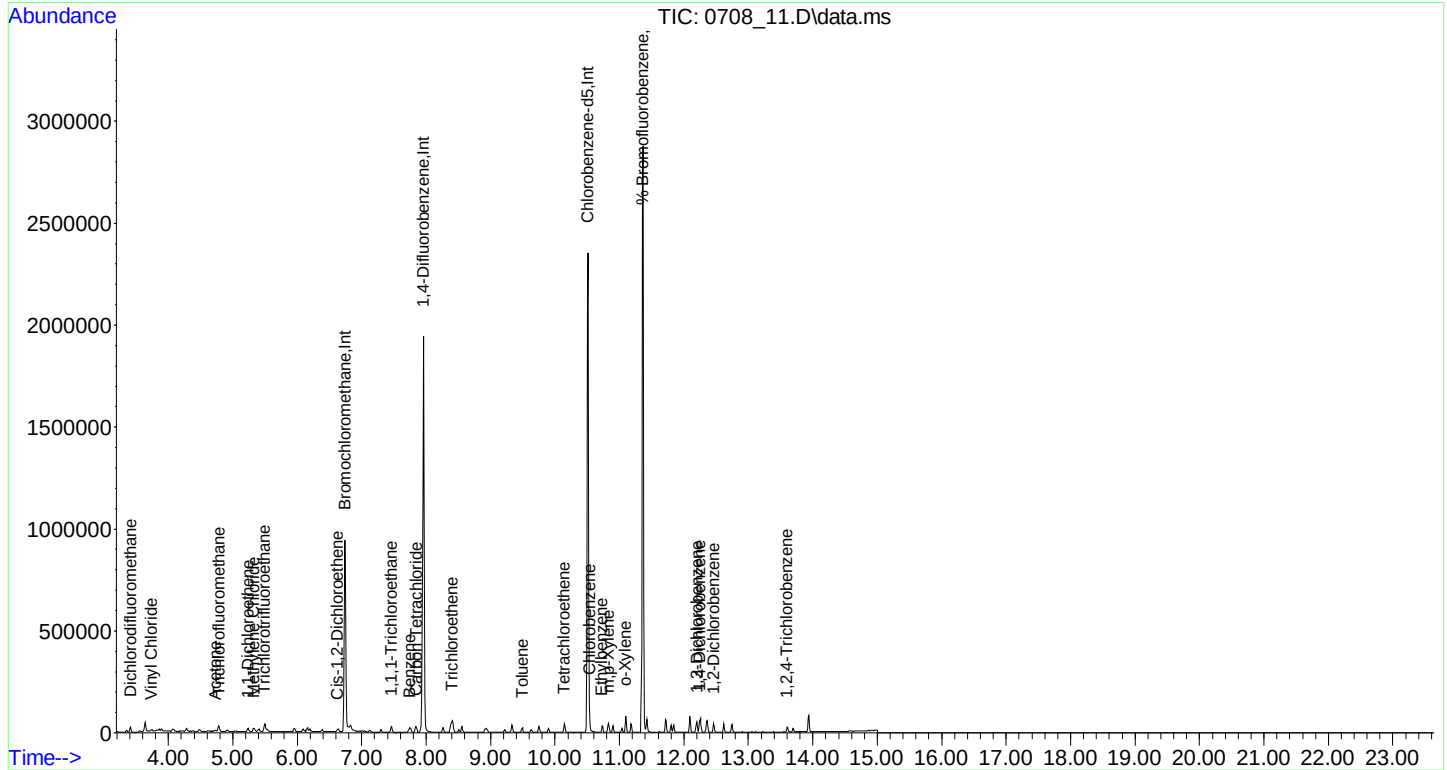
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.742	130	325569	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.957	114	1168972	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	661512	10.000	ng	0.00
80) Bromochloromethane(sim)	6.747	130	356661	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.963	114	1341266	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	708958	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.362	95	895893	9.917	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.20%
Target Compounds						
						Qvalue
3) Dichlorodifluoromethane	3.414	85	24850	0.195	ppbv	98
6) Vinyl Chloride	3.737	62	5957	0.192	ppbv	99
12) Acetone	4.729	43	11808	0.238	ppbv	97
13) Trichlorofluoromethane	4.783	101	22578	0.197	ppbv	93
16) 1,1-Dichloroethene	5.236	61	10580	0.199	ppbv	99
17) Methylene Chloride	5.322	49	7657	0.226	ppbv	93
21) Trichlorotrifluoroethane	5.494	101	14952	0.201	ppbv	98
26) Cis-1,2-Dichloroethene	6.627	61	7466	0.182	ppbv	96
32) 1,1,1-Trichloroethane	7.460	97	17003	0.193	ppbv	98
33) Benzene	7.746	78	17175	0.172	ppbv	98
34) Carbon Tetrachloride	7.846	117	17008	0.184	ppbv	96
39) Trichloroethene	8.403	130	7120	0.168	ppbv	92
48) Toluene	9.494	91	13934	0.131	ppbv	95
52) Tetrachloroethene	10.144	166	8247	0.167	ppbv	96
55) Chlorobenzene	10.532	112	20191	0.210	ppbv#	67
56) Ethylbenzene	10.727	91	17076	0.125	ppbv	99
57) m, p-Xylene	10.829	91	25535	0.227	ppbv	96
61) o-Xylene	11.096	91	13106	0.107	ppbv	97
71) 1,3-Dichlorobenzene	12.204	146	13580	0.140	ppbv	98
72) 1,4-Dichlorobenzene	12.245	146	11885	0.130	ppbv	97
75) 1,2-Dichlorobenzene	12.460	146	13016	0.139	ppbv	92
77) 1,2,4-Trichlorobenzene	13.599	180	6627	0.130	ppbv	95
82) Vinyl Chloride(sim)	3.743	62	6663	0.190	ppbv	100
87) Carbon Tetrachloride(sim)	7.846	117	17008	0.199	ppbv	96
88) 1,1-Dichloroethene(sim)	5.241	61	11688	0.191	ppbv	99
92) Cis-1,2-Dichloroethene...	6.633	61	8067	0.190	ppbv	95
97) Trichloroethene(sim)	8.403	130	7120	0.163	ppbv	91
103) Tetrachloroethene(sim)	10.144	166	8247	0.174	ppbv	96
106) m, p-Xylene(sim)	10.835	91	28235	0.301	ppbv	99
112) 1,4-Dichlorobenzene(sim)	12.250	146	14656	0.146	ppbv	99
117) 1,2,4-Trichlorobenzene...	13.599	180	6627	0.150	ppbv	95

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_11.D
 Acq On : 8 Jul 2020 4:41 pm
 Operator :
 Client ID : ICAL 0.2
 Lab ID : 0.2
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 09 11:26:34 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:26:30 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_12.D
 Acq On : 8 Jul 2020 5:19 pm
 Operator :
 Client ID : ICAL 0.5
 Lab ID : 0.50
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 09 11:26:11 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:25:18 2020
 Response via : Initial Calibration

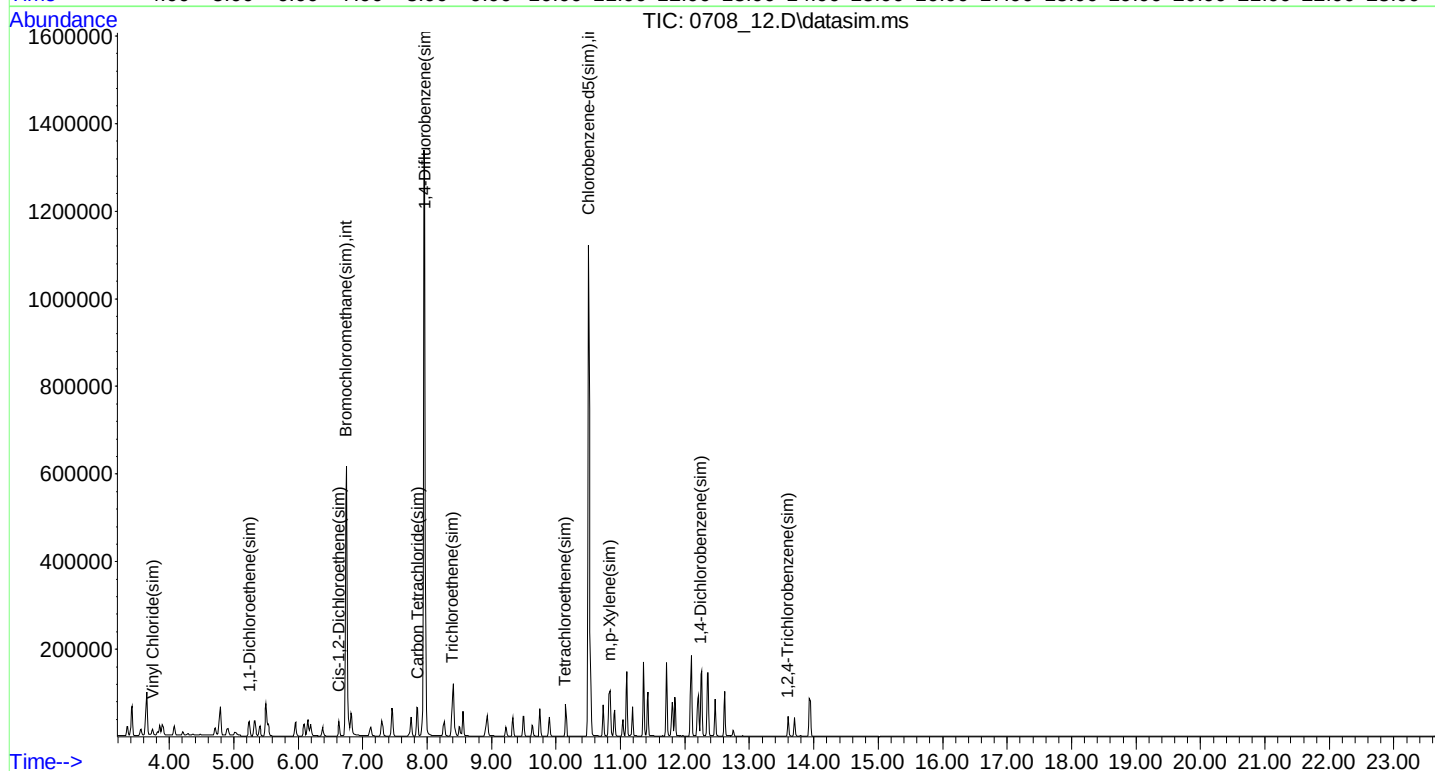
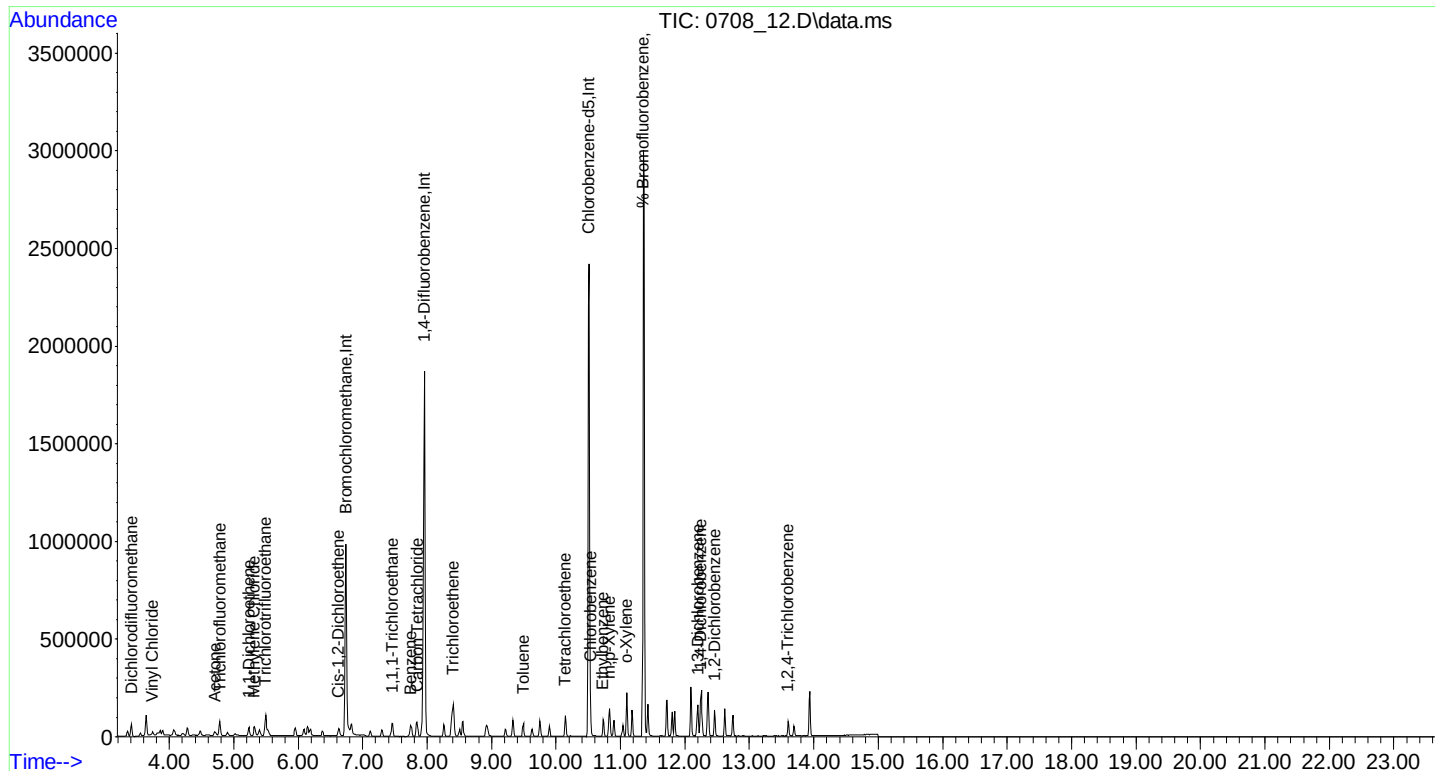
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.742	130	328003	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.958	114	1188017	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	681268	10.000	ng	0.00
80) Bromochloromethane(sim)	6.747	130	361652	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.963	114	1381949	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	725736	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.352	95	935945	10.071	ppbv	-0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.70%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.414	85	60406	0.471	ppbv	100
6) Vinyl Chloride	3.738	62	15045	0.480	ppbv	96
12) Acetone	4.708	43	25051	0.501	ppbv	97
13) Trichlorofluoromethane	4.783	101	58407	0.506	ppbv	98
16) 1,1-Dichloroethene	5.236	61	26091	0.486	ppbv	99
17) Methylene Chloride	5.313	49	17250	0.506	ppbv	98
21) Trichlorotrifluoroethane	5.494	101	37365	0.498	ppbv	98
26) Cis-1,2-Dichloroethene	6.627	61	16969	0.411	ppbv	98
32) 1,1,1-Trichloroethane	7.460	97	40933	0.462	ppbv	99
33) Benzene	7.746	78	42247	0.421	ppbv	98
34) Carbon Tetrachloride	7.846	117	43008	0.462	ppbv	98
39) Trichloroethene	8.403	130	19686	0.458	ppbv	97
48) Toluene	9.494	91	39061	0.362	ppbv	96
52) Tetrachloroethene	10.145	166	21093	0.420	ppbv	98
55) Chlorobenzene	10.532	112	50055	0.505	ppbv	82
56) Ethylbenzene	10.727	91	46065	0.305	ppbv	98
57) m,p-Xylene	10.830	91	76447	0.618	ppbv#	96
61) o-Xylene	11.096	91	39656	0.292	ppbv#	95
71) 1,3-Dichlorobenzene	12.204	146	41663	0.416	ppbv	98
72) 1,4-Dichlorobenzene	12.245	146	38722	0.412	ppbv	96
75) 1,2-Dichlorobenzene	12.460	146	41204	0.426	ppbv	97
77) 1,2,4-Trichlorobenzene	13.599	180	18243	0.348	ppbv	95
82) Vinyl Chloride(sim)	3.743	62	16492	0.463	ppbv	99
87) Carbon Tetrachloride(sim)	7.846	117	43008	0.497	ppbv	98
88) 1,1-Dichloroethene(sim)	5.241	61	29268	0.471	ppbv	98
92) Cis-1,2-Dichloroethene...	6.633	61	19320	0.449	ppbv	97
97) Trichloroethene(sim)	8.403	130	19686	0.439	ppbv	97
103) Tetrachloroethene(sim)	10.145	166	21093	0.431	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_12.D
 Acq On : 8 Jul 2020 5:19 pm
 Operator :
 Client ID : ICAL 0.5
 Lab ID : 0.50
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 09 11:26:11 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:25:18 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_13.D
 Acq On : 8 Jul 2020 5:57 pm
 Operator :
 Client ID : ICAL 2.5
 Lab ID : 2.5
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 09 11:25:24 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 11:25:18 2020
 Response via : Initial Calibration

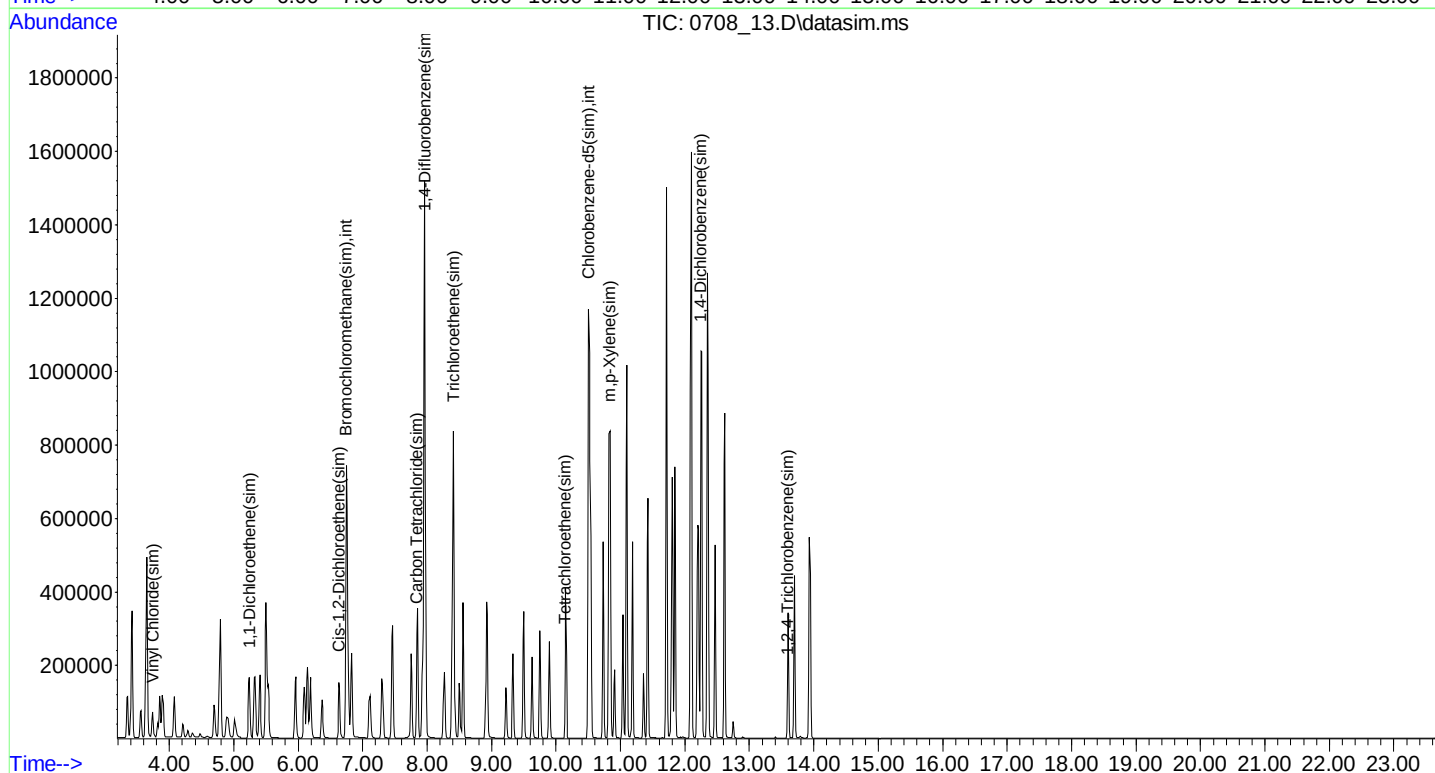
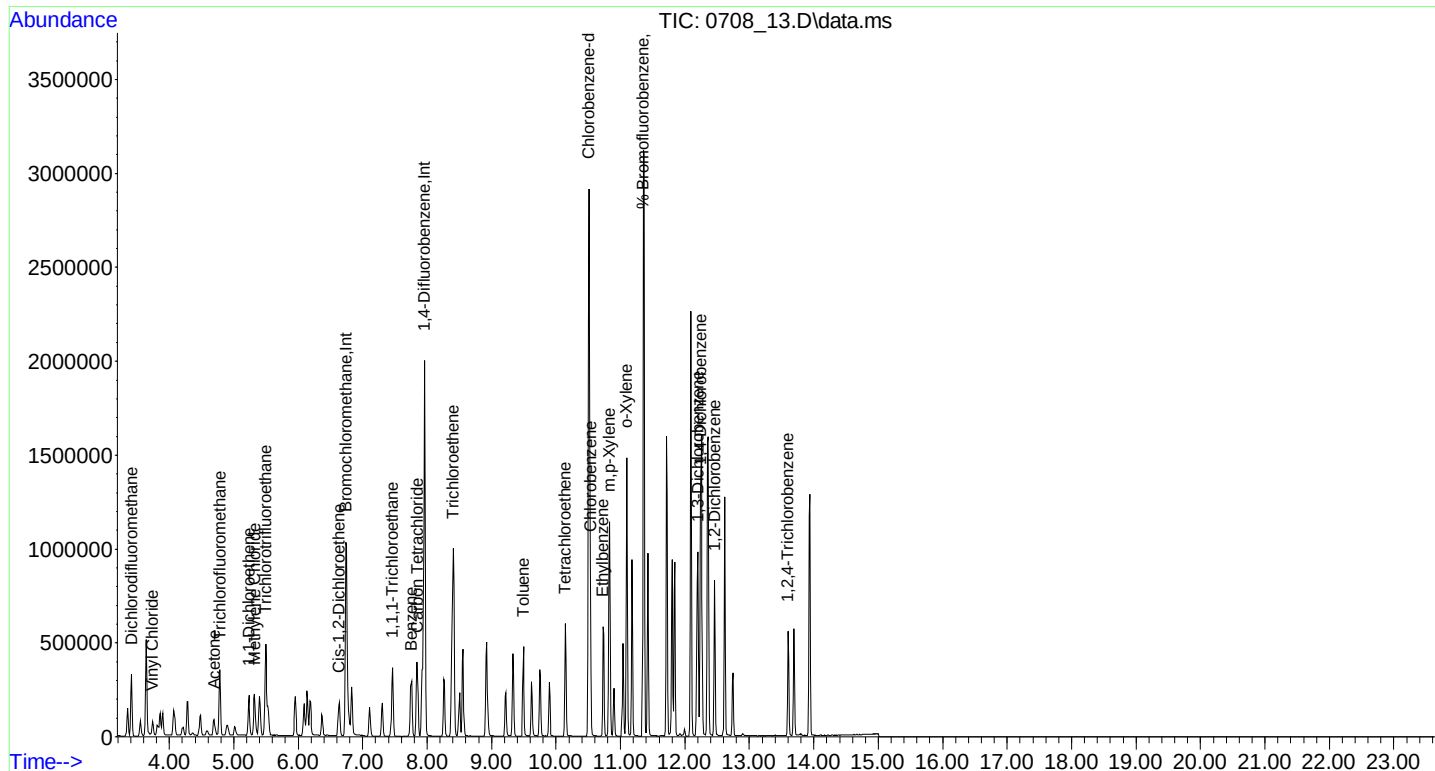
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.742	130	322279	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.958	114	1244591	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	700408	10.000	ng	0.00
80) Bromochloromethane(sim)	6.747	130	363676	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.963	114	1430056	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.507	82	753167	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.352	95	1005930	10.529	ppbv	-0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	105.30%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.414	85	304859	2.422	ppbv	100
6) Vinyl Chloride	3.738	62	73994	2.404	ppbv	100
12) Acetone	4.697	43	115685	2.355	ppbv	100
13) Trichlorofluoromethane	4.783	101	282910	2.496	ppbv	99
16) 1,1-Dichloroethene	5.236	61	126862	2.405	ppbv	99
17) Methylene Chloride	5.322	49	79854	2.384	ppbv	99
21) Trichlorotrifluoroethane	5.494	101	178861	2.428	ppbv	99
26) Cis-1,2-Dichloroethene	6.638	61	91856	2.266	ppbv	95
32) 1,1,1-Trichloroethane	7.460	97	204829	2.354	ppbv	99
33) Benzene	7.757	78	230717	2.338	ppbv	99
34) Carbon Tetrachloride	7.846	117	210076	2.298	ppbv	99
39) Trichloroethene	8.403	130	110132	2.446	ppbv	98
48) Toluene	9.494	91	262530	2.323	ppbv	99
52) Tetrachloroethene	10.145	166	120338	2.288	ppbv	99
55) Chlorobenzene	10.532	112	254755	2.499	ppbv	98
56) Ethylbenzene	10.727	91	338300	2.182	ppbv	99
57) m,p-Xylene	10.830	91	651343	5.126	ppbv	98
61) o-Xylene	11.096	91	345039	2.468	ppbv	99
71) 1,3-Dichlorobenzene	12.204	146	264957	2.575	ppbv	99
72) 1,4-Dichlorobenzene	12.245	146	252308	2.613	ppbv	99
75) 1,2-Dichlorobenzene	12.460	146	251112	2.528	ppbv	99
77) 1,2,4-Trichlorobenzene	13.599	180	131602	2.443	ppbv	99
82) Vinyl Chloride(sim)	3.743	62	82359	2.301	ppbv	100
87) Carbon Tetrachloride(sim)	7.846	117	210076	2.412	ppbv	99
88) 1,1-Dichloroethene(sim)	5.241	61	146495	2.343	ppbv	98
92) Cis-1,2-Dichloroethene...	6.633	61	97472	2.253	ppbv	97
97) Trichloroethene(sim)	8.403	130	110142	2.371	ppbv	99
103) Tetrachloroethene(sim)	10.145	166	120338	2.375	ppbv	99

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_13.D
 Acq On : 8 Jul 2020 5:57 pm
 Operator :
 Client ID : ICAL 2.5
 Lab ID : 2.5
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 09 11:25:24 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:25:18 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_14.D
 Acq On : 8 Jul 2020 6:33 pm
 Operator :
 Client ID : ICAL 5
 Lab ID : 5.0
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 09 11:25:04 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 11:24:58 2020
 Response via : Initial Calibration

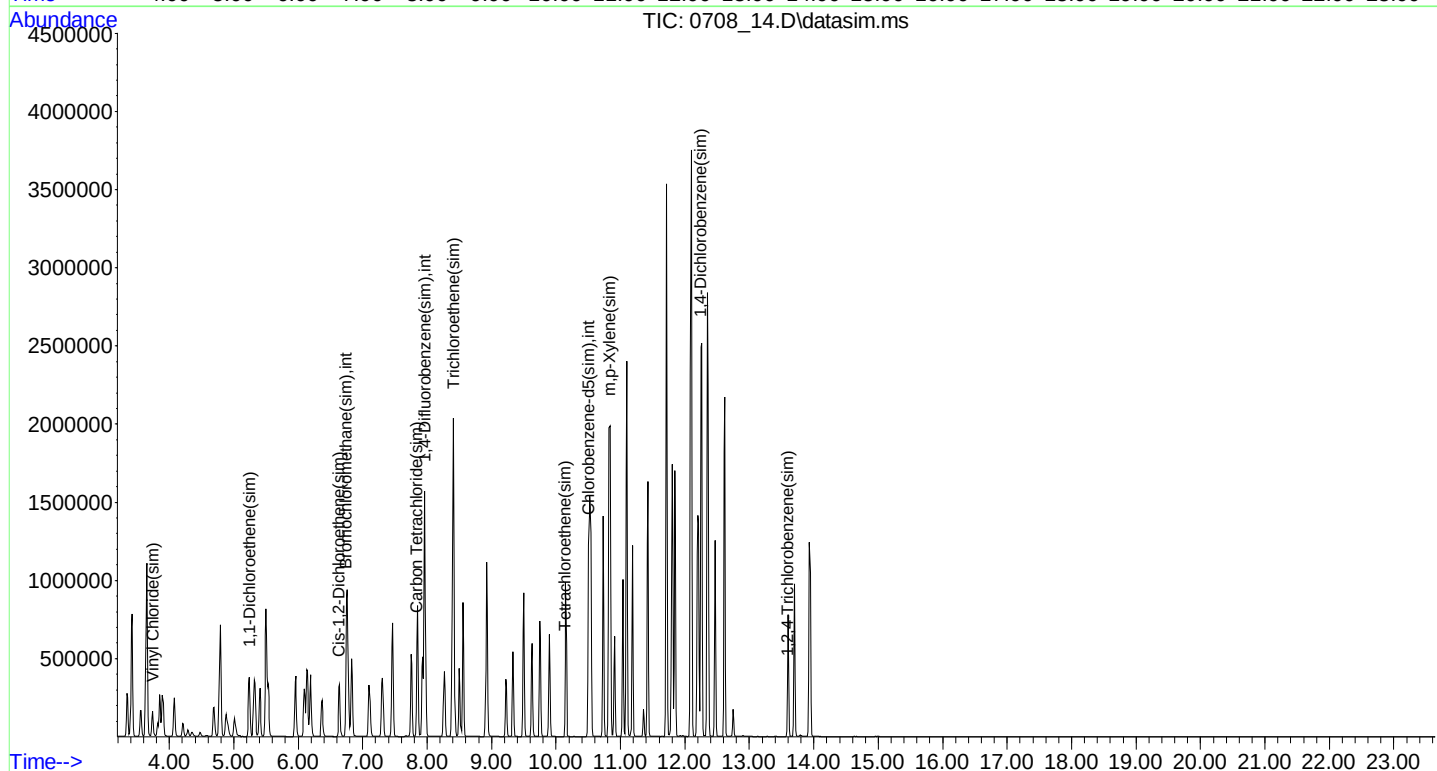
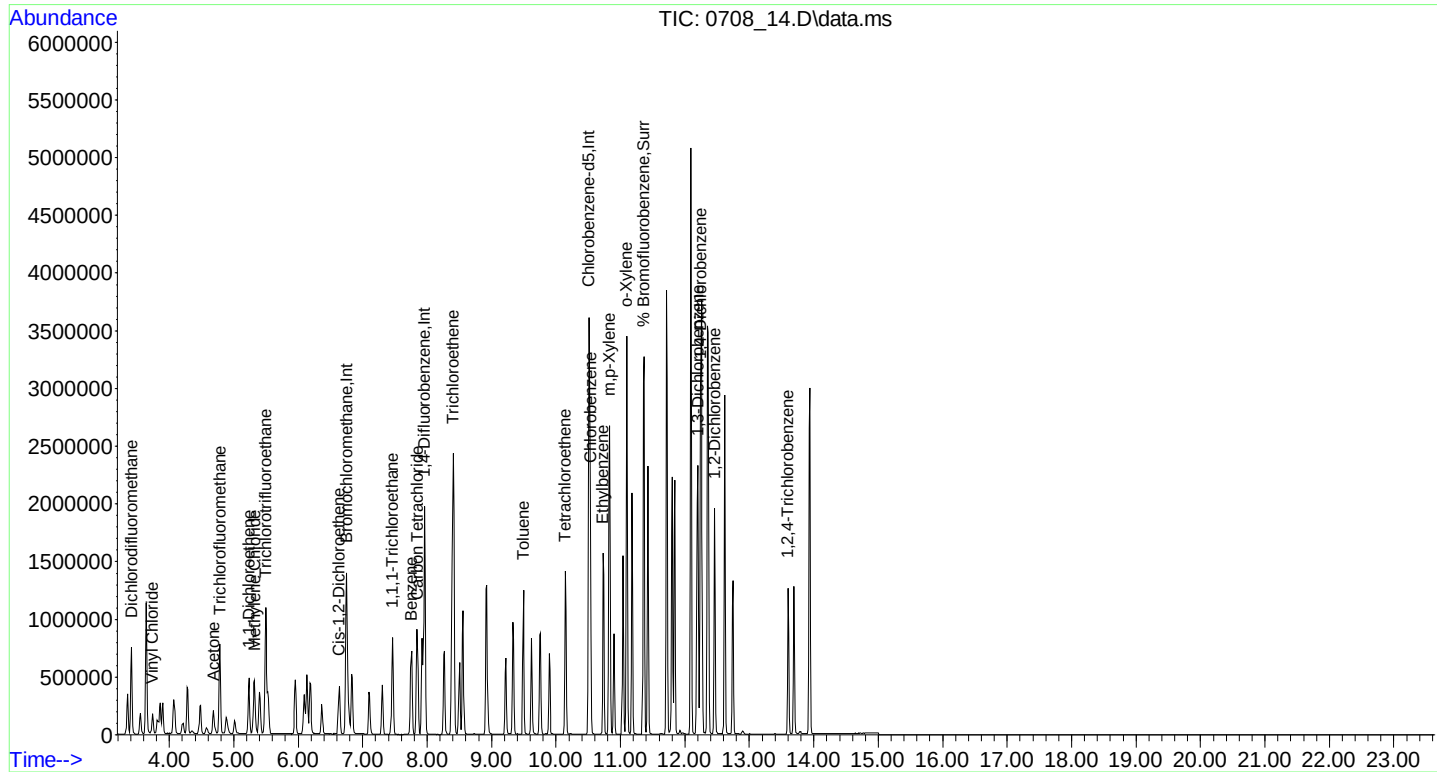
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	324710	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.958	114	1264202	10.000	ng	-0.01
53) Chlorobenzene-d5	10.512	82	729716	10.000	ng	0.00
80) Bromochloromethane(sim)	6.747	130	368761	10.000	ng	#-0.02
94) 1,4-Difluorobenzene(sim)	7.963	114	1449730	10.000	ng	-0.01
104) Chlorobenzene-d5(sim)	10.507	82	782270	10.000	ng	-0.01
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	1031180	10.453	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.50%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.414	85	702107	5.536	ppbv	99
6) Vinyl Chloride	3.738	62	170570	5.500	ppbv	100
12) Acetone	4.686	43	256448	5.182	ppbv	99
13) Trichlorofluoromethane	4.783	101	628121	5.500	ppbv	100
16) 1,1-Dichloroethene	5.236	61	290405	5.463	ppbv	99
17) Methylene Chloride	5.322	49	178770	5.297	ppbv	99
21) Trichlorotrifluoroethane	5.494	101	408248	5.499	ppbv	99
26) Cis-1,2-Dichloroethene	6.638	61	218698	5.355	ppbv	98
32) 1,1,1-Trichloroethane	7.460	97	468086	5.339	ppbv	99
33) Benzene	7.757	78	551775	5.550	ppbv	96
34) Carbon Tetrachloride	7.846	117	491317	5.334	ppbv	100
39) Trichloroethene	8.403	130	260564	5.698	ppbv	97
48) Toluene	9.494	91	680011	5.924	ppbv	98
52) Tetrachloroethene	10.145	166	284094	5.317	ppbv	98
55) Chlorobenzene	10.532	112	574328	5.408	ppbv	96
56) Ethylbenzene	10.727	91	903225	5.763	ppbv	99
57) m,p-Xylene	10.830	91	1570067	12.437	ppbv	99
61) o-Xylene	11.096	91	856452	6.149	ppbv	99
71) 1,3-Dichlorobenzene	12.204	146	630169	5.878	ppbv	99
72) 1,4-Dichlorobenzene	12.245	146	592947	5.893	ppbv	98
75) 1,2-Dichlorobenzene	12.460	146	597319	5.771	ppbv	98
77) 1,2,4-Trichlorobenzene	13.599	180	295686	5.269	ppbv	99
82) Vinyl Chloride(sim)	3.743	62	190264	5.243	ppbv	100
87) Carbon Tetrachloride(sim)	7.846	117	491317	5.564	ppbv	100
88) 1,1-Dichloroethene(sim)	5.241	61	325080	5.128	ppbv	100
92) Cis-1,2-Dichloroethene...	6.633	61	222044	5.063	ppbv	97
97) Trichloroethene(sim)	8.403	130	260585	5.533	ppbv	96
103) Tetrachloroethene(sim)	10.145	166	284094	5.531	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_14.D
 Acq On : 8 Jul 2020 6:33 pm
 Operator :
 Client ID : ICAL 5
 Lab ID : 5.0
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 09 11:25:04 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:24:58 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_15.D
 Acq On : 8 Jul 2020 7:11 pm
 Operator :
 Client ID : ICAL 25
 Lab ID : 25
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 09 11:24:15 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 11:24:10 2020
 Response via : Initial Calibration

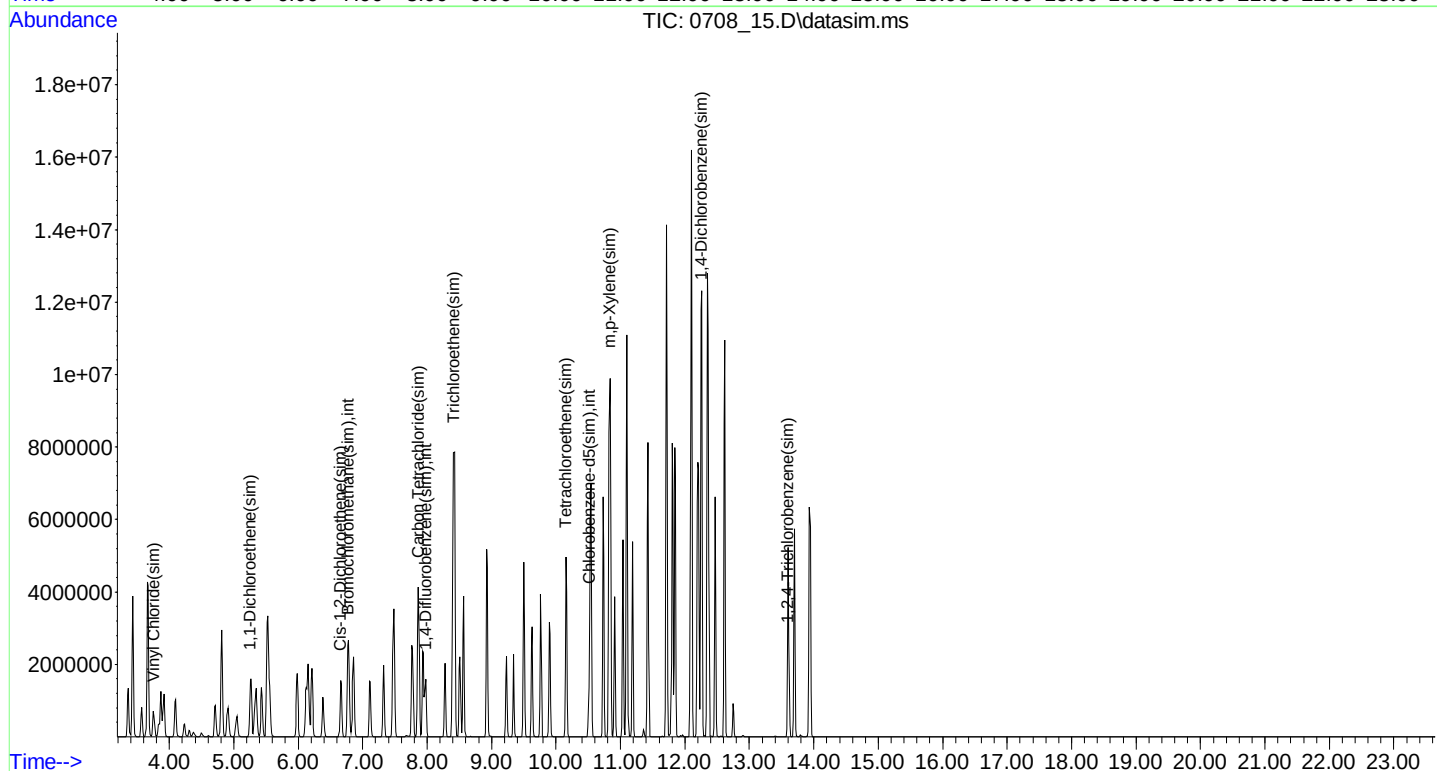
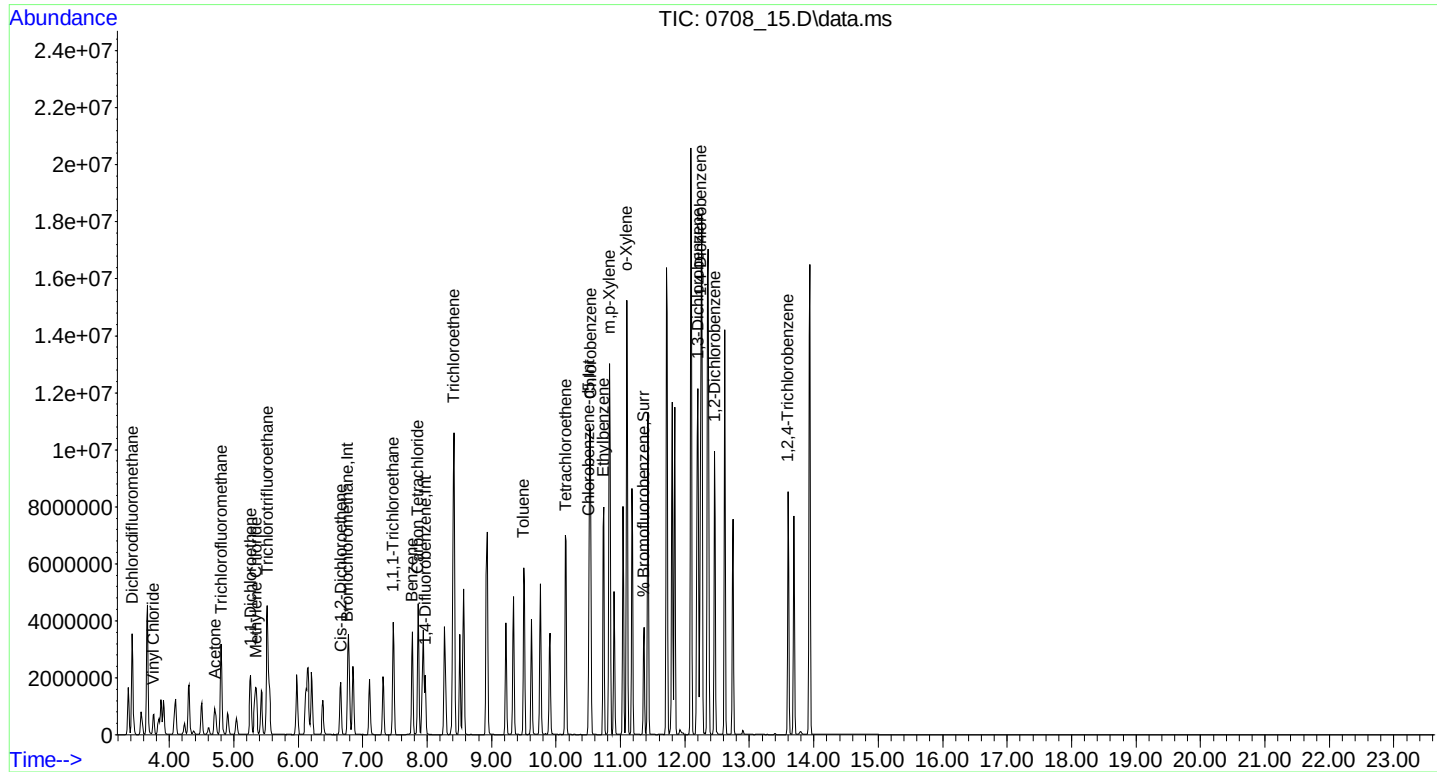
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.765	130	330935	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.971	114	1293948	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	839178	10.000	ng	0.00
80) Bromochloromethane(sim)	6.771	130	376086	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.977	114	1485297	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.518	82	906138	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	1127771	9.922	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.20%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.425	85	3320577	25.688	ppbv	99
6) Vinyl Chloride	3.759	62	807098	25.536	ppbv	99
12) Acetone	4.708	43	1210458	24.002	ppbv	98
13) Trichlorofluoromethane	4.805	101	2827942	24.295	ppbv	100
16) 1,1-Dichloroethene	5.262	61	1354198	24.997	ppbv	99
17) Methylene Chloride	5.348	49	812134	23.609	ppbv	99
21) Trichlorotrifluoroethane	5.520	101	1835821	24.265	ppbv	100
26) Cis-1,2-Dichloroethene	6.661	61	1079494	25.933	ppbv	96
32) 1,1,1-Trichloroethane	7.473	97	2301835	25.761	ppbv	99
33) Benzene	7.771	78	2794292	27.578	ppbv	97
34) Carbon Tetrachloride	7.860	117	2502514	26.660	ppbv	100
39) Trichloroethene	8.417	130	1250872	26.725	ppbv	99
48) Toluene	9.495	91	3691912	31.423	ppbv	99
52) Tetrachloroethene	10.155	166	1602089	29.297	ppbv	99
55) Chlorobenzene	10.533	112	2889673	23.660	ppbv	98
56) Ethylbenzene	10.738	91	5003341	28.818	ppbv	98
57) m,p-Xylene	10.830	91	8020023	57.244	ppbv	98
61) o-Xylene	11.097	91	4304908	27.567	ppbv	99
71) 1,3-Dichlorobenzene	12.204	146	3417592	27.721	ppbv	99
72) 1,4-Dichlorobenzene	12.245	146	3295468	28.481	ppbv	99
75) 1,2-Dichlorobenzene	12.461	146	3365132	28.273	ppbv	99
77) 1,2,4-Trichlorobenzene	13.600	180	2051991	31.793	ppbv	99
82) Vinyl Chloride(sim)	3.754	62	891674	24.091	ppbv	100
87) Carbon Tetrachloride(sim)	7.860	117	2502786	27.789	ppbv	100
88) 1,1-Dichloroethene(sim)	5.259	61	1521180	23.531	ppbv	99
92) Cis-1,2-Dichloroethene...	6.656	61	1063695	23.780	ppbv	97
97) Trichloroethene(sim)	8.417	130	1250846	25.924	ppbv	98
103) Tetrachloroethene(sim)	10.155	166	1602089	30.444	ppbv	99

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_15.D
 Acq On : 8 Jul 2020 7:11 pm
 Operator :
 Client ID : ICAL 25
 Lab ID : 25
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 09 11:24:15 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:24:10 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_16.D
 Acq On : 8 Jul 2020 7:51 pm
 Operator :
 Client ID : ICAL 40
 Lab ID : 40
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 09 11:23:54 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 11:23:47 2020
 Response via : Initial Calibration

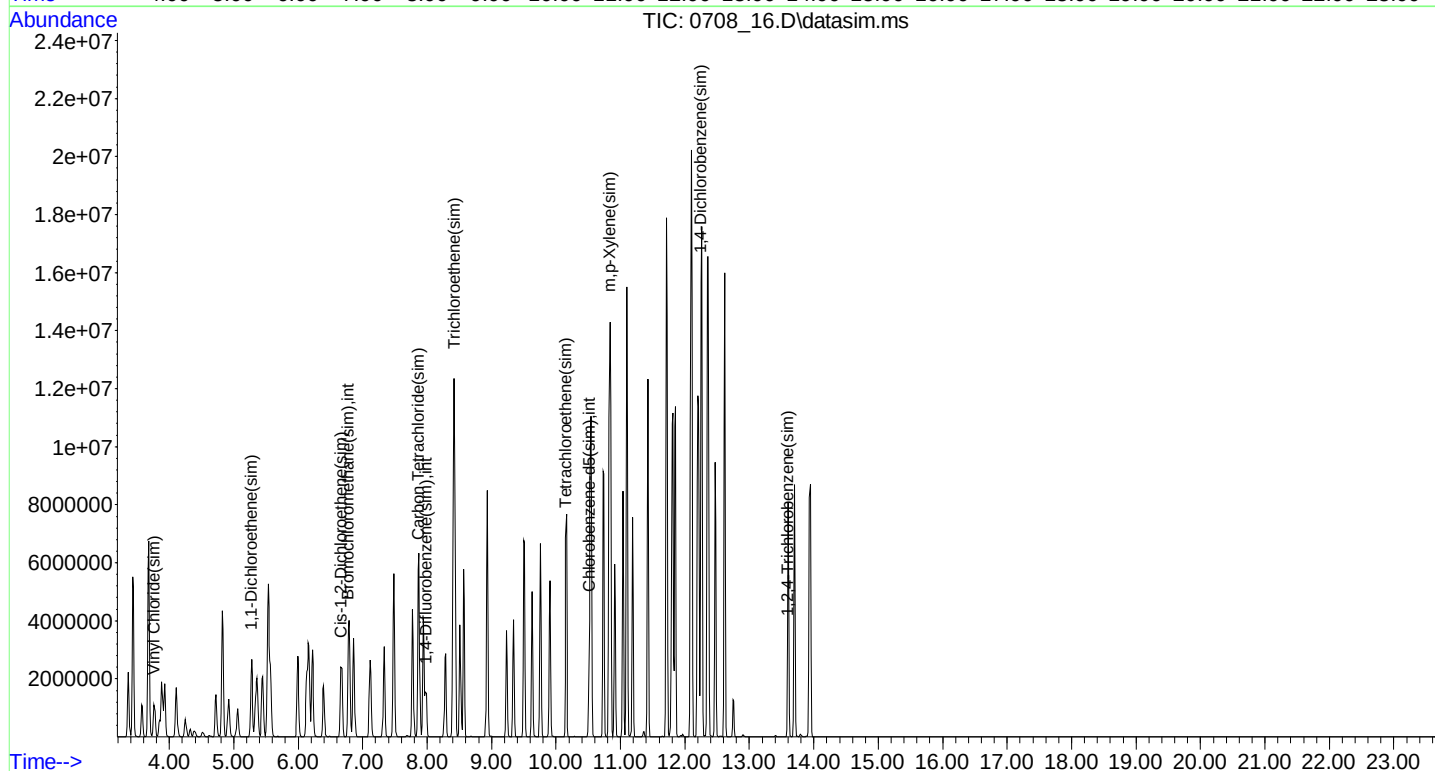
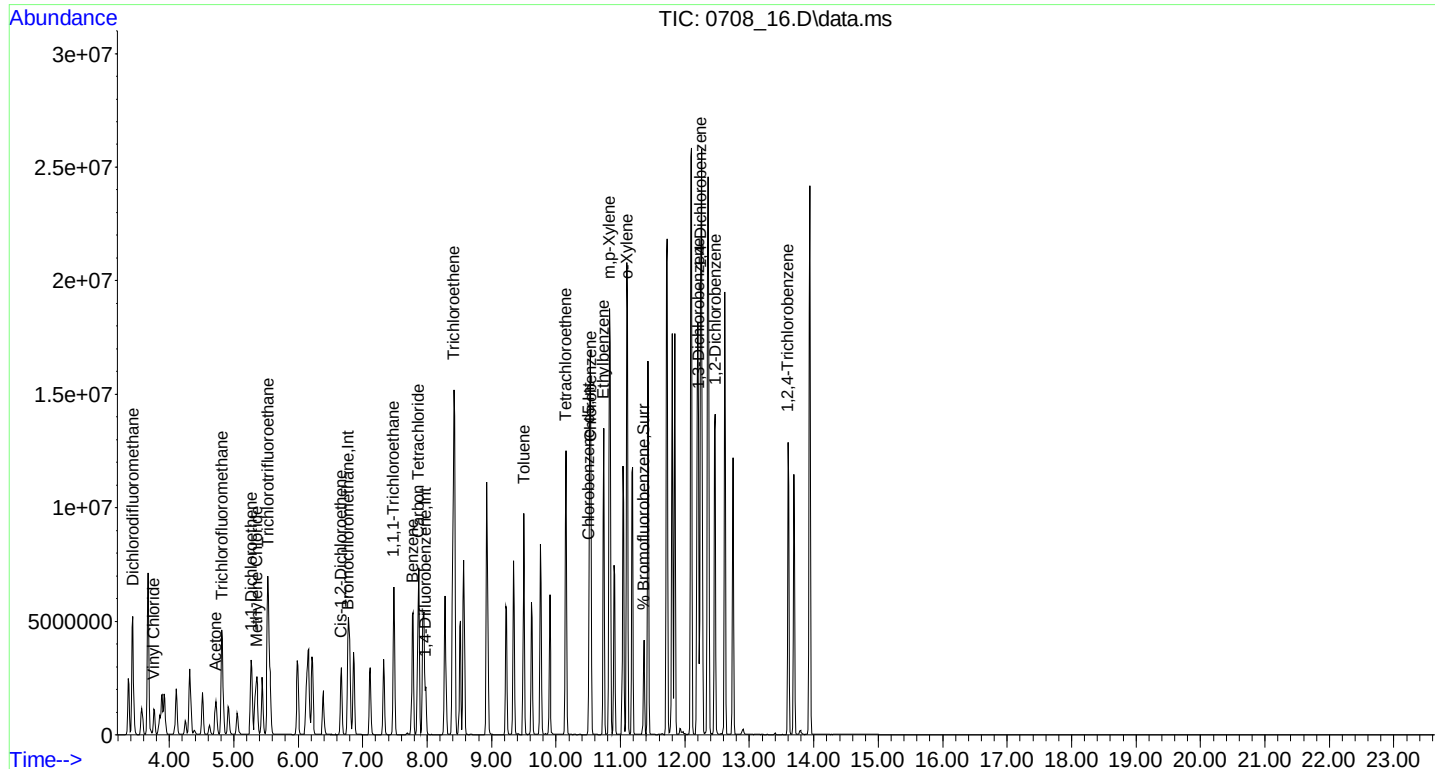
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.773	130	341781	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.980	114	1365202	10.000	ng	0.00
53) Chlorobenzene-d5	10.512	82	922588	10.000	ng	0.00
80) Bromochloromethane(sim)	6.779	130	390312	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.985	114	1575529	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.517	82	994618	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	1181219	9.201	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.00%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.436	85	5319811	39.848	ppbv	100
6) Vinyl Chloride	3.759	62	1315325	40.295	ppbv	99
12) Acetone	4.718	43	1971908	37.859	ppbv	99
13) Trichlorofluoromethane	4.815	101	4461957	37.116	ppbv	100
16) 1,1-Dichloroethene	5.270	61	2205334	39.417	ppbv	98
17) Methylene Chloride	5.356	49	1314084	36.988	ppbv	99
21) Trichlorotrifluoroethane	5.529	101	2911646	37.263	ppbv	99
26) Cis-1,2-Dichloroethene	6.669	61	1631734	37.955	ppbv	95
32) 1,1,1-Trichloroethane	7.481	97	3830574	41.509	ppbv	98
33) Benzene	7.779	78	4629873	44.244	ppbv	98
34) Carbon Tetrachloride	7.868	117	4191377	43.235	ppbv	99
39) Trichloroethene	8.414	130	1997134	40.442	ppbv	97
48) Toluene	9.504	91	5955291	48.042	ppbv	98
52) Tetrachloroethene	10.154	166	2720461	47.152	ppbv	98
55) Chlorobenzene	10.543	112	4668826	34.771	ppbv	96
56) Ethylbenzene	10.737	91	7913413	42.228	ppbv	97
57) m, p-Xylene	10.830	91	12312169	79.902	ppbv	95
61) o-Xylene	11.106	91	6486207	36.759	ppbv	99
71) 1,3-Dichlorobenzene	12.214	146	5330277	39.327	ppbv	99
72) 1,4-Dichlorobenzene	12.245	146	5053534	39.727	ppbv	99
75) 1,2-Dichlorobenzene	12.470	146	5327824	40.716	ppbv	98
77) 1,2,4-Trichlorobenzene	13.599	180	3428645	48.320	ppbv	99
82) Vinyl Chloride(sim)	3.765	62	1462464	38.072	ppbv	100
87) Carbon Tetrachloride(sim)	7.868	117	4192399	44.853	ppbv	99
88) 1,1-Dichloroethene(sim)	5.276	61	2468569	36.794	ppbv	98
92) Cis-1,2-Dichloroethene...	6.664	61	1732270	37.315	ppbv	99
97) Trichloroethene(sim)	8.414	130	1997647	39.030	ppbv	96
103) Tetrachloroethene(sim)	10.154	166	2720327	48.733	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_16.D
 Acq On : 8 Jul 2020 7:51 pm
 Operator :
 Client ID : ICAL 40
 Lab ID : 40
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 09 11:23:54 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 11:23:47 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_18.D
 Acq On : 8 Jul 2020 9:02 pm
 Operator :
 Client ID : ICAL 1
 Lab ID : 1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 10 08:46:30 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration

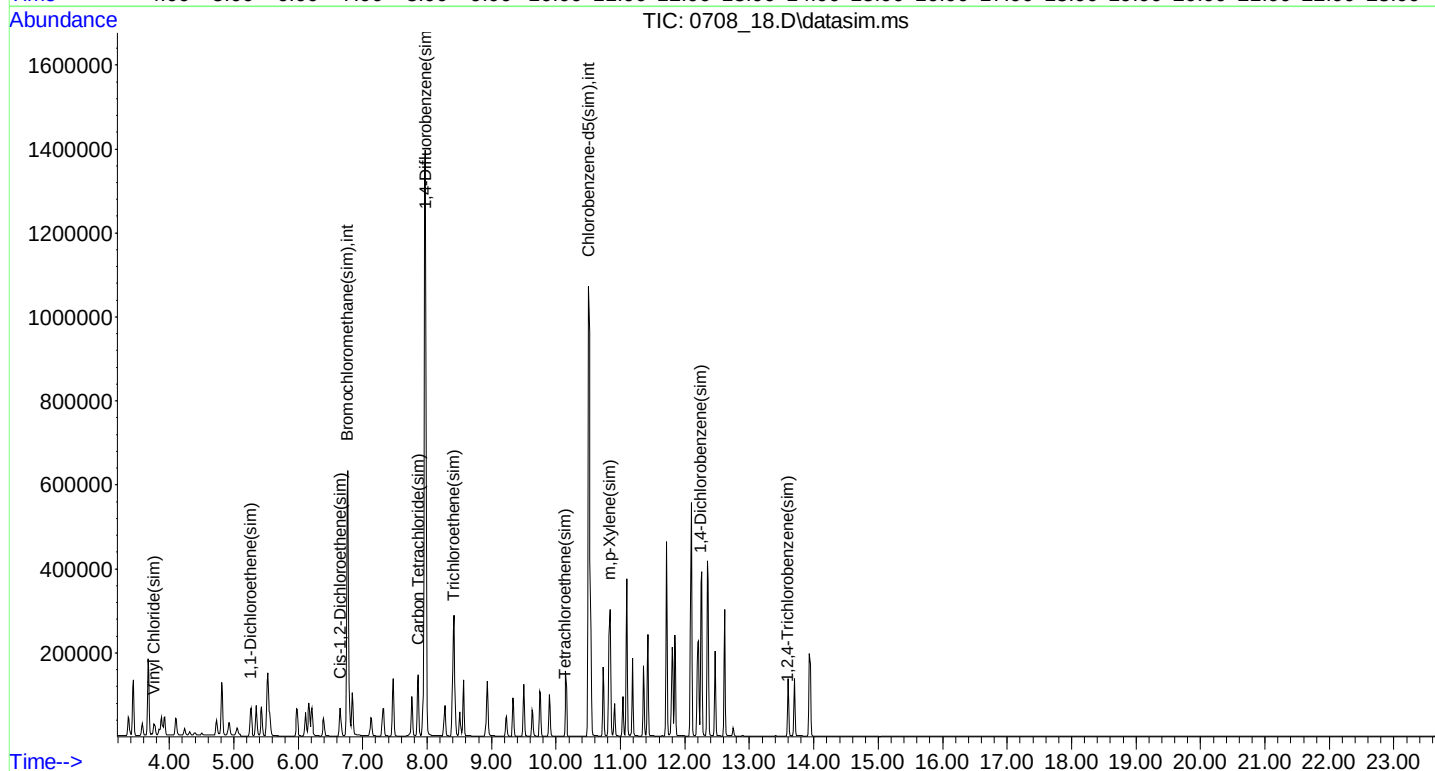
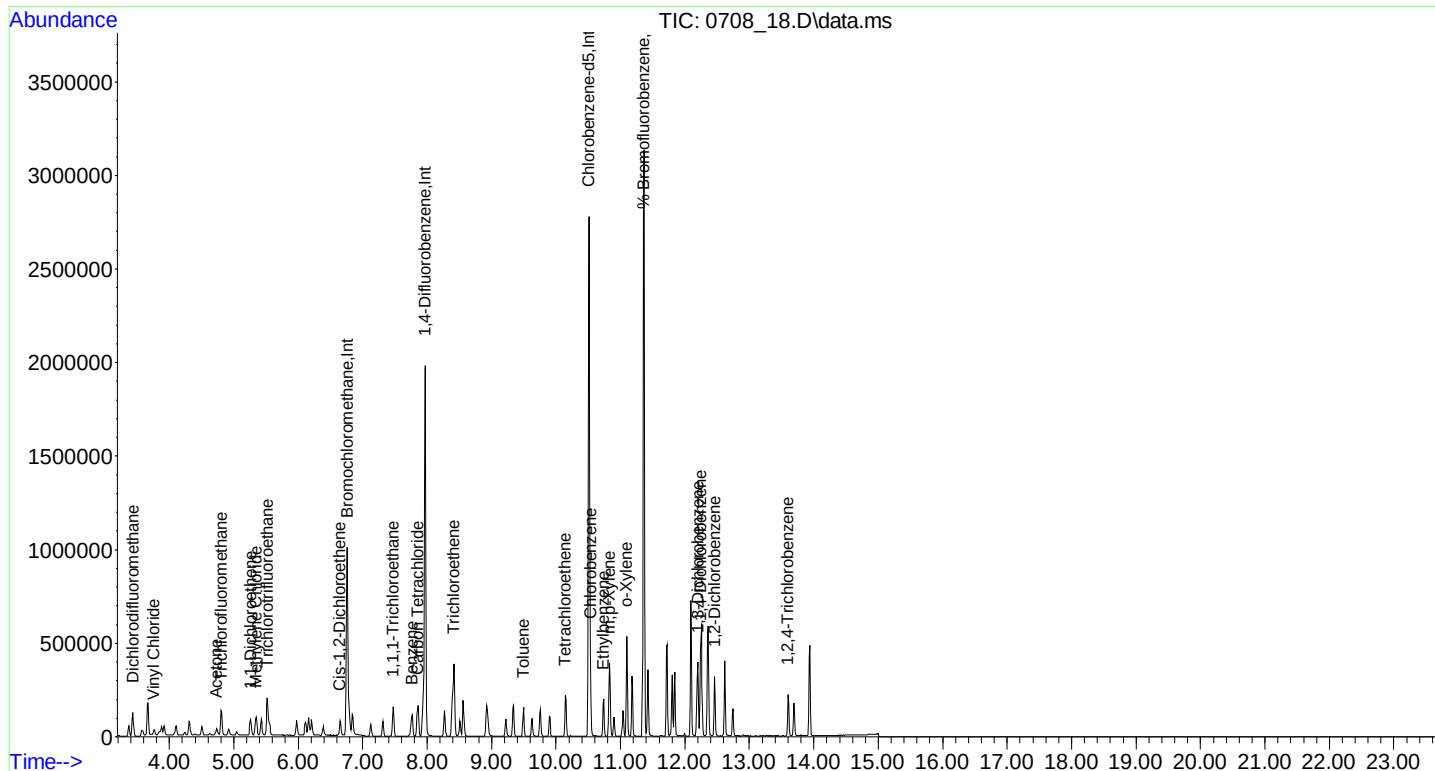
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.763	130	320265	10.000	ng	0.02
36) 1,4-Difluorobenzene	7.969	114	1252324	10.000	ng	0.01
53) Chlorobenzene-d5	10.512	82	696930	10.000	ng	0.00
80) Bromochloromethane(sim)	6.768	130	363595	10.000	ng	# 0.02
94) 1,4-Difluorobenzene(sim)	7.974	114	1436629	10.000	ng	0.01
104) Chlorobenzene-d5(sim)	10.507	82	746442	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	970709	10.144	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.40%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.436	85	120772	0.965	ppbv#	89
6) Vinyl Chloride	3.759	62	30044	0.982	ppbv	96
12) Acetone	4.729	43	46501	0.953	ppbv#	80
13) Trichlorofluoromethane	4.805	101	111497	0.990	ppbv	93
16) 1,1-Dichloroethene	5.262	61	51026	0.973	ppbv	89
17) Methylene Chloride	5.348	49	33509	1.007	ppbv#	87
21) Trichlorotrifluoroethane	5.520	101	73757	1.007	ppbv	96
26) Cis-1,2-Dichloroethene	6.648	61	44380	1.102	ppbv	87
32) 1,1,1-Trichloroethane	7.471	97	85945	0.994	ppbv	98
33) Benzene	7.768	78	93384	0.952	ppbv	96
34) Carbon Tetrachloride	7.857	117	87601	0.964	ppbv	89
39) Trichloroethene	8.414	130	41860	0.924	ppbv	98
48) Toluene	9.494	91	92861	0.817	ppbv	97
52) Tetrachloroethene	10.145	166	46859	0.885	ppbv	87
55) Chlorobenzene	10.532	112	103696	1.022	ppbv#	1
56) Ethylbenzene	10.737	91	108701	0.650	ppbv	97
57) m,p-Xylene	10.830	91	211920	1.467	ppbv#	88
61) o-Xylene	11.096	91	109621	0.696	ppbv	96
71) 1,3-Dichlorobenzene	12.204	146	104199	1.018	ppbv#	90
72) 1,4-Dichlorobenzene	12.245	146	95401	0.993	ppbv#	94
75) 1,2-Dichlorobenzene	12.460	146	97283	0.984	ppbv	96
77) 1,2,4-Trichlorobenzene	13.599	180	53792	1.004	ppbv#	87
82) Vinyl Chloride(sim)	3.765	62	33022	0.923	ppbv	97
87) Carbon Tetrachloride(sim)	7.857	117	87601	1.006	ppbv	89
88) 1,1-Dichloroethene(sim)	5.267	61	58679	0.939	ppbv	96
92) Cis-1,2-Dichloroethene...	6.654	61	41207	0.953	ppbv	97
97) Trichloroethene(sim)	8.414	130	41860	0.897	ppbv	95
103) Tetrachloroethene(sim)	10.145	166	46859	0.921	ppbv	87
106) m,p-Xylene(sim)	10.835	91	237275	2.104	ppbv	96
112) 1,4-Dichlorobenzene(sim)	12.250	146	117362	1.102	ppbv	99
117) 1,2,4-Trichlorobenzene...	13.599	180	53792	1.126	ppbv	87

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_18.D
 Acq On : 8 Jul 2020 9:02 pm
 Operator :
 Client ID : ICAL 1
 Lab ID : 1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 10 08:46:30 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration



Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_19.D
 Acq On : 8 Jul 2020 9:38 pm
 Operator :
 Client ID : ICAL 10
 Lab ID : 10
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 08:31:16 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration

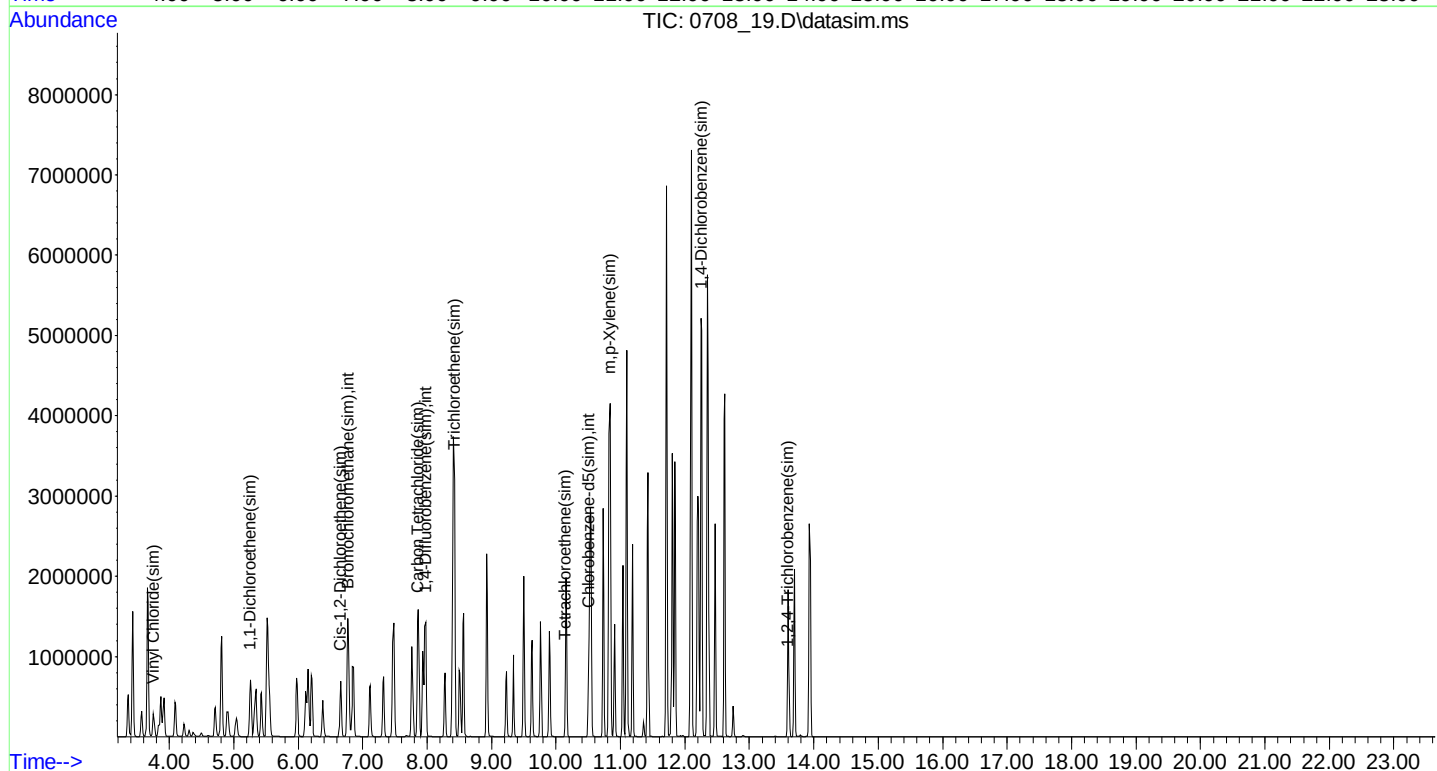
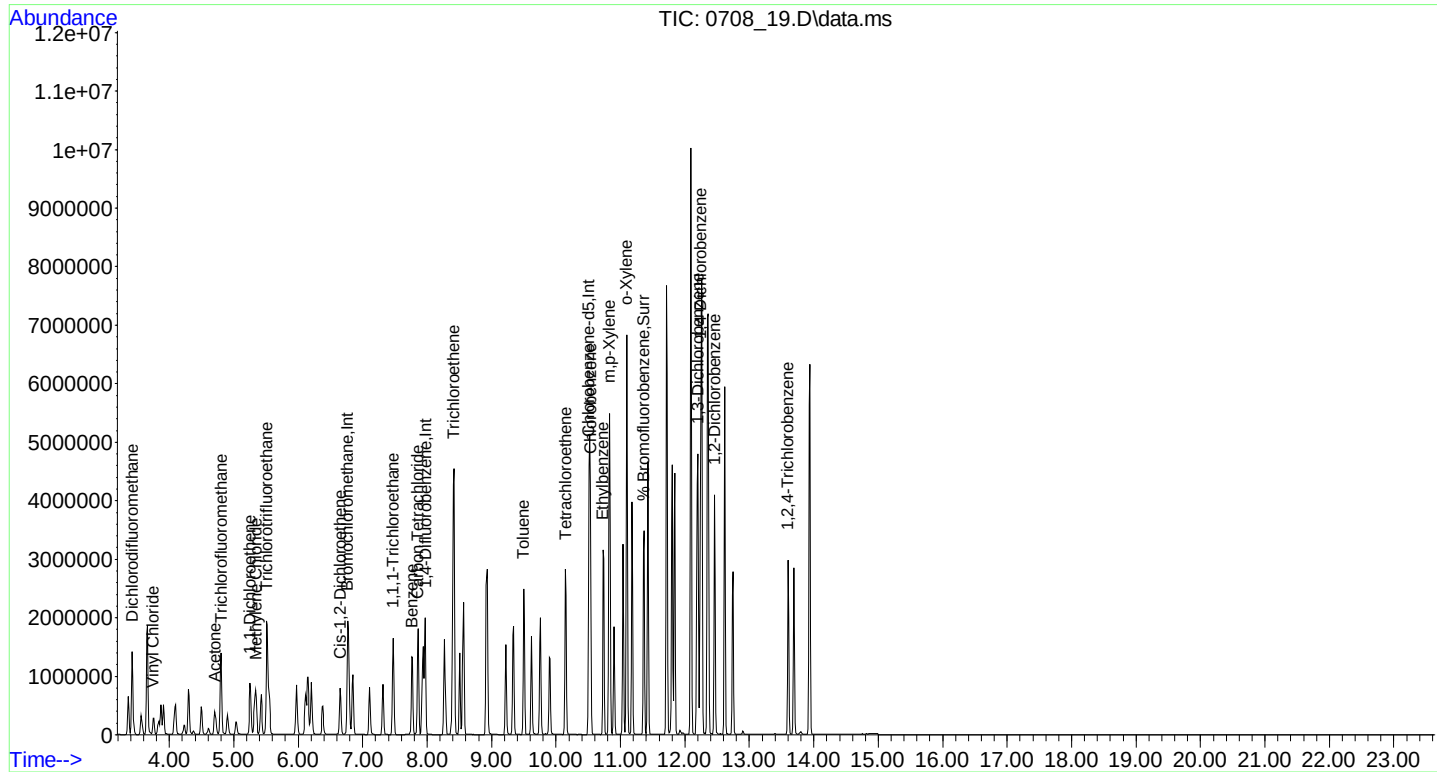
Compound	R.T	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.765	130	330497	10.000	ng	0.02
36) 1,4-Difluorobenzene	7.971	114	1276015	10.000	ng	0.01
53) Chlorobenzene-d5	10.512	82	777213	10.000	ng	0.01
80) Bromochloromethane(sim)	6.771	130	372731	10.000	ng	# 0.02
94) 1,4-Difluorobenzene(sim)	7.977	114	1476883	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.508	82	828830	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	1080385	10.124	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.20%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.425	85	1310275	10.150	ppbv#	89
6) Vinyl Chloride	3.748	62	318466	10.089	ppbv	95
12) Acetone	4.708	43	488385	9.697	ppbv#	84
13) Trichlorofluoromethane	4.805	101	1178650	10.139	ppbv	96
16) 1,1-Dichloroethene	5.253	61	553169	10.225	ppbv#	85
17) Methylene Chloride	5.339	49	332218	9.670	ppbv#	86
21) Trichlorotrifluoroethane	5.512	101	769652	10.186	ppbv	96
26) Cis-1,2-Dichloroethene	6.651	61	462393	11.123	ppbv	88
32) 1,1,1-Trichloroethane	7.473	97	925484	10.371	ppbv	97
33) Benzene	7.771	78	1103559	10.906	ppbv	98
34) Carbon Tetrachloride	7.860	117	990693	10.568	ppbv	90
39) Trichloroethene	8.417	130	516829	11.197	ppbv	96
48) Toluene	9.495	91	1425964	12.307	ppbv	95
52) Tetrachloroethene	10.146	166	598831	11.105	ppbv	91
55) Chlorobenzene	10.533	112	1156651	10.225	ppbv#	1
56) Ethylbenzene	10.728	91	1945153	10.664	ppbv	98
57) m,p-Xylene	10.830	91	3301757	21.468	ppbv#	86
61) o-Xylene	11.097	91	1750455	10.499	ppbv	95
71) 1,3-Dichlorobenzene	12.204	146	1316956	11.534	ppbv#	92
72) 1,4-Dichlorobenzene	12.245	146	1259282	11.751	ppbv	95
75) 1,2-Dichlorobenzene	12.461	146	1273257	11.551	ppbv	98
77) 1,2,4-Trichlorobenzene	13.600	180	680362	11.382	ppbv#	88
82) Vinyl Chloride(sim)	3.754	62	353050	9.624	ppbv	96
87) Carbon Tetrachloride(sim)	7.860	117	990848	11.101	ppbv	90
88) 1,1-Dichloroethene(sim)	5.259	61	626888	9.784	ppbv	95
92) Cis-1,2-Dichloroethene...	6.656	61	454999	10.264	ppbv	98
97) Trichloroethene(sim)	8.417	130	516829	10.772	ppbv	98
103) Tetrachloroethene(sim)	10.146	166	598831	11.444	ppbv	91
106) m,p-Xylene(sim)	10.836	91	3581786	15.461	ppbv#	95
112) 1,4-Dichlorobenzene(sim)	12.251	146	1501414	8.231	ppbv	98
117) 1,2,4-Trichlorobenzene...	13.600	180	680362	9.190	ppbv	88

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_19.D
 Acq On : 8 Jul 2020 9:38 pm
 Operator :
 Client ID : ICAL 10
 Lab ID : 10
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 08:31:16 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration



7A
AIR CONTINUING CALIBRATION CHECK
Initial Cal as Continuing Cal

Lab Name: Phoenix Environmental Labs Client: _____

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCG29884

Instrument: CHEM20 Calibration Date: 07/08/20 Time: 21:02

Lab File Id: 0708_18.D Init. Calib. Date(s): 07/08/20 07/08/20

Heated Purge (Y/N): Y Init. Calib. Times: 14:16 21:38

GC Column: RTX-1 60M Method File: 20_AIR_0708_wal.M

COMPOUND	RRF	RRF50	RRF MIN	%D	% D LIMITS
Dichlorodifluoromethane	3.906	3.771		3.5	30
Vinyl Chloride	0.955	0.938		1.8	30
Acetone	1.524	1.452		4.7	30
Trichlorofluoromethane	3.517	3.481		1.0	30
1,1-Dichloroethene	1.637	1.593		2.7	30
Methylene Chloride	1.039	1.046		-0.7	30
Trichlorotrifluoroethane	2.286	2.303		-0.7	30
Cis-1,2-Dichloroethene	1.258	1.386		-10.2	30
1,1,1-Trichloroethane	2.700	2.684		0.6	30
Benzene	3.062	2.916		4.8	30
Carbon Tetrachloride	2.836	2.735		3.6	30
Trichloroethene	0.362	0.334		7.7	30
Toluene	0.908	0.742		18.3	30
Tetrachloroethene	0.423	0.374		11.6	30
Chlorobenzene	1.455	1.488		-2.3	30
Ethylbenzene qfi	1.000	0.65		35.0 #	20
m,p-Xylene qfi	2.500	1.47		41.2 #	20
o-Xylene qfi	1.000	0.70		30.0 #	20
1,3-Dichlorobenzene	1.469	1.495		-1.8	30
1,4-Dichlorobenzene	1.379	1.369		0.7	30
1,2-Dichlorobenzene	1.418	1.396		1.6	30
1,2,4-Trichlorobenzene	0.769	0.772		-0.4	30
Vinyl Chloride(sim)	0.984	0.907		7.8	30
Carbon Tetrachloride(sim)	2.395	2.405		-0.4	30
1,1-Dichloroethene(sim)	1.719	1.611		6.3	30
Cis-1,2-Dichloroethene(sim)	1.189	1.131		4.9	30
Trichloroethene(sim)	0.325	0.291		10.5	30
Tetrachloroethene(sim)	0.354	0.326		7.9	30
m,p-Xylene(sim) qfi	2.000	2.23		-11.5	20
1,4-Dichlorobenzene(sim) qfi	1.000	1.17		-17.0	20
% Bromofluorobenzene	1.373	1.393		-1.5	30

(*) Recommended RRF not met (+) %D exceeds criteria % (#) %D exceeds (maximum) criteria

%D: 20% of target compounds are allowed to be above criteria %, but must be less than the (maximum) %D

(#) Maximum %D not met.

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_18.D
 Acq On : 8 Jul 2020 9:02 pm
 Operator :
 Client ID : ICAL 1
 Lab ID : 1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 10 08:46:30 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration

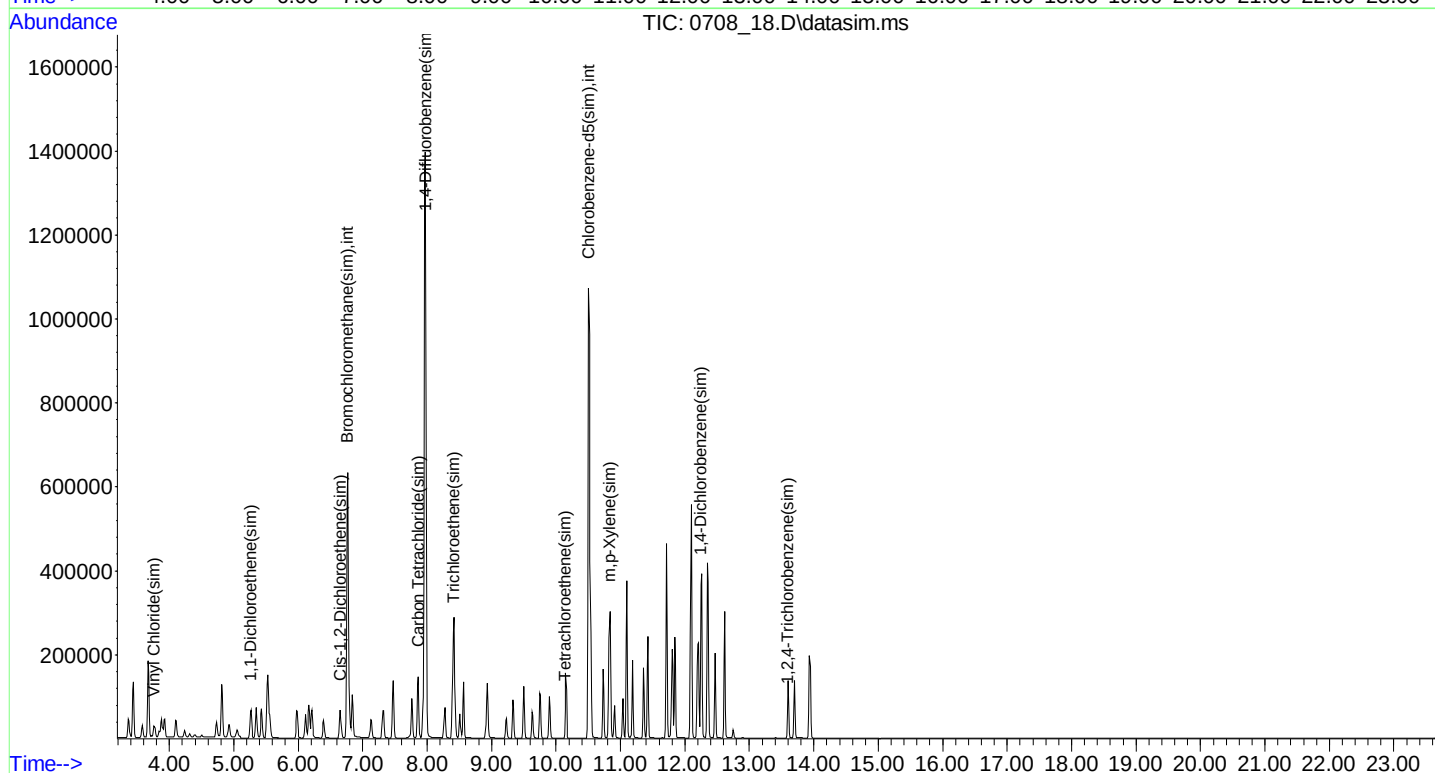
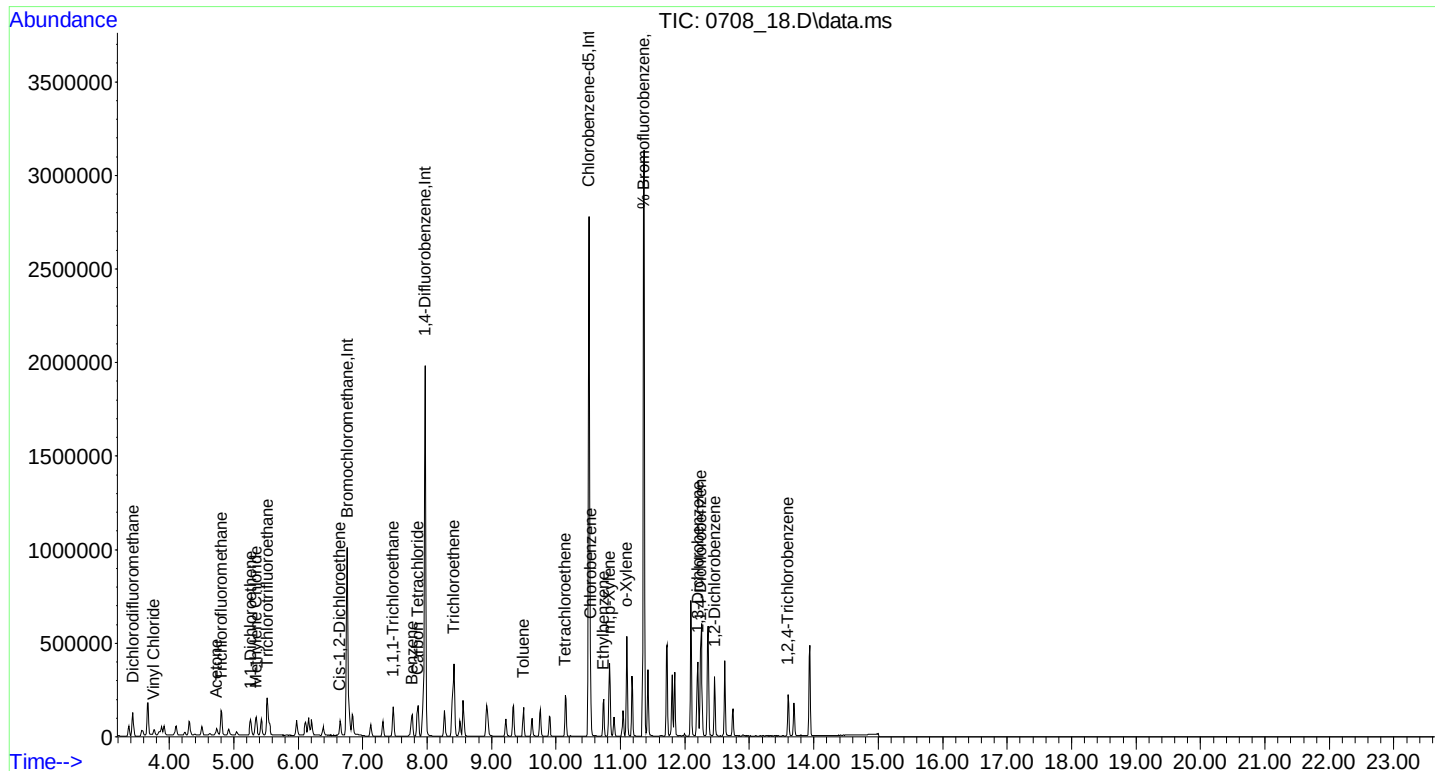
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.763	130	320265	10.000	ng	0.02
36) 1,4-Difluorobenzene	7.969	114	1252324	10.000	ng	0.01
53) Chlorobenzene-d5	10.512	82	696930	10.000	ng	0.00
80) Bromochloromethane(sim)	6.768	130	363595	10.000	ng	# 0.02
94) 1,4-Difluorobenzene(sim)	7.974	114	1436629	10.000	ng	0.01
104) Chlorobenzene-d5(sim)	10.507	82	746442	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.363	95	970709	10.144	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.40%
Target Compounds						
					Qvalue	
3) Dichlorodifluoromethane	3.436	85	120772	0.965	ppbv#	89
6) Vinyl Chloride	3.759	62	30044	0.982	ppbv	96
12) Acetone	4.729	43	46501	0.953	ppbv#	80
13) Trichlorofluoromethane	4.805	101	111497	0.990	ppbv	93
16) 1,1-Dichloroethene	5.262	61	51026	0.973	ppbv	89
17) Methylene Chloride	5.348	49	33509	1.007	ppbv#	87
21) Trichlorotrifluoroethane	5.520	101	73757	1.007	ppbv	96
26) Cis-1,2-Dichloroethene	6.648	61	44380	1.102	ppbv	87
32) 1,1,1-Trichloroethane	7.471	97	85945	0.994	ppbv	98
33) Benzene	7.768	78	93384	0.952	ppbv	96
34) Carbon Tetrachloride	7.857	117	87601	0.964	ppbv	89
39) Trichloroethene	8.414	130	41860	0.924	ppbv	98
48) Toluene	9.494	91	92861	0.817	ppbv	97
52) Tetrachloroethene	10.145	166	46859	0.885	ppbv	87
55) Chlorobenzene	10.532	112	103696	1.022	ppbv#	1
56) Ethylbenzene	10.737	91	108701	0.650	ppbv	97
57) m,p-Xylene	10.830	91	211920	1.467	ppbv#	88
61) o-Xylene	11.096	91	109621	0.696	ppbv	96
71) 1,3-Dichlorobenzene	12.204	146	104199	1.018	ppbv#	90
72) 1,4-Dichlorobenzene	12.245	146	95401	0.993	ppbv#	94
75) 1,2-Dichlorobenzene	12.460	146	97283	0.984	ppbv	96
77) 1,2,4-Trichlorobenzene	13.599	180	53792	1.004	ppbv#	87
82) Vinyl Chloride(sim)	3.765	62	33022	0.923	ppbv	97
87) Carbon Tetrachloride(sim)	7.857	117	87601	1.006	ppbv	89
88) 1,1-Dichloroethene(sim)	5.267	61	58679	0.939	ppbv	96
92) Cis-1,2-Dichloroethene...	6.654	61	41207	0.953	ppbv	97
97) Trichloroethene(sim)	8.414	130	41860	0.897	ppbv	95
103) Tetrachloroethene(sim)	10.145	166	46859	0.921	ppbv	87
106) m,p-Xylene(sim)	10.835	91	237275	2.104	ppbv	96
112) 1,4-Dichlorobenzene(sim)	12.250	146	117362	1.102	ppbv	99
117) 1,2,4-Trichlorobenzene...	13.599	180	53792	1.126	ppbv	87

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_18.D
 Acq On : 8 Jul 2020 9:02 pm
 Operator :
 Client ID : ICAL 1
 Lab ID : 1
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 10 08:46:30 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Fri Jul 10 08:30:19 2020
 Response via : Initial Calibration



Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_20.D
 Acq On : 8 Jul 2020 10:16 pm
 Operator :
 Client ID : CG29882 LCS
 Lab ID : CG29882 LCS
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 13 14:59:17 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

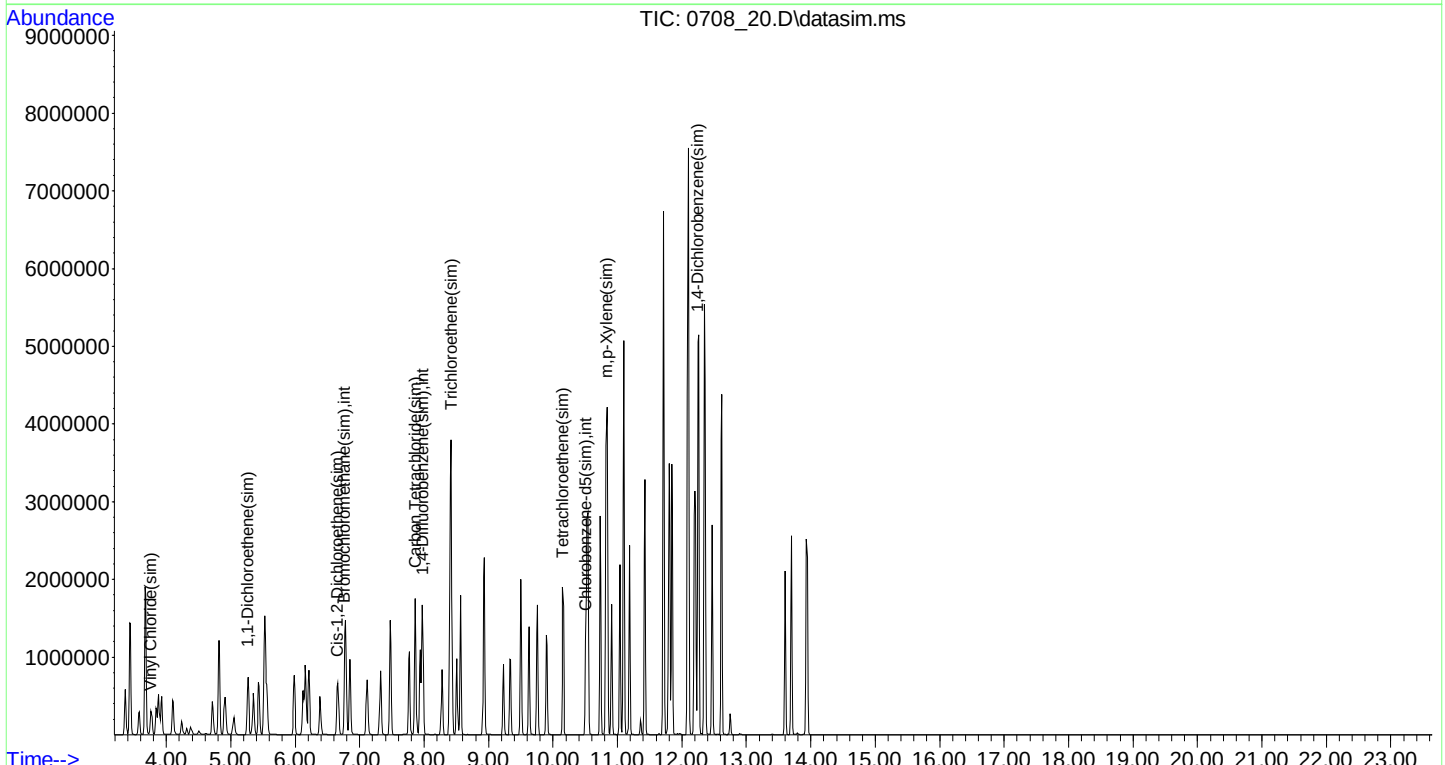
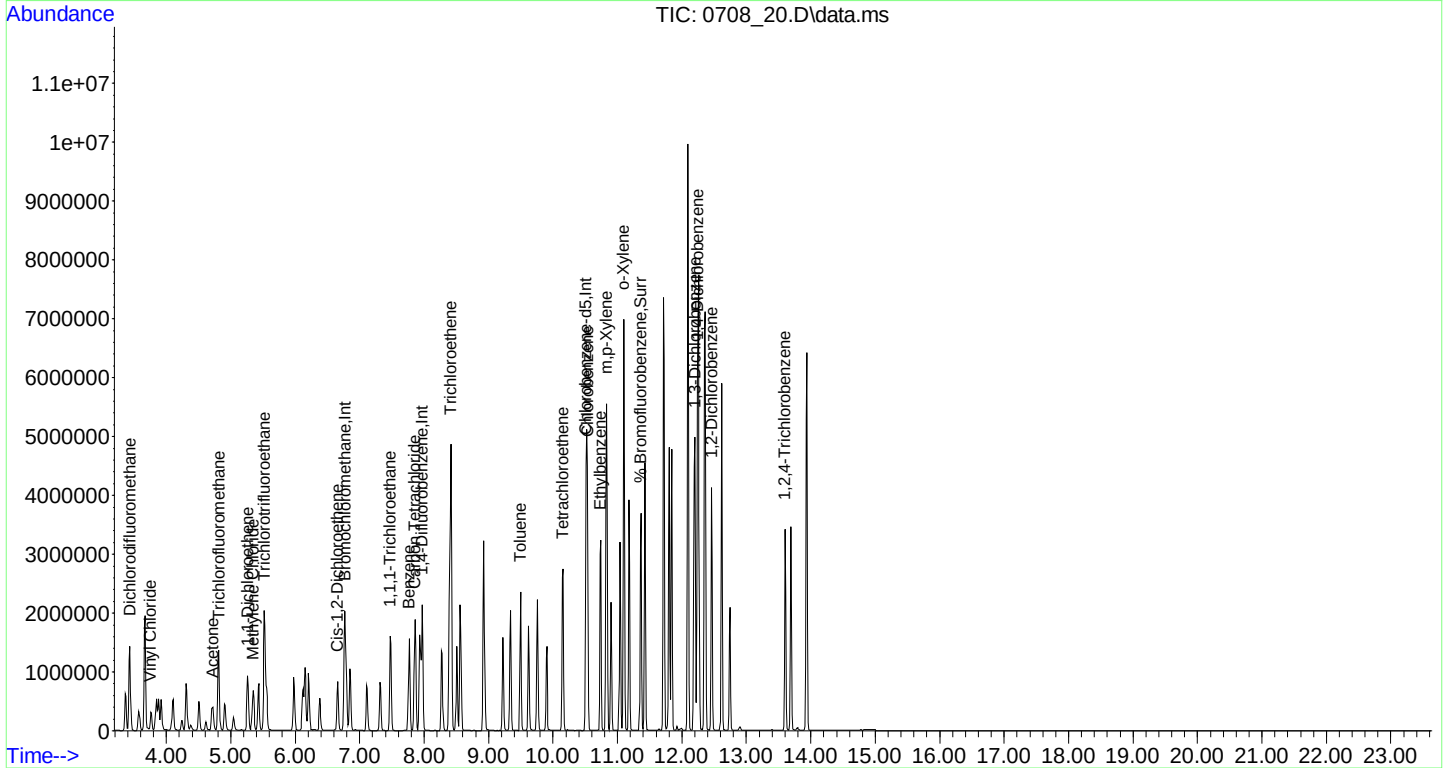
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.773	130	327065	10.000	ng	0.03
15) 1,4-Difluorobenzene	7.969	114	1337116	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	793174	10.000	ng	0.00
30) Bromochloromethane(sim)	6.768	130	372104	10.000	ng	# 0.02
41) 1,4-Difluorobenzene(sim)	7.969	114	1337116	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	793174	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.363	95	1108023	10.174	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.70%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	3.436	85	1399525	10.955	ppbv#	89
3) Vinyl Chloride	3.759	62	339184	10.858	ppbv	97
4) Acetone	4.718	43	530692	10.647	ppbv#	83
5) Trichlorofluoromethane	4.815	101	1199340	10.425	ppbv	95
6) 1,1-Dichloroethene	5.262	61	568700	10.622	ppbv#	85
7) Methylene Chloride	5.348	49	338520	9.957	ppbv#	86
8) Trichlorotrifluoroethane	5.520	101	771081	10.312	ppbv	95
10) Cis-1,2-Dichloroethene	6.658	61	444404	10.802	ppbv	89
12) 1,1,1-Trichloroethane	7.471	97	952450	10.785	ppbv	98
13) Benzene	7.768	78	1143892	11.423	ppbv	99
14) Carbon Tetrachloride	7.857	117	1020910	11.005	ppbv	89
17) Trichloroethene	8.414	130	510873	10.562	ppbv	95
18) Toluene	9.494	91	1461670	12.039	ppbv	95
19) Tetrachloroethene	10.154	166	610380	10.801	ppbv	90
21) Chlorobenzene	10.532	112	1188099	10.292	ppbv#	1
22) Ethylbenzene	10.737	91	1985056	10.664	ppbv	99
23) m,p-Xylene	10.830	91	3314031	21.095	ppbv#	86
24) o-Xylene	11.096	91	1770683	10.401	ppbv	96
26) 1,3-Dichlorobenzene	12.204	146	1349105	11.578	ppbv#	93
27) 1,4-Dichlorobenzene	12.245	146	1288004	11.777	ppbv	95
28) 1,2-Dichlorobenzene	12.460	146	1312215	11.664	ppbv	99
29) 1,2,4-Trichlorobenzene	13.599	180	782538	12.828	ppbv#	87
31) Vinyl Chloride(sim)	3.759	62	339184	9.262	ppbv	98
35) Carbon Tetrachloride(sim)	7.857	117	1020910	11.457	ppbv	89
36) 1,1-Dichloroethene(sim)	5.267	61	630301	9.854	ppbv	97
40) Cis-1,2-Dichloroethene...	6.654	61	437764	9.891	ppbv	99
44) Trichloroethene(sim)	8.420	130	633783	14.591	ppbv	95
46) Tetrachloroethene(sim)	10.150	166	797303	16.830	ppbv	94
48) m,p-Xylene(sim)	10.835	91	3617107	16.012	ppbv#	95
50) 1,4-Dichlorobenzene(sim)	12.250	146	1527858	8.597	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_20.D
 Acq On : 8 Jul 2020 10:16 pm
 Operator :
 Client ID : CG29882 LCS
 Lab ID : CG29882 LCS
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Oct 13 14:59:17 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration



Client:	<u>WALDENE-IPARK</u>	Lab:	<u>Phoenix Env. Labs</u>
SDG No.:	<u>GCG29884</u>	Lab Sample ID:	<u>CG29882 LCS</u>
Canister:	<u>LCS</u>	Lab File ID:	<u>0708_21.D</u>
Instrument:	<u>CHEM20</u>	Column:	<u>RTX-1 60M</u>
		Date Received:	<u>07/08/20</u>
Purge Volume	<u>200</u> (cc)	Date Analyzed:	<u>07/08/20</u>
Matrix:	<u>AIR</u>	Dilution Factor:	<u>1</u>

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

[illegible]

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_21.D
 Acq On : 8 Jul 2020 10:54 pm
 Operator :
 Client ID : CG29882 LCSD
 Lab ID : CG29882 LCSD
 ALS Vial : 18 Sample Multiplier: 1

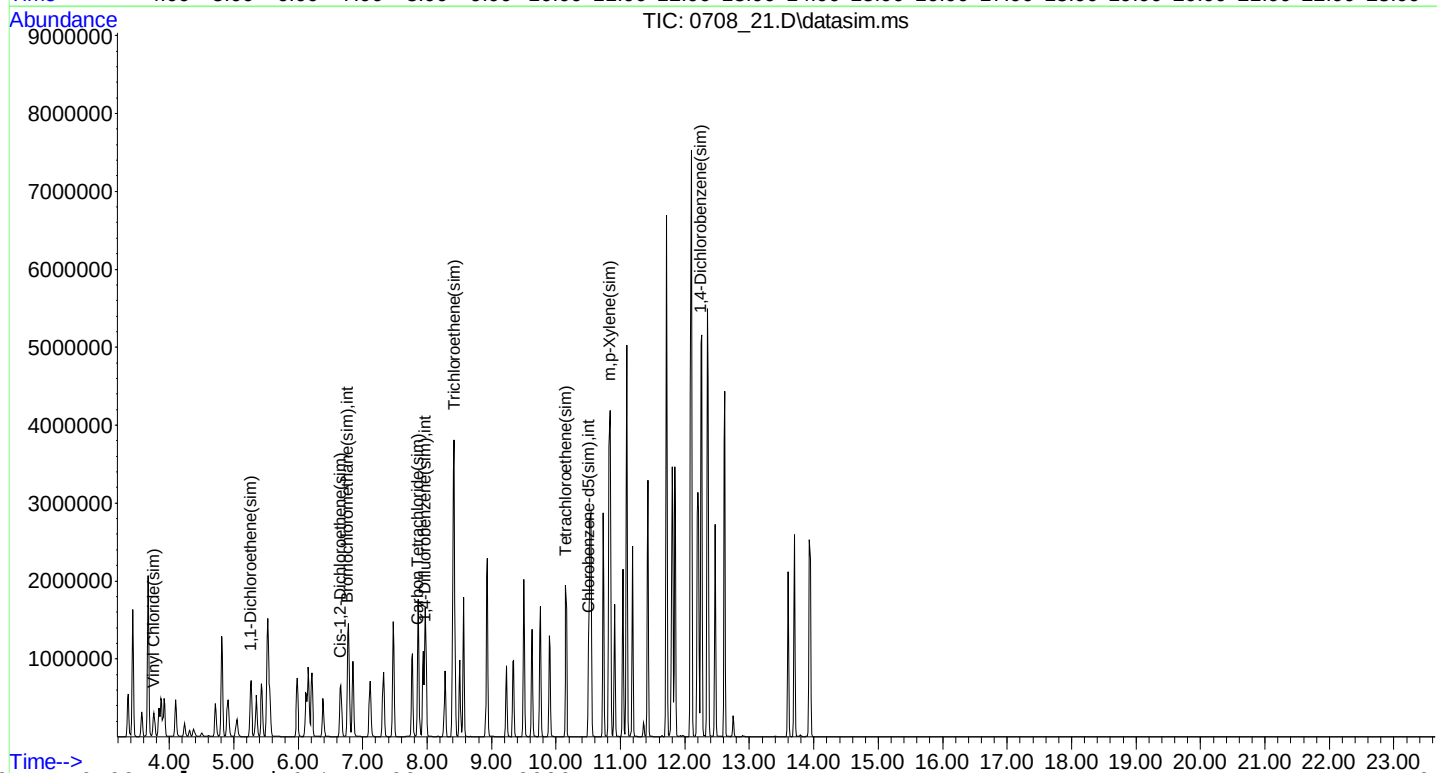
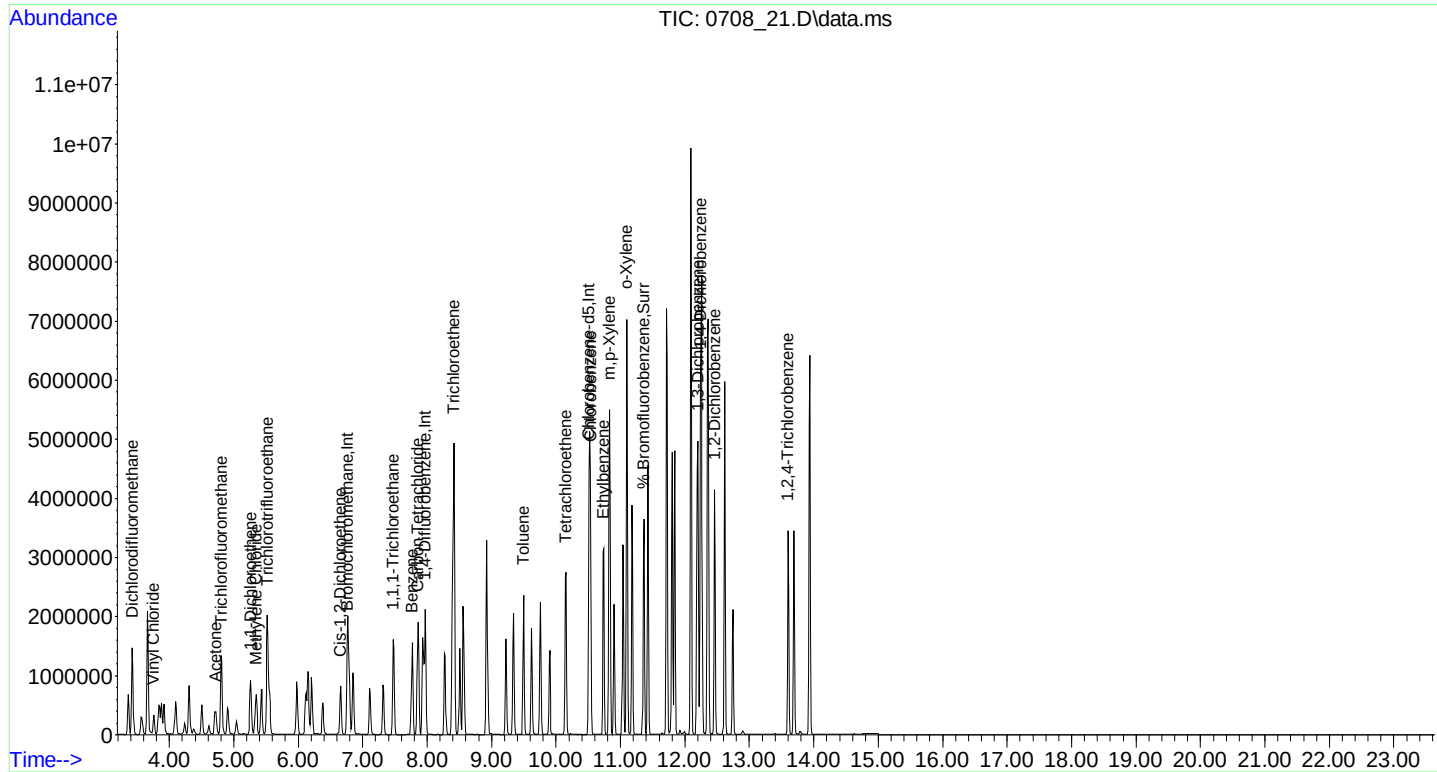
Quant Time: Oct 13 14:59:23 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.763	130	323684	10.000	ng	0.02
15) 1,4-Difluorobenzene	7.969	114	1339925	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	792644	10.000	ng	0.00
30) Bromochloromethane(sim)	6.768	130	368160	10.000	ng	# 0.02
41) 1,4-Difluorobenzene(sim)	7.969	114	1339925	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	791488	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.363	95	1093265	10.045	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.40%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	3.425	85	1398107	11.058	ppbv#	89
3) Vinyl Chloride	3.759	62	340885	11.027	ppbv	95
4) Acetone	4.718	43	538704	10.921	ppbv#	84
5) Trichlorofluoromethane	4.805	101	1203842	10.574	ppbv	96
6) 1,1-Dichloroethene	5.262	61	567758	10.715	ppbv#	86
7) Methylene Chloride	5.348	49	341019	10.136	ppbv#	87
8) Trichlorotrifluoroethane	5.520	101	775469	10.479	ppbv	96
10) Cis-1,2-Dichloroethene	6.658	61	479031	11.766	ppbv	89
12) 1,1,1-Trichloroethane	7.471	97	962704	11.015	ppbv	96
13) Benzene	7.768	78	1156680	11.671	ppbv	96
14) Carbon Tetrachloride	7.857	117	1024249	11.156	ppbv	90
17) Trichloroethene	8.414	130	520052	10.730	ppbv	95
18) Toluene	9.494	91	1457454	11.979	ppbv	94
19) Tetrachloroethene	10.154	166	617011	10.896	ppbv	89
21) Chlorobenzene	10.532	112	1172835	10.167	ppbv#	1
22) Ethylbenzene	10.737	91	1984640	10.669	ppbv	99
23) m,p-Xylene	10.830	91	3315260	21.118	ppbv#	86
24) o-Xylene	11.096	91	1757530	10.326	ppbv	95
26) 1,3-Dichlorobenzene	12.204	146	1350402	11.597	ppbv#	93
27) 1,4-Dichlorobenzene	12.245	146	1280400	11.716	ppbv	95
28) 1,2-Dichlorobenzene	12.460	146	1313272	11.682	ppbv	98
29) 1,2,4-Trichlorobenzene	13.599	180	789151	12.945	ppbv#	87
31) Vinyl Chloride(sim)	3.759	62	340885	9.408	ppbv	96
35) Carbon Tetrachloride(sim)	7.857	117	1024249	11.617	ppbv	90
36) 1,1-Dichloroethene(sim)	5.267	61	644201	10.179	ppbv	95
40) Cis-1,2-Dichloroethene...	6.654	61	440217	10.053	ppbv	98
44) Trichloroethene(sim)	8.420	130	640852	14.723	ppbv	95
46) Tetrachloroethene(sim)	10.150	166	808154	17.023	ppbv	94
48) m,p-Xylene(sim)	10.835	91	3614808	16.028	ppbv#	95
50) 1,4-Dichlorobenzene(sim)	12.250	146	1524587	8.597	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_21.D
Acq On : 8 Jul 2020 10:54 pm
Operator :
Client ID : CG29882 LCSD
Lab ID : CG29882 LCSD
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Oct 13 14:59:23 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration



Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_29.D
 Acq On : 9 Jul 2020 4:04 am
 Operator :
 Client ID : CG29882 QC
 Lab ID : CG29882 QC
 ALS Vial : 25 Sample Multiplier: 1

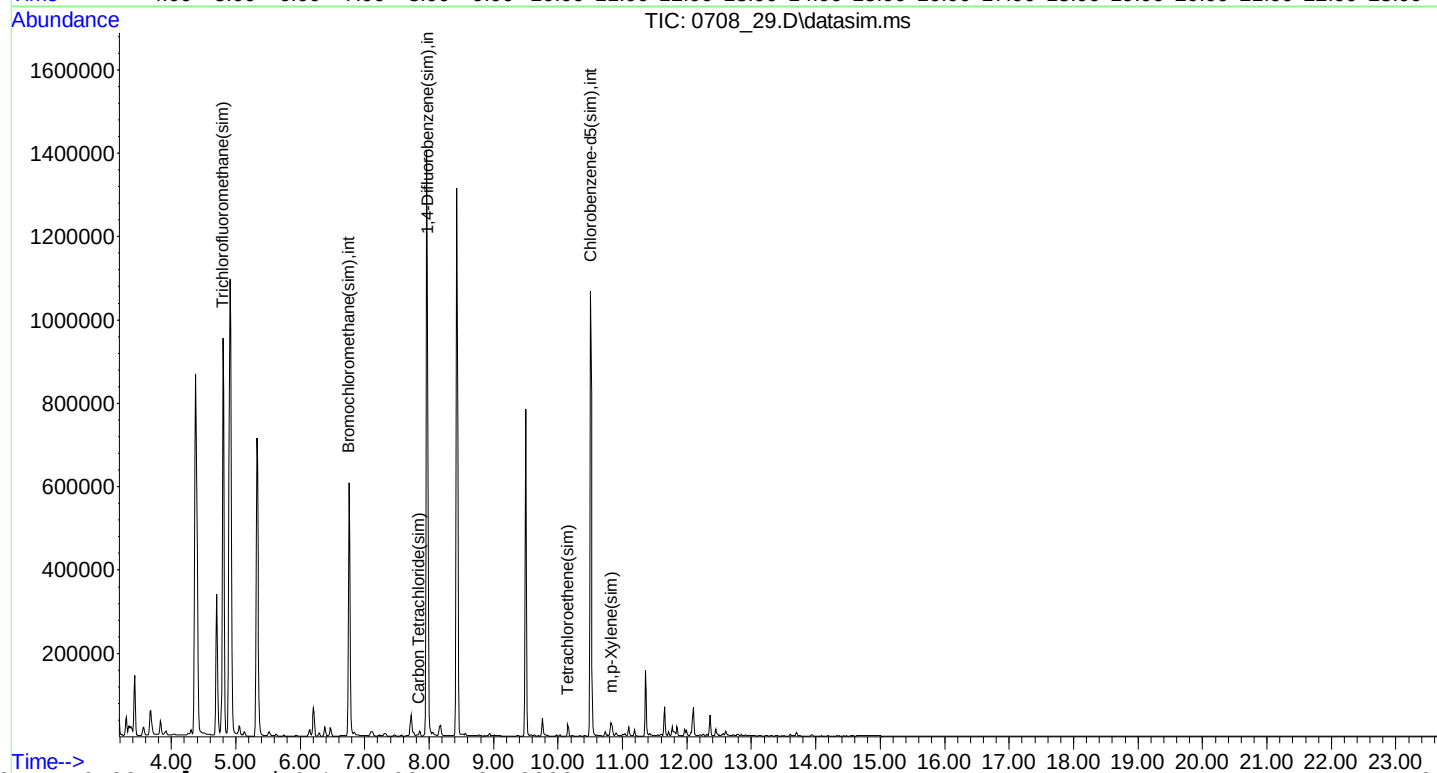
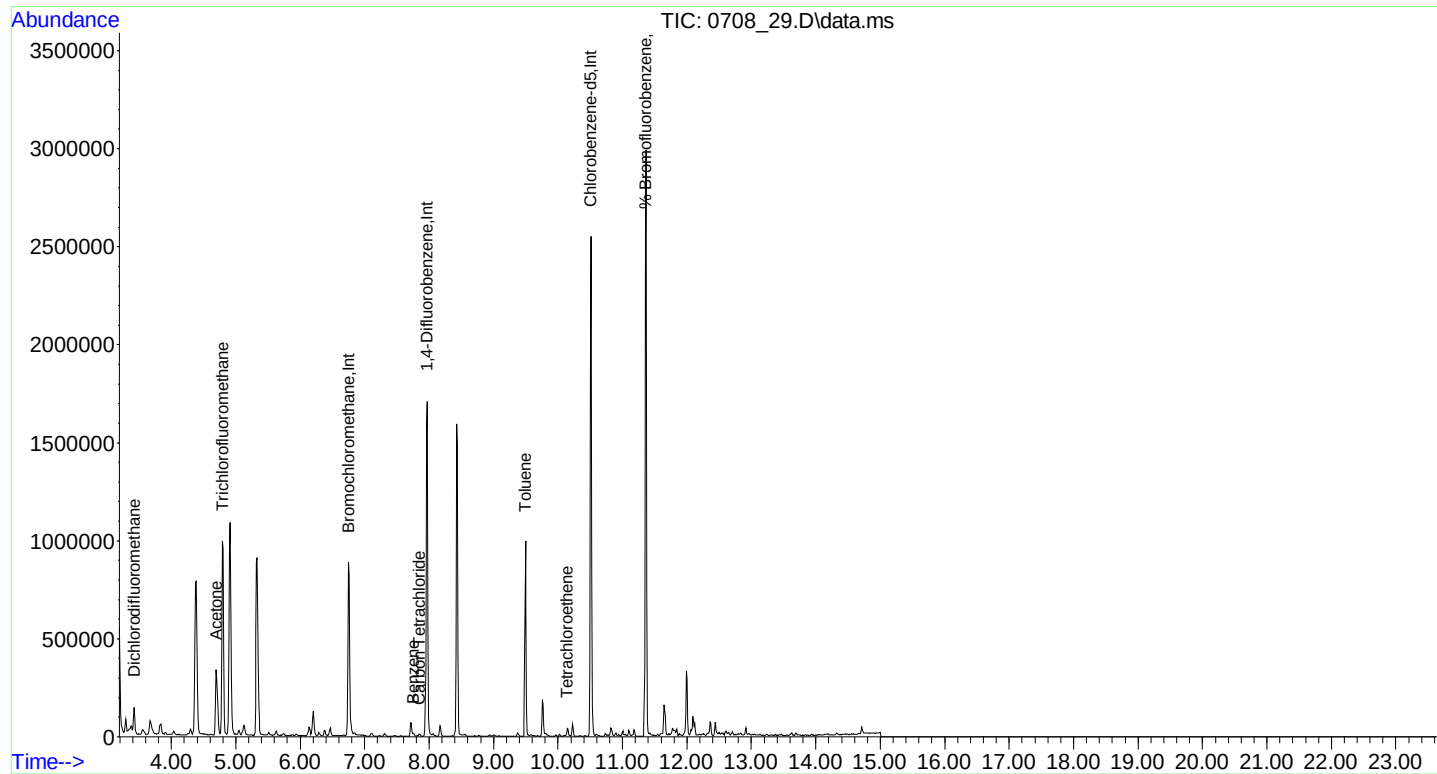
Quant Time: Oct 13 14:59:48 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

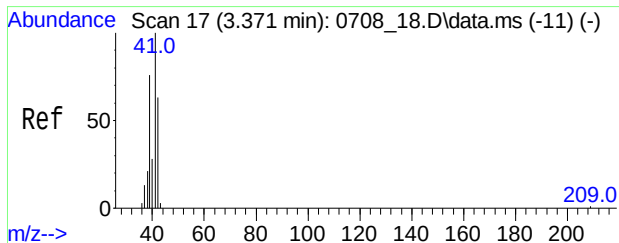
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.752	130	313063	10.000	ng	0.00
15) 1,4-Difluorobenzene	7.969	114	1142973	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	689370	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	353584	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.969	114	1142973	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	689370	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	892092	9.424	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	94.20%
Target Compounds						
					Qvalue	
2) Dichlorodifluoromethane	3.425	85	120803	0.988	ppbv#	90
3) Vinyl Chloride	3.748	62	570	0.019	ppbv#	40
4) Acetone	4.697	43	412752	8.652	ppbv#	85
5) Trichlorofluoromethane	4.794	101	881374	8.004	ppbv	96
13) Benzene	7.757	78	7661	0.080	ppbv#	95
14) Carbon Tetrachloride	7.846	117	7048	0.079	ppbv	91
18) Toluene	9.494	91	549981	5.299	ppbv	97
19) Tetrachloroethene	10.145	166	8383	0.174	ppbv#	85
23) m,p-Xylene	10.829	91	20905	0.146	ppbv	93
31) Vinyl Chloride(sim)	3.748	62	570	0.016	ppbv#	40
32) Trichlorofluoromethane...	4.799	101	994480	7.415	ppbv#	99
35) Carbon Tetrachloride(sim)	7.846	117	7048	0.083	ppbv	91
46) Tetrachloroethene(sim)	10.150	166	11327	0.280	ppbv	92
48) m,p-Xylene(sim)	10.825	91	22364	0.244	ppbv	98

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_29.D
Acq On : 9 Jul 2020 4:04 am
Operator :
Client ID : CG29882 QC
Lab ID : CG29882 QC
ALS Vial : 25 Sample Multiplier: 1

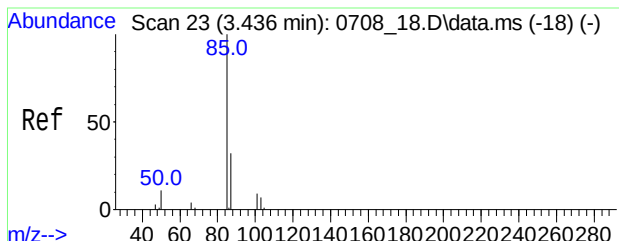
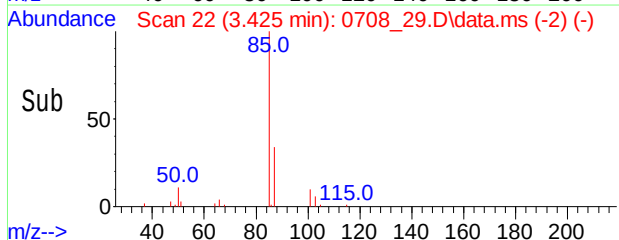
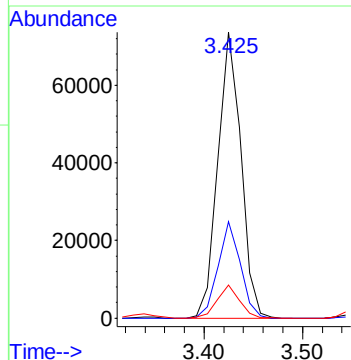
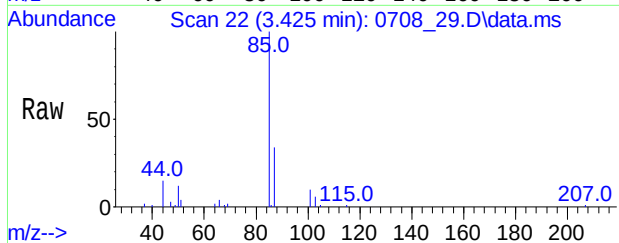
Quant Time: Oct 13 14:59:48 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration





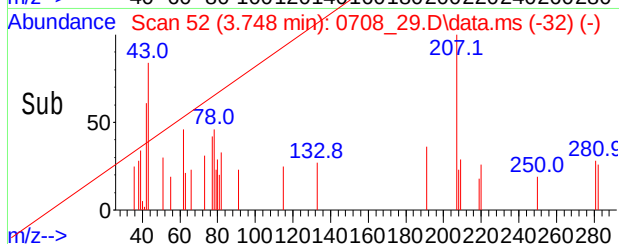
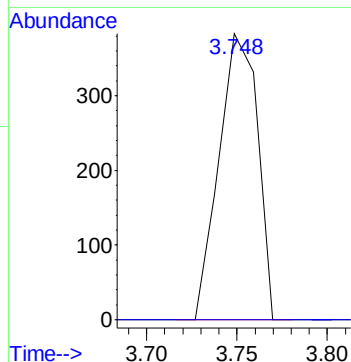
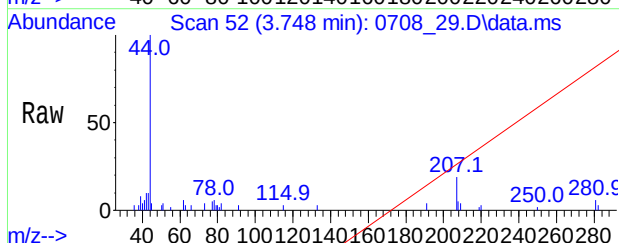
#2
Dichlorodifluoromethane
Conc: 8\$ 0.988 ppbv
RT: 3.425 min Scan# 22
Delta R.T. 0.011 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

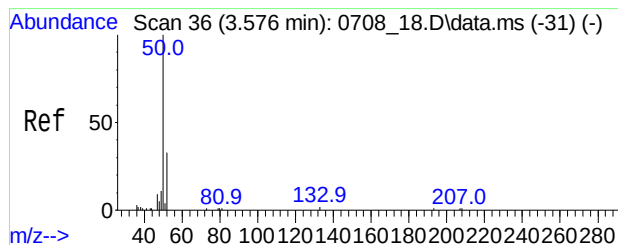
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	120803		
87	32.6	31.4	47.2	
50	11.3	11.8	17.8#	



#3
Vinyl Chloride
Conc: 8\$ Below Cal
RT: 3.748 min Scan# 52
Delta R.T. 0.010 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

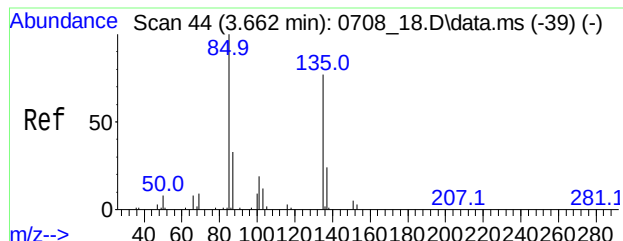
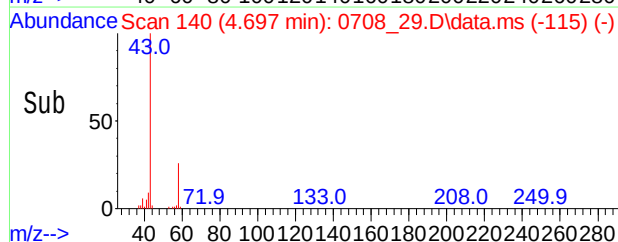
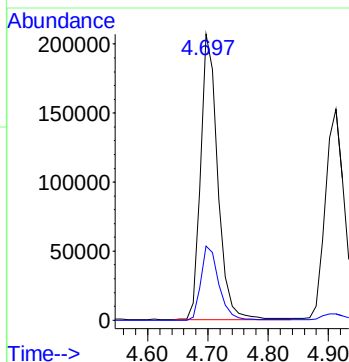
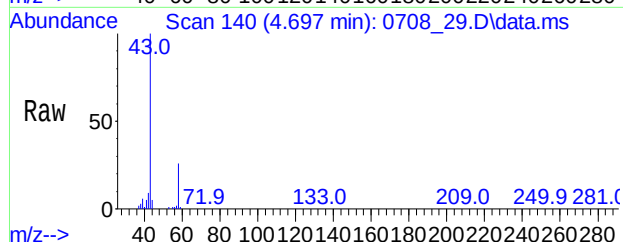
Tgt Ion	Ratio	Resp	Lower	Upper
62	100	570		
64	0.0	14.9	54.9#	





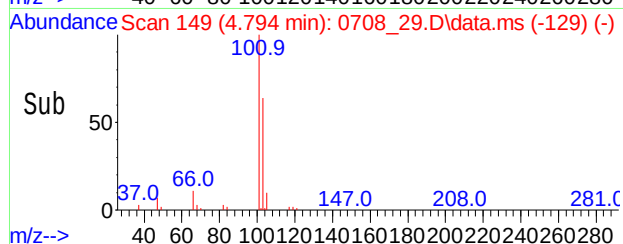
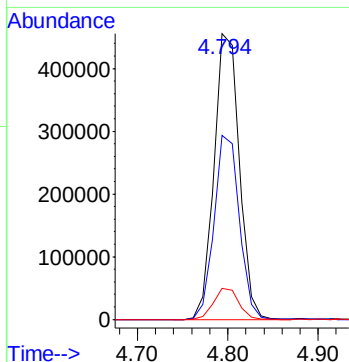
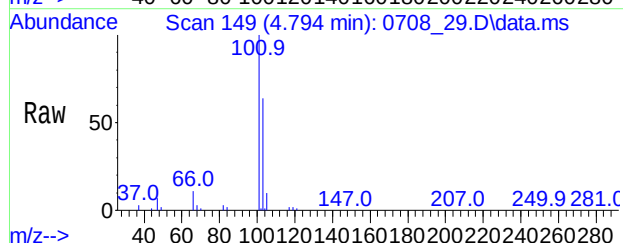
#4
Acetone
Conc: 8\$ 8.652 ppbv
RT: 4.697 min Scan# 140
Delta R.T. -0.032 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

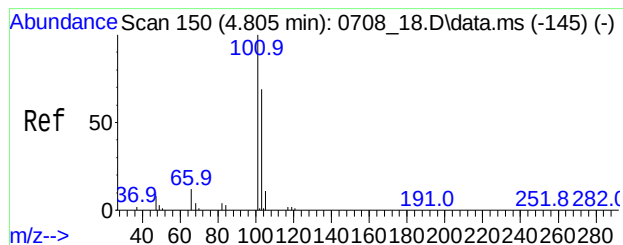
Tgt Ion: 43 Resp: 412752
Ion Ratio Lower Upper
43 100
58 27.1 16.2 24.2#



#5
Trichlorofluoromethane
Conc: 8\$ 8.004 ppbv
RT: 4.794 min Scan# 149
Delta R.T. 0.011 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

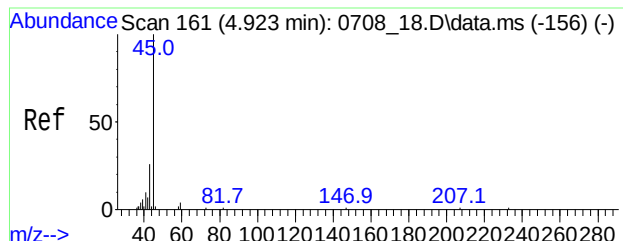
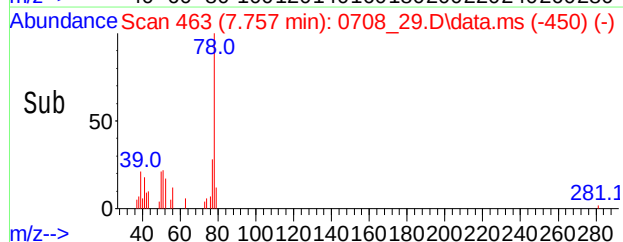
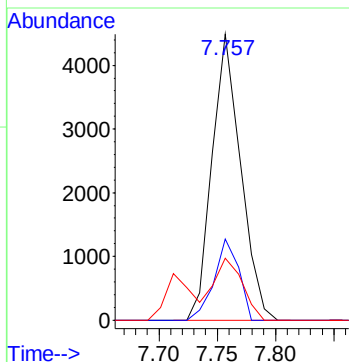
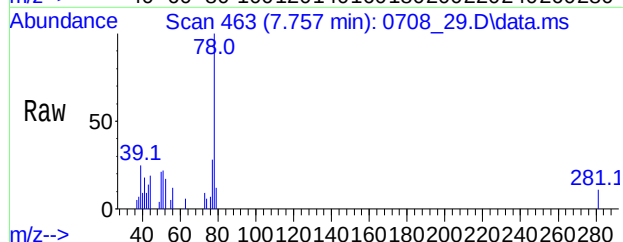
Tgt Ion: 101 Resp: 881374
Ion Ratio Lower Upper
101 100
103 64.4 49.0 73.6
66 10.9 10.7 16.1





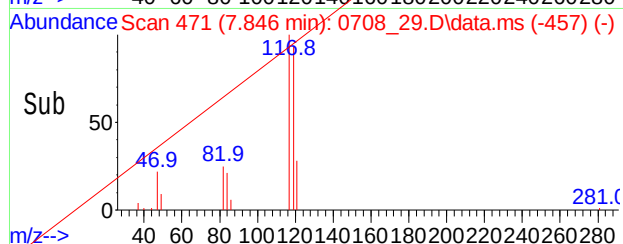
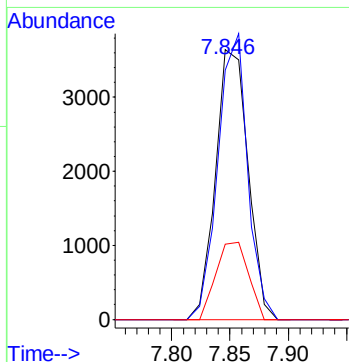
#13
Benzene
Conc: 8\$ 0.080 ppbv
RT: 7.757 min Scan# 463
Delta R.T. 0.011 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

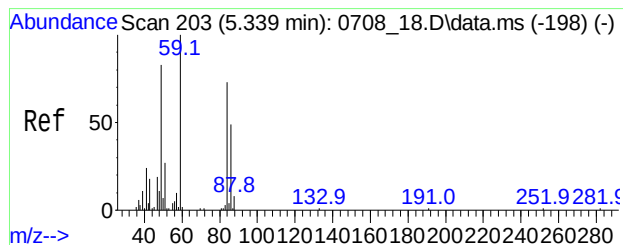
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	7661		
77	24.3	18.6	28.0	
51	21.6	13.9	20.9#	



#14
Carbon Tetrachloride
Conc: 8\$ Below Cal
RT: 7.846 min Scan# 471
Delta R.T. 0.011 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

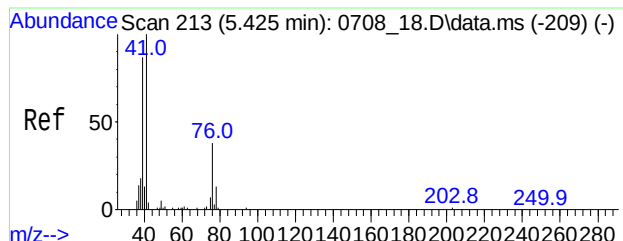
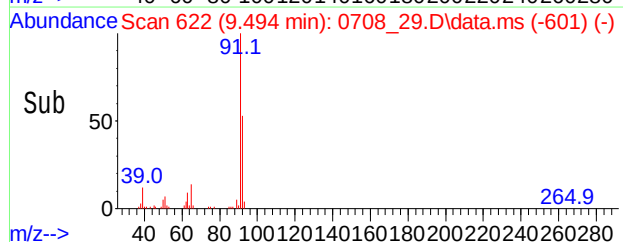
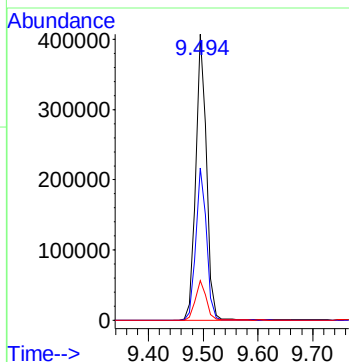
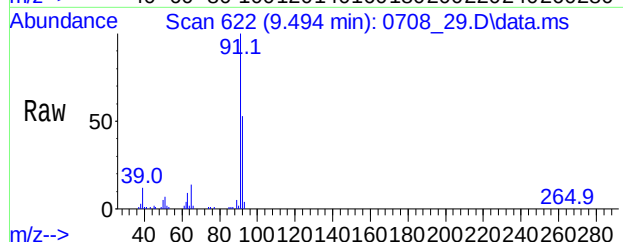
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	7048		
119	96.4	87.1	127.1	
121	28.6	7.2	47.2	





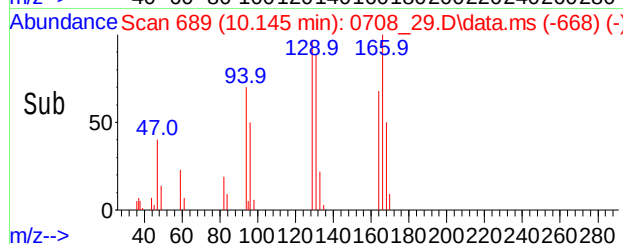
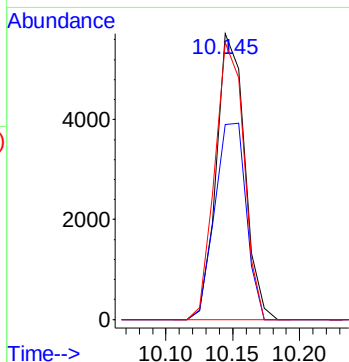
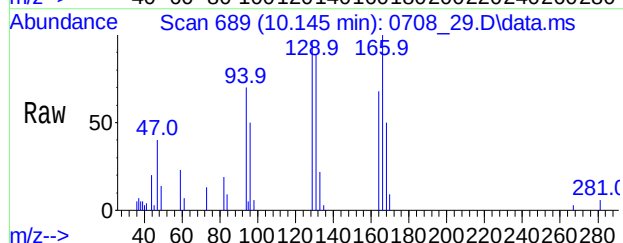
#18
Toluene
Conc: 8\$ 5.299 ppbv
RT: 9.494 min Scan# 622
Delta R.T. 0.000 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

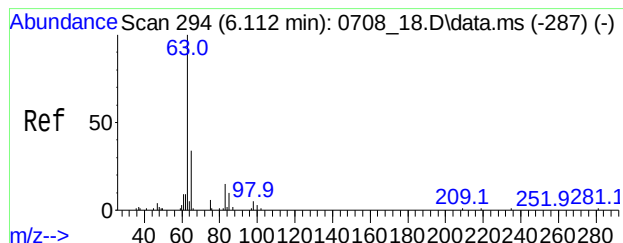
Tgt Ion: 91 Resp: 549981
Ion Ratio Lower Upper
91 100
92 53.1 40.9 61.3
65 14.0 11.7 17.5



#19
Tetrachloroethene
Conc: 8\$ 0.174 ppbv
RT: 10.145 min Scan# 689
Delta R.T. -0.000 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

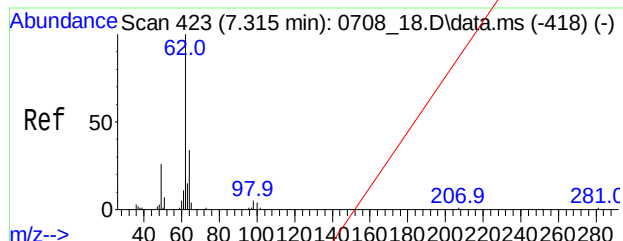
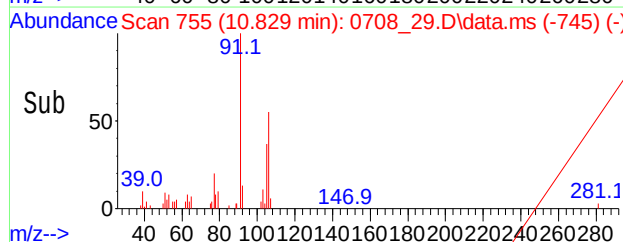
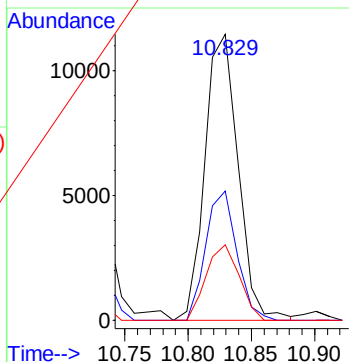
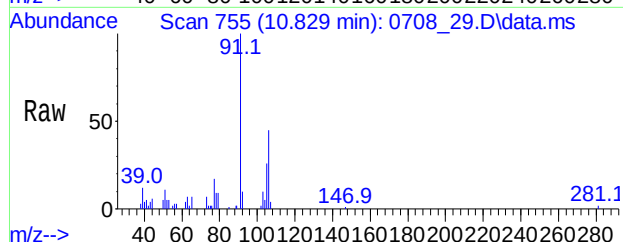
Tgt Ion: 166 Resp: 8383
Ion Ratio Lower Upper
166 100
164 76.2 56.0 84.0
129 99.3 64.2 96.4#





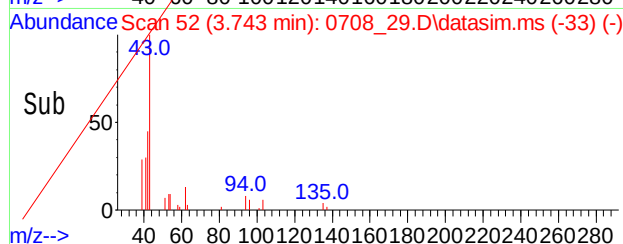
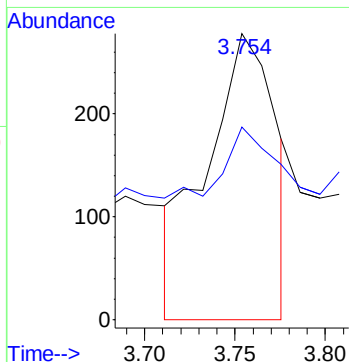
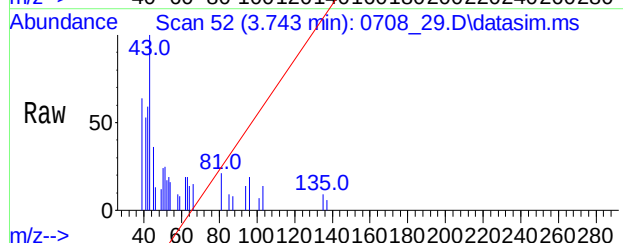
#23
m,p-Xylene
Conc: 8\$ Below Cal
RT: 10.829 min Scan# 755
Delta R.T. -0.001 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

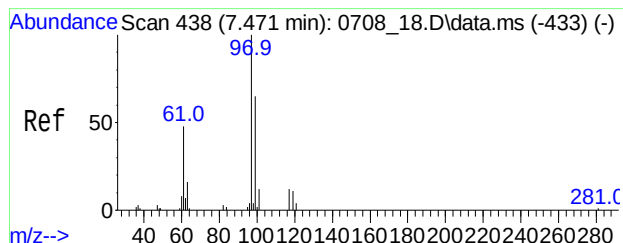
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	20905		
106	42.3	30.7	46.1	
105	26.3	24.3	36.5	



#31
Vinyl Chloride(sim)
Conc: 8\$ Below Cal
RT: 3.748 min Scan# 52
Delta R.T. 0.005 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

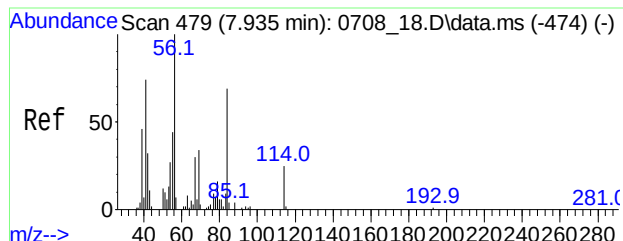
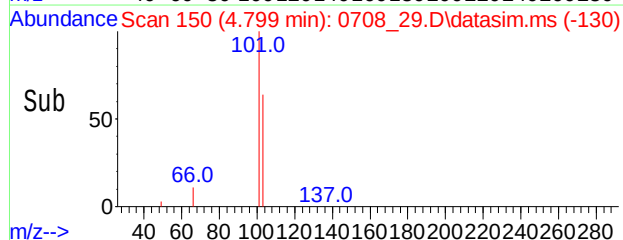
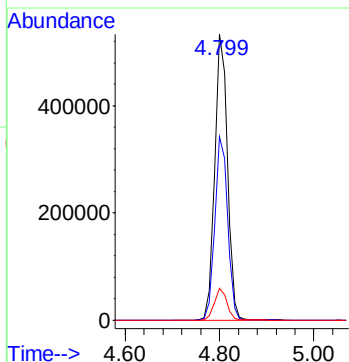
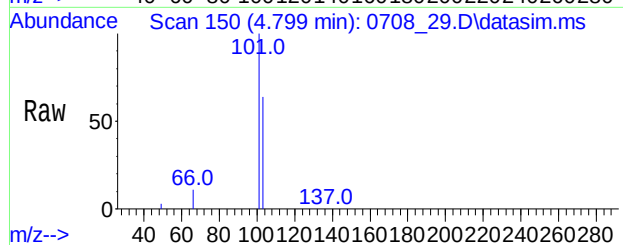
Tgt Ion	Ratio	Resp	Lower	Upper
62	100	570		
64	0.0	27.4	41.0#	





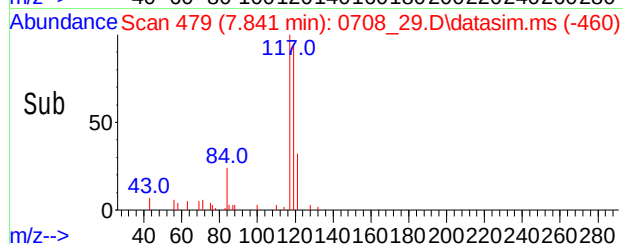
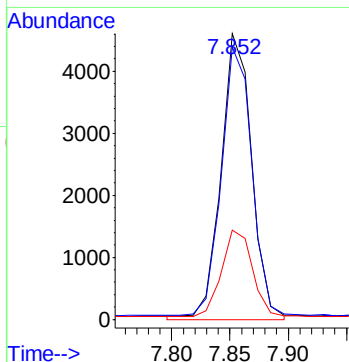
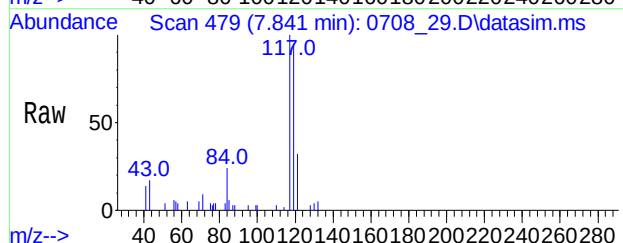
#32
Trichlorofluoromethane(sim)
Conc: 8\$ 7.415 ppbv
RT: 4.799 min Scan# 150
Delta R.T. 0.010 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

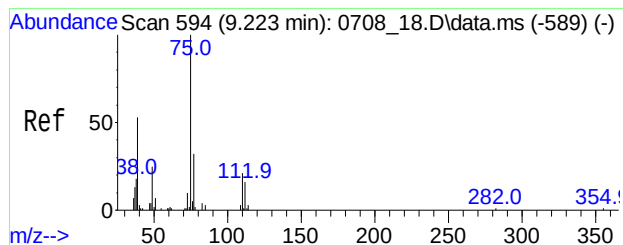
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	994480		
103	64.5	51.2	76.8	
66	10.9	11.1	11.1#	



#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.083 ppbv
RT: 7.846 min Scan# 479
Delta R.T. 0.011 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

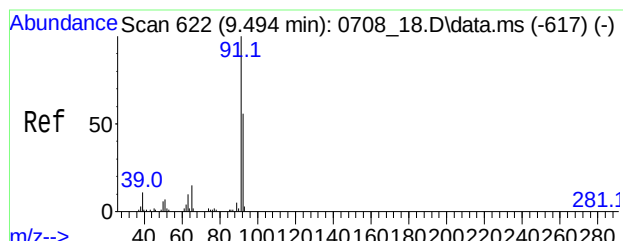
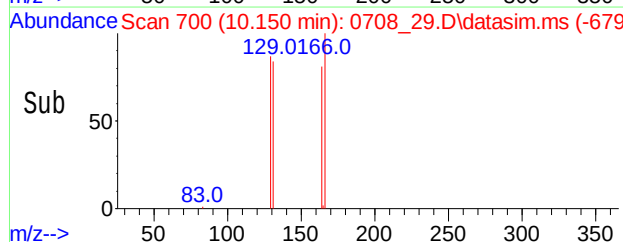
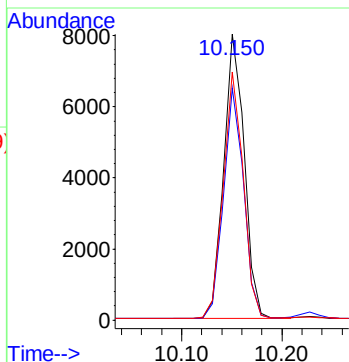
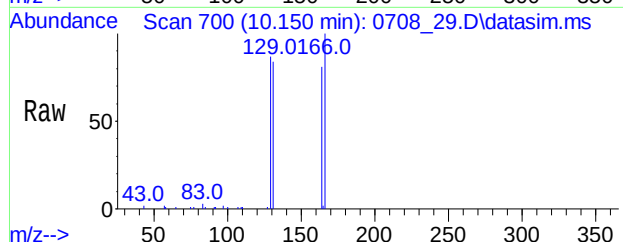
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	7048		
119	96.4	85.7	128.5	
121	28.6	21.8	32.6	





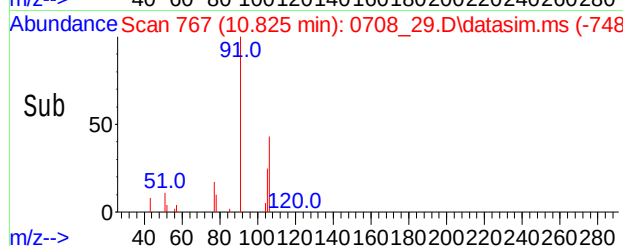
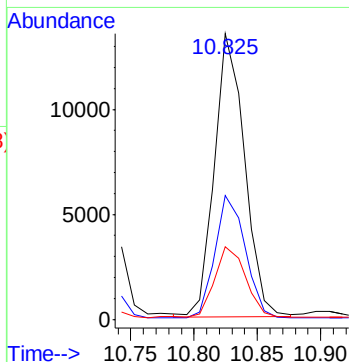
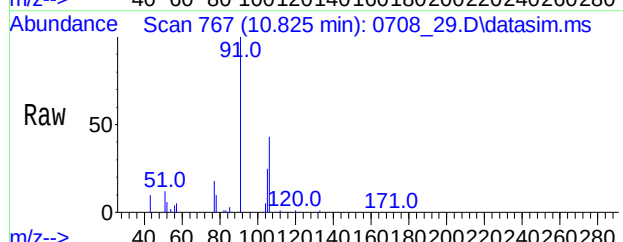
#46
Tetrachloroethene(sim)
Conc: 8\$ 0.280 ppbv
RT: 10.150 min Scan# 700
Delta R.T. 0.005 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	11327		
164	79.2	50.0	90.0	
129	84.2	60.3	100.3	



#48
m,p-Xylene(sim)
Conc: 8\$ 0.244 ppbv
RT: 10.825 min Scan# 767
Delta R.T. -0.000 min
Lab File: 0708_29.D
Acq: 9 Jul 2020 4:04 am

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	22364		
106	43.9	41.1	50.3	
105	26.2	21.7	32.5	



29882 dup

ppbv

CAS NO.

CONC.

Q

MDL

PQL

R

Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_30.D
 Acq On : 9 Jul 2020 4:44 am
 Operator :
 Sample : 29882 dup
 Misc :
 ALS Vial : 26 Sample Multiplier: 1

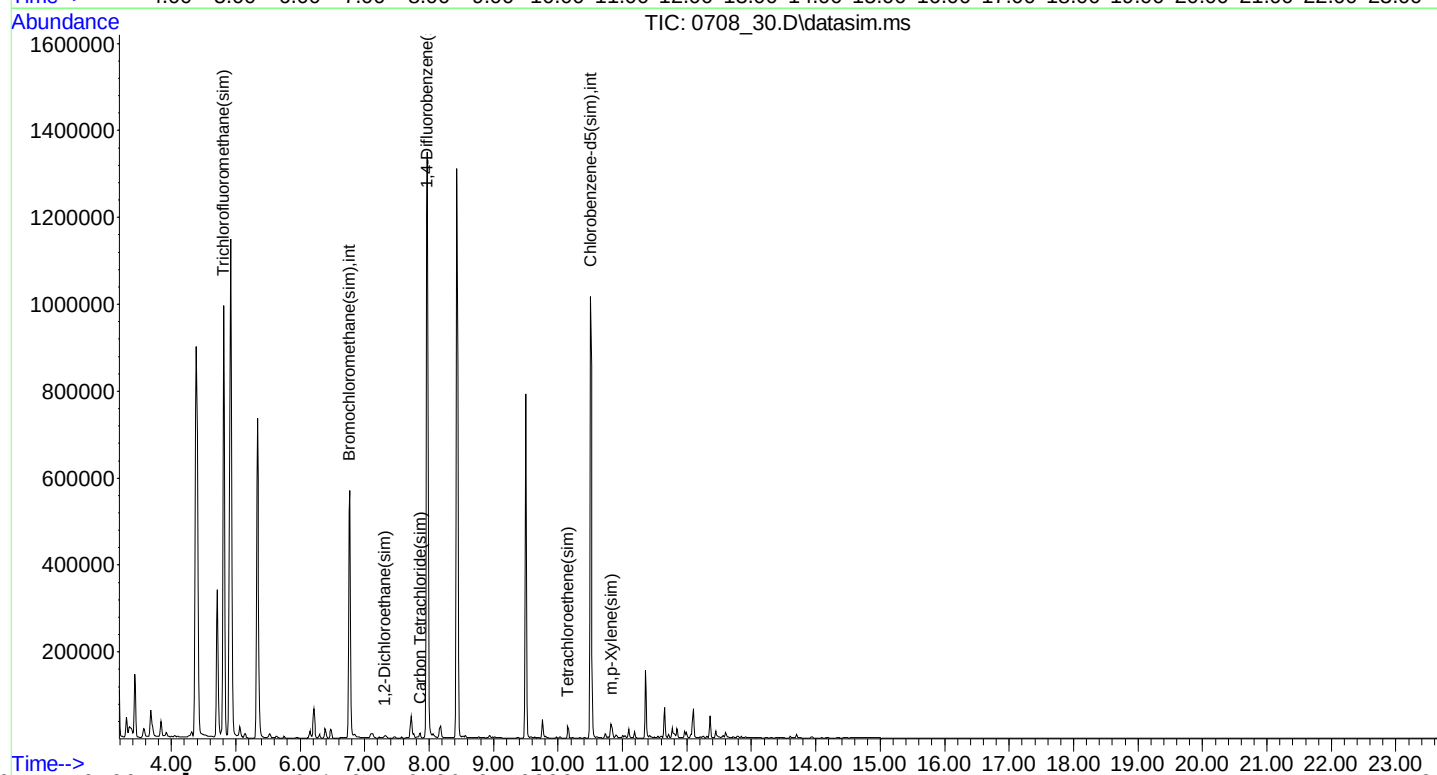
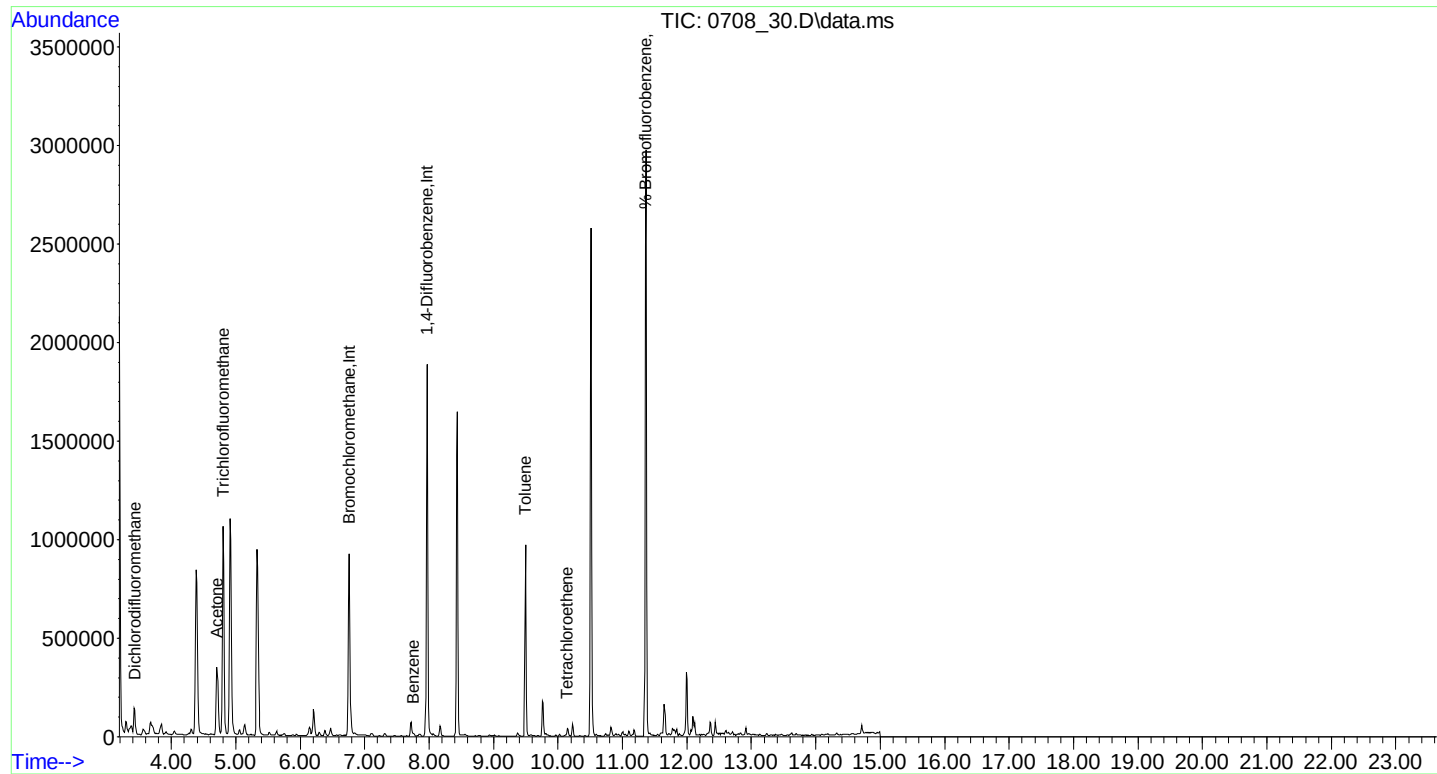
Quant Time: Oct 13 14:59:51 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

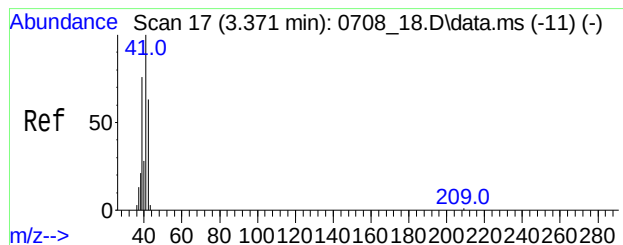
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.763	130	313522	10.000	ng	0.02
15) 1,4-Difluorobenzene	7.969	114	1122484	10.000	ng	0.01
20) Chlorobenzene-d5	10.512	82	679189	10.000	ng	0.00
30) Bromochloromethane(sim)	6.768	130	351486	10.000	ng	# 0.02
41) 1,4-Difluorobenzene(sim)	7.969	114	1122484	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	679189	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.363	95	880740	9.444	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	94.40%
Target Compounds						
2) Dichlorodifluoromethane	3.436	85	122933	1.004	ppbv#	Qvalue 90
4) Acetone	4.708	43	410709	8.596	ppbv#	84
5) Trichlorofluoromethane	4.805	101	895474	8.120	ppbv	96
13) Benzene	7.757	78	7957	0.083	ppbv#	83
18) Toluene	9.494	91	555381	5.449	ppbv	98
19) Tetrachloroethene	10.145	166	7926	0.167	ppbv	88
32] Trichlorofluoromethane...	4.810	101	1008527	7.565	ppbv#	99
33] 1,2-Dichloroethane(sim)	7.315	62	1379	0.024	ppbv#	81
35] Carbon Tetrachloride(sim)	7.857	117	6464	0.077	ppbv	90
46] Tetrachloroethene(sim)	10.150	166	11097	0.279	ppbv	92
48] m,p-Xylene(sim)	10.825	91	21976	0.243	ppbv	97

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_30.D
Acq On : 9 Jul 2020 4:44 am
Operator :
Sample : 29882 dup
Misc :
ALS Vial : 26 Sample Multiplier: 1

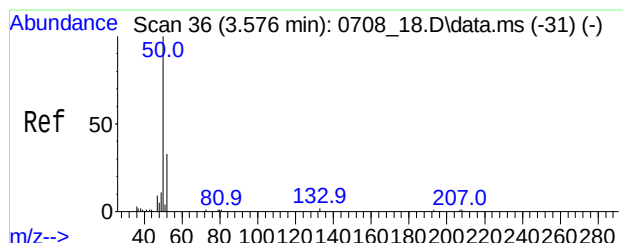
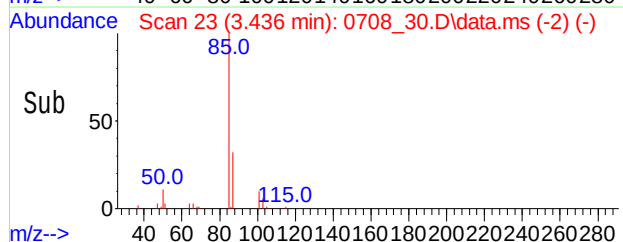
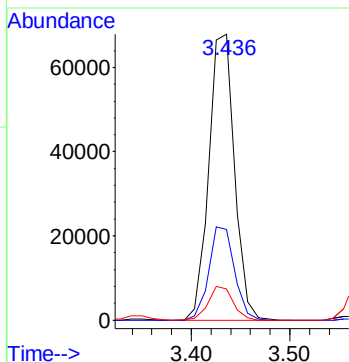
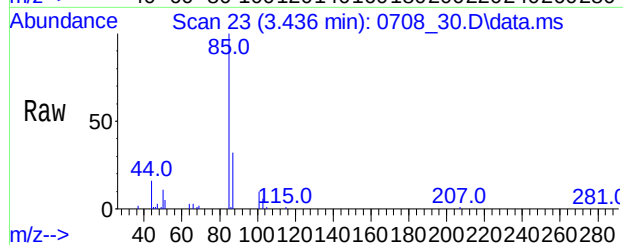
Quant Time: Oct 13 14:59:51 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration





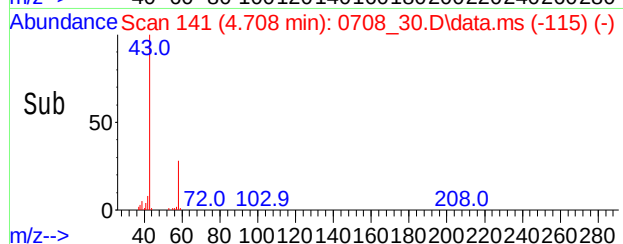
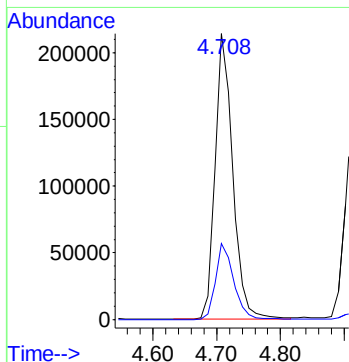
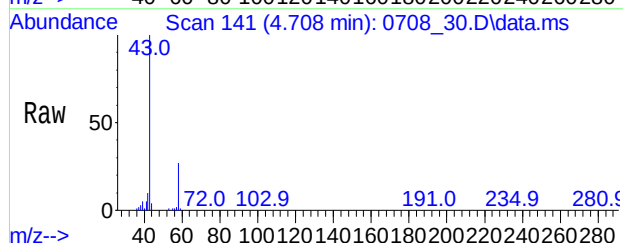
#2
Dichlorodifluoromethane
Conc: 8\$ 1.004 ppbv
RT: 3.436 min Scan# 23
Delta R.T. 0.022 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

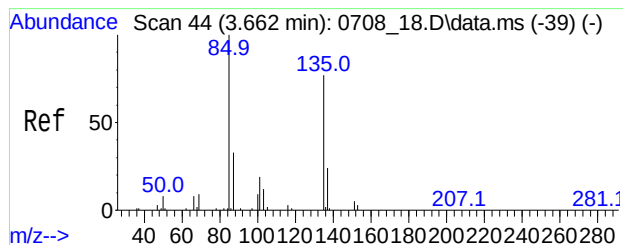
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	122933		
87	32.6	31.4	47.2	
50	11.5	11.8	17.8#	



#4
Acetone
Conc: 8\$ 8.596 ppbv
RT: 4.708 min Scan# 141
Delta R.T. -0.021 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

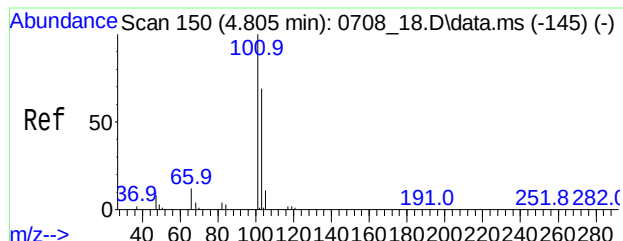
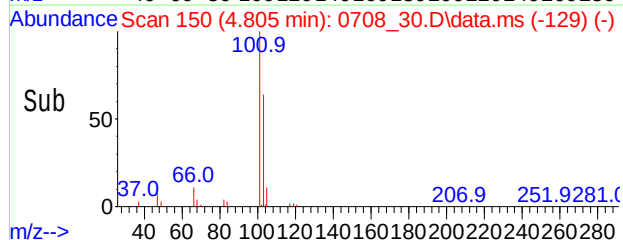
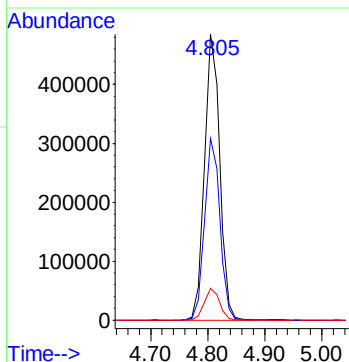
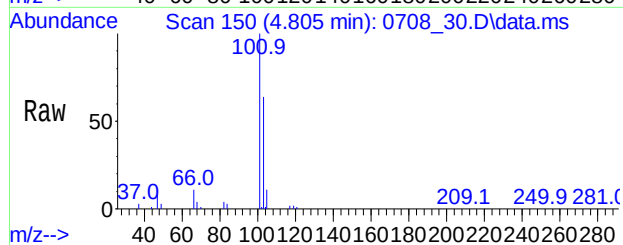
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	410709		
58	27.6	16.2	24.2#	





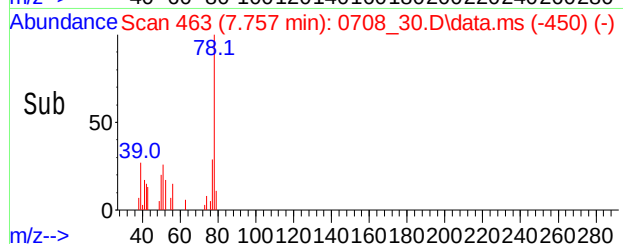
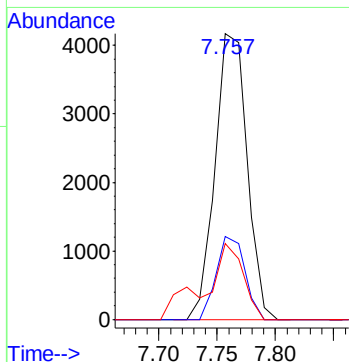
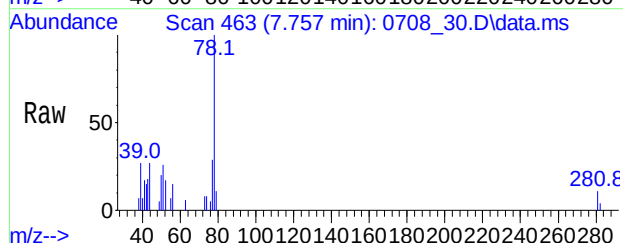
#5
Trichlorofluoromethane
Conc: 8\$ 8.120 ppbv
RT: 4.805 min Scan# 150
Delta R.T. 0.022 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

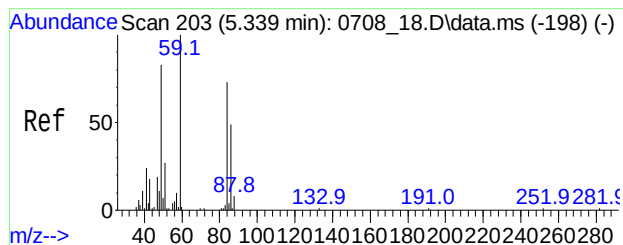
Tgt Ion	Ratio	Resp	Lower	Upper
101	100	895474		
103	63.8	49.0	73.6	
66	11.1	10.7	16.1	



#13
Benzene
Conc: 8\$ 0.083 ppbv
RT: 7.757 min Scan# 463
Delta R.T. 0.011 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

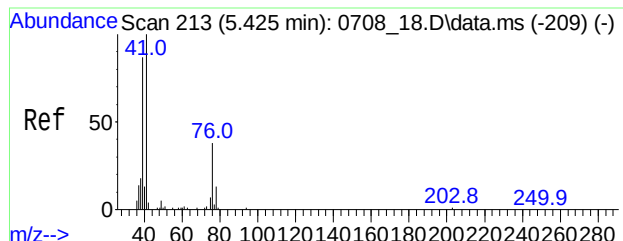
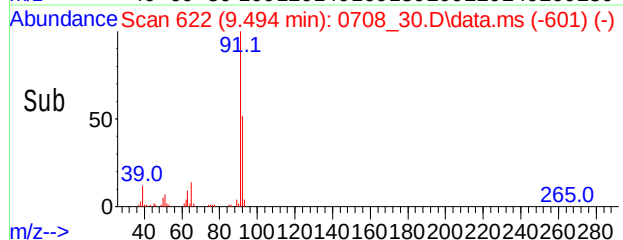
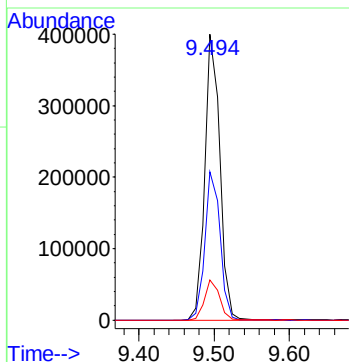
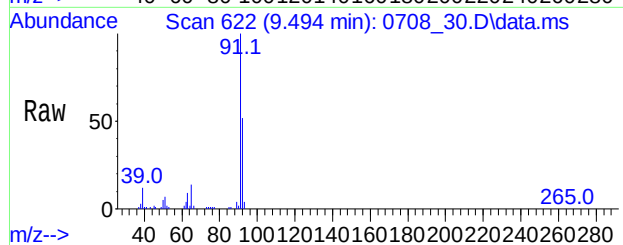
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	7957		
77	25.9	18.6	28.0	
51	32.0	13.9	20.9	





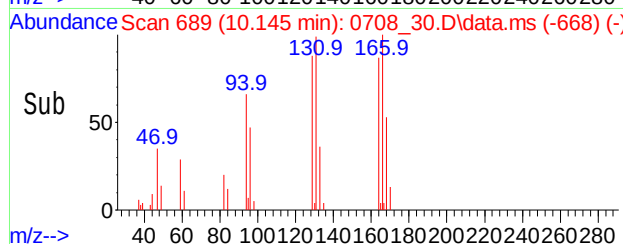
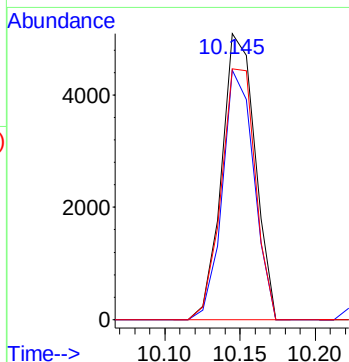
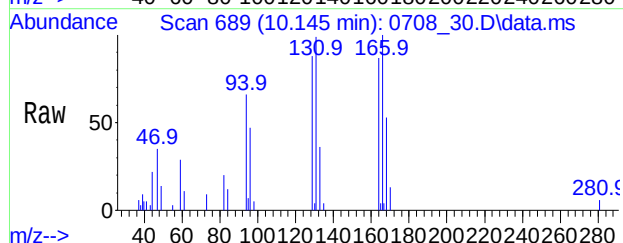
#18
Toluene
Conc: 8\$ 5.449 ppbv
RT: 9.494 min Scan# 622
Delta R.T. 0.000 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

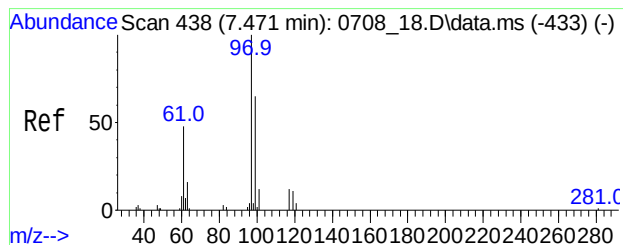
Tgt Ion: 91 Resp: 555381
Ion Ratio Lower Upper
91 100
92 52.8 40.9 61.3
65 14.1 11.7 17.5



#19
Tetrachloroethene
Conc: 8\$ 0.167 ppbv
RT: 10.145 min Scan# 689
Delta R.T. -0.000 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

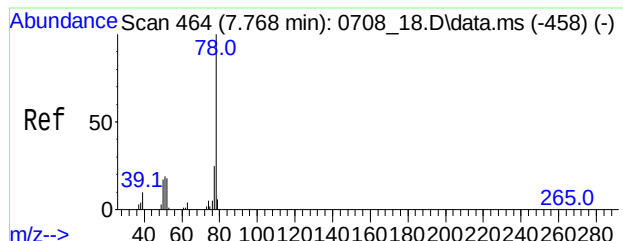
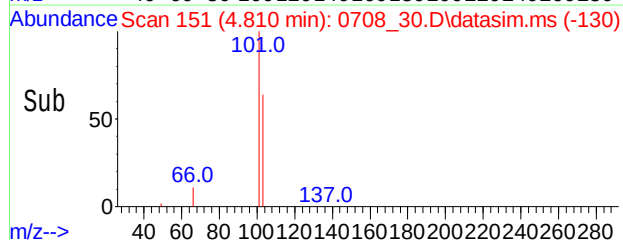
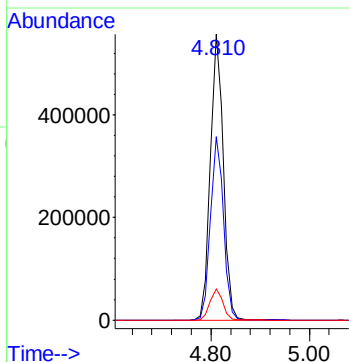
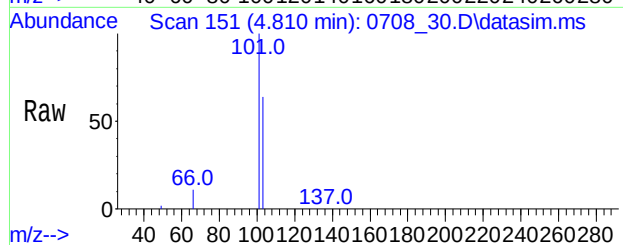
Tgt Ion: 166 Resp: 7926
Ion Ratio Lower Upper
166 100
164 82.3 56.0 84.0
129 89.4 64.2 96.4





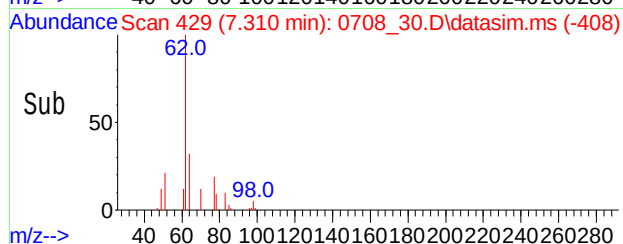
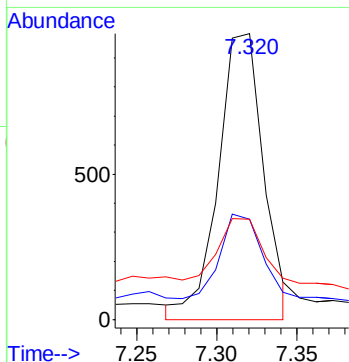
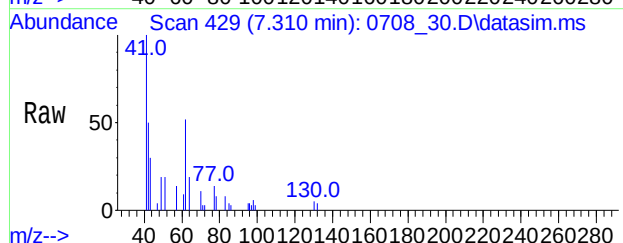
#32
Trichlorofluoromethane(sim)
Conc: 8\$ 7.565 ppbv
RT: 4.810 min Scan# 151
Delta R.T. 0.021 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

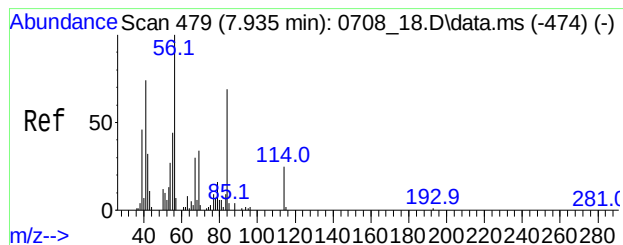
Tgt Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.2	76.8
66	10.9	11.1	11.1#



#33
1,2-Dichloroethane(sim)
Conc: 8\$ 0.024 ppbv
RT: 7.315 min Scan# 429
Delta R.T. 0.021 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

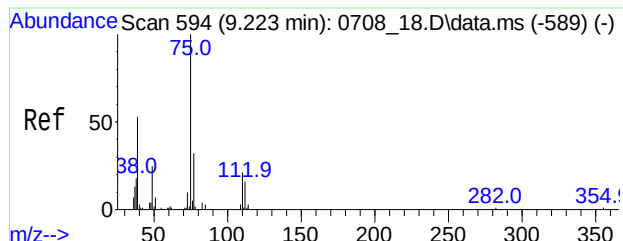
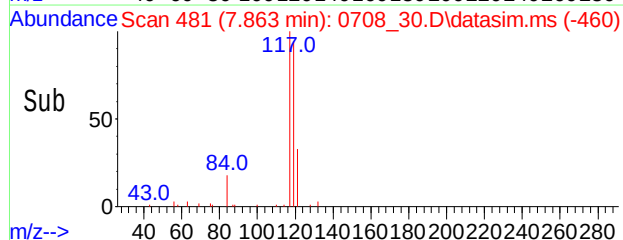
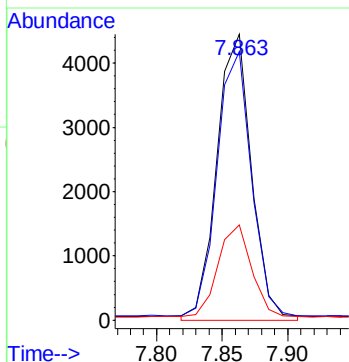
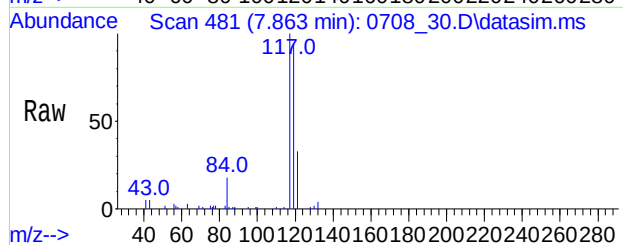
Tgt Ion	Ratio	Lower	Upper
62	100		
64	36.8	19.6	29.4#
49	27.3	28.5	42.7#





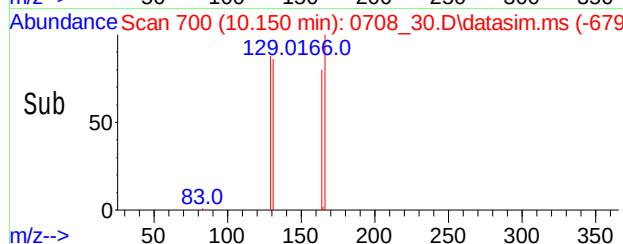
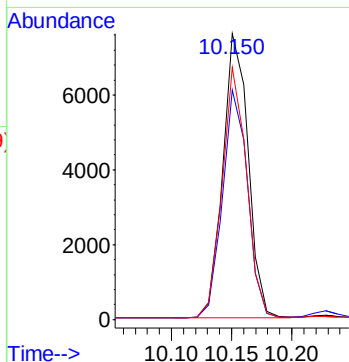
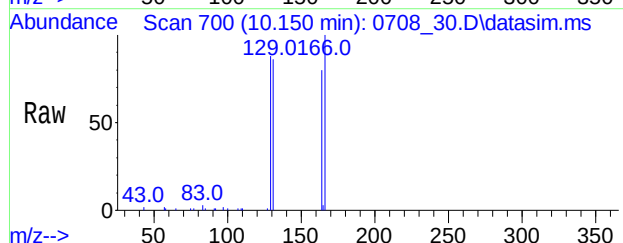
#35
Carbon Tetrachloride(sim)
Conc: 8\$ 0.077 ppbv
RT: 7.857 min Scan# 481
Delta R.T. 0.022 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

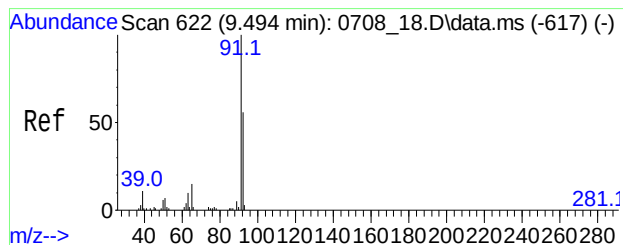
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	6464		
119	95.1	85.7	128.5	
121	30.1	21.8	32.6	



#46
Tetrachloroethene(sim)
Conc: 8\$ 0.279 ppbv
RT: 10.150 min Scan# 700
Delta R.T. 0.005 min
Lab File: 0708_30.D
Acq: 9 Jul 2020 4:44 am

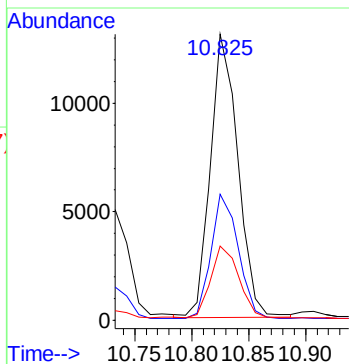
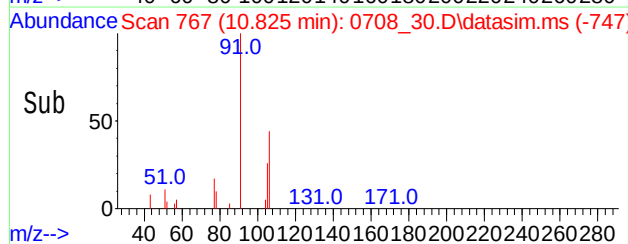
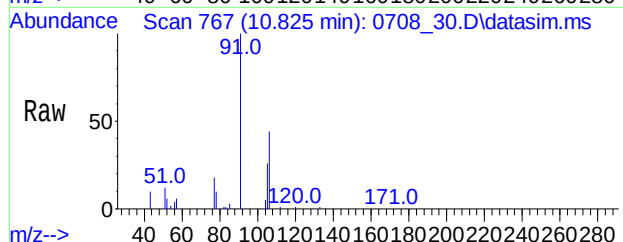
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	11097		
164	79.1	50.0	90.0	
129	84.8	60.3	100.3	





#48
 m,p-Xylene(sim)
 Conc: 8\$ 0.243 ppbv
 RT: 10.825 min Scan# 767
 Delta R.T. -0.000 min
 Lab File: 0708_30.D
 Acq: 9 Jul 2020 4:44 am

Tgt	Ion: 91	Resp:	21976
Ion	Ratio	Lower	Upper
91	100		
106	43.2	41.1	50.3
105	26.3	21.7	32.5



Data Path : H:\AIR2020\CHEM20\07JUL\08\
 Data File : 0708_23.D
 Acq On : 9 Jul 2020 12:03 am
 Operator :
 Client ID : CG29882 BLANK
 Lab ID : CG29882 BLANK
 ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 13 14:59:29 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
 Quant Title : VOA Standards for 5 point calibration
 Qlast Update : Thu Jul 09 13:17:19 2020
 Response via : Initial Calibration

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

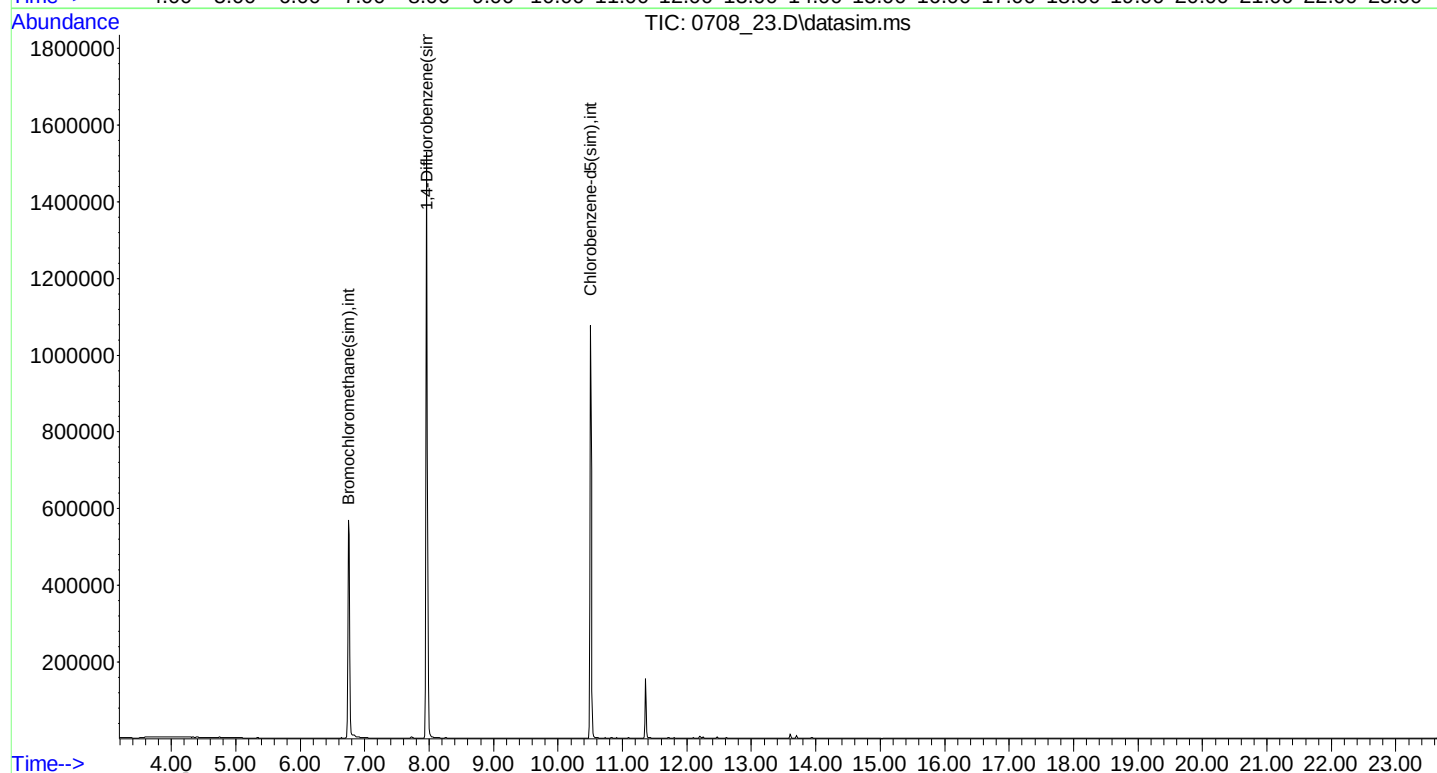
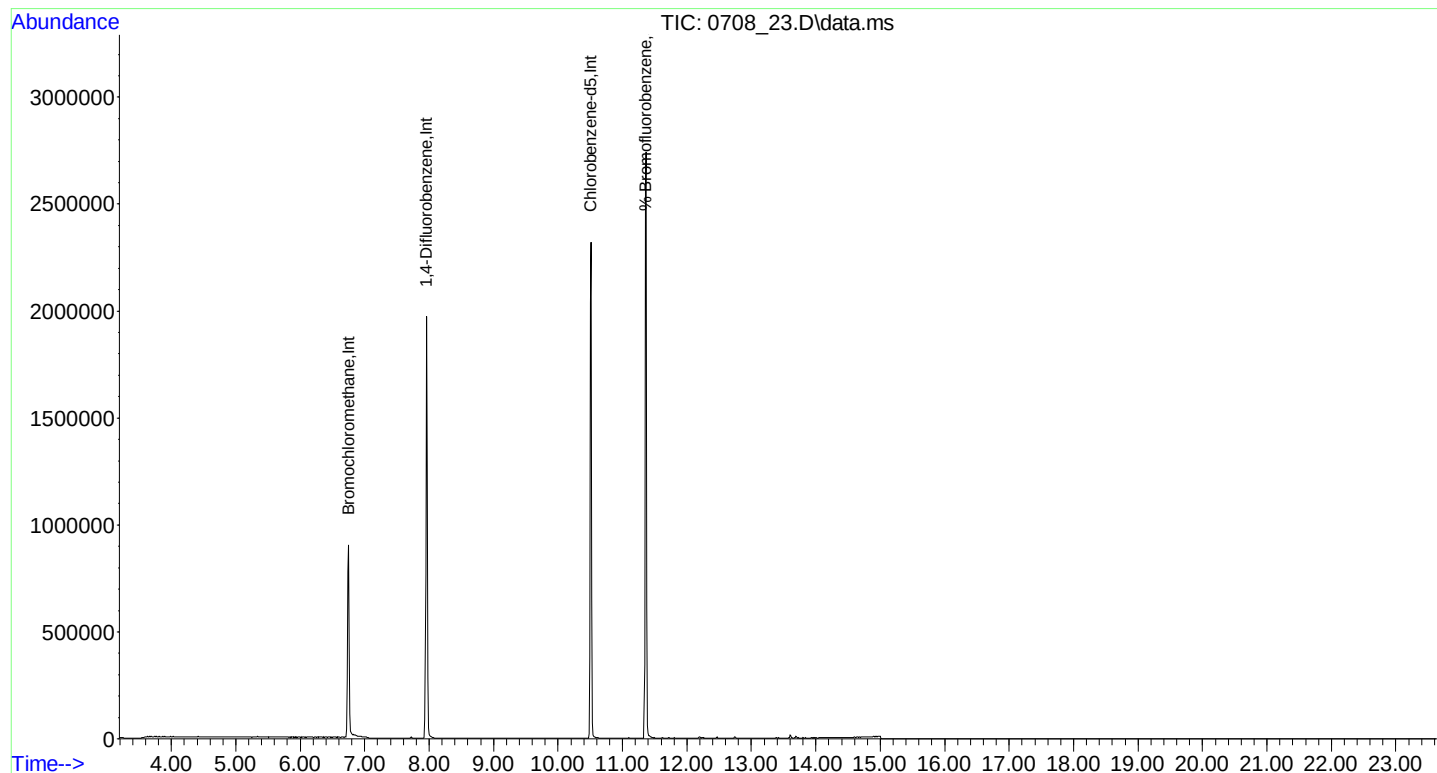
Internal Standards						
1) Bromochloromethane	6.752	130	320188	10.000	ng	0.00
15) 1,4-Difluorobenzene	7.957	114	1168285	10.000	ng	0.00
20) Chlorobenzene-d5	10.512	82	664144	10.000	ng	0.00
30) Bromochloromethane(sim)	6.758	130	362910	10.000	ng	# 0.01
41) 1,4-Difluorobenzene(sim)	7.957	114	1168285	10.000	ng	0.00
47) Chlorobenzene-d5(sim)	10.512	82	664144	10.000	ng	0.00
System Monitoring Compounds						
25) % Bromofluorobenzene	11.362	95	842971	9.244	ppbv	0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.40%

Target Compounds	Qvalue

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\07JUL\08\
Data File : 0708_23.D
Acq On : 9 Jul 2020 12:03 am
Operator :
Client ID : CG29882 BLANK
Lab ID : CG29882 BLANK
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Oct 13 14:59:29 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0708_wal.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Thu Jul 09 13:17:19 2020
Response via : Initial Calibration



CANISTER BLK 495

ppbv

R

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Data Path : H:\AIR2020\CHEM20\05MAY\10\
Data File : 0510_27.D
Acq On : 11 May 2020 12:37 pm
Operator :
Client ID : CANISTER BLK 495
Lab ID : CANISTER BLK 495
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 11 13:01:59 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Mon May 11 08:38:18 2020
Response via : Initial Calibration

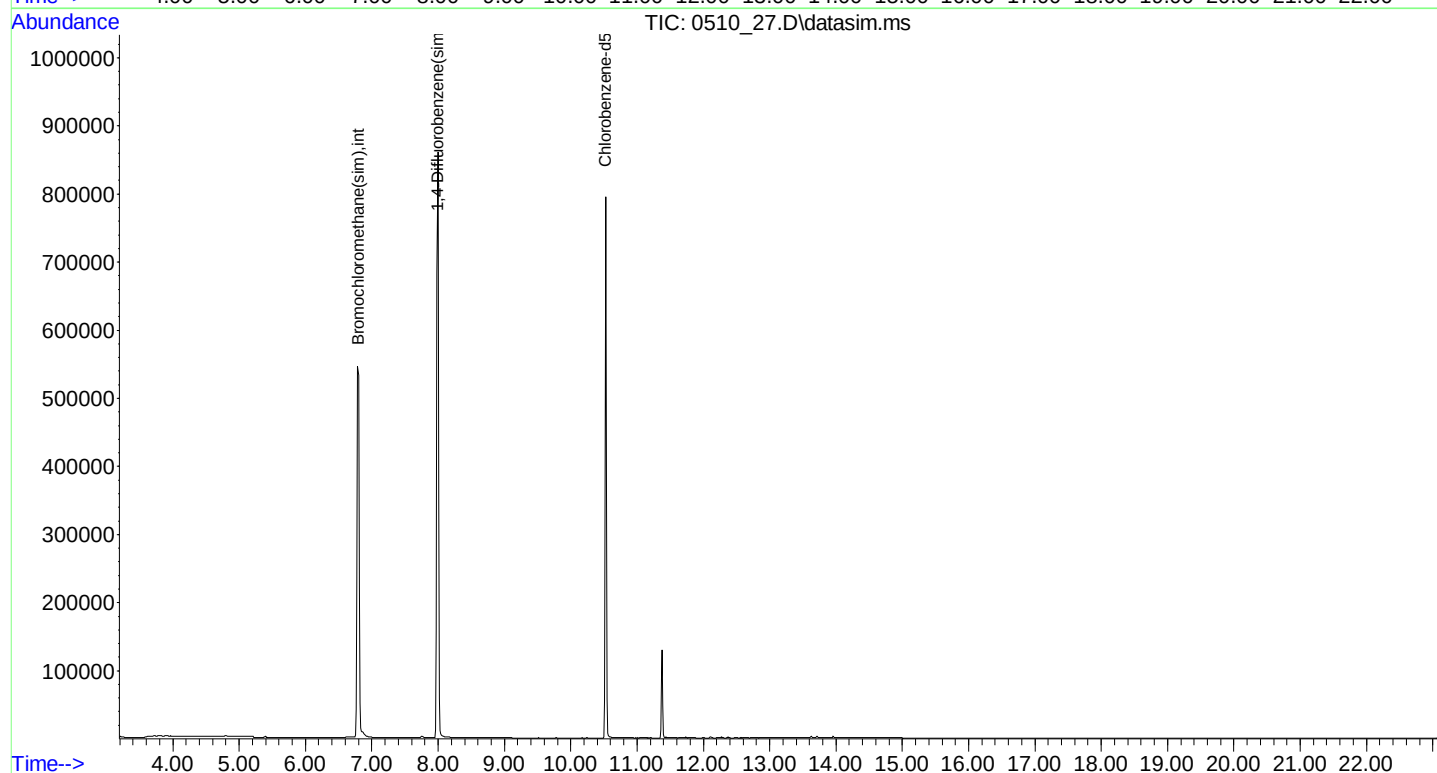
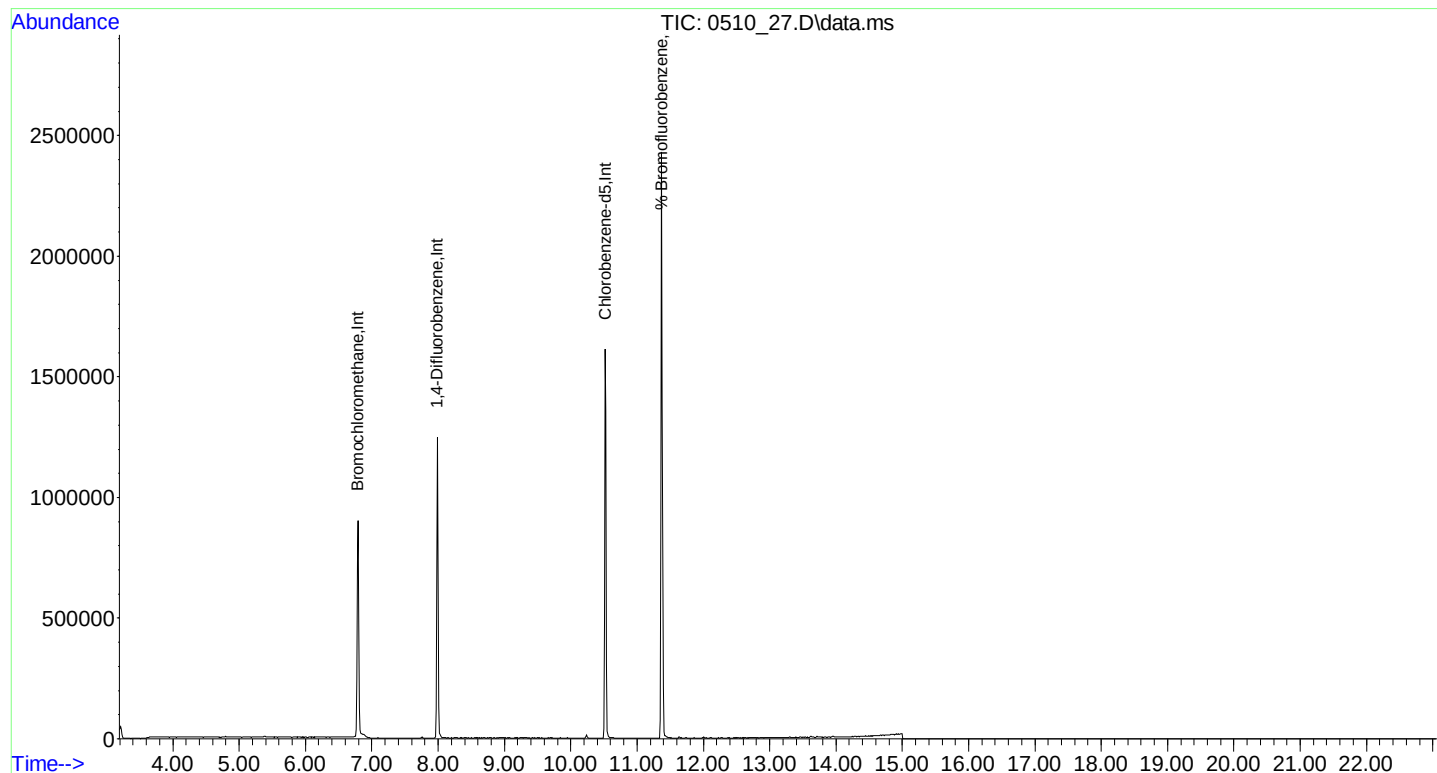
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.793	130	261990	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.990	114	672205	10.000	ng	0.00
53) Chlorobenzene-d5	10.521	82	382731	10.000	ng	0.00
80) Bromochloromethane(sim)	6.798	130	288994	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.996	114	770152	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.527	82	415419	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.372	95	521553	10.082	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.80%

Target Compounds	Qvalue
------------------	--------

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\05MAY\10\
Data File : 0510_27.D
Acq On : 11 May 2020 12:37 pm
Operator :
Client ID : CANISTER BLK 495
Lab ID : CANISTER BLK 495
ALS Vial : 28 Sample Multiplier: 1

Quant Time: May 11 13:01:59 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Mon May 11 08:38:18 2020
Response via : Initial Calibration



CANISTER BLK 12864

ppbv

CAS NO.

COMPOUND

CONC.

Q

MDL

PQL

R

Data Path : H:\AIR2020\CHEM20\05MAY\18\
 Data File : 0518_11.D
 Acq On : 18 May 2020 8:47 pm
 Operator :
 Client ID : CANISTER BLK 12864
 Lab ID : CANISTER BLK 12864
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 19 08:12:14 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Mon May 11 08:38:18 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.780	130	302741	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.987	114	885988	10.000	ng	0.00
53) Chlorobenzene-d5	10.528	82	514793	10.000	ng	0.00
80) Bromochloromethane(sim)	6.785	130	334823	10.000	ng	#-0.01
94) 1,4-Difluorobenzene(sim)	7.982	114	1007066	10.000	ng	-0.01
104) Chlorobenzene-d5(sim)	10.524	82	564190	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.369	95	709002	10.189	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.90%

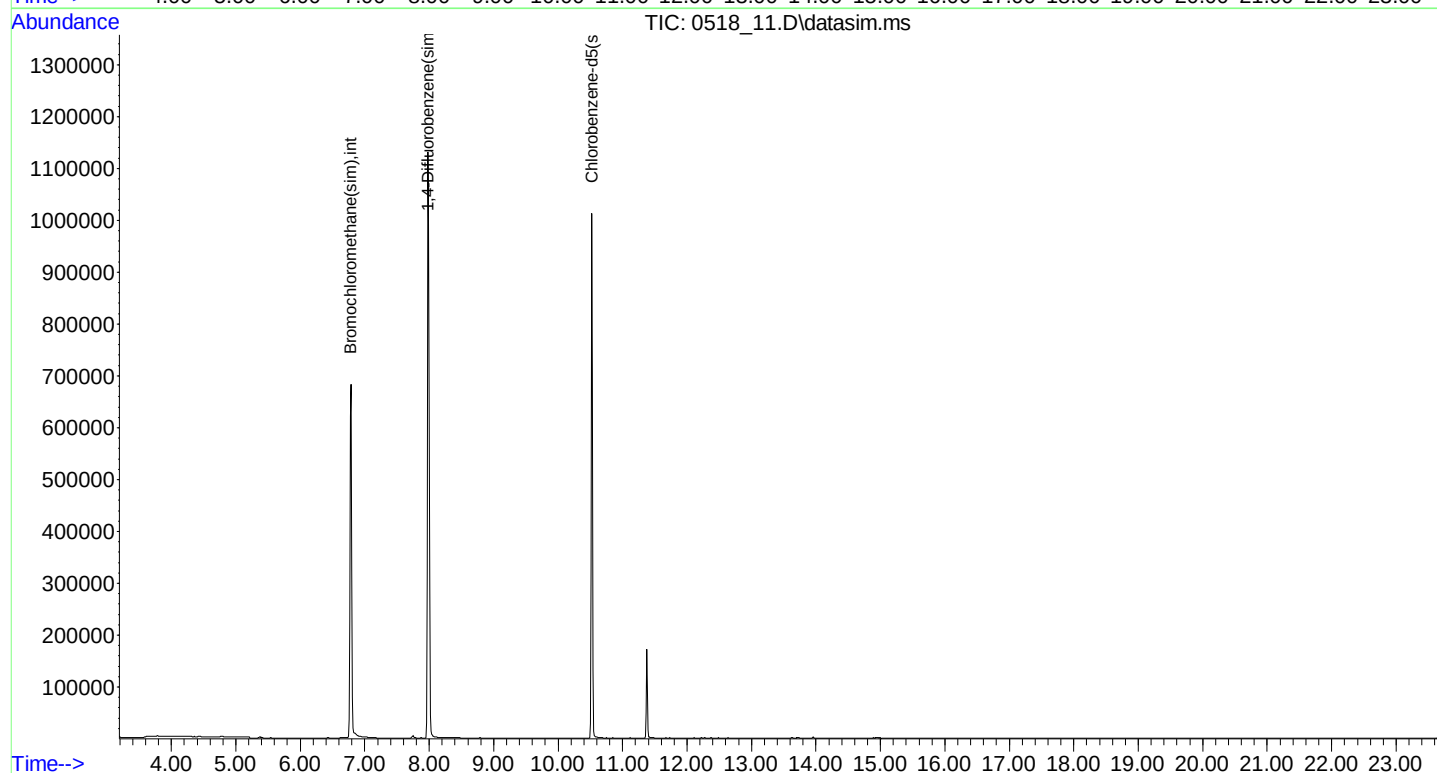
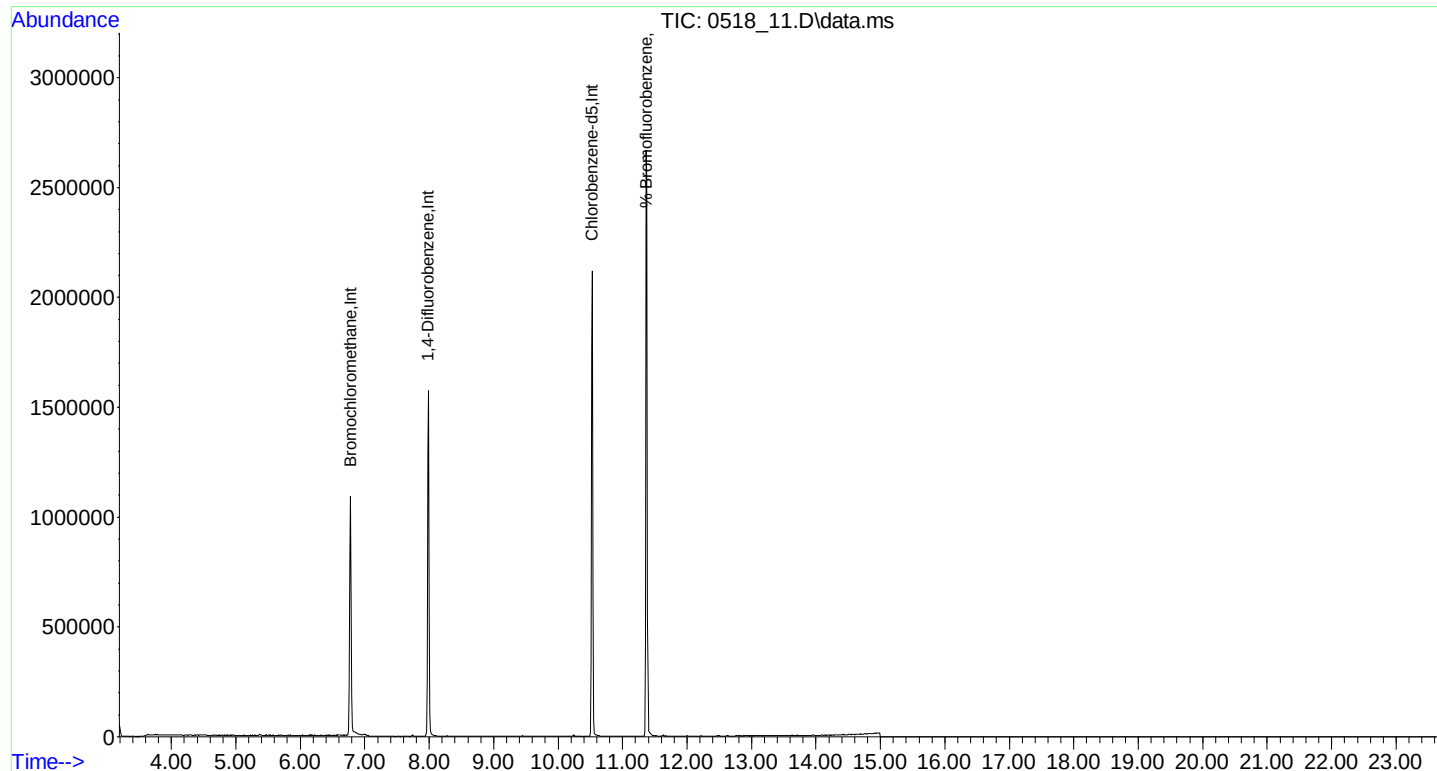
Target Compounds	Qvalue

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\05MAY\18\
 Data File : 0518_11.D
 Acq On : 18 May 2020 8:47 pm
 Operator :
 Client ID : CANISTER BLK 12864
 Lab ID : CANISTER BLK 12864
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 19 08:12:14 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Mon May 11 08:38:18 2020
 Response via : Initial Calibration



Data Path : H:\AIR2020\CHEM20\05MAY\10\
 Data File : 0510_28.D
 Acq On : 11 May 2020 1:16 pm
 Operator :
 Client ID : CANISTER BLK 23346
 Lab ID : CANISTER BLK 23346
 ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 11 14:43:20 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Mon May 11 08:38:18 2020
 Response via : Initial Calibration

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

Internal Standards						
1) Bromochloromethane	6.782	130	273317	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.990	114	684637	10.000	ng	0.00
53) Chlorobenzene-d5	10.521	82	383949	10.000	ng	0.00
80) Bromochloromethane(sim)	6.788	130	295695	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.995	114	786365	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.527	82	426754	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.372	95	527094	10.157	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.60%

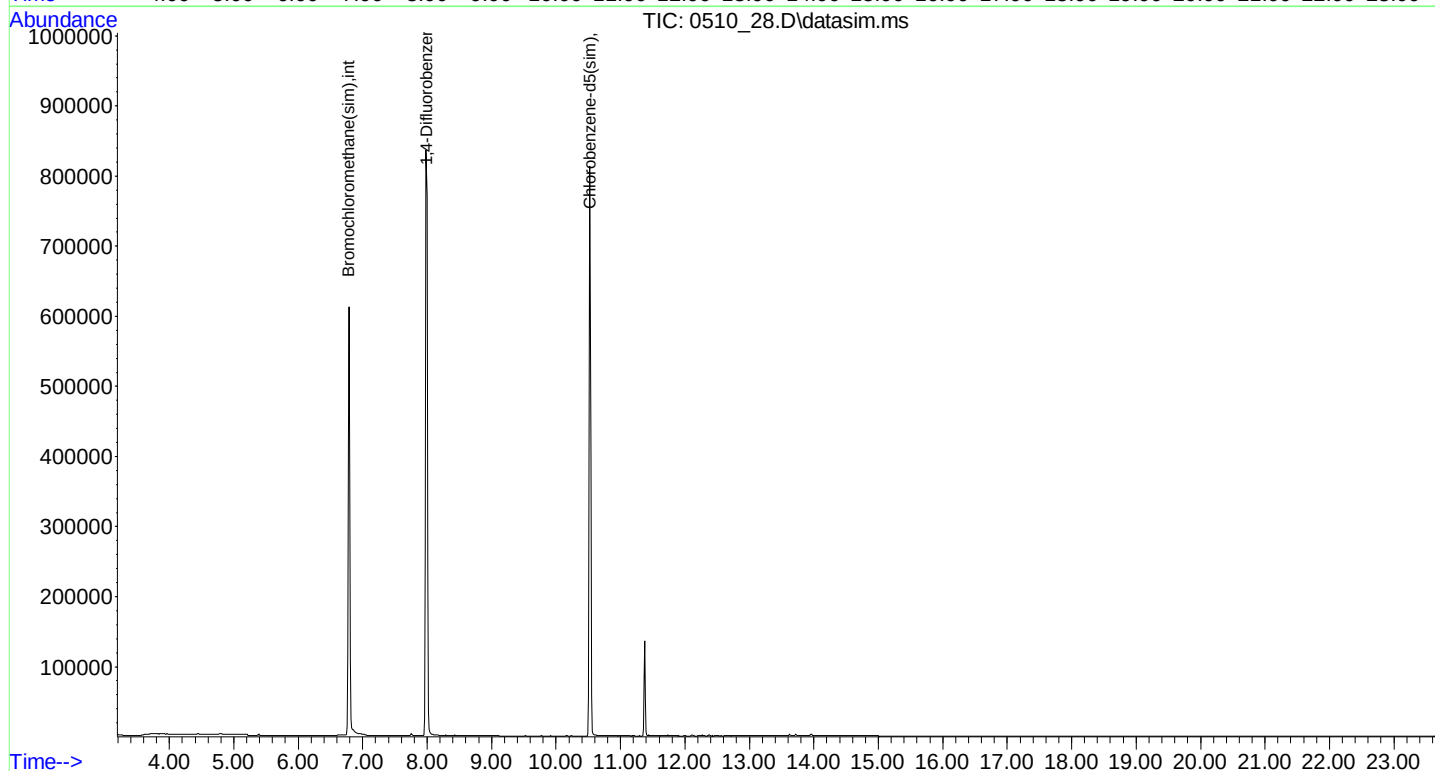
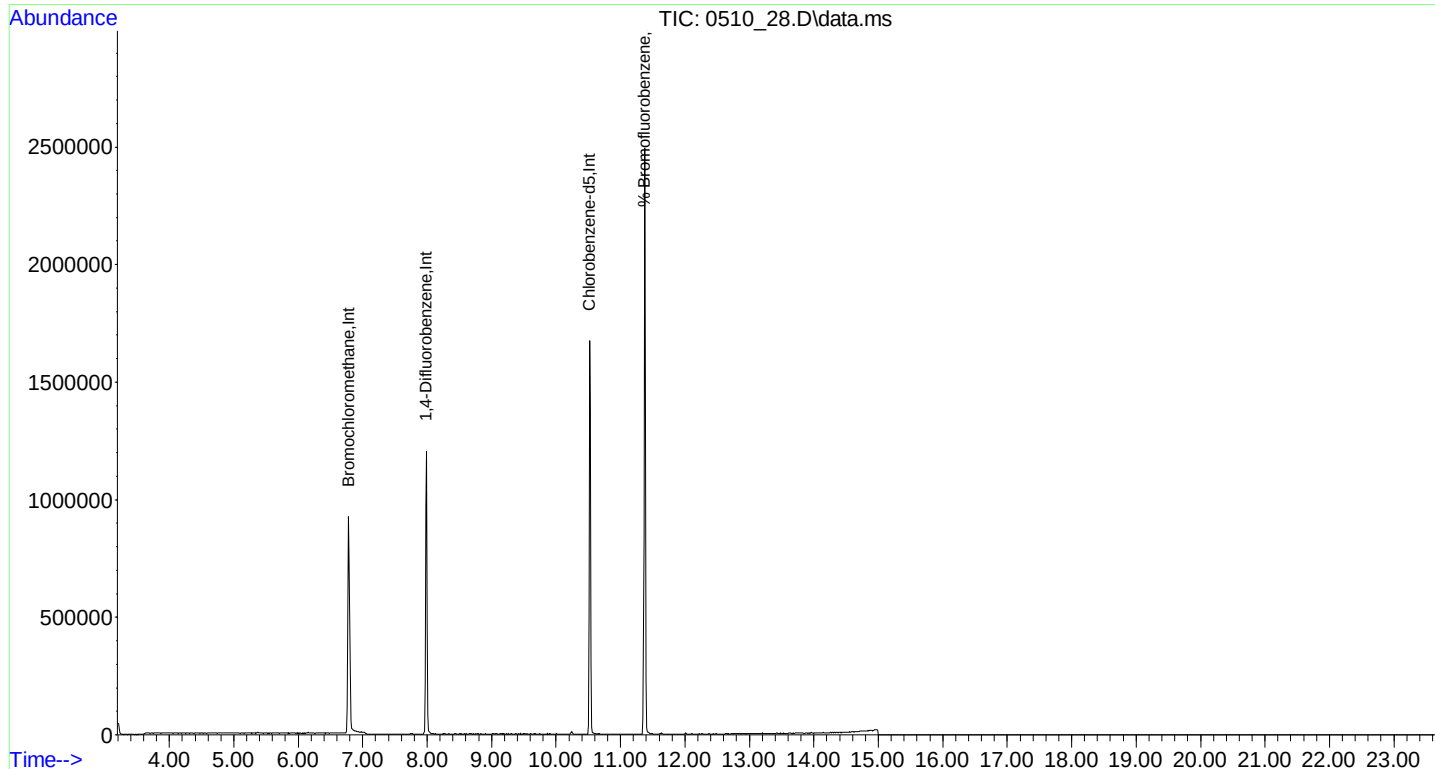
Target Compounds	Qvalue

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

(QT Reviewed)

Data Path : H:\AIR2020\CHEM20\05MAY\10\
Data File : 0510_28.D
Acq On : 11 May 2020 1:16 pm
Operator :
Client ID : CANISTER BLK 23346
Lab ID : CANISTER BLK 23346
ALS Vial : 29 Sample Multiplier: 1

Quant Time: May 11 14:43:20 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Mon May 11 08:38:18 2020
Response via : Initial Calibration



CANISTER BLK 23350

ppbv

CAS NO.

COMPOUND

CONC.

Q

MDL

PQL

R

Data Path : H:\AIR2020\CHEM20\05MAY\18\
 Data File : 0518_07.D
 Acq On : 18 May 2020 4:35 pm
 Operator :
 Client ID : CANISTER BLK 23350
 Lab ID : CANISTER BLK 23350
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 19 08:11:46 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
 Quant Title : VOA Standards for 5 point calibration
 QLast Update : Mon May 11 08:38:18 2020
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.780	130	301541	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.987	114	905363	10.000	ng	0.00
53) Chlorobenzene-d5	10.528	82	515949	10.000	ng	0.00
80) Bromochloromethane(sim)	6.785	130	330769	10.000	ng	#-0.01
94) 1,4-Difluorobenzene(sim)	7.993	114	1027967	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.524	82	567462	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.369	95	692866	9.935	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.40%

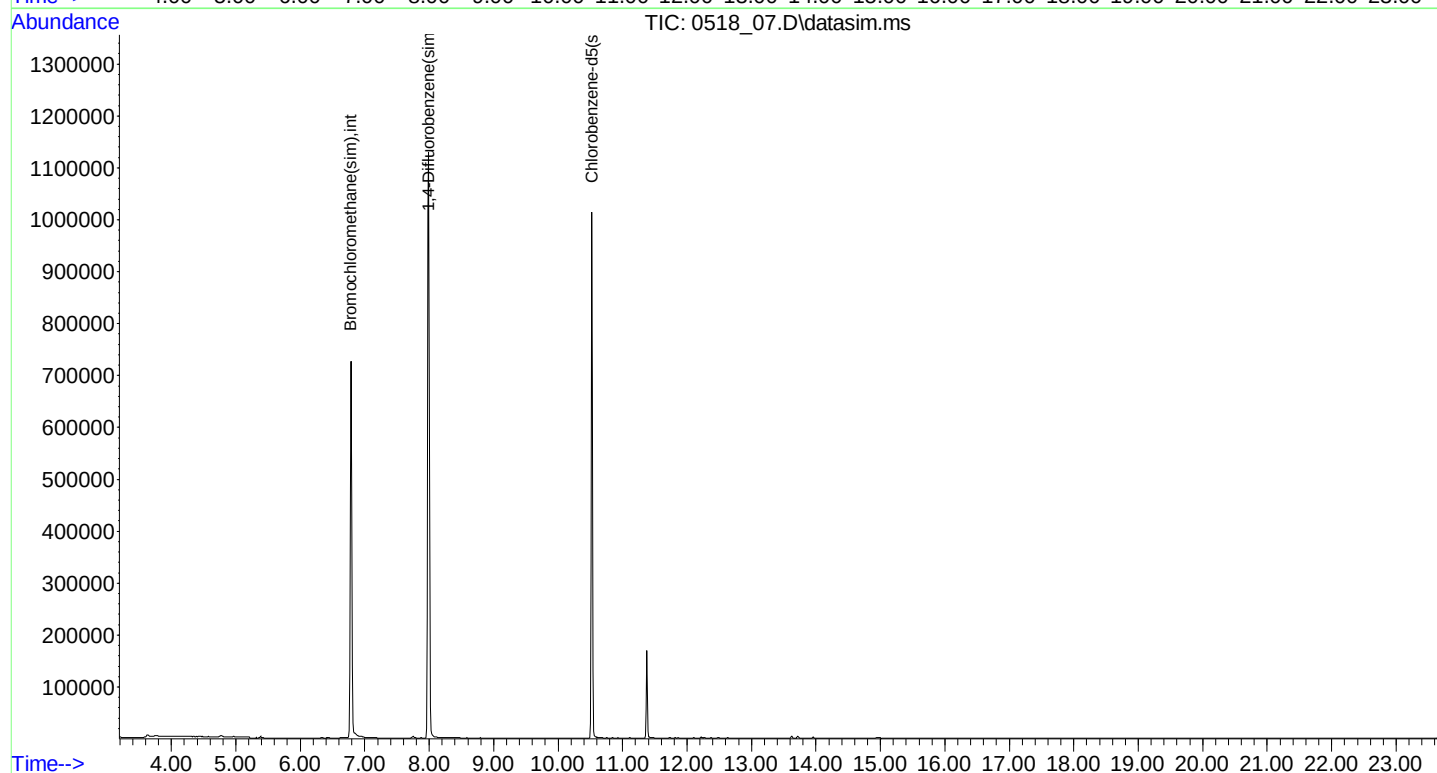
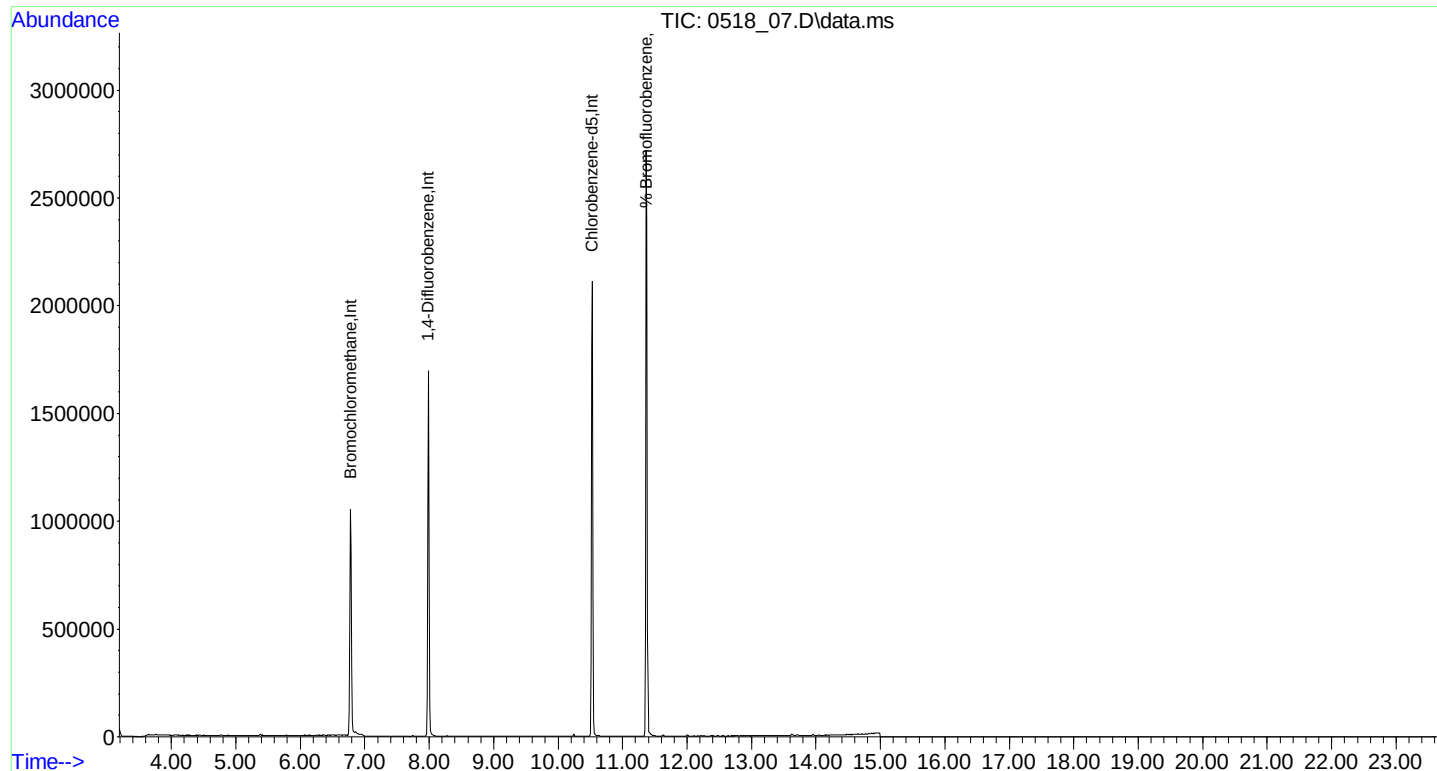
Target Compounds	Qvalue

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\05MAY\18\
 Data File : 0518_07.D
 Acq On : 18 May 2020 4:35 pm
 Operator :
 Client ID : CANISTER BLK 23350
 Lab ID : CANISTER BLK 23350
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 19 08:11:46 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0510.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Mon May 11 08:38:18 2020
 Response via : Initial Calibration



Client:	WALDENE-IPARK	Lab:	Phoenix Env. Labs
SDG No.:	GCG29884	Lab Sample ID:	CANISTER BLK 28571
Canister:	CANBL	Lab File ID:	0504_18.D
Instrument:	CHEM20	Column:	
Purge Volume	200 (cc)	Date Received:	
		Date Analyzed:	05/14/20
Matrix:	AIR	Dilution Factor:	1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

[illegible]

FORM I AIR

r=Result Reported U=Not Detected D=Reported Dilution E/J=Estimated Value X=Not Used S=Lab Solvent

Data Path : H:\AIR2020\CHEM20\05MAY\04\
Data File : 0504_18.D
Acq On : 5 May 2020 9:38 am
Operator :
Client ID : CANISTER BLK 28571
Lab ID : CANISTER BLK 28571
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 06 10:47:45 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0407.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Apr 08 16:16:46 2020
Response via : Initial Calibration

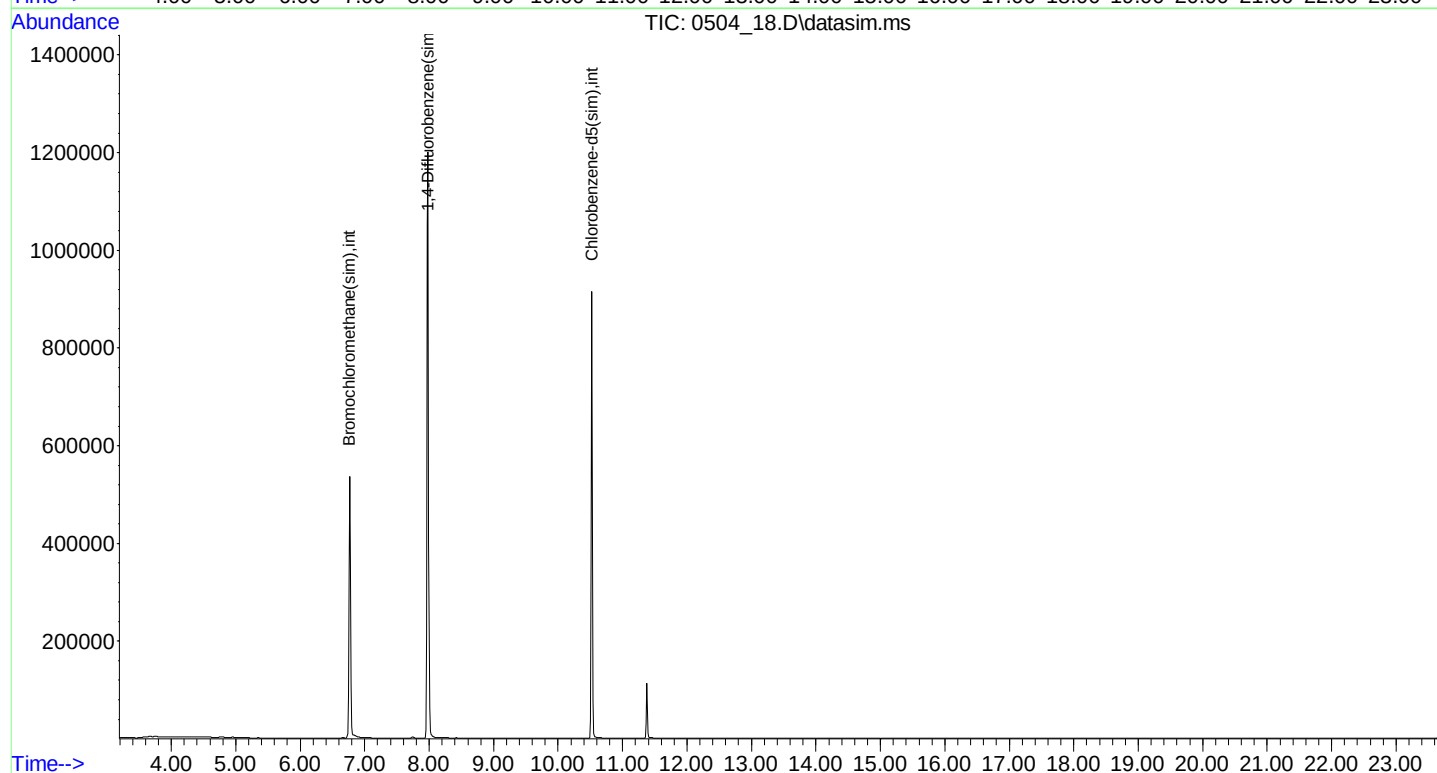
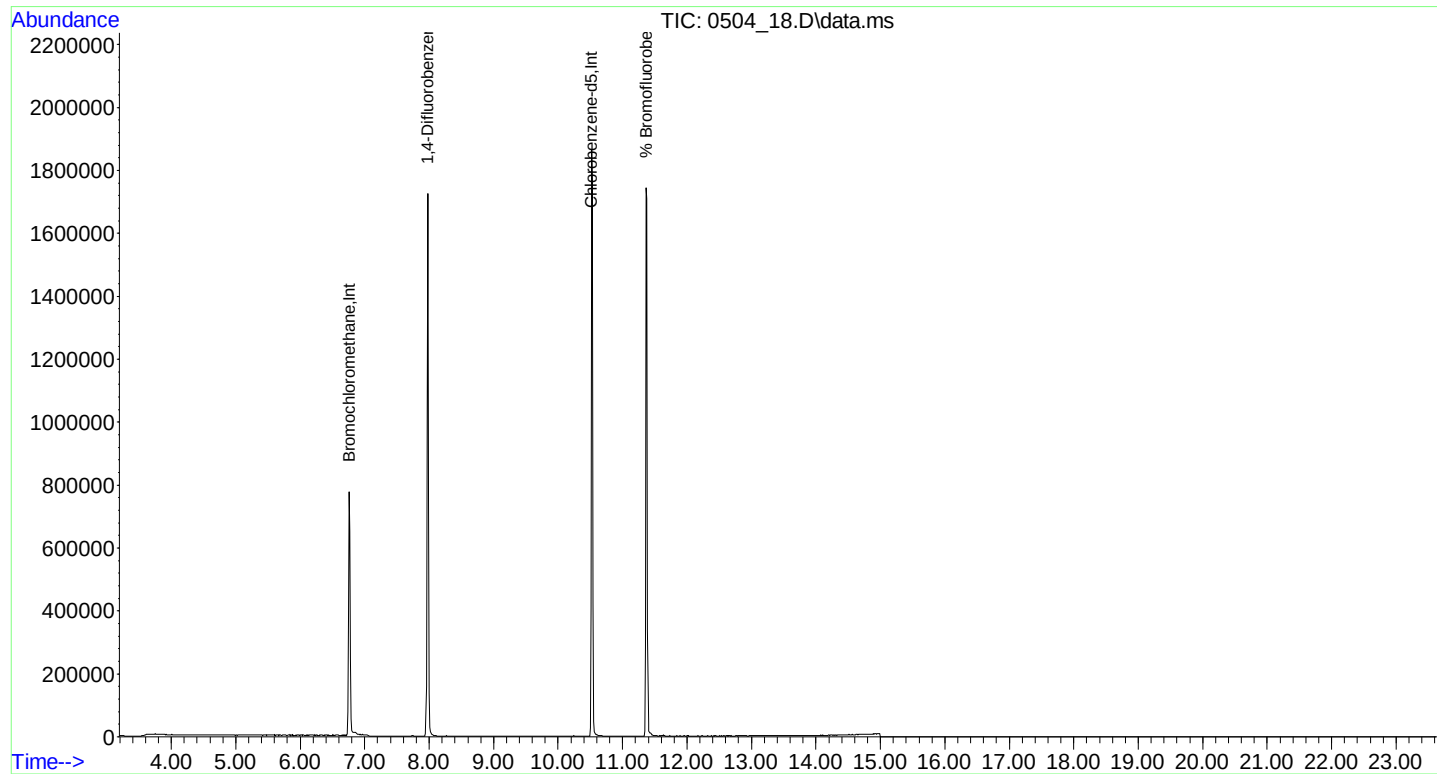
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.759	130	245324	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.976	114	981450	10.000	ng	0.00
53) Chlorobenzene-d5	10.518	82	491943	10.000	ng	-0.01
80) Bromochloromethane(sim)	6.765	130	254180	10.000	ng	#-0.01
94) 1,4-Difluorobenzene(sim)	7.982	114	1134247	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.524	82	540080	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.369	95	523248	8.603	ppbv	-0.01
Spiked Amount	10.000	Range	70 - 130	Recovery	=	86.00%

Target Compounds	Qvalue
------------------	--------

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM20\05MAY\04\
Data File : 0504_18.D
Acq On : 5 May 2020 9:38 am
Operator :
Client ID : CANISTER BLK 28571
Lab ID : CANISTER BLK 28571
ALS Vial : 22 Sample Multiplier: 1

Quant Time: May 06 10:47:45 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0407.M
Quant Title : VOA Standards for 5 point calibration
Last Update : Wed Apr 08 16:16:46 2020
Response via : Initial Calibration



Data Path : H:\AIR2020\CHEM20\06JUN\24\
Data File : 0624_18.D
Acq On : 24 Jun 2020 10:37 pm
Operator :
Client ID : CANISTER BLK 28583
Lab ID : CANISTER BLK 28583
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jun 25 09:17:41 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0615.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Mon Jun 15 14:41:22 2020
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.738	130	227352	10.000	ng	-0.02
36) 1,4-Difluorobenzene	7.954	114	871472	10.000	ng	-0.01
53) Chlorobenzene-d5	10.508	82	486285	10.000	ng	-0.01
80) Bromochloromethane(sim)	6.744	130	249660	10.000	ng	#-0.02
94) 1,4-Difluorobenzene(sim)	7.960	114	1021820	10.000	ng	-0.01
104) Chlorobenzene-d5(sim)	10.513	82	537371	10.000	ng	0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.358	95	613813	9.365	ppbv	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.60%

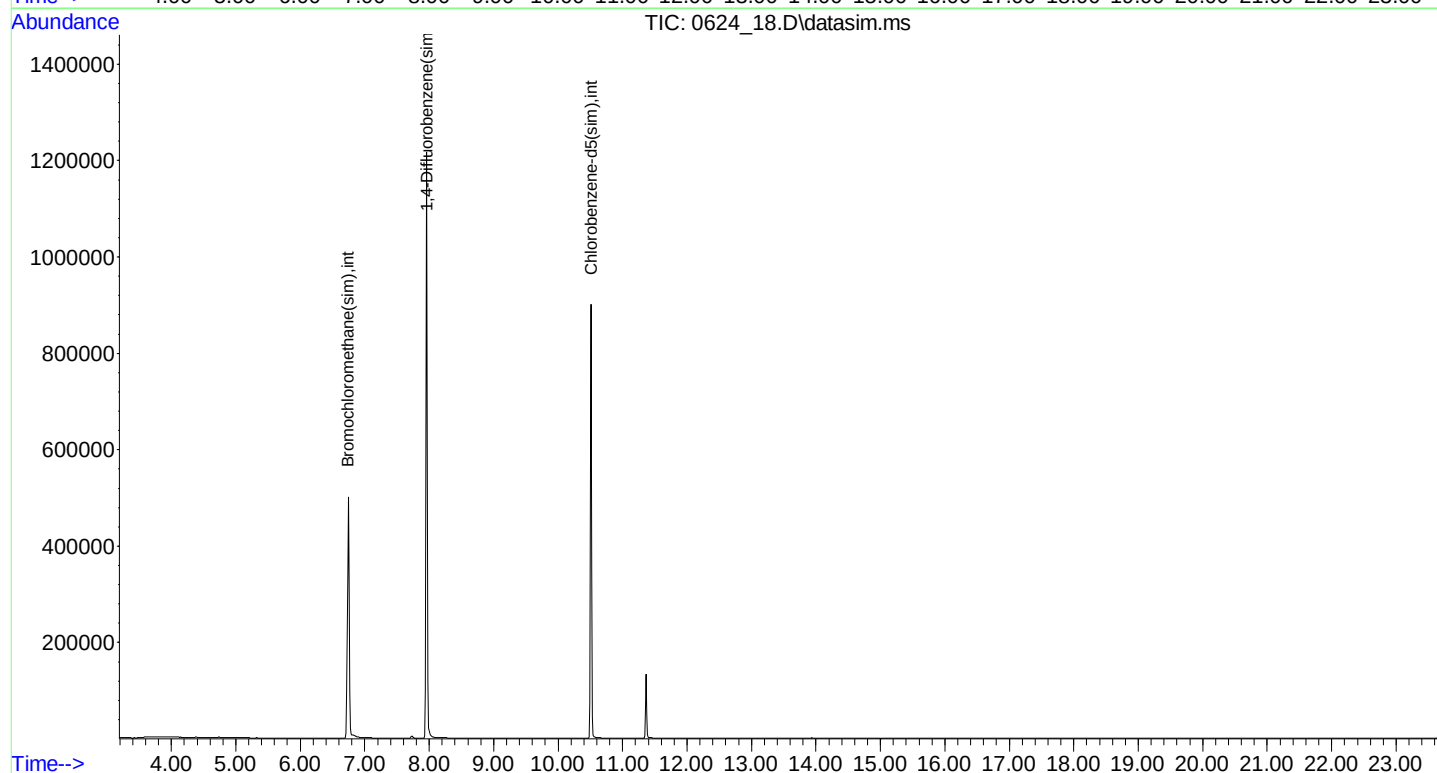
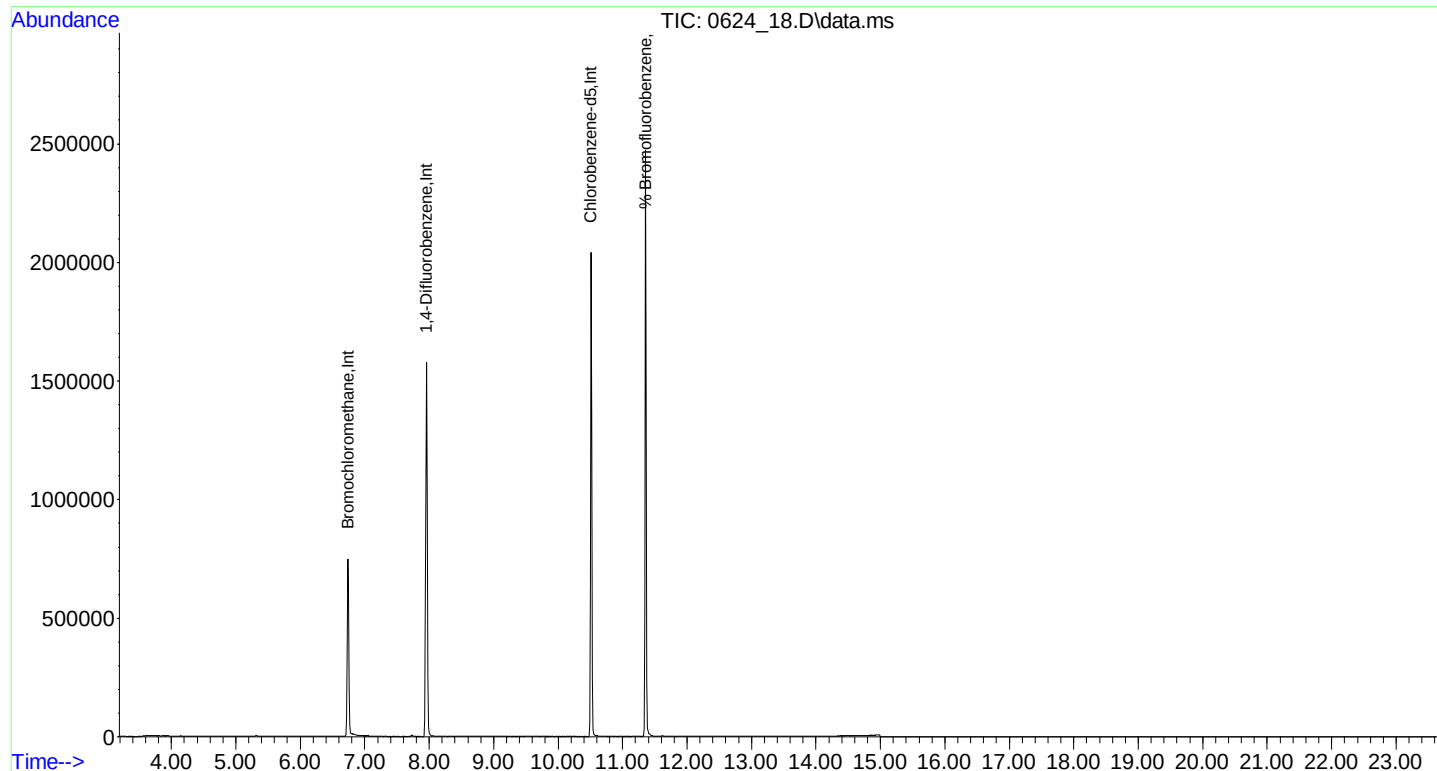
Target Compounds	Qvalue
------------------	--------

(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\06JUN\24\
 Data File : 0624_18.D
 Acq On : 24 Jun 2020 10:37 pm
 Operator :
 Client ID : CANISTER BLK 28583
 Lab ID : CANISTER BLK 28583
 ALS Vial : 46 Sample Multiplier: 1

Quant Time: Jun 25 09:17:41 2020
 Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0615.M
 Quant Title : VOA Standards for 5 point calibration
 Last Update : Mon Jun 15 14:41:22 2020
 Response via : Initial Calibration



Injection Log

Data Directory: H:\AIR2020\CHEM20\05MAY\04\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	0	0504_25.D	XXXXXXXXXX		N/A
2)	1	0504_01.D	XXXXXXXXXX		05/04/20 22:27
3)	6	0504_02.D	XXXXXXXXXX		05/04/20 23:04
4)	6	0504_03.D	XXXXXXXXXX		05/04/20 23:41
5)	7	0504_04.D	XXXXXXXXXX		05/05/20 0:20
6)	8	0504_05.D	XXXXXXXXXX		05/05/20 0:55
7)	9	0504_06.D	XXXXXXXXXX		05/05/20 1:43
8)	11	0504_07.D	XXXXXXXXXX		05/05/20 2:23
9)	12	0504_08.D	XXXXXXXXXX		05/05/20 3:02
10)	13	0504_09.D	XXXXXXXXXX		05/05/20 3:42
11)	14	0504_10.D	XXXXXXXXXX		05/05/20 4:22
12)	15	0504_11.D	XXXXXXXXXX		05/05/20 5:01
13)	16	0504_12.D	XXXXXXXXXX		05/05/20 5:41
14)	17	0504_13.D	XXXXXXXXXX		05/05/20 6:20
15)	18	0504_14.D	XXXXXXXXXX		05/05/20 7:00
16)	19	0504_15.D	XXXXXXXXXX		05/05/20 7:40
17)	20	0504_16.D	XXXXXXXXXX		05/05/20 8:19
18)	21	0504_17.D	XXXXXXXXXX		05/05/20 8:58
19)	22	0504_18.D	CANISTER BLK 28571	CANISTER BLK 28571	05/05/20 9:38
20)	23	0504_19.D	XXXXXXXXXX		05/05/20 10:13
21)	24	0504_20.D	XXXXXXXXXX		05/05/20 10:51
22)	25	0504_21.D	XXXXXXXXXX		05/05/20 11:28
23)	28	0504_22.D	XXXXXXXXXX		05/05/20 12:07
24)	29	0504_23.D	XXXXXXXXXX		05/05/20 12:42
25)	30	0504_24.D	XXXXXXXXXX		05/05/20 13:17

Injection Log

Data Directory: H:\AIR2020\CHEM20\05MAY\10\

Line	VL	FileName	SampleName	MiscInfo	Injection Time
1)	0	0511_28.D	XXXXXXXXXX		N/A
2)	3	0510_01.D	XXXXXXXXXX		05/10/20 17:24
3)	3	0510_02.D	XXXXXXXXXX		05/10/20 18:00
4)	4	0510_03.D	XXXXXXXXXX		05/10/20 18:36
5)	5	0510_04.D	XXXXXXXXXX		05/10/20 19:12
6)	6	0510_05.D	XXXXXXXXXX		05/10/20 19:48
7)	7	0510_06.D	XXXXXXXXXX		05/10/20 20:27
8)	8	0510_07.D	XXXXXXXXXX		05/10/20 21:05
9)	9	0510_08.D	XXXXXXXXXX		05/10/20 21:41
10)	10	0510_09.D	XXXXXXXXXX		05/10/20 22:19
11)	11	0510_10.D	XXXXXXXXXX		05/10/20 22:58
12)	12	0510_11.D	XXXXXXXXXX		05/10/20 23:33
13)	13	0510_12.D	XXXXXXXXXX		05/11/20 0:09
14)	14	0510_13.D	XXXXXXXXXX		05/11/20 0:46
15)	15	0510_14.D	XXXXXXXXXX		05/11/20 1:23
16)	16	0510_15.D	XXXXXXXXXX		05/11/20 2:01
17)	17	0510_16.D	XXXXXXXXXX		05/11/20 2:36
18)	18	0510_17.D	XXXXXXXXXX		05/11/20 3:10
19)	19	0510_18.D	XXXXXXXXXX		05/11/20 6:49
20)	20	0510_19.D	XXXXXXXXXX		05/11/20 7:28
21)	21	0510_20.D	XXXXXXXXXX		05/11/20 8:06
22)	22	0510_21.D	XXXXXXXXXX		05/11/20 8:45
23)	23	0510_22.D	XXXXXXXXXX		05/11/20 9:23
24)	24	0510_23.D	XXXXXXXXXX		05/11/20 10:02
25)	25	0510_24.D	XXXXXXXXXX		05/11/20 10:41
26)	26	0510_25.D	XXXXXXXXXX		05/11/20 11:20
27)	27	0510_26.D	XXXXXXXXXX		05/11/20 11:58
28)	28	0510_27.D	CANISTER BLK 495	CANISTER BLK 495	05/11/20 12:37
29)	29	0510_28.D	CANISTER BLK 23346	CANISTER BLK 23346	05/11/20 13:16
30)	30	0510_29.D	XXXXXXXXXX		05/11/20 13:54
31)	31	0510_30.D	XXXXXXXXXX		05/11/20 14:46
32)	32	0510_31.D	XXXXXXXXXX		05/11/20 15:26
33)	33	0510_32.D	XXXXXXXXXX		05/11/20 16:04
34)	34	0510_33.D	XXXXXXXXXX		05/11/20 16:44
35)	35	0510_34.D	XXXXXXXXXX		05/11/20 17:23
36)	36	0510_35.D	XXXXXXXXXX		05/11/20 18:03
37)	37	0510_36.D	XXXXXXXXXX		05/11/20 18:43
38)	38	0510_37.D	XXXXXXXXXX		05/11/20 19:22
39)	39	0510_38.D	XXXXXXXXXX		05/11/20 20:02
40)	40	0510_39.D	XXXXXXXXXX		05/12/20 0:59
41)	41	0510_40.D	XXXXXXXXXX		05/12/20 1:39
42)	42	0511_01.D	XXXXXXXXXX		05/12/20 2:16
43)	43	0511_02.D	XXXXXXXXXX		05/12/20 2:53
44)	44	0511_03.D	XXXXXXXXXX		05/12/20 3:31
45)	45	0511_04.D	XXXXXXXXXX		05/12/20 4:06
46)	46	0511_05.D	XXXXXXXXXX		05/12/20 4:40
47)	47	0511_06.D	XXXXXXXXXX		05/12/20 5:19
48)	48	0511_07.D	XXXXXXXXXX		05/12/20 5:58
49)	49	0511_08.D	XXXXXXXXXX		05/12/20 6:38
50)	50	0511_09.D	XXXXXXXXXX		05/12/20 7:17
51)	51	0511_10.D	XXXXXXXXXX		05/12/20 7:55
52)	52	0511_11.D	XXXXXXXXXX		05/12/20 8:36
53)	53	0511_12.D	XXXXXXXXXX		05/12/20 9:15
54)	54	0511_13.D	XXXXXXXXXX		05/12/20 9:55
55)	55	0511_14.D	XXXXXXXXXX		05/12/20 10:34
56)	56	0511_15.D	XXXXXXXXXX		05/12/20 11:13
57)	57	0511_16.D	XXXXXXXXXX		05/12/20 11:54
58)	58	0511_17.D	XXXXXXXXXX		05/12/20 12:36
59)	59	0511_18.D	XXXXXXXXXX		05/12/20 13:17
60)	60	0511_19.D	XXXXXXXXXX		05/12/20 14:13
61)	61	0511_20.D	XXXXXXXXXX		05/12/20 14:52
62)	62	0511_21.D	XXXXXXXXXX		05/12/20 15:31
63)	63	0511_22.D	XXXXXXXXXX		05/12/20 16:10
64)	64	0511_23.D	XXXXXXXXXX		05/12/20 16:49
65)	65	0511_24.D	XXXXXXXXXX		05/12/20 17:28
66)	66	0511_25.D	XXXXXXXXXX		05/12/20 18:07
67)	67	0511_26.D	XXXXXXXXXX		05/12/20 18:44
68)	68	0511_27.D	XXXXXXXXXX		05/12/20 19:21

Injection Log

Data Directory: H:\AIR2020\CHEM20\05MAY\18\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	0	0518_15.D	XXXXXXXXXX		N/A
2)	1	0518_01.D	XXXXXXXXXX		05/18/20 12:38
3)	6	0518_02.D	XXXXXXXXXX		05/18/20 13:15
4)	6	0518_03.D	XXXXXXXXXX		05/18/20 13:52
5)	7	0518_04.D	XXXXXXXXXX		05/18/20 14:30
6)	8	0518_05.D	XXXXXXXXXX		05/18/20 15:04
7)	9	0518_06.D	XXXXXXXXXX		05/18/20 15:39
8)	10	0518_07.D	CANISTER BLK 23350	CANISTER BLK 23350	05/18/20 16:35
9)	11	0518_08.D	XXXXXXXXXX		05/18/20 17:14
10)	12	0518_09.D	XXXXXXXXXX		05/18/20 17:53
11)	13	0518_10.D	XXXXXXXXXX		05/18/20 20:08
12)	14	0518_11.D	CANISTER BLK 12864	CANISTER BLK 12864	05/18/20 20:47
13)	15	0518_12.D	XXXXXXXXXX		05/18/20 21:26
14)	16	0518_13.D	XXXXXXXXXX		05/18/20 22:05
15)	17	0518_14.D	XXXXXXXXXX		05/18/20 22:42

Injection Log

Data Directory: H:\AIR2020\CHEM20\06JUN\24\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	33	0624_01.D	XXXXXXXXXX		06/24/20 11:28
2)	33	0624_02.D	XXXXXXXXXX		06/24/20 12:04
3)	33	0624_03.D	XXXXXXXXXX		06/24/20 12:43
4)	33	0624_04.D	XXXXXXXXXX		06/24/20 13:17
5)	33	0624_05.D	XXXXXXXXXX		06/24/20 13:52
6)	34	0624_06.D	XXXXXXXXXX		06/24/20 14:50
7)	35	0624_07.D	XXXXXXXXXX		06/24/20 15:29
8)	36	0624_08.D	XXXXXXXXXX		06/24/20 16:08
9)	37	0624_09.D	XXXXXXXXXX		06/24/20 16:47
10)	38	0624_10.D	XXXXXXXXXX		06/24/20 17:26
11)	39	0624_11.D	XXXXXXXXXX		06/24/20 18:05
12)	40	0624_12.D	XXXXXXXXXX		06/24/20 18:44
13)	41	0624_13.D	XXXXXXXXXX		06/24/20 19:23
14)	42	0624_14.D	XXXXXXXXXX		06/24/20 20:02
15)	43	0624_15.D	XXXXXXXXXX		06/24/20 20:41
16)	44	0624_16.D	XXXXXXXXXX		06/24/20 21:20
17)	45	0624_17.D	XXXXXXXXXX		06/24/20 21:59
18)	46	0624_18.D	CANISTER BLK 28583	CANISTER BLK 28583	06/24/20 22:37
19)	46	0624_19.D	XXXXXXXXXX		06/24/20 23:16
20)	47	0624_20.D	XXXXXXXXXX		06/24/20 23:55
21)	48	0624_21.D	XXXXXXXXXX		06/25/20 0:33
22)	49	0624_22.D	XXXXXXXXXX		06/25/20 1:12
23)	50	0624_23.D	XXXXXXXXXX		06/25/20 1:50
24)	51	0624_24.D	XXXXXXXXXX		06/25/20 2:27
25)	52	0624_25.D	XXXXXXXXXX		06/25/20 3:04
26)	53	0624_26.D	XXXXXXXXXX		06/25/20 3:42
27)	54	0624_27.D	XXXXXXXXXX		06/25/20 4:16
28)	55	0624_28.D	XXXXXXXXXX		06/25/20 4:50
29)	56	0624_29.D	XXXXXXXXXX		06/25/20 9:52
30)	57	0624_30.D	XXXXXXXXXX		06/25/20 10:30
31)	58	0624_31.D	XXXXXXXXXX		06/25/20 11:09
32)	59	0624_32.D	XXXXXXXXXX		06/25/20 11:48
33)	60	0624_33.D	XXXXXXXXXX		06/25/20 12:27
34)	61	0624_34.D	XXXXXXXXXX		06/25/20 13:06
35)	62	0624_35.D	XXXXXXXXXX		06/25/20 13:46
36)	63	0624_36.D	XXXXXXXXXX		06/25/20 14:25
37)	64	0624_37.D	XXXXXXXXXX		06/25/20 15:04
38)	65	0624_38.D	XXXXXXXXXX		06/25/20 15:42
39)	66	0624_39.D	XXXXXXXXXX		06/25/20 16:21
40)	67	0624_40.D	XXXXXXXXXX		06/25/20 17:00
41)	68	0624_41.D	XXXXXXXXXX		06/25/20 17:39
42)	69	0624_42.D	XXXXXXXXXX		06/25/20 18:19
43)	70	0624_43.D	XXXXXXXXXX		06/25/20 19:00
44)	71	0624_44.D	XXXXXXXXXX		06/25/20 19:39
45)	72	0624_45.D	XXXXXXXXXX		06/25/20 20:18
46)	73	0624_46.D	XXXXXXXXXX		06/25/20 20:55

Injection Log

Data Directory: H:\AIR2020\CHEM20\07JUL\08\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	0	0708_04.D	XXXXXXXXXX		N/A
2)	1	0708_01.D	XXXXXXXXXX		07/08/20 10:54
3)	6	0708_02.D	XXXXXXXXXX		07/08/20 11:31
4)	7	0708_03.D	XXXXXXXXXX		07/08/20 12:07
5)	7	0708_05.D	XXXXXXXXXX		07/08/20 13:05
6)	8	0708_06.D	BFB TUNE	0/0	07/08/20 13:40
7)	3	0708_07.D	ICAL 0.02	0.02	07/08/20 14:16
8)	4	0708_08.D	ICAL 0.035	0.035	07/08/20 14:52
9)	5	0708_09.D	ICAL 0.05	0.05	07/08/20 15:28
10)	6	0708_10.D	ICAL 0.1	0.10	07/08/20 16:04
11)	7	0708_11.D	ICAL 0.2	0.2	07/08/20 16:41
12)	8	0708_12.D	ICAL 0.5	0.50	07/08/20 17:19
13)	9	0708_13.D	ICAL 2.5	2.5	07/08/20 17:57
14)	10	0708_14.D	ICAL 5	5.0	07/08/20 18:33
15)	11	0708_15.D	ICAL 25	25	07/08/20 19:11
16)	12	0708_16.D	ICAL 40	40	07/08/20 19:51
17)	13	0708_17.D	XXXXXXXXXX		07/08/20 20:25
18)	14	0708_18.D	ICAL 1	1	07/08/20 21:02
19)	16	0708_19.D	ICAL 10	10	07/08/20 21:38
20)	17	0708_20.D	CG29882 LCS	CG29882 LCS	07/08/20 22:16
21)	18	0708_21.D	CG29882 LCSD	CG29882 LCSD	07/08/20 22:54
22)	18	0708_22.D	XXXXXXXXXX		07/08/20 23:29
23)	19	0708_23.D	CG29882 BLANK	CG29882 BLANK	07/09/20 0:03
24)	20	0708_24.D	XXXXXXXXXX		07/09/20 0:44
25)	21	0708_25.D	XXXXXXXXXX		07/09/20 1:24
26)	22	0708_26.D	XXXXXXXXXX		07/09/20 2:04
27)	23	0708_27.D	XXXXXXXXXX		07/09/20 2:44
28)	24	0708_28.D	XXXXXXXXXX		07/09/20 3:25
29)	25	0708_29.D	CG29882 QC	CG29882 QC	07/09/20 4:04
30)	26	0708_30.D	29882 dup	CG29882 DUP	07/09/20 4:44
31)	27	0708_31.D	IA-4 (HES)	CG29884	07/09/20 5:24
32)	28	0708_32.D	IA-3 (HES)	CG29885	07/09/20 6:04
33)	29	0708_33.D	IA-2 (HES)	CG29886	07/09/20 6:44
34)	30	0708_34.D	AA-1 (HES)	CG29887	07/09/20 7:24
35)	31	0708_35.D	IA-DUP (HES)	CG29888	07/09/20 8:05
36)	32	0708_36.D	IA-1 (HES)	CG29889	07/09/20 8:45
37)	33	0708_37.D	XXXXXXXXXX		07/09/20 13:04
38)	34	0708_38.D	XXXXXXXXXX		07/09/20 13:40

APPENDIX E
DATA USABILITY SUMMARY REPORT (MARCH 2021)

**BUILDING 700 (330D) HES INDUSTRIES
INDOOR AIR QUALITY SAMPLING DATA
USABILITY SUMMARY REPORT**

AT

**IPARK 84
FORMER IBM EAST FISHKILL FACILITY**

MARCH 2021

PREPARED FOR:

**JESSICA LACLAIR
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DEPT. OF ENVIRONMENTAL REMEDIATION
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WALDEN ENVIRONMENTAL ENGINEERING, PLLC

Industry Leader in Environmental Engineering Consulting

PROACTIVE SOLUTIONS SINCE 1995

Data Usability Summary Report

Indoor Air Quality Investigation

iPark 84, Former IBM East Fishkill Facility

Building 700 (formerly Building 330D) – HES Semiconductor Parts Manufacture

This Data Usability Summary Report (DUSR) has been prepared to validate the results of air sampling conducted in Building 700 (formerly Building 330D) at the above-referenced facility. This sampling was conducted on July 7, 2020 in support of a pre-occupancy evaluation. Walden performed the sampling in accordance with the indoor air quality testing plan (dated June 15, 2020) and the conditional approval letter (dated June 30, 2020) received from the New York State Department of Environmental Conservation (NYSDEC) following NYSDEC and New York State Department of Health (NYSDOH) review of the Work Plan.

A summary of the HES Semiconductor Parts Manufacture in Building 700 (formerly Building 330D) sampling results was submitted to NYSDEC and NYSDOH in a report dated September 8, 2020. NYSDEC approved occupancy of the HES Semiconductor Parts Manufacture Building 700 (formerly Building 330D) Space in a letter dated October 1, 2020.

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

The analytical data was evaluated by Mr. Lawrence Zeman (Walden), whose experience and qualifications to prepare the DUSR for this project are presented in the attached resume (see Attachment A). The air samples collected for laboratory analysis were submitted to Phoenix Environmental Laboratories, Inc. (Phoenix) of Manchester, NH, a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory (NY Lab Registration #11301), and analyzed for volatile organic compounds (VOCs) via U.S. Environmental Protection Agency (USEPA) Modified Method TO-15 with the analytical detection limits set forth in the NYSDEC approved indoor air quality testing plan approved on June 30, 2020. The DUSR process consisted of evaluating the analytical data package produced by Phoenix and answering the following questions.

1. Were there any deviations in the sampling protocol which deviated from established sampling procedures?

The air samples were collected in laboratory provided individually certified, 6-liter Summa[®] canisters equipped with individually certified flow regulators. The regulators were calibrated by the laboratory for a sampling period of 8 hours; this sampling duration was chosen in accordance with NYSDOH guidance for indoor air sampling of a commercial workspace with a single shift, to reflect the typical exposure scenario. The regulators served to maintain flow rates below the required maximum rate of 0.2 liters (200 milliliters) per minute during the sampling period to minimize outdoor air infiltration.

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

The sampling and analytical program outlined in Building 700 (formerly Building 330D) *Indoor Air Quality Testing Plan* was designed to conform to the NYSDEC ASP Category B and USEPA CLP deliverables criteria. Both field sampling and laboratory analytical activities were performed with built-in QA/QC programs. Duplicate samples were collected at a minimum of one (1) sample per ten (10) samples collected. The analytical laboratory (Phoenix) included method blanks and batch QA/QC samples as part of their standard QA/QC program. Additionally, the samples were handled in compliance with the holding time allowances.

3. Have all holding times been met?

Times of sample receipt, extraction, and analysis have been evaluated to determine whether the holding time specifications have been met. All of the samples were analyzed within the specified holding times.

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

All of the primary sample and QC data were reviewed. Duplicate sample analysis demonstrated a reasonable level of accuracy in the analytical results, and all of the QA/QC data met the protocol-required criteria with the exception as noted below.

- The continuing calibration exceeded the maximum percent deviation of 20% for Ethylbenzene, m,p-Xylene and o-Xylene.

In summary, although three (3) analytes exceeded the continuing calibration maximum percent deviation, all other QA/QC acceptance criteria was met and the reliability of the laboratory results should not be affected.

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

Laboratory analytical protocols have been developed by the USEPA and are published in USEPA Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air: Method TO-15 (Second Edition, January 1999). The review of the laboratory deliverables indicated that the analytical data for this project was generated following these standard protocols.

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

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

7. Have the correct data qualifiers been used?

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

8. Have the minimum reporting limits been met?

The minimum reporting limits specified in the NYSDEC approved “*Indoor Air Quality Testing Plan*” are as follows:

ANALYTE LIST	MINIMUM REPORTING LIMIT (ug/m ³)
1,1,1-Trichloroethane	1.1
1,1-Dichloroethene	0.8
1,2,4-Trichlorobenzene	7.4
1,2-Dichlorobenzene	1.2
1,3-Dichlorobenzene	1.2
1,4-Dichlorobenzene	1.2
Acetone	2.4

Benzene	0.64
Carbon Tetrachloride	0.2
Chlorobenzene	0.92
Cis-1,2-Dichloroethene	0.8
Dichlorodifluoromethane	1.0
Ethylbenzene	0.86
m,p-Xylene	0.86
Methylene Chloride	1.4
o-Xylene	0.86
Tetrachloroethene	1.4
Toluene	0.77
Trichloroethene	0.22
Trichlorofluoromethane	1.1
Trichlorotrifluoroethane	1.5
Vinyl Chloride	0.06

All reportable VOCs meet the minimum required reporting limits for all samples collected at Building 700 (formerly Building 330D) on July 7, 2020.

Summary

In summary, the analytical data package review conducted when preparing this DUSR found no data deficiencies, analytical protocol deviations, or quality control problems that impact the quality of the data. No significant QC exceedances were identified and it was determined that none of the data should be rejected.

Prepared by:


Lawrence Zeman

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Attachment A

Resume of Environmental Professional



Lawrence F. Zeman

Project Scientist II



Lawrence has 20 years of environmental and lab consulting experience, taking on difficult laboratory issues and QA/QC. He is very well versed in areas as diverse as regulatory compliance, test protocol development and implementation, management of instrument repair and maintenance, field inspections and on-site audits, correlation studies of various analyses and engineering/technical reporting.

SELECTED RELEVANT EXPERIENCE

Various Clients, New York

- Performed sample collection of various sample types at industrial facilities and construction & remediation project sites;
Conducted soil sample collection, field activities oversight and continuous air monitoring for Community Air Monitoring Program (CAMP) in accordance with DER-10 as follows:
 - Elmhurst Tank Park & Playground, Queens, NY (2009 – 2011);
 - Calvert Vaux Park and Athletic Fields, Brooklyn, NY (2009 – 2011), as an Independent Environmental Monitor (IEM) on-site technician;
 - Harlem Rive Greenway, Bronx, NY (2011 – 2012);
 - Beach Channel H.S. Athletic Fields (2016);
 - P.S. 63M William McKinley School, Manhattan, NY (2016);
 - P.S. 131 Abigail Adams Public School, Queens, NY (2017);
 - Forest Hills High School, Queens, NY (2017)
- Developed and implemented new testing protocols and test procedures;
- Conducted instrumentation repair and scheduled maintenance;
- Conducted correlation studies of various analytic procedures;
- Verified laboratory Quality Assurance and Quality Control procedures and data;
- Responsible for regulatory compliance and quality control;
- Prepared and submitted facilities' annual Zoning Performance Standards Compliance Reports, including noise, vibration, odor and opacity testing for DSNY permit renewal;
- Provided environmental services to ensure compliance for facility's NYS DEC Title V Air Facility Permit. Completed monthly, semi-annual and annual compliance reports;
- Conducted field Inspections and on-site audits;
- Performed field measurements and recording of Noise and Vibration;
- Prepared Engineering & Technical Reports;
- Prepared New York City Community Right-To-Know Law and SARA reports for Industrial facilities

EDUCATION

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

LICENSES/ CERTIFICATIONS

New York State ELAP
Laboratory Director

New York State ELAP
Laboratory Microbiology
Assistant Director

New York Department of
Health Laboratory
Technologist

OSHA HAZWOPER 40-hour
& OSHA 10-hour Certified