Building 700 (Formerly 330D)
HES Semi-Conductor Parts Manufacturing
Additional Indoor Air Quality Testing
Summary Report

at

iPark 84
Former IBM East Fishkill Facility

February 2021
(Updated September 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

WALDEN ENVIRONMENTAL ENGINEERING

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

February 3, 2021
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)
Additional Indoor Air Quality Testing Summary Report

Dear Ms. LaClair:

Walden Environmental Engineering, PLLC (Walden) performed pre-occupancy indoor air quality (IAQ) sampling in the HES semiconductor parts manufacturing space on the first floor of Building 700 (formerly Building 330D) on July 7, 2020. The results of the pre-occupancy sampling were presented in the *IAQ Testing Summary Report* dated September 8, 2020 (copy included at the end of this submittal as **Appendix A**). Based on the State's review of the *IAQ Testing Summary Report*, NYSDEC issued a letter dated October 1, 2020 approving tenant occupancy of the HES space; a copy of this letter is presented in **Attachment 1**. The October 1 letter also included a request from NYSDEC/ NYSDOH to collect additional IAQ samples during the heating season in the Machining Center, the Open Area, and the CNC Machining Center portions of the HES space based on the low concentrations of TCE and PCE detected in the July 7 indoor air samples from these locations. Walden performed this additional sampling on behalf of iPark East Fishkill LLC (iPark) on December 8, 2020; the results of this additional IAQ testing are summarized below.

Building 700 (330D) is owned by iPark; HES is leasing first floor space immediately south of the space currently occupied by the Crepini food processing and packaging operation. Refer to **Figure 1** for the site location map. Walden completed the additional IAQ testing in the HES Machining Center, Open Area, and CNC Machining Center on December 8, 2020 in accordance with prescribed protocols previously approved by NYSDEC: 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.

Summary of HVAC Conditions Within the Building

The HES space in Building 700 (330D) is served by the existing HVAC system; two units (Units #6B1, and #12) serve the space. During the December 8, 2020 additional IAQ sampling, the HVAC system was operating 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 **Attachment 2**.

Summary of IAQ Testing

IAQ testing was conducted in accordance with the procedures outlined in the NYSDEC-approved RFI Work Plan and Testing Plan. The additional IAQ 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. The indoor air samples were collected from a height of approximately 2.5 feet to 5 feet above the floor at the following locations throughout the HES space, as directed in NYSDEC's October 1, 2020 letter. The sampling locations are depicted on **Figure 2**.

- IA-2: Machining Center Hallway
- IA-3: CNC Machining Center
- IA-4: Open Area/Storage and Inventory

Note that these sample IDs are consistent with the IDs used to identify the July 7, 2020 sampling locations in these areas, and the Summa® canisters for the December 8, 2020 event were placed near the original sampling locations.

The VOC concentrations at the sample locations were measured using a PID 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-2	0.3
IA-3	0.1
IA-4	0.1

These PID screening measurements are considered negligible and indicate no apparent air quality impacts. Cleaning materials and alcohol substances associated with manufacturing activities were observed in the HES tenant space (refer to **Attachment 2**).

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 presented in **Table 2**. Photos taken during the sampling are provided in **Attachment 3**. The full laboratory analytical report is provided in **Attachment 4**. A Data Usability Summary Report (DUSR) is being prepared and will be submitted under separate cover.

Results and Discussion

The HES additional IAQ analytical data for the Machining Center, Open Area, and CNC Machining Center 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 additional 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 December 8, 2020 HES IAQ samples for the Machining Center, Open Area, and CNC Machining Center were within or below the range of background concentrations listed in the USEPA BASE database as noted in **Table 2**, verifying that indoor air quality is acceptable. TCE was not detected in any of the December 2020 IAQ samples, and the PCE concentrations at the three (3) locations were less than the concentrations previously reported during the July 7, 2020 sampling event (refer to Table 2 in the September 2020 IAQ Testing Report presented in Appendix A at the end of this document). IBM continues to operate a vapor extraction system in Building 700 (330D) which removes sub-slab vapors containing elevated concentrations of VOCs from beneath the HES space and adjoining portions of the building.

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

Attachments:
Figure 1 – Site Location Map
Figure 2 – Sampling Locations

Table 1 – Summary of Field Information
Table 2 – Summary of IAQ Analysis (December 8, 2020)

Attachment 1 – NYSDEC October 1, 2020 Letter Review of September 2020 IAQ Testing Summary Report
Attachment 2 – Indoor Air Quality Questionnaire and Building Inventory
Attachment 3 – Photographic Log of Sampling Locations
Attachment 4 – Laboratory Analytical Report (Category B Deliverables)
Attachment 5 – Data Usability Summary Report (added September 2021)

Appendix A - *IAQ Testing Summary Report* (Walden, September 8, 2020)

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

FIGURE 1
SITE LOCATION MAP

SITE PLAN

N.T.S.

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
iPARK 84 CAMPUS, 200 NORTH DRIVE, SUITE #108
HOPEWELL JUNCTION, NEW YORK 12533
P: (845) 253-8025; (516) 624-7200
F: (516) 624-3219

Walden Environmental Engineering

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- COPIES OF THIS PLAN NOT BEARING THE PROFESSIONAL ENGINEER'S INKED SEAL OR EMBOSSED SEAL SHALL NOT BE CONSIDERED TO BE A VALID TRUE COPY.

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

REVISION NO: 0

DESIGNED BY: NMB
DRAWN BY: EJK
JOB NO: IPARK0118.40
DATE: 11/26/19
11x17
SHEET NO: 1 OF 2
APPROVED BY: JMH
SCALE: AS NOTED
CAD FILE NAME: Z:\iPark0118\iPark0118.40 Bldg 700 former 330D\Acad\iPark0118.40 Bldg 700 former 330D.dwg

FIGURE 2
SAMPLING LOCATION MAP

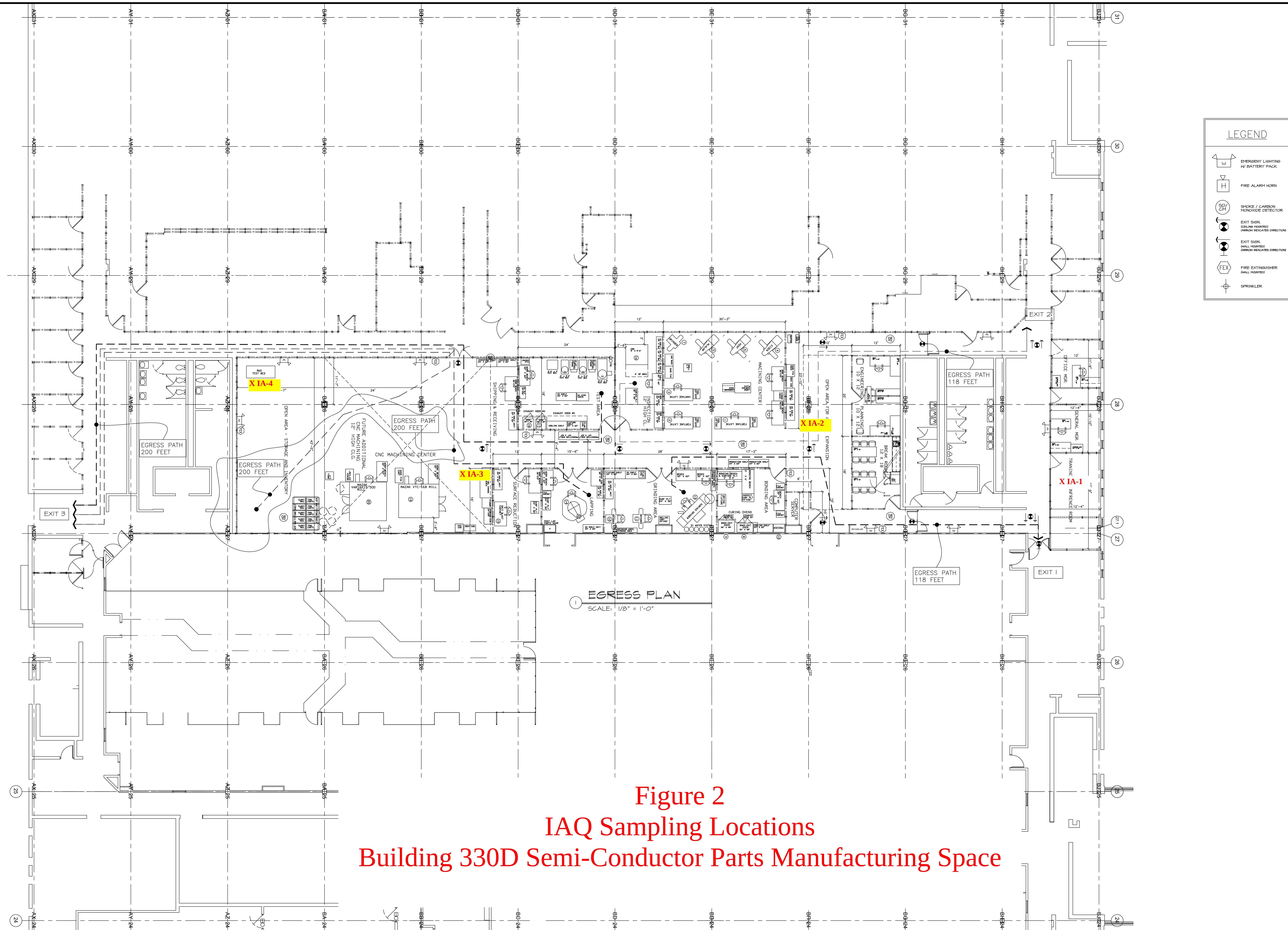

Figure 2
IAQ Sampling Locations
Building 330D Semi-Conductor Parts Manufacturing Space

HE Industries (FM Industries)

700 South Drive Suite 104
Hopewell Junction, NY

ANTHONY TOTILO ARCHITECTS AND ASSOCIATES
Anthony Totilo, A.I.A.
114 Old North Stamford Road, Stamford, Connecticut 06905
(203) 517-6586

LOCATION PLAN: (NTS)

NOTES:

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

SHEET TITLE: FIRE EGRESS PLAN

DRAWN BY: AT/TC
CHECKED BY:
DATE: 11.15.18
SCALE: 1/8"=1'-0" U.O.N.
PROJECT NO:
SHEET NO: EP1

EP1.DWG - EGRESS PLAN REVISED RECORD DOCUMENT

TABLE 1
SUMMARY OF FIELD INFORMATION

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

TABLE 1
SUMMARY OF INDOOR AIR SAMPLE INFORMATION (DECEMBER 8, 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-2	Ground	Indoor Air	19806	7020	2.5	751	-30	0.3	1420	-9	72	Machining Center	Electrowash
IA-3	Ground	Indoor Air	16013	5382	2.5	747	-30	0.1	1415	-9.5	72	CNC Machining Center	Isopropyl alcohol
IA-4	Ground	Indoor Air	13633	3510	2.5	745	-30	0.1	1404	-9	72	Open Area/Storage and Inventory	None observed

TABLE 2
SUMMARY OF IAQ ANALYSIS (DECEMBER 8, 2020)

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

TABLE 2
SUMMARY OF IAQ ANALYSIS (DECEMBER 8, 2020)
BUILDING 700 (FORMER 330D) - HES SEMICONDUCTOR MANUFACTURING SPACE

		USEPA BASE Database Tables - Typical Background Concentrations for Indoor Air				Collection Date	12/8/2020		12/8/2020		12/8/2020	
						Sample ID	IA-2		IA-3		IA-4	
						Matrix	Air		Air		Air	
	CAS Registry Number	75th Percentile	90th Percentile	95th Percentile	99th Percentile	Location	Machining Center		CNC Machining Center		Open Area	
						Units	Result	RL		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
1,1-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
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
1,2-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
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
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
Acetone	67-64-1	59.8	98.9	120.2	226.6	ug/m3	< 2.37	2.37	< 2.37	2.37	< 2.37	2.37
Benzene	71-43-2	5.1	9.4	12.5	25.0	ug/m3	0.46	0.16	0.54	0.16	0.56	0.16
Carbon Tetrachloride	56-23-5	<1.1	<1.3	0.7	0.9	ug/m3	0.56	0.13	0.56	0.13	0.58	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
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
Dichlorodifluoromethane	75-71-8	10.5	16.5	32.9	81.3	ug/m3	1.95	0.99	1.97	0.99	2.27	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
m,p-Xylene	179601-23-1	12.2	22.2	28.5	67.6	ug/m3	0.7	0.65	0.83	0.65	0.97	0.65
Methylene Chloride	75-09-2	5.0	10.0	16.0	1155.6	ug/m3	< 1.39	1.39	< 1.39	1.39	1.52	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
Tetrachloroethene	127-18-4	5.9	15.9	25.4	55.6	ug/m3	1.07	0.68	1.27	0.68	1.51	0.68
Toluene	108-88-3	25.9	43.0	70.8	348.9	ug/m3	1.24	0.75	1.21	0.75	1.03	0.75
Trichloroethene	79-01-6	1.2	4.2	6.5	57.0	ug/m3	< 0.20	0.20	< 0.20	0.20	< 0.20	0.20
Trichlorofluoromethane	75-69-4	6.7	18.1	54.0	860.6	ug/m3	1.66	0.84	1.87	0.84	2.07	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
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

Result Detected

ATTACHMENT 1
NYSDEC OCTOBER 1, 2020 LETTER
REVIEW OF SEPTEMBER 2020 IAQ TESTING SUMMARY REPORT

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 I F: (518) 402-9773
www.dec.ny.gov

October 1, 2020

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

Re: Building 330D – HES Semiconductor Parts
Indoor Air Quality Report
iPark 84, Former IBM East Fishkill Facility
NYSDEC Site No. 314054, EPA ID NYD000707901

Dear Mr. Cotter:

The New York State Department of Environmental Conservation and Department of Health (Departments) have reviewed the Indoor Air Quality (IAQ) Report for the HES Semiconductor Parts Manufacturer space located in Building 330D dated September 08, 2020. This sampling was conducted by Walden Environmental Engineering on behalf of National Resources. The space is located immediately south of the Crepini space which currently has an operating sub-slab depressurization system (SSDS). The sampling was conducted under normal operating conditions but prior to occupancy.

Based on the report, tetrachloroethene (PCE) and trichloroethene (TCE) were detected in the indoor air at low concentrations. TCE was detected in indoor air at concentrations of 0.32µg/m3 in the Machining Center; 0.26µg/m3 in the Open Area; and 0.25µg/m3 in the CNC Machining Center. PCE was detected in indoor air at concentrations of 6.32µg/m3 in the Machining Center; 4.54µg/m3 in the CNC Machining Center; and 4.44µg/m3 in the Open Area. Overall, exposure to TCE and PCE, at the levels detected in the indoor air during the most recent sampling event, is unlikely to result in adverse health effects. The HES Semiconductor Parts space can be occupied, however additional actions are needed.

The Departments request that a second round of indoor air sampling be conducted during this upcoming heating season. Please use the previously approved sampling work plan and notify the Departments when work is scheduled. If you have any questions, please call me at (518) 402-9821.

Sincerely,

Jessica LaClair

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

ec: M. Buckley, iPark
C. Monheit, iPark
N. Brew, Walden
D. Chartrand, IBM
E. Lutz, GF
G. Marone, GF
J. Armitage, NYSDEC
D. Bendell, NYSDEC, Region 3
B. Conlon, NYSDEC
J. Stenerson, NYSDEC
S. Edwards, NYSDEC
J. Kenney, NYSDOH
M. Schuck, NYSDOH

ATTACHMENT 2

INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY

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

1 Park 0118.40

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

Preparer's Name Kerri Wright Date/Time Prepared 12/8/20

Preparer's Affiliation Project Scientist Phone No. 845 531 7943

Purpose of Investigation Collection of additional indoor air samples

1. OCCUPANT:

Interviewed: Y / N

Last Name: Vitiia First Name: Dardan (Danny)

Address: Park East Hall 2070 Rt 52 Hopewell Jct, NY

County: Dutchess

Home Phone: 771-598-1845 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	School	Commercial/Multi-use
Industrial	Church	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: NO

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) HES - Industrial Semi Conductor Manufacturing

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:		full	crawlspace	slab	other N/A
c. Basement floor:		concrete	dirt	stone	other N/A
d. Basement floor:		uncovered	covered	covered with N/A	
e. Concrete floor:		unsealed	(sealed)	sealed with _____	
f. Foundation walls:		(poured)	block	stone	other _____
g. Foundation walls:		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)

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

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
(Electric)	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in:	Basement	Outdoors	Main Floor	Other 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? semiconductor chip manufacturing

g. Is there smoking in the building? Y / (N) How frequently?_____

h. Have cleaning products been used recently? (Y) N When & Type? hand sanitizer isopropyl alcohol

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? Isopropyl alcohol

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: _____

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

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 workplan

First Floor:

See Workplan

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 workplan!

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: PID MiniRae 3000

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N
IA-3	adhesive remover (5)	18.7 oz	UO	petroleum, xylene ethylbenzene toluene	0.1	Y
IA-3	electrowash cleaner (3)	12.5 oz	Used	ethanol, alcohol, propyl acetate	0.1	Y
IA-3	isopropyl alcohol (12)	1 gal	UO	alcohol 70 %	0.1	Y
IA-3	isopropyl alcohol	1 pint	Used	alcohol 70 %	0.1	Y

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

Safety Data Sheet

Document Group:	08-4315-1	**Version Number:**	12.06
Issue Date:	03/03/20	**Supercedes Date:**	01/09/20

SECTION 1: Identification

1.1. Product identifier
3M™ Adhesive Remover, P.N. 38080, 38081, 38082

Product Identification Numbers

ID Number	UPC	ID Number	UPC
60-9800-3388-4	00-51131-38080-6	60-9800-3389-2	00-51131-38081-3
60-9800-3395-9	00-51131-38082-0		

7000000614, 7000045720, 4000011624

1.2. Recommended use and restrictions on use

Recommended use
Automotive, Adhesive Remover

1.3. Supplier's details
MANUFACTURER: 3M
DIVISION: Automotive Aftermarket
ADDRESS: 3M Center, St. Paul, MN 55144-1000, USA
Telephone: 1-888-3M HELPS (1-888-364-3577)

1.4. Emergency telephone number
1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

The label elements below were prepared in accordance with OSHA Hazard Communication Standard, 29 CFR 1910.1200. This information may be different from the actual product label information for labels regulated by other agencies.

2.1. Hazard classification
Flammable Liquid: Category 2.
Skin Corrosion/Irritation: Category 2.
Aspiration Hazard: Category 1.
Reproductive Toxicity: Category 1B.
Carcinogenicity: Category 2.
Specific Target Organ Toxicity (single exposure): Category 1.

Specific Target Organ Toxicity (single exposure): Category 3.
Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements
Signal word
Danger

Symbols
Flame | Exclamation mark | Health Hazard |

Pictograms

Hazard Statements
Highly flammable liquid and vapor.

Causes skin irritation.
May be fatal if swallowed and enters airways.
May cause drowsiness or dizziness.
May damage fertility or the unborn child.
Suspected of causing cancer.

Causes damage to organs:
sensory organs |

Causes damage to organs through prolonged or repeated exposure:
nervous system |

May cause damage to organs through prolonged or repeated exposure:
sensory organs |

Precautionary Statements
General:
Keep out of reach of children.

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Ground/bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Keep container tightly closed.
Use explosion-proof electrical/ventilating/lighting equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear protective gloves and eye/face protection.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.

Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Do NOT induce vomiting.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Store locked up.

Disposal:
Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Ingredient	C.A.S. No.	% by Wt
Hydrotreated Light Naphtha (Petroleum)	64742-49-0	30 - 60 Trade Secret *
Xylene	1330-20-7	30 - 60 Trade Secret *
Ethylbenzene	100-41-4	5 - 9.9 Trade Secret *
Toluene	108-88-3	<= 0.9 Trade Secret *
Benzene	71-43-2	<= 0.05 Trade Secret *

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:
Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If Swallowed:
Do not induce vomiting. Get immediate medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Hydrocarbons	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. Use personal protective equipment (gloves, respirators, etc.) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable

vapor accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Ethylbenzene	100-41-4	OSHA	TWA:435 mg/m3(100 ppm)	
Ethylbenzene	100-41-4	ACGIH	TWA:20 ppm	A3: Confirmed animal carcin.
Toluene	108-88-3	OSHA	TWA:200 ppm;CEIL:300 ppm	
Toluene	108-88-3	ACGIH	TWA:20 ppm	A4: Not class. as human carcin
Xylene	1330-20-7	OSHA	TWA:435 mg/m3(100 ppm)	
Xylene	1330-20-7	ACGIH	TWA:100 ppm;STEL:150 ppm	A4: Not class. as human carcin
Benzene	71-43-2	OSHA	TWA:1 ppm;TWA:10 ppm;STEL:5 ppm;CEIL:25 ppm	29 CFR 1910.1028
Benzene	71-43-2	ACGIH	TWA:0.5 ppm;STEL:2.5 ppm	Danger of cutaneous absorption, A1: Confirmed human carcin.

ACGIH : American Conference of Governmental Industrial Hygienists
AIHA : American Industrial Hygiene Association
CMRG : Chemical Manufacturer's Recommended Guidelines
OSHA : United States Department of Labor - Occupational Safety and Health Administration
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
None required.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective

clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.
Gloves made from the following material(s) are recommended: Polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Color	Red
Odor	Sharp Odor, Aromatic Solvent
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point	*No Data Available*
Boiling Point	245 ºF
Flash Point	52 ºF
Evaporation rate	7.1 [*Ref Std:*ETHER=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	0.9 % volume
Flammable Limits(UEL)	6 % volume
Vapor Pressure	15 mmHg [@ 100 ºF]
Vapor Density	>=3 [*Ref Std:*AIR=1]
Density	0.82 g/ml
Specific Gravity	0.82 [*Ref Std:*WATER=1]
Solubility in Water	Negligible
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	*No Data Available*
Decomposition temperature	*No Data Available*
Viscosity	3 centipoise [*Test Method:*Brookfield]
Hazardous Air Pollutants	50.95 % weight [*Test Method:*Calculated]
Volatile Organic Compounds	100.0 % weight [*Test Method:*calculated per CARB title 2]
Volatile Organic Compounds	820 g/l [*Test Method:*calculated SCAQMD rule 443.1]
Percent volatile	100 % weight
VOC Less H2O & Exempt Solvents	820 g/l [*Test Method:*calculated SCAQMD rule 443.1]

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid
Heat

10.5. Incompatible materials
Alkali and alkaline earth metals
Strong acids
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	Condition
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause additional health effects (see below).

Skin Contact:
Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, dryness, cracking, blistering, and pain.

Eye Contact:
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:
Chemical (Aspiration) Pneumonitis: Signs/symptoms may include coughing, gasping, choking, burning of the mouth, difficulty breathing, bluish colored skin (cyanosis), and may be fatal.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May cause additional health effects (see below).

Additional Health Effects:

Single exposure may cause target organ effects:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Prolonged or repeated exposure may cause target organ effects:
Auditory Effects: Signs/symptoms may include hearing impairment, balance dysfunction and ringing in the ears.

Prolonged or repeated exposure by inhalation may cause:
Neurological Effects: Signs/symptoms may include personality changes, lack of coordination, sensory loss, tingling or numbness of the extremities, weakness, tremors, and/or changes in blood pressure and heart rate.

Reproductive/Developmental Toxicity:
Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Carcinogenicity:
Contains a chemical or chemicals which can cause cancer.

Ingredient	CAS No.	Class Description	Regulation
Benzene	71-43-2	Grp. 1: Carcinogenic to humans	International Agency for Research on Cancer
Benzene	71-43-2	Known human carcinogen	National Toxicology Program Carcinogens
Benzene	71-43-2	Cancer hazard	OSHA Carcinogens
Ethylbenzene	100-41-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Inhalation-Vapor(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Hydrotreated Light Naphtha (Petroleum)	Dermal	Rabbit	LD50 > 3,160 mg/kg
Hydrotreated Light Naphtha (Petroleum)	Inhalation-Vapor (4 hours)	Rat	LC50 > 14.7 mg/l
Hydrotreated Light Naphtha (Petroleum)	Ingestion	Rat	LD50 > 5,000 mg/kg
Xylene	Dermal	Rabbit	LD50 > 4,200 mg/kg
Xylene	Inhalation-Vapor (4 hours)	Rat	LC50 29 mg/l
Xylene	Ingestion	Rat	LD50 3,523 mg/kg
Ethylbenzene	Dermal	Rabbit	LD50 15,433 mg/kg
Ethylbenzene	Inhalation-Vapor (4 hours)	Rat	LC50 17.4 mg/l
Ethylbenzene	Ingestion	Rat	LD50 4,769 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Hydrotreated Light Naphtha (Petroleum)	Rabbit	Irritant
Xylene	Rabbit	Mild irritant

Ethylbenzene	Rabbit	Mild irritant
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Hydrotreated Light Naphtha (Petroleum)	Rabbit	Mild irritant
Xylene	Rabbit	Mild irritant
Ethylbenzene	Rabbit	Moderate irritant
Toluene	Rabbit	Moderate irritant

Skin Sensitization

Name	Species	Value
Hydrotreated Light Naphtha (Petroleum)	Guinea pig	Not classified
Ethylbenzene	Human	Not classified
Toluene	Guinea pig	Not classified

Respiratory Sensitization

For the component/components, either no data are currently available or the data are not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Hydrotreated Light Naphtha (Petroleum)	In Vitro	Not mutagenic
Xylene	In Vitro	Not mutagenic
Xylene	In vivo	Not mutagenic
Ethylbenzene	In vivo	Not mutagenic
Ethylbenzene	In Vitro	Some positive data exist, but the data are not sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Hydrotreated Light Naphtha (Petroleum)	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification
Xylene	Dermal	Rat	Not carcinogenic
Xylene	Ingestion	Multiple animal species	Not carcinogenic
Xylene	Inhalation	Human	Some positive data exist, but the data are not sufficient for classification
Ethylbenzene	Inhalation	Multiple animal species	Carcinogenic
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration
Xylene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Xylene	Ingestion	Not classified for development	Mouse	NOAEL Not	during

				available	organogenesis
Xylene	Inhalation	Not classified for development	Multiple animal species	NOAEL Not available	during gestation
Ethylbenzene	Inhalation	Not classified for development	Rat	NOAEL 4.3 mg/l	premating & during gestation
Toluene	Inhalation	Not classified for female reproduction	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Not classified for male reproduction	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

Lactation

Name	Route	Species	Value
Xylene	Ingestion	Mouse	Not classified for effects on or via lactation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Hydrotreated Light Naphtha (Petroleum)	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human and animal	NOAEL Not available	
Hydrotreated Light Naphtha (Petroleum)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Hydrotreated Light Naphtha (Petroleum)	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Xylene	Inhalation	auditory system	Causes damage to organs	Rat	LOAEL 6.3 mg/l	8 hours
Xylene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Xylene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Xylene	Inhalation	eyes	Not classified	Rat	NOAEL 3.5 mg/l	not available
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	eyes	Not classified	Rat	NOAEL 250 mg/kg	not applicable
Ethylbenzene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Ethylbenzene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human and animal	NOAEL Not available	
Ethylbenzene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Professional judgement	NOAEL Not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	

Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Xylene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.4 mg/l	4 weeks
Xylene	Inhalation	auditory system	May cause damage to organs though prolonged or repeated exposure	Rat	LOAEL 7.8 mg/l	5 days
Xylene	Inhalation	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Inhalation	heart | endocrine system | gastrointestinal tract | hematopoietic system | muscles | kidney and/or bladder | respiratory system	Not classified	Multiple animal species	NOAEL 3.5 mg/l	13 weeks
Xylene	Ingestion	auditory system	Not classified	Rat	NOAEL 900 mg/kg/day	2 weeks
Xylene	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 1,500 mg/kg/day	90 days
Xylene	Ingestion	liver	Not classified	Multiple animal species	NOAEL Not available	
Xylene	Ingestion	heart | skin | endocrine system | bone, teeth, nails, and/or hair | hematopoietic system | immune system | nervous system | respiratory system	Not classified	Mouse	NOAEL 1,000 mg/kg/day	103 weeks
Ethylbenzene	Inhalation	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1.1 mg/l	2 years
Ethylbenzene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 1.1 mg/l	103 weeks
Ethylbenzene	Inhalation	hematopoietic system	Not classified	Rat	NOAEL 3.4 mg/l	28 days
Ethylbenzene	Inhalation	auditory system	Not classified	Rat	NOAEL 2.4 mg/l	5 days
Ethylbenzene	Inhalation	endocrine system	Not classified	Mouse	NOAEL 3.3 mg/l	103 weeks
Ethylbenzene	Inhalation	gastrointestinal tract	Not classified	Rat	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Inhalation	bone, teeth, nails, and/or hair | muscles	Not classified	Multiple animal species	NOAEL 4.2 mg/l	90 days
Ethylbenzene	Inhalation	heart | immune system | respiratory system	Not classified	Multiple animal species	NOAEL 3.3 mg/l	2 years
Ethylbenzene	Ingestion	liver | kidney and/or bladder	Not classified	Rat	NOAEL 680 mg/kg/day	6 months
Toluene	Inhalation	auditory system |	Causes damage to organs through	Human	NOAEL Not	poisoning

		eyes | olfactory system	prolonged or repeated exposure		available	and/or abuse
Toluene	Inhalation	nervous system	May cause damage to organs though prolonged or repeated exposure	Human	NOAEL Not available	poisoning and/or abuse
Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 2.3 mg/l	15 months
Toluene	Inhalation	heart | liver | kidney and/or bladder	Not classified	Rat	NOAEL 11.3 mg/l	15 weeks
Toluene	Inhalation	endocrine system	Not classified	Rat	NOAEL 1.1 mg/l	4 weeks
Toluene	Inhalation	immune system	Not classified	Mouse	NOAEL Not available	20 days
Toluene	Inhalation	bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 1.1 mg/l	8 weeks
Toluene	Inhalation	hematopoietic system | vascular system	Not classified	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	gastrointestinal tract	Not classified	Multiple animal species	NOAEL 11.3 mg/l	15 weeks
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 625 mg/kg/day	13 weeks
Toluene	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver | kidney and/or bladder	Not classified	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Not classified	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Not classified	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Not classified	Mouse	NOAEL 105 mg/kg/day	4 weeks

Aspiration Hazard

Name	Value
Hydrotreated Light Naphtha (Petroleum)	Aspiration hazard
Xylene	Aspiration hazard
Ethylbenzene	Aspiration hazard
Toluene	Aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

Ecotoxicological information

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations

13.1. Disposal methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

For Transport Information, please visit http://3M.com/Transportinfo or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

EPCRA 311/312 Hazard Classifications:

Physical Hazards
Flammable (gases, aerosols, liquids, or solids)

Health Hazards
Aspiration Hazard
Carcinogenicity
Reproductive toxicity
Skin Corrosion or Irritation
Specific target organ toxicity (single or repeated exposure)

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

Ingredient	C.A.S. No	% by Wt
Ethylbenzene	100-41-4	Trade Secret 5 - 9.9
Xylene	1330-20-7	Trade Secret 30 - 60
Xylene (Benzene, dimethyl-)	1330-20-7	30 - 60

15.2. State Regulations

Contact 3M for more information.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification
Health: 2 **Flammability:** 3 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Document Group:	08-4315-1	**Version Number:**	12.06
Issue Date:	03/03/20	**Supercedes Date:**	01/09/20

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SAFETY DATA SHEET

Chemtronics

Electro-Wash® PX ES810, ES1210

Section 1. Identification

GHS product identifier : Electro-Wash® PX ES810, ES1210

Product code : ES1210, ES810

Other means of identification : ES1010E , ES810E, ES1210, ES810
NSN 6850-01-393-9054

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier's details : Chemtronics
8125 Cobb Center Drive
Kennesaw, GA 30152

Tel. 770-424-4888 or toll free 800-645-5244

Emergency telephone number (with hours of operation) : Chemtrec - 1-800-424-9300 or collect 703-527-3887
24/7

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN IRRITATION - Category 2
EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1A

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 43%

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
May cause cancer.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response : IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Section 2. Hazards identification

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : ES1010E , ES810E, ES1210, ES810
NSN 6850-01-393-9054

Ingredient name	%	CAS number
ethanol	≥10 - ≤25	64-17-5
Isopropyl alcohol	≤5	67-63-0
propyl acetate	≤3	109-60-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Section 4. First aid measures

Ingestion : Do not ingest. If swallowed then seek immediate medical assistance.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
Ingestion Seek medical attention.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
carbonyl halides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ethanol	**ACGIH TLV (United States, 3/2015).** STEL: 1000 ppm 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 1900 mg/m³ 10 hours. TWA: 1000 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 1900 mg/m³ 8 hours. TWA: 1000 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** TWA: 1900 mg/m³ 8 hours. TWA: 1000 ppm 8 hours.
Isopropyl alcohol	**ACGIH TLV (United States, 3/2015).** STEL: 400 ppm 15 minutes. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 10 hours. TWA: 400 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 1225 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 980 mg/m³ 8 hours. TWA: 400 ppm 8 hours.
propyl acetate	**ACGIH TLV (United States, 3/2015).** STEL: 1040 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 835 mg/m³ 8 hours. TWA: 200 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 1050 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 840 mg/m³ 10 hours. TWA: 200 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 840 mg/m³ 8 hours. TWA: 200 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 1050 mg/m³ 15 minutes. STEL: 250 ppm 15 minutes. TWA: 840 mg/m³ 8 hours. TWA: 200 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. [Aerosol.]

Color : Clear. Colorless.

Odor : Hydrocarbon. [Slight]

Odor threshold : Not available.

pH : Not applicable.

Melting point : Not available.

Boiling point : 50°C (122°F)

Flash point : Closed cup: <-18°C (<-0.4°F) [Tagliabue.]

Evaporation rate : >1 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1.2%
Upper: 7.7%

Vapor pressure : 26.4 kPa (198 mm Hg) [room temperature]

Vapor density : >1 [Air = 1]

Relative density : Not available.

Solubility : Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Section 9. Physical and chemical properties

Viscosity : Not available.

Flow time (ISO 2431) : Not available.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 9.687 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : Reactive or incompatible with the following materials: Strong oxidizing materials Alkaline. metals alkalis

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m³	4 hours
	LD50 Oral	Rat	7 g/kg	-
Isopropyl alcohol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
propyl acetate	LD50 Oral	Rat	9370 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Eyes - Severe irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Isopropyl alcohol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Eyes - Severe irritant	Rabbit	-	100 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
propyl acetate	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Section 11. Toxicological information

	Skin - Mild irritant	Rabbit	-	500 milligrams	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
ethanol	-	1	-
Isopropyl alcohol	-	3	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation.

Ingestion : Do not ingest. If swallowed then seek immediate medical assistance.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting
Ingestion Seek medical attention.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	95000 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ethanol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 100 ul/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
Isopropyl alcohol	Acute LC50 1400000 to 1950000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
propyl acetate	Acute LC50 60000 to 64000 µg/l Fresh water	Fish - Pimephales promelas	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
ethanol	-0.35	-	low
Isopropyl alcohol	0.05	-	low
propyl acetate	1.4	-	low

Section 12. Ecological information

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	ADR/RID	IMDG	IATA
UN number	-	-	-	UN1950	UN1950	UN1950
UN proper shipping name	Consumer commodity ORM-D	Consumer commodity ORM-D	Consumer commodity ORM-D	AEROSOLS	AEROSOLS	Aerosols, flammable
Transport hazard class(es)	ORM-D	ORM-D	ORM-D	2 	2.1 	2.1 
Packing group	-	-	-	-	-	-
Environmental hazards	Yes.	No.	No.	Yes.	No.	No.
Additional information	Use ORM-D Label	Use ORM-D Label	Use ORM-D Label	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. **Tunnel code** (D)	-	The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Air Act (CAA) 112 regulated flammable substances: 1,1-difluoroethane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Fire hazard
Sudden release of pressure
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
ethanol	≥10 - ≤25	Yes.	No.	No.	Yes.	Yes.
Isopropyl alcohol	≤5	Yes.	No.	No.	Yes.	No.
propyl acetate	≤3	Yes.	No.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Isopropyl alcohol	67-63-0	≤5
Supplier notification	Isopropyl alcohol	67-63-0	≤5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: DIFLUOROETHANE; CARBON DIOXIDE; ISOPROPYL ALCOHOL; 2-PROPANOL; ETHYL ALCOHOL; DENATURED ALCOHOL; 3-METHYLPENTANE; ISOHEXANE; 2,3-DIMETHYLBUTANE; 2,2-DIMETHYLBUTANE; N-PROPYL ACETATE; PROPYL ACETATE

New York : None of the components are listed.

New Jersey : The following components are listed: 1,1-DIFLUOROETHANE; ETHANE, 1, 1-DIFLUORO-; CARBON DIOXIDE; CARBONIC ACID GAS; ISOPROPYL ALCOHOL; 2-PROPANOL; ETHYL ALCOHOL; ALCOHOL; 2-METHYLPENTANE; ISOHEXANE; 2, 3-DIMETHYLBUTANE; BUTANE, 2,3-DIMETHYL-; NEOHEXANE; 2,2 DIMETHYL BUTANE; n-PROPYL ACETATE; ACETIC ACID, PROPYL ESTER

Section 15. Regulatory information

Pennsylvania : The following components are listed: CARBON DIOXIDE; ISOPROPYL ALCOHOL MANUFACTURE (STRONG-ACID PROCESS); DENATURED ALCOHOL; ETHANOL; PENTANE, 3-METHYL-; PENTANE, 2-METHYL-; BUTANE, 2,3-DIMETHYL-; BUTANE, 2,2-DIMETHYL-; ACETIC ACID, PROPYL ESTER

California Prop. 65

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
ethanol	No.	No.	Yes.	No.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): Not determined.

Malaysia : Not determined.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

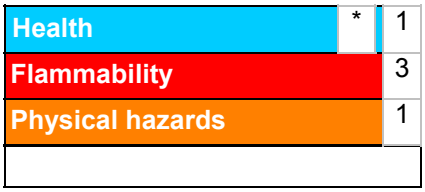
Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

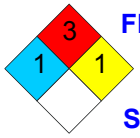


Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Section 16. Other information



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	On basis of test data
SKIN IRRITATION - Category 2	Calculation method
EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 1A	Calculation method

History

Date of printing : 10/22/2018

Date of issue/Date of revision : 10/22/2018

Date of previous issue : No previous validation

Version : 1

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

ATTACHMENT 3
PHOTOGRAPHIC LOG OF SAMPLING LOCATIONS

Site Photographs – December 8, 2020 Additional IAQ Sampling

Photograph #1

Sample Location IA-2, Machining Center

Photograph #2

Sample Location IA-3, CNC Machining Center

Photograph #3

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

ATTACHMENT 4
LABORATORY ANALYTICAL REPORT
(CATEGORY B DELIVERABLES)

PHOENIX
Environmental Laboratories, Inc.

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

HES INDUSTRIES

GCH28475

Ver 1

Data Package Table of Contents

PHOENIX
Environmental Laboratories, Inc.

Thursday, March 11, 2021

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

Project ID: **HES INDUSTRIES**
SDG ID: **GCH28475**
Sample ID#s: CH28475 - CH28477

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,

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY ANALYTICAL SERVICES PROTOCOL
DATA PACKAGE

Client: Walden Environmental Engineering PLLC

Project: HES INDUSTRIES

Laboratory Project: GCH28475

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Analytical Services Protocol Format

March 11, 2021 **SDG I.D.: GCH28475**

Walden Environmental Engineering PLLC HES INDUSTRIES

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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Analytical Services Protocol Format

March 11, 2021 **SDG I.D.: GCH28475**

Walden Environmental Engineering PLLC HES INDUSTRIES

Laboratory Chronicle

Sample	Analysis	Collection Date	Prep Date	Analysis Date	Analyst	Hold Time Met
CH28475	Volatiles (TO15)	12/08/20	12/09/20	12/09/20	KCA	Y
CH28476	Volatiles (TO15)	12/08/20	12/09/20	12/09/20	KCA	Y
CH28477	Volatiles (TO15)	12/08/20	12/09/20	12/09/20	KCA	Y

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

NY # 11301

Sample Id Cross Reference

March 11, 2021

SDG I.D.: GCH28475

Project ID: HES INDUSTRIES

Client Id	Lab Id	Matrix
IA-2	CH28475	AIR
IA-3	CH28476	AIR
IA-4	CH28477	AIR

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

NY # 11301

Analysis Report

March 11, 2021

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	KAW	12/08/20	14:20
Location Code:	WALDENE-IPARK	Received by:	LB	12/09/20	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	19806				

Laboratory Data

SDG ID: GCH28475
Phoenix ID: CH28475

Project ID: HES INDUSTRIES
Client ID: IA-2

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	12/09/20	KCA	1
1,1-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	*0.250*	0.250	ND	*1.85*	1.85	12/09/20	KCA	1
1,2-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,3-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,4-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
Acetone	ND	*1.00*	1.00	ND	*2.37*	2.37	12/09/20	KCA	1
Benzene	0.145	*0.050*	0.050	0.46	*0.16*	0.16	12/09/20	KCA	1
Carbon Tetrachloride	0.089	*0.020*	0.020	0.56	*0.13*	0.13	12/09/20	KCA	1
Chlorobenzene	ND	*0.200*	0.200	ND	*0.92*	0.92	12/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
Dichlorodifluoromethane	0.394	*0.200*	0.200	1.95	*0.99*	0.99	12/09/20	KCA	1
Ethylbenzene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
m,p-Xylene	0.161	*0.150*	0.150	0.70	*0.65*	0.65	12/09/20	KCA	1
Methylene Chloride	ND	*0.400*	0.400	ND	*1.39*	1.39	12/09/20	KCA	1
o-Xylene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
Tetrachloroethene	0.158	*0.100*	0.100	1.07	*0.68*	0.68	12/09/20	KCA	1
Toluene	0.329	*0.200*	0.200	1.24	*0.75*	0.75	12/09/20	KCA	1
Trichloroethene	ND	*0.037*	0.037	ND	*0.20*	0.20	12/09/20	KCA	1
Trichlorofluoromethane	0.295	*0.150*	0.150	1.66	*0.84*	0.84	12/09/20	KCA	1
Trichlorotrifluoroethane	ND	*0.150*	0.150	ND	*1.15*	1.15	12/09/20	KCA	1
Vinyl Chloride	ND	*0.020*	0.020	ND	*0.05*	0.05	12/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	96	*%*	%	96	*%*	%	12/09/20	KCA	1
% IS-1,4-Difluorobenzene	94	*%*	%	94	*%*	%	12/09/20	KCA	1
% IS-Bromochloromethane	90	*%*	%	90	*%*	%	12/09/20	KCA	1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% IS-Chlorobenzene-d5	97	%	%	97	%	%	12/09/20	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
QA/QC Surrogates: Surrogates are compounds (preceeded 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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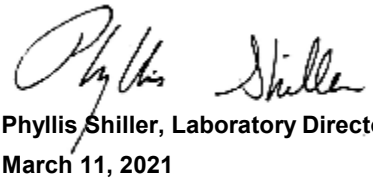

Phyllis Shiller, Laboratory Director
March 11, 2021
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

NY # 11301

Analysis Report

March 11, 2021

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	KAW	12/08/20	14:15
Location Code:	WALDENE-IPARK	Received by:	LB	12/09/20	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	16013				

Laboratory Data

SDG ID: GCH28475
Phoenix ID: CH28476

Project ID: HES INDUSTRIES
Client ID: IA-3

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	12/09/20	KCA	1
1,1-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	*0.250*	0.250	ND	*1.85*	1.85	12/09/20	KCA	1
1,2-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,3-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,4-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
Acetone	ND	*1.00*	1.00	ND	*2.37*	2.37	12/09/20	KCA	1
Benzene	0.170	*0.050*	0.050	0.54	*0.16*	0.16	12/09/20	KCA	1
Carbon Tetrachloride	0.089	*0.020*	0.020	0.56	*0.13*	0.13	12/09/20	KCA	1
Chlorobenzene	ND	*0.200*	0.200	ND	*0.92*	0.92	12/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
Dichlorodifluoromethane	0.399	*0.200*	0.200	1.97	*0.99*	0.99	12/09/20	KCA	1
Ethylbenzene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
m,p-Xylene	0.191	*0.150*	0.150	0.83	*0.65*	0.65	12/09/20	KCA	1
Methylene Chloride	ND	*0.400*	0.400	ND	*1.39*	1.39	12/09/20	KCA	1
o-Xylene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
Tetrachloroethene	0.187	*0.100*	0.100	1.27	*0.68*	0.68	12/09/20	KCA	1
Toluene	0.322	*0.200*	0.200	1.21	*0.75*	0.75	12/09/20	KCA	1
Trichloroethene	ND	*0.037*	0.037	ND	*0.20*	0.20	12/09/20	KCA	1
Trichlorofluoromethane	0.333	*0.150*	0.150	1.87	*0.84*	0.84	12/09/20	KCA	1
Trichlorotrifluoroethane	ND	*0.150*	0.150	ND	*1.15*	1.15	12/09/20	KCA	1
Vinyl Chloride	ND	*0.020*	0.020	ND	*0.05*	0.05	12/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	100	*%*	%	100	*%*	%	12/09/20	KCA	1
% IS-1,4-Difluorobenzene	85	*%*	%	85	*%*	%	12/09/20	KCA	1
% IS-Bromochloromethane	83	*%*	%	83	*%*	%	12/09/20	KCA	1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% IS-Chlorobenzene-d5	87	%	%	87	%	%	12/09/20	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
QA/QC Surrogates: Surrogates are compounds (preceeded 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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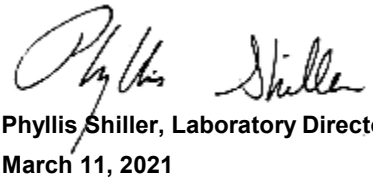

Phyllis Shiller, Laboratory Director
March 11, 2021
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

NY # 11301

Analysis Report

March 11, 2021

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	KAW	12/08/20	14:04
Location Code:	WALDENE-IPARK	Received by:	LB	12/09/20	16:36
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	13633				

Laboratory Data

SDG ID: GCH28475
Phoenix ID: CH28477

Project ID: HES INDUSTRIES
Client ID: IA-4

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	12/09/20	KCA	1
1,1-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
1,2,4-Trichlorobenzene	ND	*0.250*	0.250	ND	*1.85*	1.85	12/09/20	KCA	1
1,2-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,3-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
1,4-Dichlorobenzene	ND	*0.150*	0.150	ND	*0.90*	0.90	12/09/20	KCA	1
Acetone	ND	*1.00*	1.00	ND	*2.37*	2.37	12/09/20	KCA	1
Benzene	0.174	*0.050*	0.050	0.56	*0.16*	0.16	12/09/20	KCA	1
Carbon Tetrachloride	0.093	*0.020*	0.020	0.58	*0.13*	0.13	12/09/20	KCA	1
Chlorobenzene	ND	*0.200*	0.200	ND	*0.92*	0.92	12/09/20	KCA	1
Cis-1,2-Dichloroethene	ND	*0.050*	0.050	ND	*0.20*	0.20	12/09/20	KCA	1
Dichlorodifluoromethane	0.460	*0.200*	0.200	2.27	*0.99*	0.99	12/09/20	KCA	1
Ethylbenzene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
m,p-Xylene	0.223	*0.150*	0.150	0.97	*0.65*	0.65	12/09/20	KCA	1
Methylene Chloride	0.438	*0.400*	0.400	1.52	*1.39*	1.39	12/09/20	KCA	1
o-Xylene	ND	*0.150*	0.150	ND	*0.65*	0.65	12/09/20	KCA	1
Tetrachloroethene	0.223	*0.100*	0.100	1.51	*0.68*	0.68	12/09/20	KCA	1
Toluene	0.273	*0.200*	0.200	1.03	*0.75*	0.75	12/09/20	KCA	1
Trichloroethene	ND	*0.037*	0.037	ND	*0.20*	0.20	12/09/20	KCA	1
Trichlorofluoromethane	0.369	*0.150*	0.150	2.07	*0.84*	0.84	12/09/20	KCA	1
Trichlorotrifluoroethane	ND	*0.150*	0.150	ND	*1.15*	1.15	12/09/20	KCA	1
Vinyl Chloride	ND	*0.020*	0.020	ND	*0.05*	0.05	12/09/20	KCA	1
QA/QC Surrogates/Internals									
% Bromofluorobenzene	99	%	%	99	%	%	12/09/20	KCA	1
% IS-1,4-Difluorobenzene	76	%	%	76	%	%	12/09/20	KCA	1
% IS-Bromochloromethane	74	%	%	74	%	%	12/09/20	KCA	1

Parameter	ppbv Result	ppbv RL	LOD/ MDL	ug/m3 Result	ug/m3 RL	LOD/ MDL	Date/Time	By	Dilution
% IS-Chlorobenzene-d5	77	%	%	77	%	%	12/09/20	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
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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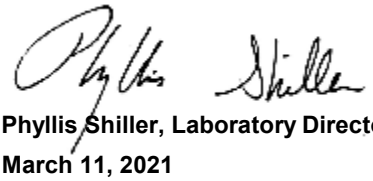

Phyllis Shiller, Laboratory Director
March 11, 2021
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

NY # 11301

Canister Sampling Information

March 11, 2021

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

Location Code: WALDENE-IPARK

Project ID: HES INDUSTRIES

SDG I.D.: GCH28475

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
IA-2	CH28475	19806	6.0L	7020	12/01/20	-30	-9	10.8	11.0	1.8	-30	-9	12/08/20 07:51	12/08/20 14:20
IA-3	CH28476	16013	6.0L	5382	12/01/20	-30	-9	10.8	11.2	3.6	-30	-9.5	12/08/20 07:47	12/08/20 14:15
IA-4	CH28477	13633	6.0L	3510	12/01/20	-30	-9	10.8	11.5	6.3	-30	-9	12/08/20 07:45	12/08/20 14:04

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

March 11, 2021

QA/QC Data

SDG I.D.: GCH28475

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 556161 (ppbv), QC Sample No: CH28475 (CH28475, CH28476, CH28477)													
Volatiles													
1,1,1-Trichloroethane	ND	0.200	ND	1.09	109	111	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.050	ND	0.20	126	127	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.250	ND	1.85	93	92	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.150	ND	0.90	110	117	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.150	ND	0.90	107	114	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.150	ND	0.90	109	116	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	1.00	ND	2.37	104	109	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.050	ND	0.16	98	101	0.46	0.50	0.145	0.158	NC	70 - 130	25
Carbon Tetrachloride	ND	0.020	ND	0.13	112	117	0.56	0.43	0.089	0.069	NC	70 - 130	25
Chlorobenzene	ND	0.200	ND	0.92	101	106	ND	ND	ND	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.050	ND	0.20	108	106	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	110	107	1.95	1.99	0.394	0.403	NC	70 - 130	25
Ethylbenzene	ND	0.150	ND	0.65	105	109	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.150	ND	0.65	109	115	0.70	0.74	0.161	0.170	NC	70 - 130	25
Methylene Chloride	ND	0.400	ND	1.39	125	129	ND	1.42	ND	0.409	NC	70 - 130	25
o-Xylene	ND	0.150	ND	0.65	110	114	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.100	ND	0.68	107	108	1.07	1.11	0.158	0.164	NC	70 - 130	25
Toluene	ND	0.200	ND	0.75	106	108	1.24	1.35	0.329	0.359	NC	70 - 130	25
Trichloroethene	ND	0.037	ND	0.20	105	109	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.150	ND	0.84	128	130	1.66	1.84	0.295	0.327	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.150	ND	1.15	120	123	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.020	ND	0.05	114	106	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	95	%	95	%	102	107	96	97	96	97	NC	70 - 130	25
% IS-1,4-Difluorobenzene	93	%	93	%	75	68	94	87	94	87	NC	60 - 140	25
% IS-Bromochloromethane	92	%	92	%	75	69	90	84	90	84	NC	60 - 140	25
% IS-Chlorobenzene-d5	95	%	95	%	79	71	97	89	97	89	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
March 11, 2021

Sample Criteria Exceedances Report

GCH28475 - WALDENE-IPARK

Criteria: None

State: NY

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

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.

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-1102

Data Delivery: ☐ Fax #: WC ☒ Email: nbrew@walden-associates.com

03/11/2021

Report to: Nora Brew, P.E
Address: 116 Spring Street Oyster Bay, NY 11771
Project Mgr: 516-624-7200
Phone #

Invoice to: Carl Monheit
Address: 485 West Putnam Ave Greenwich, CT 06850
P.O. #
Quote # iPark 0118.40 HES

Project Name: HES Industries
Location: iPark East Fishkill
State: New York
Sampled by: KAW

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-14	TO-15	Is Canister Returned Unused? Y/N
		LAB USE ONLY											MATRIX			ANALYSES		
28475	IA-2	16800	6.0	-30	-9	7020	10.8	7:51	1420	12/8/20	-30	-9	X		G		X	
28476	IA-3	16013	↓	↓	-9	5382	↓	7:47	1415	12/8/20	-30	-9.5	X		G		X	
28477	IA-4	13633	↓	↓	-9	3510	↓	7:45	1404	12/8/20	-30	-9	X		G		X	
			↓	↓			↓											

Phoenix Environmental Laboratories, Inc.

Relinquished by:	Accepted by:	Date:	Time:
Ken Wright		12/9	1:30
	13:55		
	12/9/20		10:30

Criteria Requested: **Deliverable:** RCP ☐ MCP ☐
State where samples collected:

Data Format: Excel ☐ Equis ☐ PDF ☐ Other: ☐ GISKey ☐

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:
TO-15 "special code / list needed"
See Bobbi or Greg
Modified TO15 analysis as per project QAPP

* Reg 7020 not returned MJP

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: Ken Ann Wright Date: 12/8/20

PHOENIX
Environmental Laboratories, Inc.

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

HES INDUSTRIES

Laboratory Project: GCH28475

Volatile TO15
Ver 1

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 indentification 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.

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG: GCH28475

Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: HES INDUSTRIES, 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: CH28475 LCS
All LCS recoveries met criteria with the following exceptions: None.

Sample: CH28475 LCSD
All LCSD recoveries met criteria with the following exceptions: None.

Form 4 (Method Blank):

File: CHEM24 1209_07.D
All compounds were non-detect with the following exceptions: None.

Form 5 (Tune):

File: CHEM24 1203_02.D
All Tune criteria was met with the following exceptions: None.

File: CHEM24 1209_02.D
All Tune criteria was met with the following exceptions: None.

Form 6 (Initial Calibration):

Calibration: CHEM24 12/03/20 - 12/03/20
100% of method compounds met criteria.
The following compounds did not meet maximum % deviations: None.

Calibration: CHEM24 12/03/20 - 12/03/20
100% of method compounds met criteria.
The following compounds did not meet maximum % deviations: None.

Form 7 (Continuing Calibration):

File: CHEM24 1209_02.D (Opening)
97% of method compounds met criteria.
The following compounds did not meet maximum % deviations: 1,2,4-Trichlorobenzene 56.9% (30), 1,2,4-Trichlorobenzene(sim) 57.8% (30)

Form 8 (Internal Standard and Retention Time):

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG: GCH28475

Volatile Air Conformance / Non-Conformance Summary

Project ID / Client ID: HES INDUSTRIES, Walden Environmental Engineering PLLC

File: CHEM24 - 24AIR_1203.M / 1209_02.D Full
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM24 - 24AIR_1203.M / 1209_02.D Sim
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM24 - 24AIR_1203.M / Average Full
All samples met internal standard area and retention time critieria with the following exceptions: None.

File: CHEM24 - 24AIR_1203.M / Average Sim
All samples met internal standard area and retention time critieria with the following exceptions: None.

01/07/21

Alejandro Paredes
Project Manager

2C
AIR SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: SDG: GCH28475

QC Batch Id: 556161 QC Sample Id: CH28475

	CLIENT ID	LAB ID	SMC1 BFB #				TOT OUT
01	CH28475 BLANK	CH28475 BLANK	95				0
02	IA-2	CH28475	97				0
03	IA-2 DUP	CH28475 DUP	97				0
04	IA-3	CH28476	100				0
05	IA-4	CH28477	99				0
06	CH28475 LCSD	CH28475 LCSD	107				0
07	CH28475 LCS	CH28475 LCS	102				0
08							
09							
10							
11							
12							
13							
14							
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25							
26							
27							
28							
29							
30							

			QC LIMITS
SMC1	BFB	Bromofluorobenzene	(70-130)

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

FORM II AIR

AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No: SAS No: SDG No GCH28475

LCS - Client Id: CH28475 LCSD

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Dichlorodifluoromethane	10		10.72	107	70	130
Vinyl Chloride	10		10.63	106	70	130
Acetone	10		10.95	110	70	130
Trichlorofluoromethane	10		12.99	130	70	130
1,1-Dichloroethene	10		12.71	127	70	130
Methylene Chloride	10		12.88	129	70	130
Trichlorotrifluoroethane	10		12.27	123	70	130
Cis-1,2-Dichloroethene	10		10.61	106	70	130
1,1,1-Trichloroethane	10		11.13	111	70	130
Benzene	10		10.11	101	70	130
Carbon Tetrachloride	10		11.68	117	70	130
Trichloroethene	10		10.85	109	70	130
Toluene	10		10.75	108	70	130
Tetrachloroethene	10		10.84	108	70	130
Chlorobenzene	10		10.56	106	70	130
Ethylbenzene	10		10.85	109	70	130
m,p-Xylene	20		22.97	115	70	130
o-Xylene	10		11.43	114	70	130
1,3-Dichlorobenzene	10		11.36	114	70	130
1,4-Dichlorobenzene	10		11.58	116	70	130
1,2-Dichlorobenzene	10		11.75	118	70	130
1,2,4-Trichlorobenzene	10		9.246	92	70	130

FORM III AIR

AIR LCS RECOVERY

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No: SAS No: SDG No GCH28475

LCS - Client Id: CH28475 LCS

COMPOUND	SPIKE ADDED (ppbv)		LCS CONCENTRATION (ppbv)	LCS % REC #	QC. LIMITS REC.	
Dichlorodifluoromethane	10		10.95	110	70	130
Vinyl Chloride	10		11.44	114	70	130
Acetone	10		10.44	104	70	130
Trichlorofluoromethane	10		12.84	128	70	130
1,1-Dichloroethene	10		12.62	126	70	130
Methylene Chloride	10		12.49	125	70	130
Trichlorotrifluoroethane	10		11.97	120	70	130
Cis-1,2-Dichloroethene	10		10.77	108	70	130
1,1,1-Trichloroethane	10		10.94	109	70	130
Benzene	10		9.752	98	70	130
Carbon Tetrachloride	10		11.24	112	70	130
Trichloroethene	10		10.47	105	70	130
Toluene	10		10.55	106	70	130
Tetrachloroethene	10		10.73	107	70	130
Chlorobenzene	10		10.13	101	70	130
Ethylbenzene	10		10.45	105	70	130
m,p-Xylene	20		21.87	109	70	130
o-Xylene	10		11.03	110	70	130
1,3-Dichlorobenzene	10		10.74	107	70	130
1,4-Dichlorobenzene	10		10.91	109	70	130
1,2-Dichlorobenzene	10		11.02	110	70	130
1,2,4-Trichlorobenzene	10		9.325	93	70	130

FORM III AIR

4A

AIR METHOD BLANK SUMMARY

Client ID: CH28475 BLANK

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCH28475

Lab File ID: 1209_07.D Lab Sample ID: CH28475 BLK

Date Analyzed: 12/09/2020 Time Analyzed: 19:16

GC Column: RTX-VMS Lab Batch ID: 556161

Instrument ID: CHEM24 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	IA-2	CH28475	1209_08.D	19:55
02	IA-2 DUP	CH28475 DUP	1209_09.D	20:36
03	IA-3	CH28476	1209_10.D	21:16
04	IA-4	CH28477	1209_11.D	21:56
05	CH28475 LCSD	CH28475 LCS	1209_26.D	10:21
06	CH28475 LCS	CH28475 LCS	1209_27.D	11:16
07				
08				
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17				
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19				
20				

COMMENTS:

FORM IV AIR

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCH28475

Lab File ID: 1203_02.D BFB Injection Date: 12/03/20

Instrument ID: CHEM24 BFB Injection Time: 15:16

GC Column: RTX-VMS Heated Purge: (Y/N) Y

AutoFind: Scans 1666, 1667, 1668; Background Corrected with Scan 1658

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE			
50	8.0 - 40.0% of mass 95	31.6			
75	30.0 - 66.0% of mass 95	47.5			
95	Base Peak, 100% relative abundance	100.0			
96	5.0 - 9.0% of mass 95	6.6			
173	Less than 2.0% of mass 174	0.4	(	0.5	)1
174	50.0 - 120.0% of mass 95	86.8			
175	4.0 - 9.0% of mass 174	7.6	(	6.6	)1
176	93.0 - 101.0% of mass 174	95.9	(	83.2	)1
177	5.0 - 9.0% of mass 176	6.6	(	5.5	)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	1203_03.D	12/03/20	15:48	
02	ICAL 0.035	0.035	1203_04.D	12/03/20	16:19	
03	ICAL 0.05	0.05	1203_05.D	12/03/20	16:51	
04	ICAL 0.1	0.10	1203_06.D	12/03/20	17:23	
05	ICAL 0.25	0.20	1203_07.D	12/03/20	17:56	
06	ICAL 0.5	0.5	1203_08.D	12/03/20	18:32	
07	ICAL 2.5	2.5	1203_09.D	12/03/20	19:08	
08	ICAL 5	5.0	1203_10.D	12/03/20	19:41	
09	ICAL 25	25	1203_11.D	12/03/20	20:17	
10	ICAL 40	40	1203_12.D	12/03/20	20:56	
11	ICAL 1	1ppb	1203_14.D	12/03/20	22:00	
12	ICAL 10	10ppb	1203_15.D	12/03/20	22:33	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_02.D
Acq On : 3 Dec 2020 3:16 pm
Operator : Keith
Sample : 0/0
Misc :
ALS Vial : 4 Sample Multiplier: 1

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

Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 04 08:31:02 2020

AutoFind: Scans 1666, 1667, 1668; Background Corrected with Scan 1658

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	31.6	59907	PASS
75	95	30	66	47.5	89995	PASS
95	95	100	100	100.0	189547	PASS
96	95	5	9	6.6	12509	PASS
173	174	0.00	2	0.5	784	PASS
174	95	50	120	86.8	164459	PASS
175	174	4	9	7.6	12426	PASS
176	174	93	101	95.9	157680	PASS
177	176	5	9	6.6	10399	PASS

24AIR_1203.M Fri Dec 04 08:31:39 2020

5B
AIR INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCH28475

Lab File ID: 1209_02.D BFB Injection Date: 12/09/20

Instrument ID: CHEM24 BFB Injection Time: 16:06

GC Column: RTX-VMS Heated Purge: (Y/N) Y

AutoFind: Scans 1668, 1669, 1670; Background Corrected with Scan 1661

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE			
50	8.0 - 40.0% of mass 95	35.8			
75	30.0 - 66.0% of mass 95	51.5			
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	0.9	(	1.1	)1
174	50.0 - 120.0% of mass 95	84.2			
175	4.0 - 9.0% of mass 174	7.6	(	6.4	)1
176	93.0 - 101.0% of mass 174	95.3	(	80.3	)1
177	5.0 - 9.0% of mass 176	6.9	(	5.5	)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	CCAL 1	1ppb cc	1209_02.D	12/09/20	16:06	
02	CH28475 BLANK	CH28475 BLANK	1209_07.D	12/09/20	19:16	
03	IA-2	CH28475	1209_08.D	12/09/20	19:55	
04	IA-2 DUP	CH28475 DUP	1209_09.D	12/09/20	20:36	
05	IA-3	CH28476	1209_10.D	12/09/20	21:16	
06	IA-4	CH28477	1209_11.D	12/09/20	21:56	
07	CH28475 LCSD	CH28475 LCSD	1209_26.D	12/10/20	10:21	
08	CH28475 LCS	CH28475 LCS	1209_27.D	12/10/20	11:16	
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

(*) Outside 24 hr clock

FORM V AIR

CLPBFB

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_02.D
Acq On : 9 Dec 2020 4:06 pm
Operator : Keith
Sample : 1ppb cc
Misc :
ALS Vial : 2 Sample Multiplier: 1

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

Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 04 08:35:47 2020

AutoFind: Scans 1668, 1669, 1670; Background Corrected with Scan 1661

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	35.8	56640	PASS
75	95	30	66	51.5	81549	PASS
95	95	100	100	100.0	158336	PASS
96	95	5	9	6.7	10628	PASS
173	174	0.00	2	1.1	1428	PASS
174	95	50	120	84.2	133336	PASS
175	174	4	9	7.6	10171	PASS
176	174	93	101	95.3	127115	PASS
177	176	5	9	6.9	8710	PASS

24AIR_1203.M Thu Dec 10 08:46:05 2020

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCH28475

Lab Method / File Id: 24AIR_1203.M / Average Date Analyzed: 12/03/20

Instrument ID: CHEM24 Time Analyzed: 22:00

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	138901	5.33	405796	7.27	186999	10.86			Average
	UPPER LIMIT	195156	5.66	570144	7.60	262733	11.19			Average
	LOWER LIMIT	82646	5.00	241449	6.94	111264	10.53			Average
	CLIENT ID									
01	ICAL 0.25	140105	5.33	414179	7.27	185742	10.86			1203_07.D
02	ICAL 0.5	134237	5.33	396222	7.27	177106	10.86			1203_08.D
03	ICAL 2.5	132589	5.33	388875	7.27	178798	10.86			1203_09.D
04	ICAL 5	130484	5.33	371086	7.28	174586	10.86			1203_10.D
05	ICAL 25	130388	5.33	382090	7.28	182308	10.86			1203_11.D
06	ICAL 40	151205	5.34	438941	7.28	207897	10.86			1203_12.D
07	ICAL 1	151794	5.33	446858	7.27	200160	10.86			1203_14.D
08	ICAL 10	140406	5.33	408118	7.28	189392	10.86			1203_15.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: WALDENE-IPARK

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCH28475

Lab Method / File Id: 24AIR_1203.M / Average Date Analyzed: 12/03/20

Instrument ID: CHEM24 Time Analyzed: 22:00

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	149217	5.33	417856	7.27	187748	10.86			Average
	UPPER LIMIT	209650	5.66	587088	7.60	263785	11.19			Average
	LOWER LIMIT	88784	5.00	248625	6.94	111710	10.53			Average
	CLIENT ID									
01	ICAL 0.02	161140	5.33	449317	7.28	189618	10.86			1203_03.D
02	ICAL 0.035	158776	5.33	448707	7.27	198345	10.86			1203_04.D
03	ICAL 0.05	156861	5.33	441431	7.27	196635	10.86			1203_05.D
04	ICAL 0.1	146907	5.33	413771	7.27	187093	10.86			1203_06.D
05	ICAL 0.25	146771	5.33	414179	7.27	185742	10.86			1203_07.D
06	ICAL 0.5	142472	5.33	396222	7.27	177106	10.86			1203_08.D
07	ICAL 2.5	140338	5.33	388875	7.27	178798	10.86			1203_09.D
08	ICAL 5	135648	5.33	371086	7.28	174586	10.86			1203_10.D
09	ICAL 1	157374	5.33	446858	7.27	200160	10.86			1203_14.D
10	ICAL 10	145887	5.34	408118	7.28	189392	10.86			1203_15.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
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RT LOWER LIMIT = -0.33 minutes of internal standard RT

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FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Full Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCH28475

Lab Method / File Id: 24AIR_1203.M / 1209_02.D Date Analyzed: 12/09/20

Instrument ID: CHEM24 Time Analyzed: 16:06

GC Column: RTX-VMS 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	145423	5.36	424306	7.29	191708	10.87			1209_02.D
UPPER LIMIT	204319	5.69	596150	7.62	269350	11.20			1209_02.D
LOWER LIMIT	86527	5.03	252462	6.96	114066	10.54			1209_02.D
CLIENT ID									
01 CCAL 1	145423	5.36	424306	7.29	191708	10.87			1209_02.D
02 CH28475 BLANK	133095	5.36	395073	7.29	182743	10.87			1209_07.D
03 IA-2	131224	5.35	399553	7.29	185319	10.87			1209_08.D
04 IA-2 DUP	121643	5.35	368368	7.29	170445	10.87			1209_09.D
05 IA-3	120437	5.35	360281	7.29	166314	10.87			1209_10.D
06 IA-4	108129	5.35	321947	7.29	147631	10.87			1209_11.D
07 CH28475 LCSD	100081	5.33	287273	7.28	135487	10.86			1209_26.D
08 CH28475 LCS	109004	5.33	318885	7.28	152161	10.86			1209_27.D
09									
10									
11									
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15									
16									
17									
18									
19									
20									
21									
22									

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FORM VIII VOA

8A
AIR INTERNAL STANDARD AREA AND RT SUMMARY
Sim Scan

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: _____ SAS No.: _____ SDG No.: GCH28475

Lab Method / File Id: 24AIR_1203.M / 1209_02.D Date Analyzed: 12/09/20

Instrument ID: CHEM24 Time Analyzed: 16:06

GC Column: RTX-VMS 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	151994	5.35	424306	7.29	191708	10.87			1209_02.D
UPPER LIMIT	213552	5.68	596150	7.62	269350	11.20			1209_02.D
LOWER LIMIT	90436	5.02	252462	6.96	114066	10.54			1209_02.D
CLIENT ID									
01 CCAL 1	151994	5.35	424306	7.29	191708	10.87			1209_02.D
02 CH28475 BLANK	139497	5.35	395073	7.29	182743	10.87			1209_07.D
03 IA-2	136460	5.35	399553	7.29	185319	10.87			1209_08.D
04 IA-2 DUP	127292	5.35	368368	7.29	170445	10.87			1209_09.D
05 IA-3	127640	5.35	360281	7.29	166314	10.87			1209_10.D
06 IA-4	113344	5.35	321947	7.29	147631	10.87			1209_11.D
07 CH28475 LCSD	106270	5.34	287273	7.28	135487	10.86			1209_26.D
08 CH28475 LCS	116842	5.34	318885	7.28	152161	10.86			1209_27.D
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

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FORM VIII VOA

1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-2

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28475

Canister: 19806 Lab File ID: 1209_08.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/09/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.394		0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.295		0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
108-88-3	Toluene	0.329		0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
71-43-2	Benzene(sim)	0.145		0.050	0.050	r
56-23-5	Carbon Tetrachloride(sim)	0.089		0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.158		0.100	0.100	r
100-41-4	Ethylbenzene(sim)	0.150	U	0.150	0.150	r
179601-23-1	m,p-Xylene(sim)	0.161		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_08.D
Acq On : 9 Dec 2020 7:55 pm
Operator : Keith
Client ID : IA-2
Lab ID : CH28475
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 10 08:50:50 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

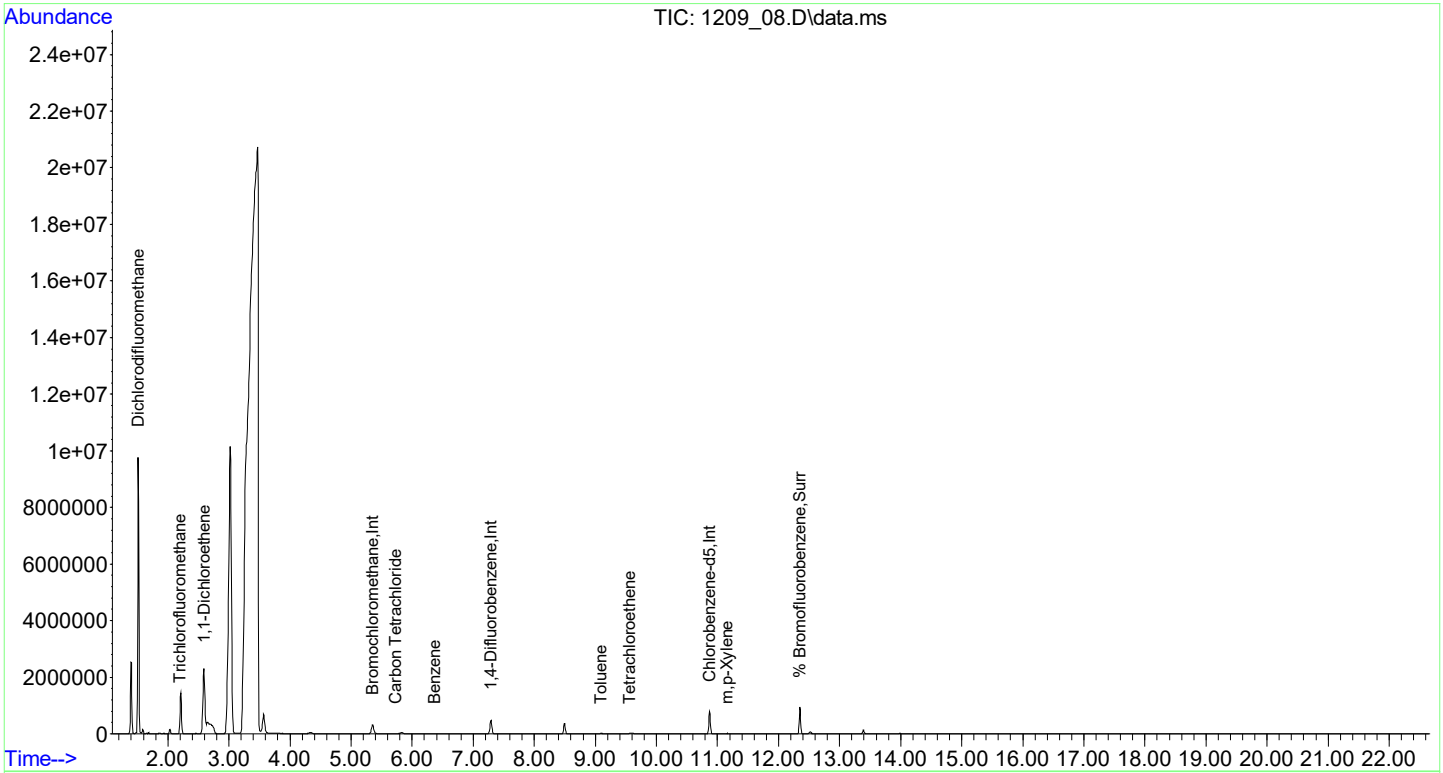
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.349	130	131224	10.000	ng		0.01
36) 1,4-Difluorobenzene	7.291	114	399553	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	185319	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	136460	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	399553	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	185319	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	272608	9.647	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.50%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	11806	0.394	ppbv		96
13) Trichlorofluoromethane	2.198	101	12866	0.295	ppbv		94
16) 1,1-Dichloroethene	2.595	61	1569	0.065	ppbv#		36
33) Benzene	6.367	78	4196	0.168	ppbv		98
34) Carbon Tetrachloride	5.724	117	3302	0.085	ppbv		91
48) Toluene	9.090	91	12004	0.329	ppbv		97
52) Tetrachloroethene	9.566	166	3190	0.147	ppbv		95
57) m,p-Xylene	11.159	91	6331	0.160	ppbv		94
86) Benzene(sim)	6.363	78	4365	0.145	ppbv		99
87) Carbon Tetrachloride(sim)	5.724	117	3302	0.089	ppbv#		79
104) Tetrachloroethene(sim)	9.562	166	3575	0.158	ppbv		97
109) m,p-Xylene(sim)	11.159	91	6331	0.161	ppbv		95

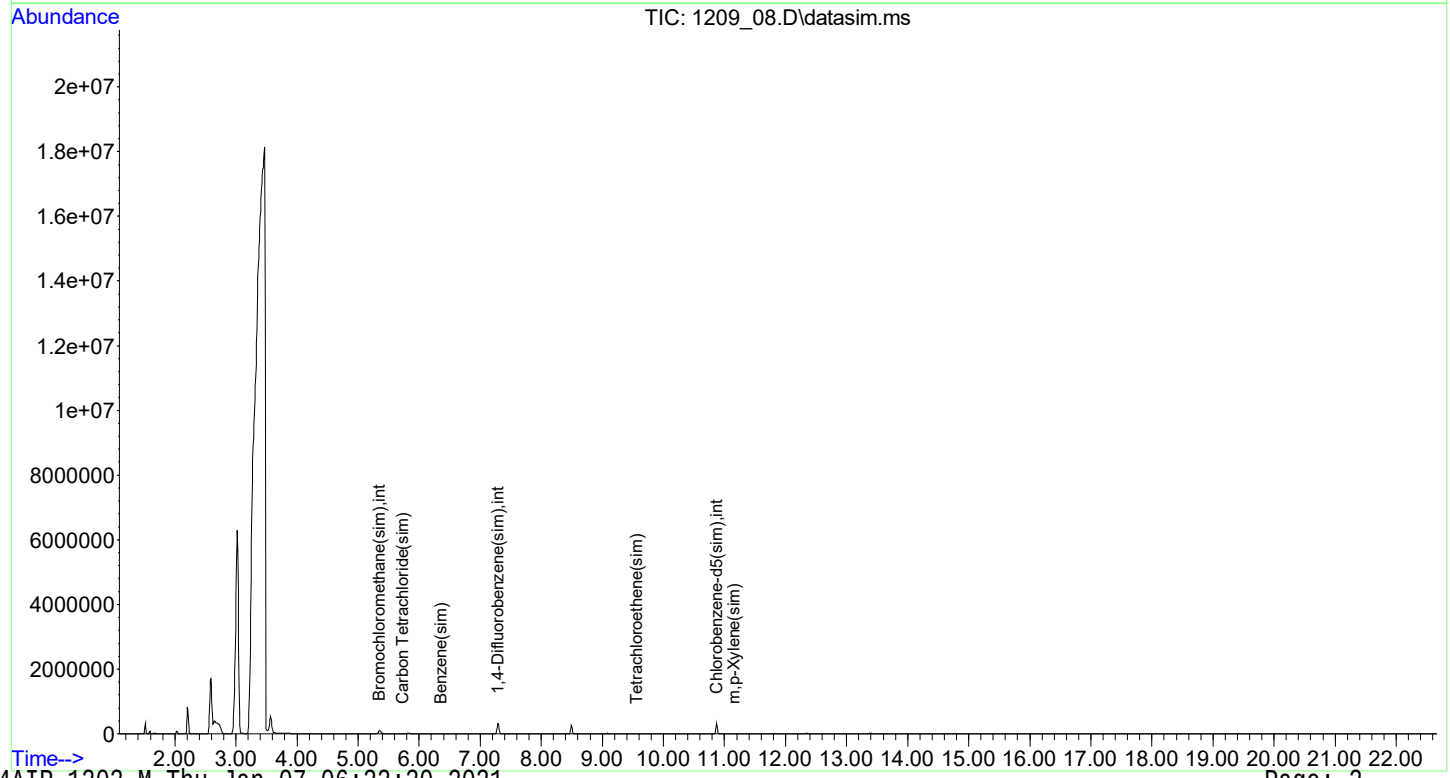
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

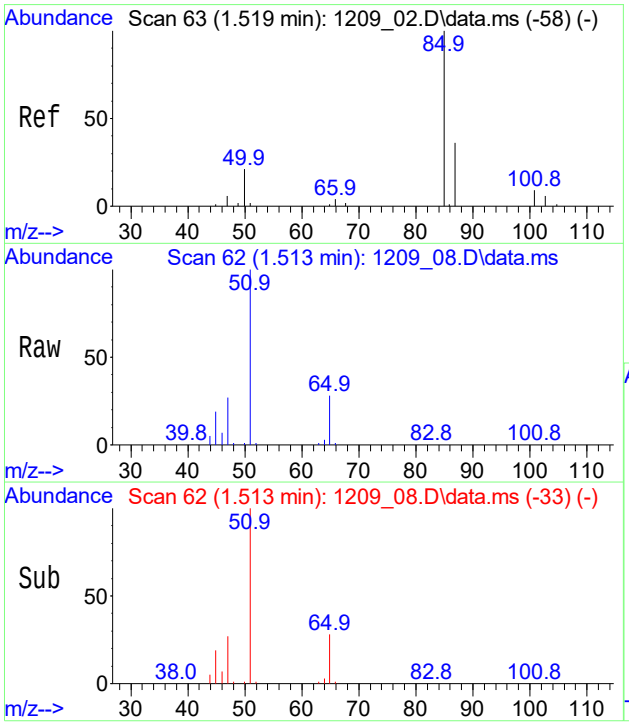
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_08.D
Acq On : 9 Dec 2020 7:55 pm
Operator : Keith
Client ID : IA-2
Lab ID : CH28475
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 10 08:50:50 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration



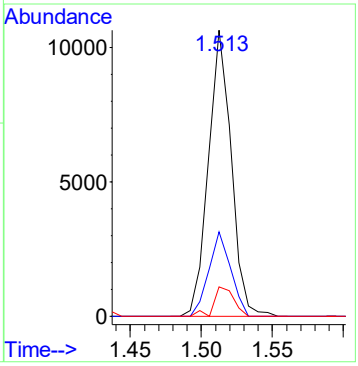


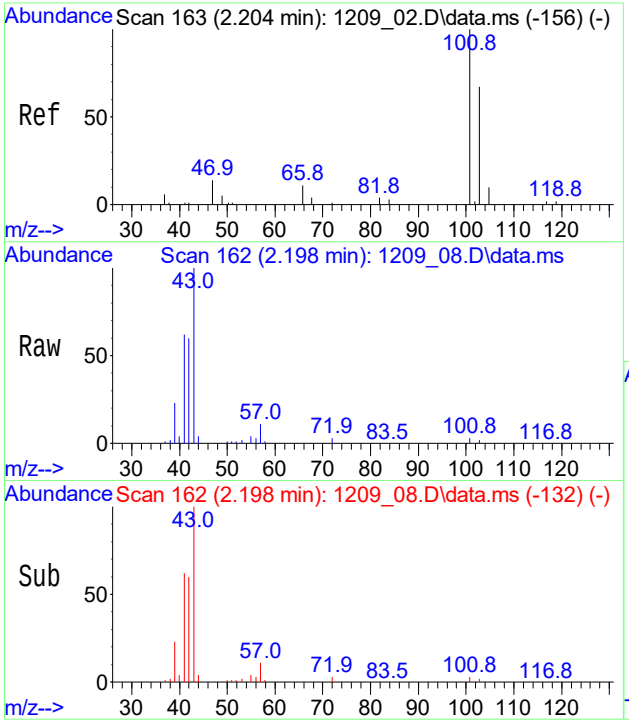


#3
Dichlorodifluoromethane
Conc: 8$ 0.394 ppbv
RT: 1.513 min Scan# 62
Delta R.T. 0.000 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 85 Resp: 11806

Ion	Ratio	Lower	Upper
85	100		
87	28.3	24.5	36.7
101	8.8	8.6	12.8

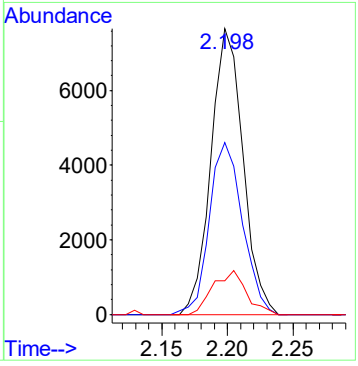


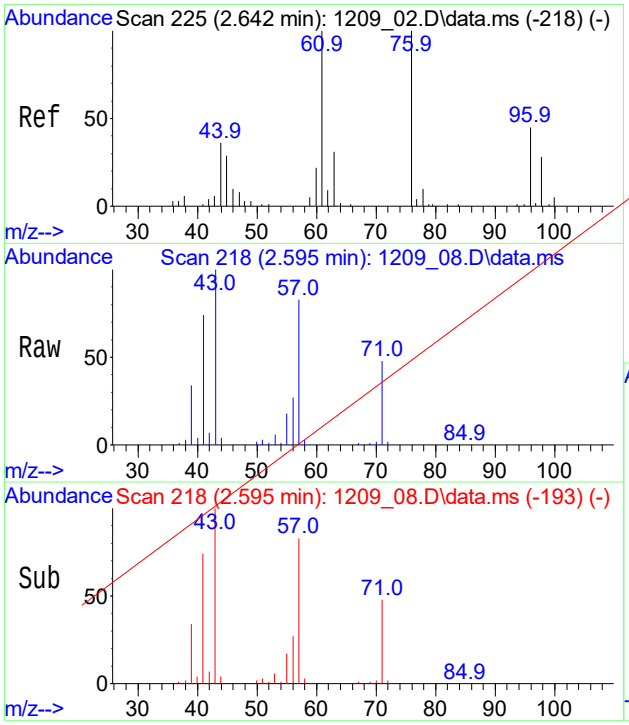


#13
Trichlorofluoromethane
Conc: 8$ 0.295 ppbv
RT: 2.198 min Scan# 162
Delta R.T. 0.007 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion:101 Resp: 12866

Ion	Ratio	Lower	Upper
101	100		
103	62.3	54.5	81.7
66	16.0	12.7	19.1

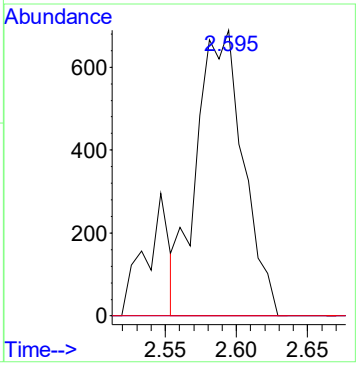


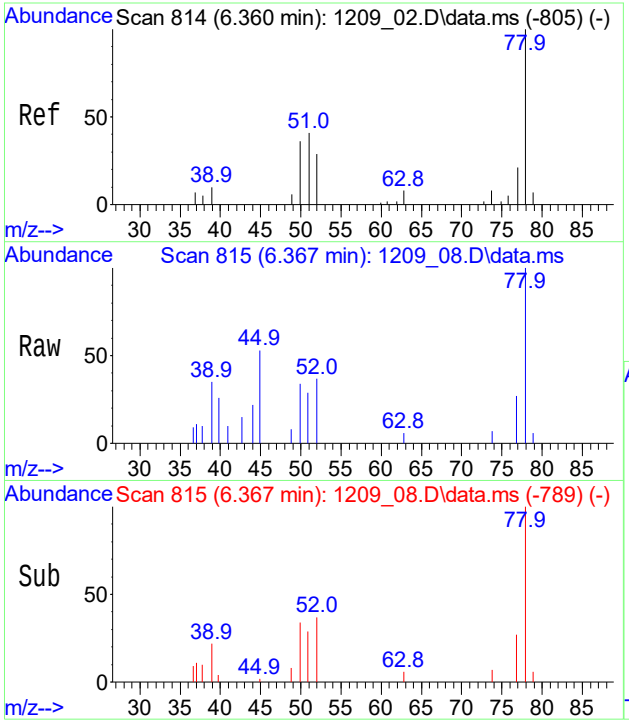


#16
1,1-Dichloroethene
Conc: 8$ Below Cal
RT: 2.595 min Scan# 218
Delta R.T. -0.027 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 61 Resp: 1569

Ion	Ratio	Lower	Upper
61	100		
96	0.0	37.8	56.6#
98	0.0	22.4	33.6#

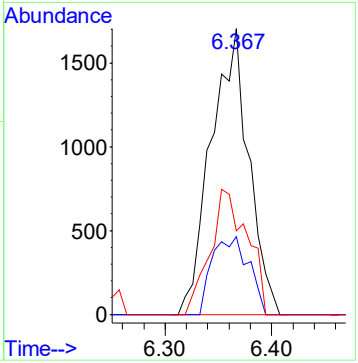


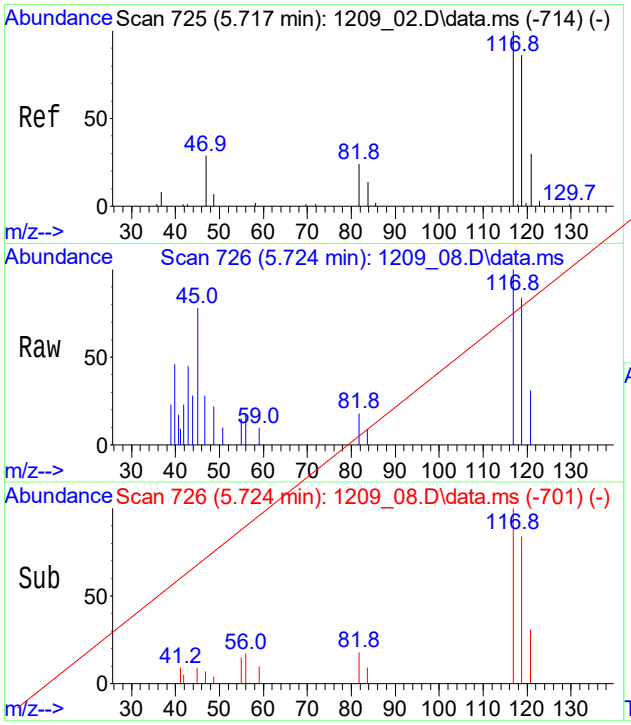


#33
Benzene
Conc: 8$ 0.168 ppbv
RT: 6.367 min Scan# 815
Delta R.T. 0.028 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 78 Resp: 4196

Ion	Ratio	Lower	Upper
78	100		
77	26.2	22.7	34.1
51	43.0	34.6	51.8

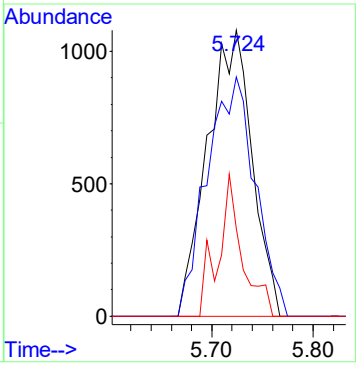


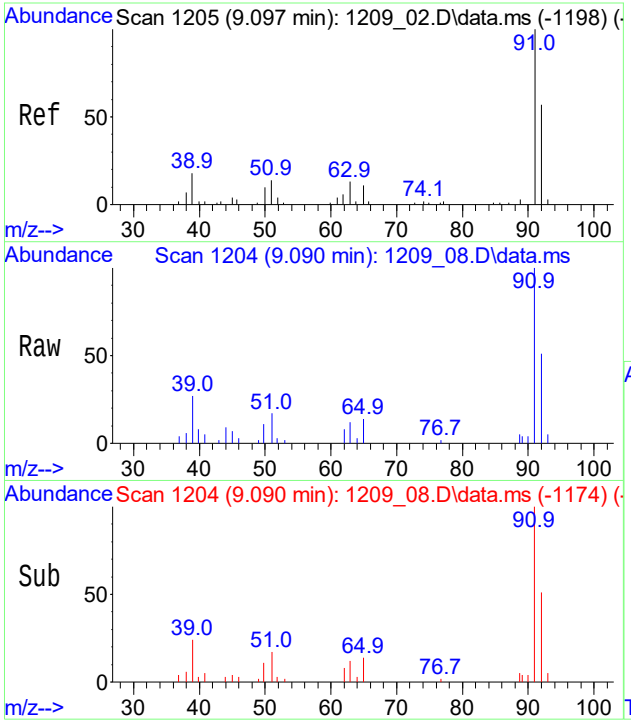


#34
Carbon Tetrachloride
Conc: 8$ Below Cal
RT: 5.724 min Scan# 726
Delta R.T. 0.029 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion:117 Resp: 3302

Ion	Ratio	Lower	Upper
117	100		
119	89.9	78.5	118.5
121	26.7	11.7	51.7

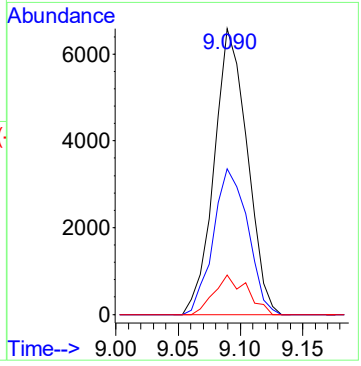


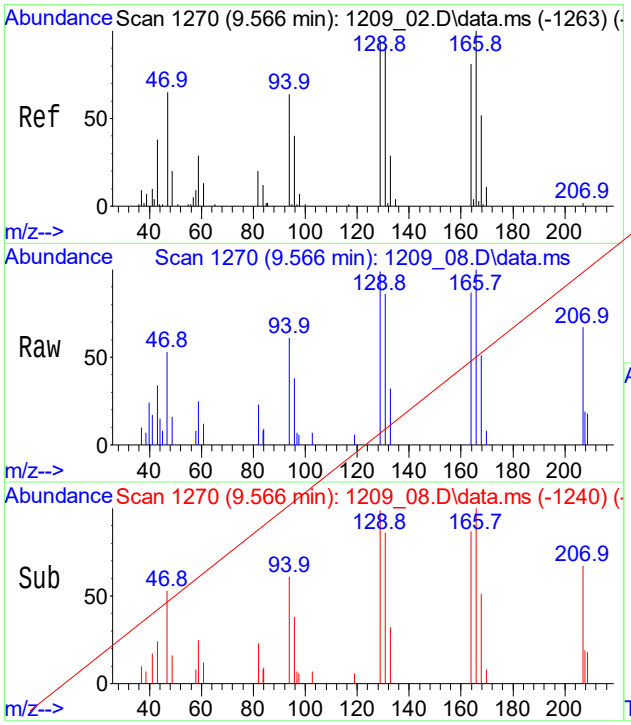


#48
Toluene
Conc: 8$ 0.329 ppbv
RT: 9.090 min Scan# 1204
Delta R.T. 0.015 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 91 Resp: 12004

Ion	Ratio	Lower	Upper
91	100		
92	53.4	44.5	66.7
65	13.8	12.6	19.0

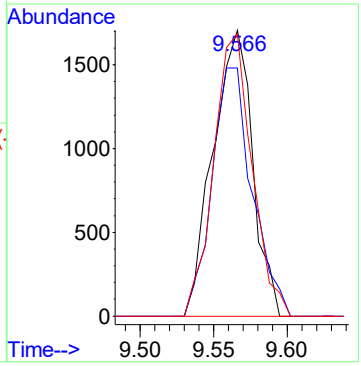


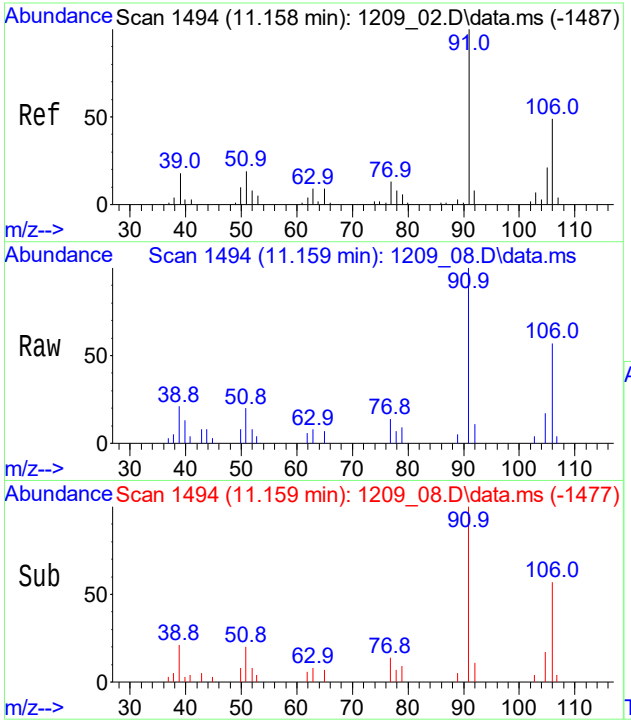


#52
Tetrachloroethene
Conc: 8$ Below Cal
RT: 9.566 min Scan# 1270
Delta R.T. 0.015 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion:166 Resp: 3190

Ion	Ratio	Lower	Upper
166	100		
164	88.7	75.6	113.4
129	96.0	80.0	120.0

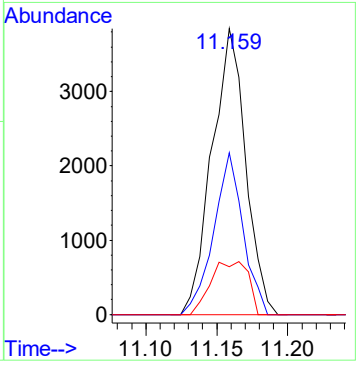


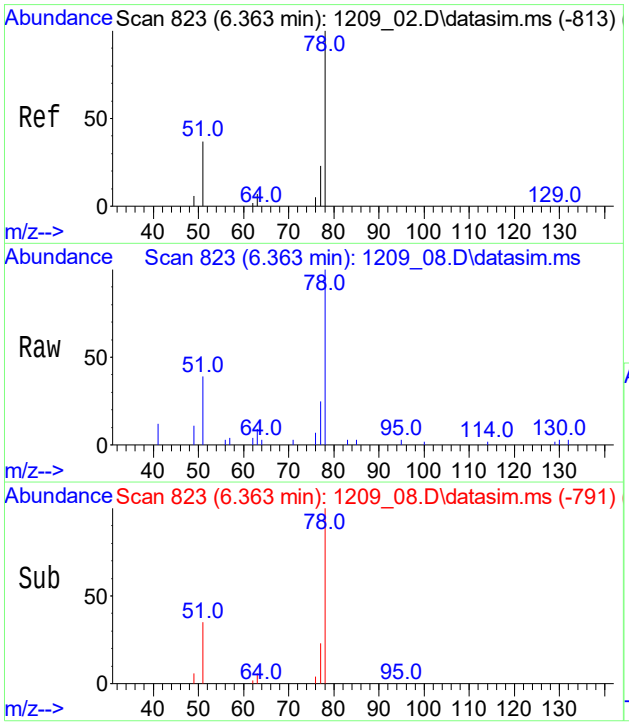


#57
m,p-Xylene
Conc: 8$ 0.160 ppbv
RT: 11.159 min Scan# 1494
Delta R.T. 0.014 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 91 Resp: 6331

Ion	Ratio	Lower	Upper
91	100		
106	49.4	42.3	63.5
105	20.8	19.5	29.3

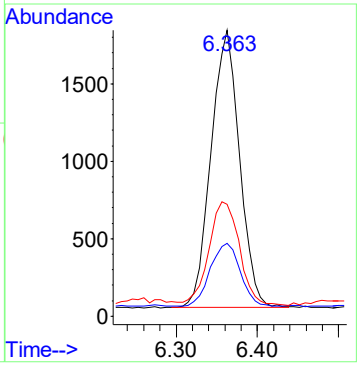


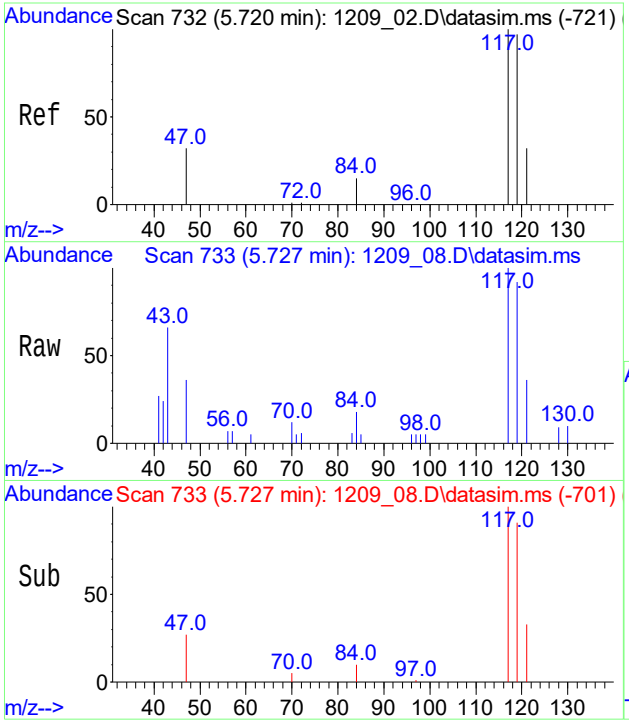


#86
Benzene(sim)
Conc: 8$ 0.145 ppbv
RT: 6.363 min Scan# 823
Delta R.T. 0.021 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 78 Resp: 4365

Ion	Ratio	Lower	Upper
78	100		
77	24.0	20.0	30.0
51	39.8	31.8	47.6

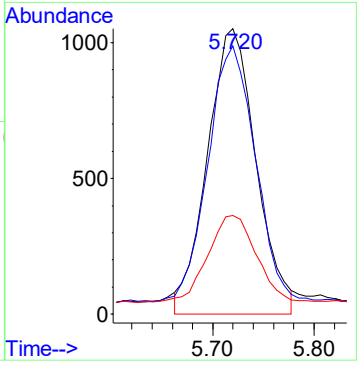


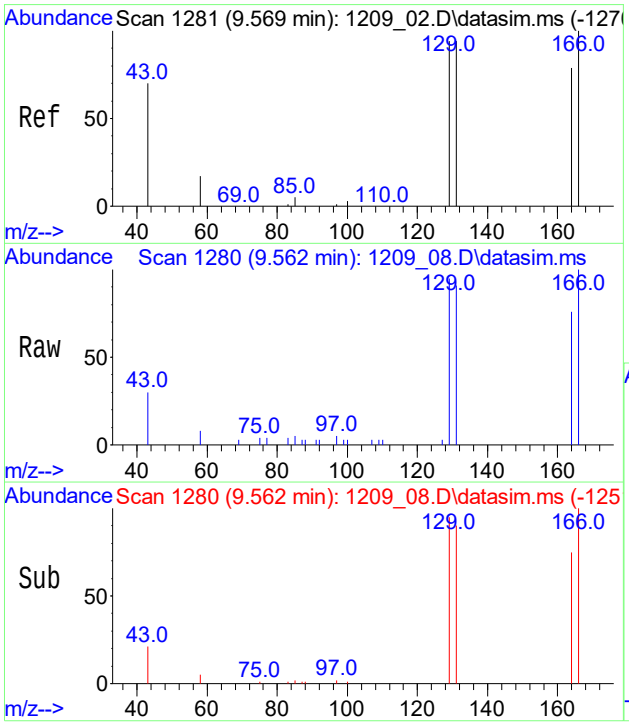


#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.089 ppbv
RT: 5.724 min Scan# 733
Delta R.T. 0.029 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion:117 Resp: 3302

Ion	Ratio	Lower	Upper
117	100		
119	82.7	86.8	130.2#
121	26.7	24.0	36.0

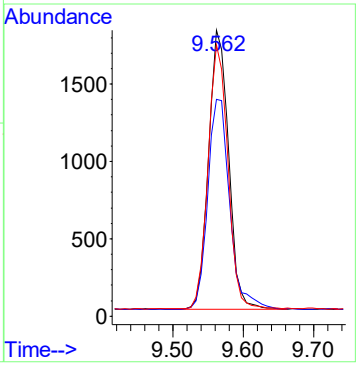


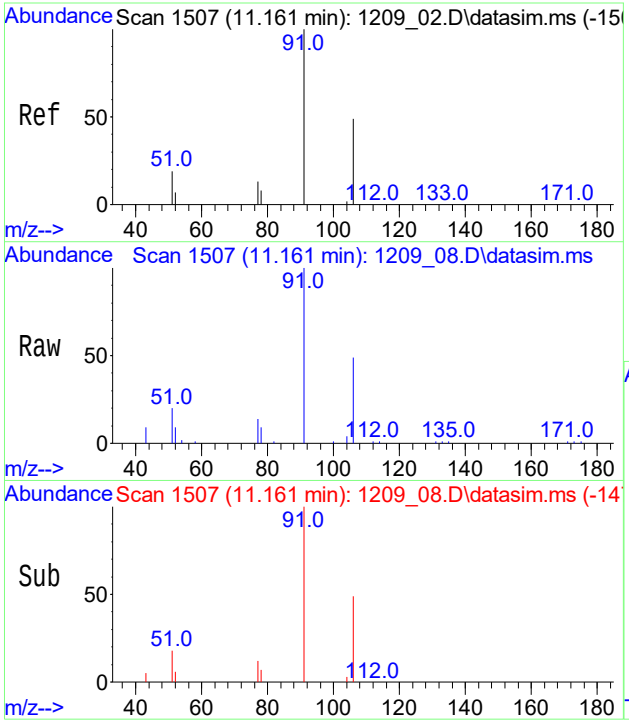


#104
Tetrachloroethene(sim)
Conc: 8$ 0.158 ppbv
RT: 9.562 min Scan# 1280
Delta R.T. 0.007 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion:166 Resp: 3575

Ion	Ratio	Lower	Upper
166	100		
164	82.9	59.1	99.1
129	93.4	72.1	112.1

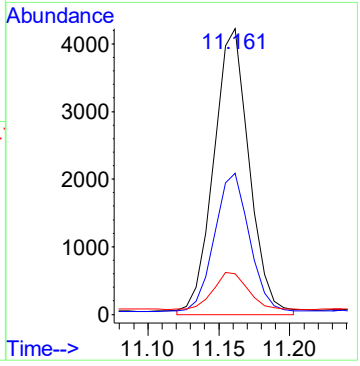




#109
m,p-Xylene(sim)
Conc: 8$ 0.161 ppbv
RT: 11.159 min Scan# 1507
Delta R.T. 0.014 min
Lab File: 1209_08.D
Acq: 9 Dec 2020 7:55 pm

Tgt Ion: 91 Resp: 6331

Ion	Ratio	Lower	Upper
91	100		
106	49.4	47.6	58.2
77	14.2	13.0	19.6



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-3

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28476

Canister: 16013 Lab File ID: 1209_10.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/09/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.399		0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.333		0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
108-88-3	Toluene	0.322		0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
71-43-2	Benzene(sim)	0.170		0.050	0.050	r
56-23-5	Carbon Tetrachloride(sim)	0.089		0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.187		0.100	0.100	r
100-41-4	Ethylbenzene(sim)	0.150	U	0.150	0.150	r
179601-23-1	m,p-Xylene(sim)	0.191		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_10.D
Acq On : 9 Dec 2020 9:16 pm
Operator : Keith
Client ID : IA-3
Lab ID : CH28476
ALS Vial : 10 Sample Multiplier: 1

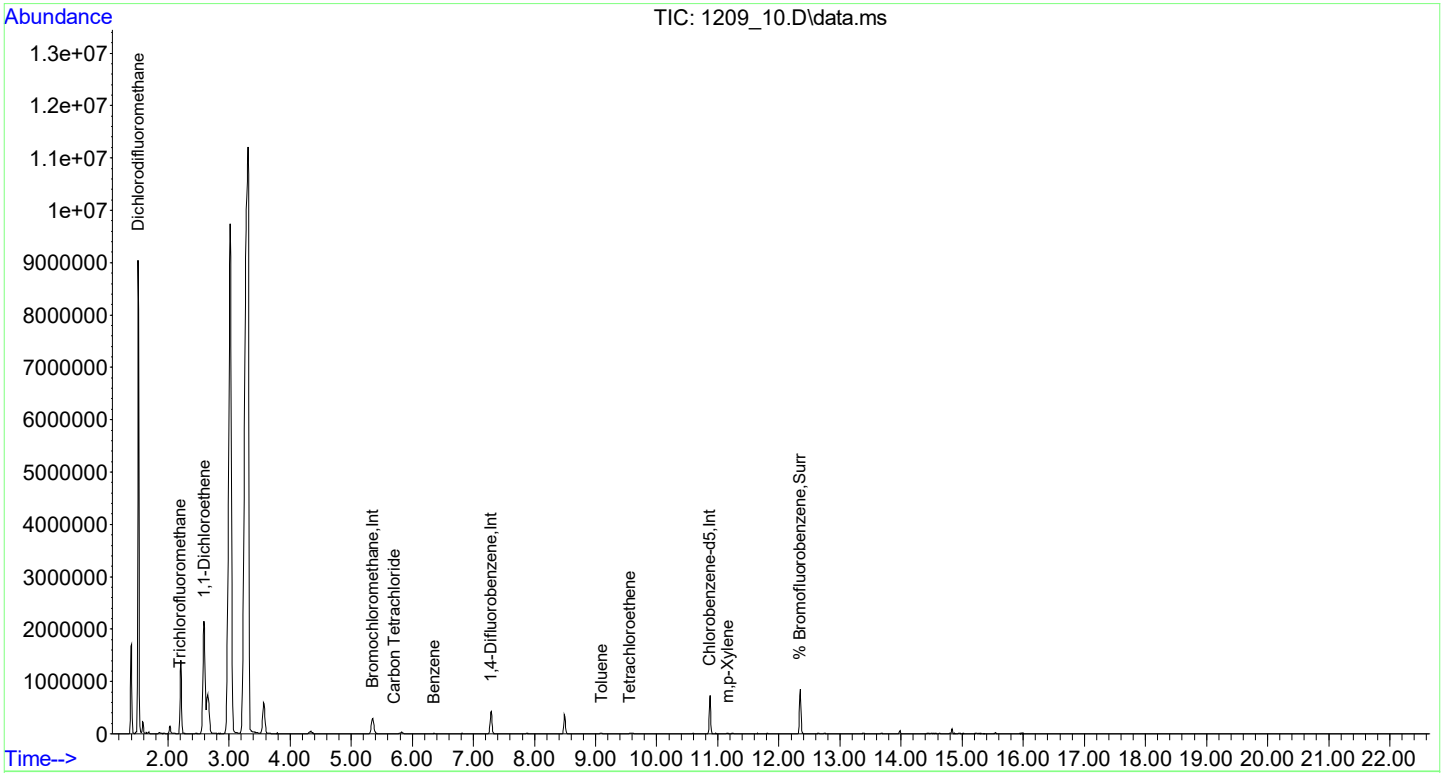
Quant Time: Dec 10 08:50:35 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

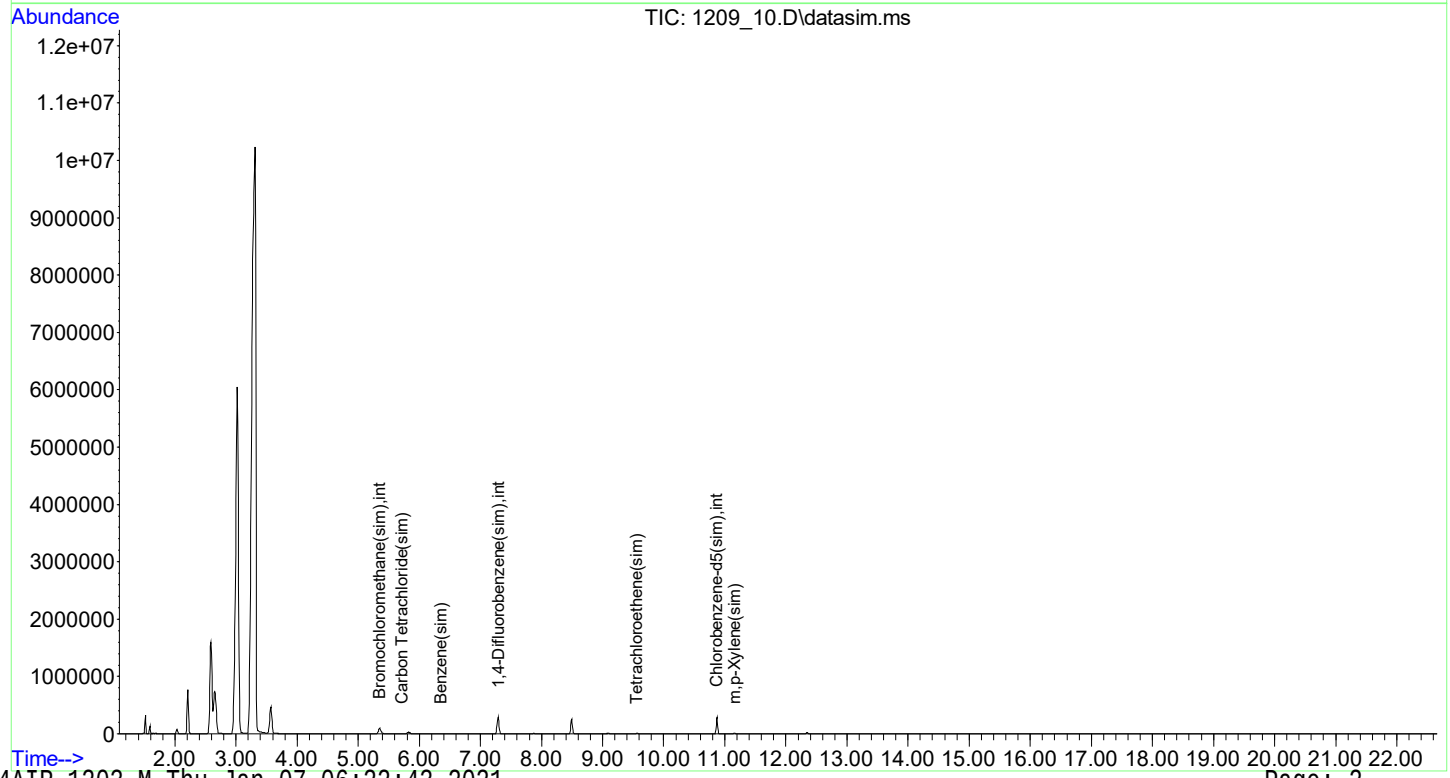
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.349	130	120437	10.000	ng		0.01
36) 1,4-Difluorobenzene	7.291	114	360281	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	166314	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	127640	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	360281	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	166314	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	252632	9.962	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.60%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.512	85	10991	0.399	ppbv	#	94
13) Trichlorofluoromethane	2.197	101	13319	0.333	ppbv		97
16) 1,1-Dichloroethene	2.595	61	1592	0.072	ppbv	#	36
33) Benzene	6.353	78	4343	0.189	ppbv		99
34) Carbon Tetrachloride	5.710	117	3113	0.087	ppbv		98
48) Toluene	9.097	91	10607	0.322	ppbv		98
52) Tetrachloroethene	9.559	166	3379	0.172	ppbv		98
57) m,p-Xylene	11.158	91	6771	0.191	ppbv		99
86) Benzene(sim)	6.356	78	4770	0.170	ppbv		98
87) Carbon Tetrachloride(sim)	5.710	117	3113	0.089	ppbv		86
104) Tetrachloroethene(sim)	9.562	166	3821	0.187	ppbv		99
109) m,p-Xylene(sim)	11.158	91	6771	0.191	ppbv		98

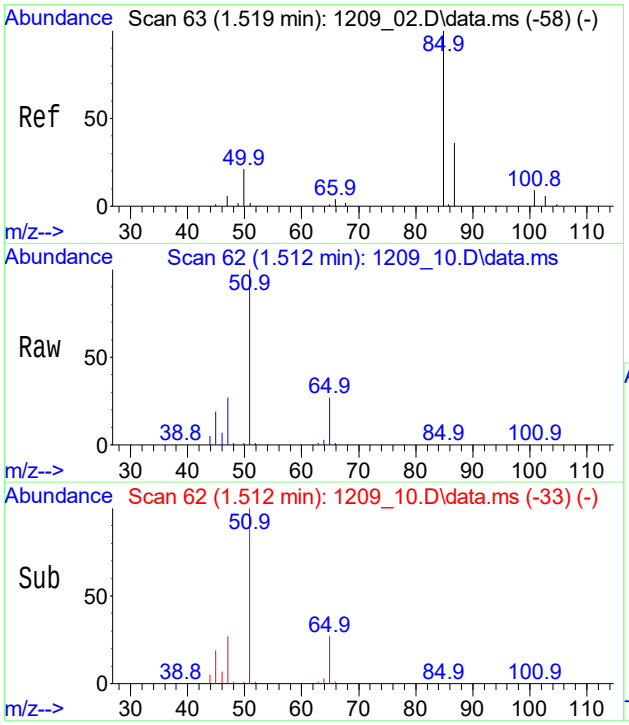
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_10.D
Acq On : 9 Dec 2020 9:16 pm
Operator : Keith
Client ID : IA-3
Lab ID : CH28476
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 10 08:50:35 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration



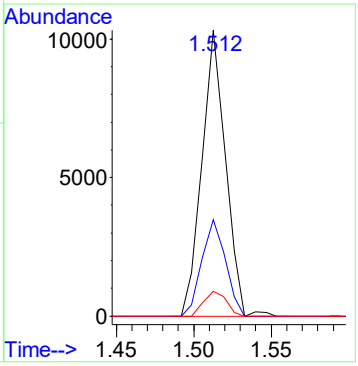


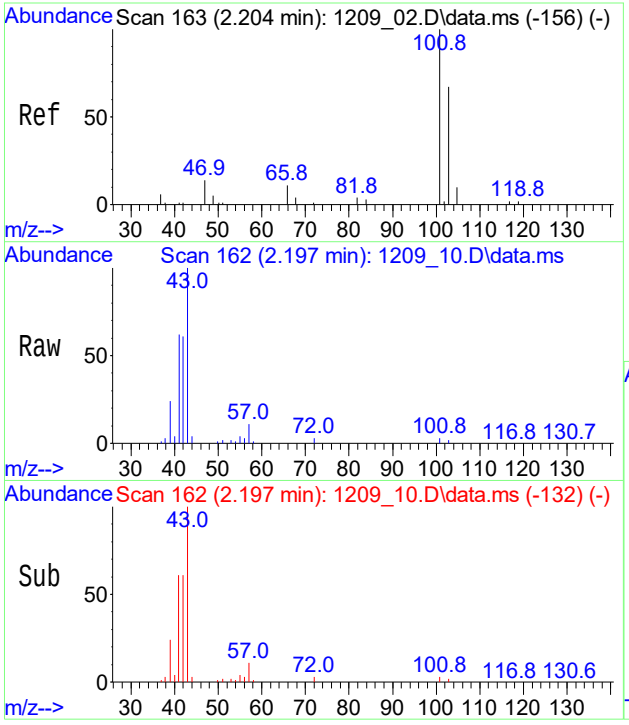


#3
Dichlorodifluoromethane
Conc: 8$ 0.399 ppbv
RT: 1.512 min Scan# 62
Delta R.T. -0.000 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 85 Resp: 10991

Ion	Ratio	Lower	Upper
85	100		
87	33.7	24.5	36.7
101	8.3	8.6	12.8#

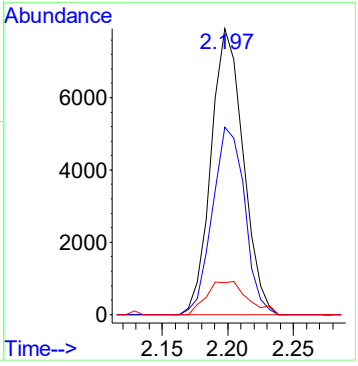


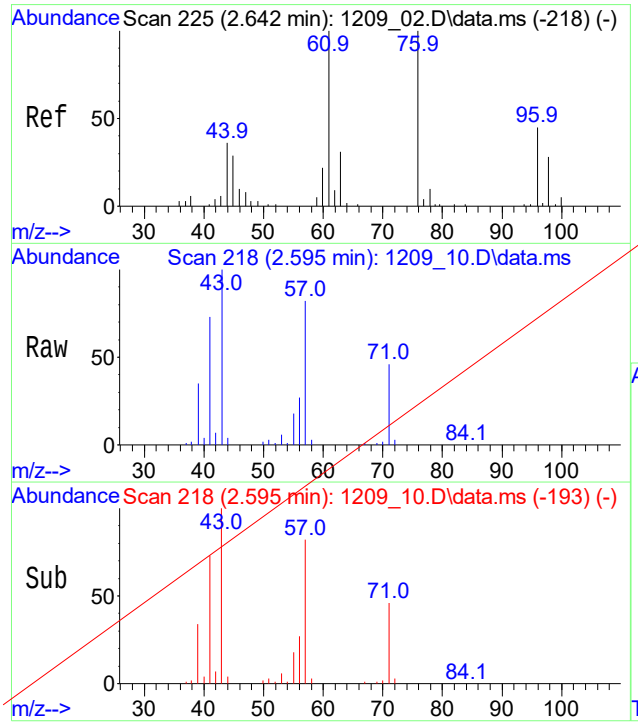


#13
Trichlorofluoromethane
Conc: 8$ 0.333 ppbv
RT: 2.197 min Scan# 162
Delta R.T. 0.007 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion:101 Resp: 13319

Ion	Ratio	Lower	Upper
101	100		
103	65.7	54.5	81.7
66	14.8	12.7	19.1

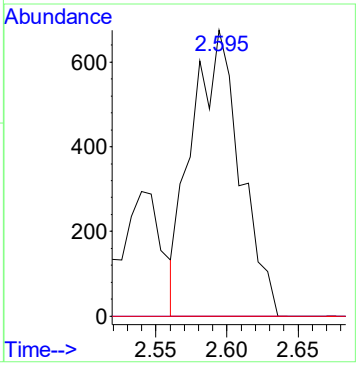


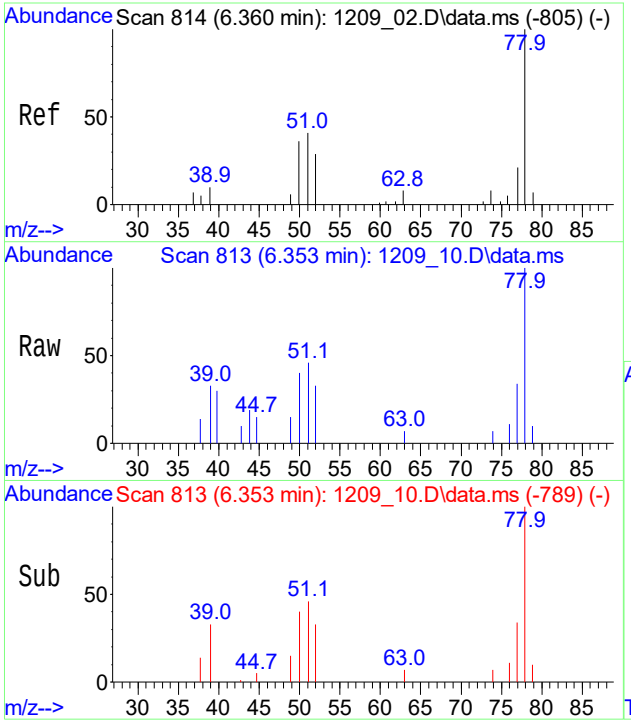


#16
1,1-Dichloroethene
Conc: 8$ Below Cal
RT: 2.595 min Scan# 218
Delta R.T. -0.027 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 61 Resp: 1592

Ion	Ratio	Lower	Upper
61	100		
96	0.0	37.8	56.6#
98	0.0	22.4	33.6#

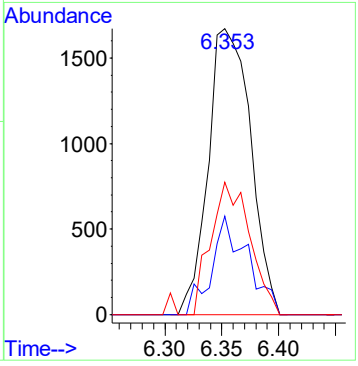


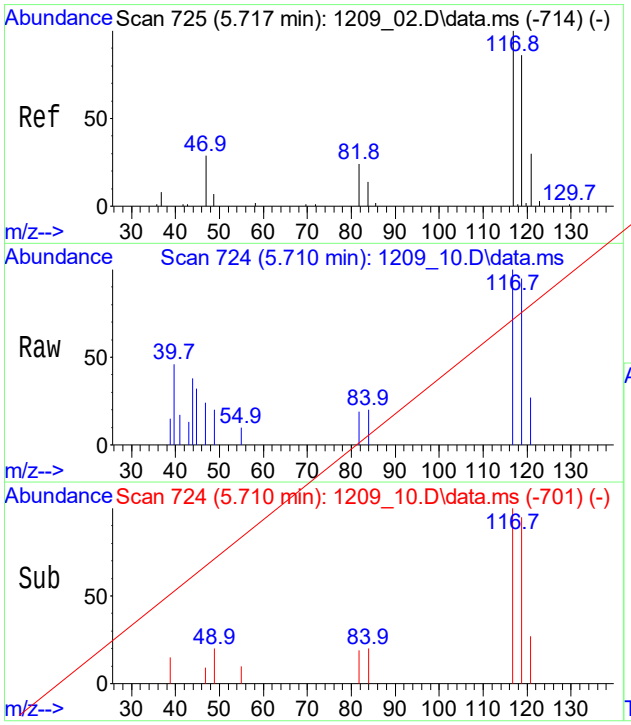


#33
Benzene
Conc: 8$ 0.189 ppbv
RT: 6.353 min Scan# 813
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 78 Resp: 4343

Ion	Ratio	Lower	Upper
78	100		
77	29.0	22.7	34.1
51	42.8	34.6	51.8

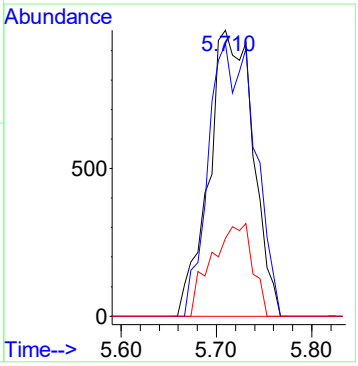


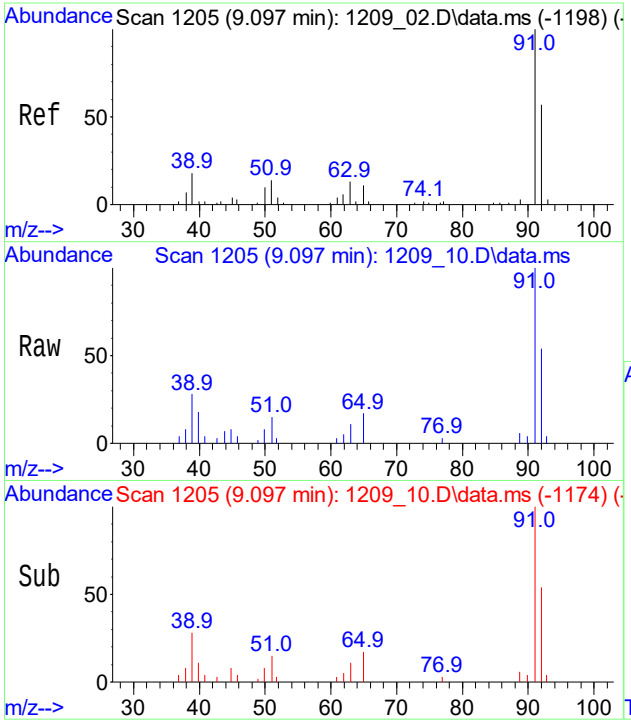


#34
Carbon Tetrachloride
Conc: 8$ Below Cal
RT: 5.710 min Scan# 724
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion:117 Resp: 3113

Ion	Ratio	Lower	Upper
117	100		
119	100.4	78.5	118.5
121	29.9	11.7	51.7

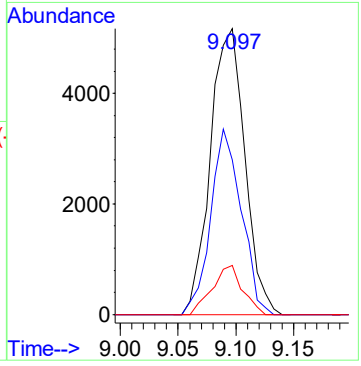


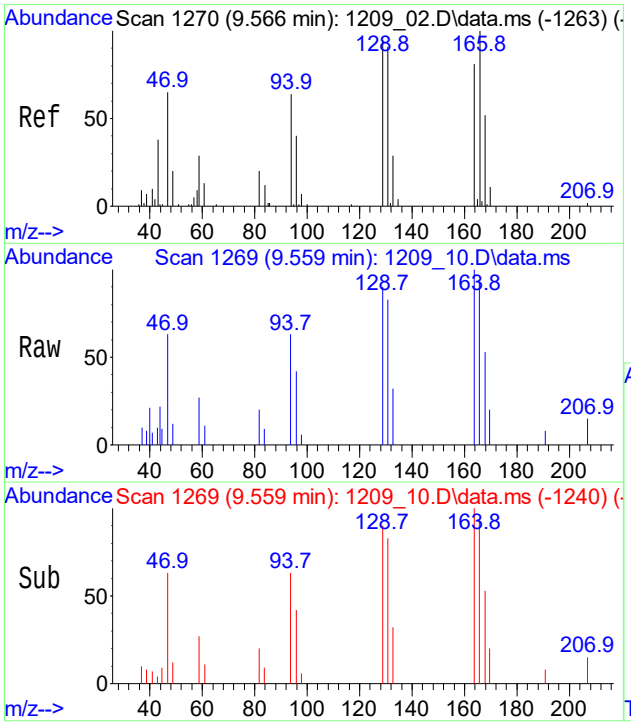


#48
Toluene
Conc: 8$ 0.322 ppbv
RT: 9.097 min Scan# 1205
Delta R.T. 0.022 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 91 Resp: 10607

Ion	Ratio	Lower	Upper
91	100		
92	57.5	44.5	66.7
65	15.0	12.6	19.0

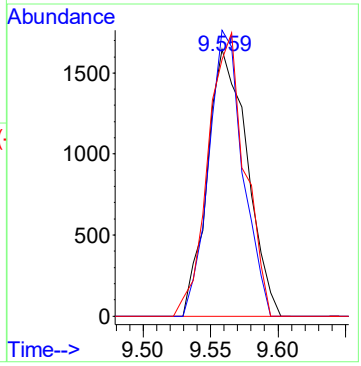


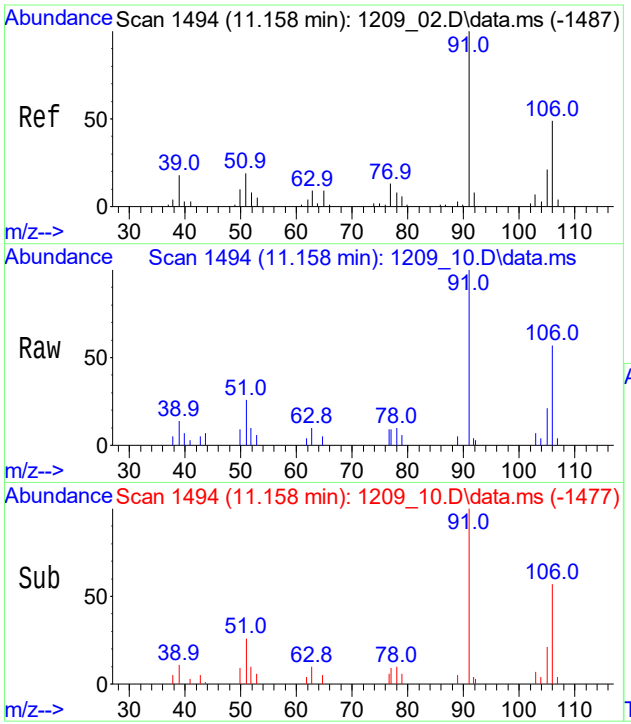


#52
Tetrachloroethene
Conc: 8$ 0.172 ppbv
RT: 9.559 min Scan# 1269
Delta R.T. 0.007 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion:166 Resp: 3379

Ion	Ratio	Lower	Upper
166	100		
164	91.7	75.6	113.4
129	98.2	80.0	120.0

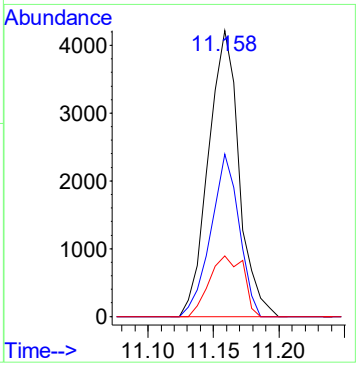


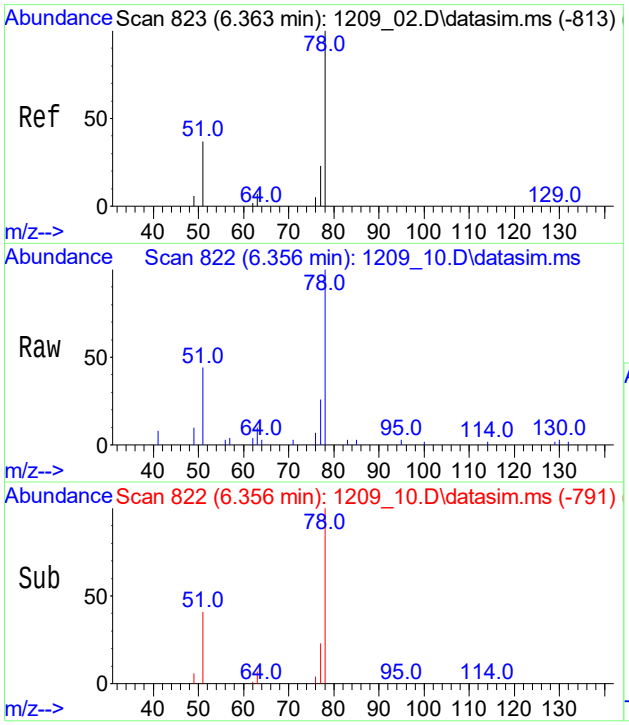


#57
m,p-Xylene
Conc: 8$ 0.191 ppbv
RT: 11.158 min Scan# 1494
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 91 Resp: 6771

Ion	Ratio	Lower	Upper
91	100		
106	52.6	42.3	63.5
105	23.6	19.5	29.3

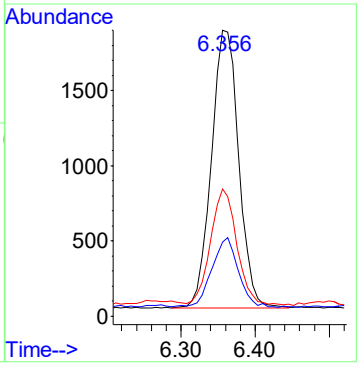


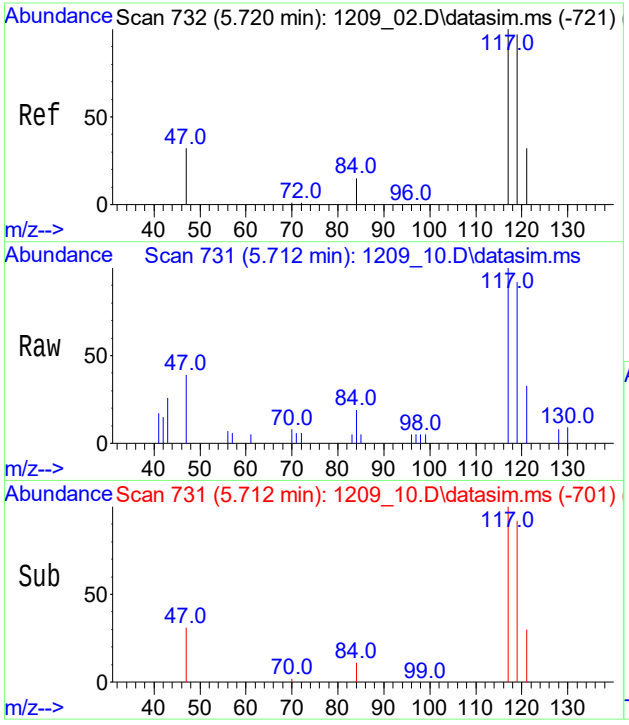


#86
Benzene(sim)
Conc: 8$ 0.170 ppbv
RT: 6.356 min Scan# 822
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 78 Resp: 4770

Ion	Ratio	Lower	Upper
78	100		
77	24.5	20.0	30.0
51	40.8	31.8	47.6

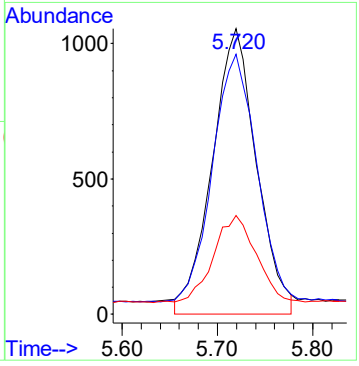


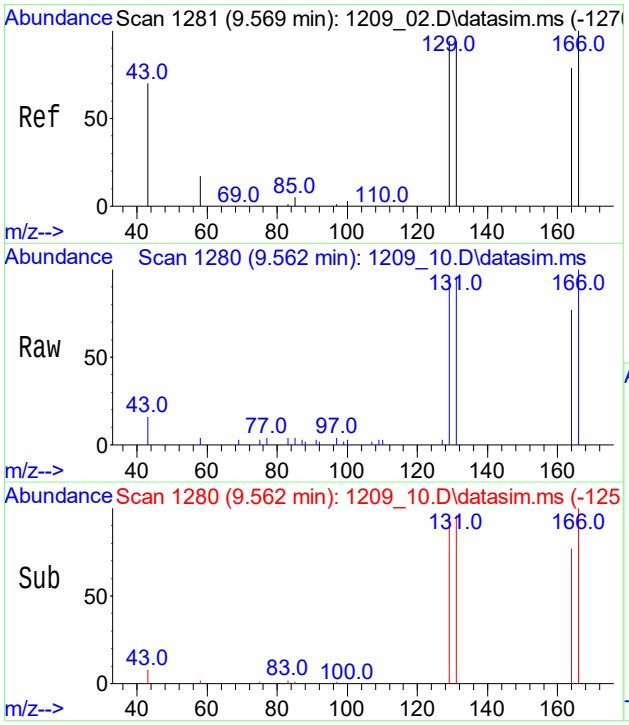


#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.089 ppbv
RT: 5.710 min Scan# 731
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion:117 Resp: 3113

Ion	Ratio	Lower	Upper
117	100		
119	92.5	86.8	130.2
121	26.0	24.0	36.0

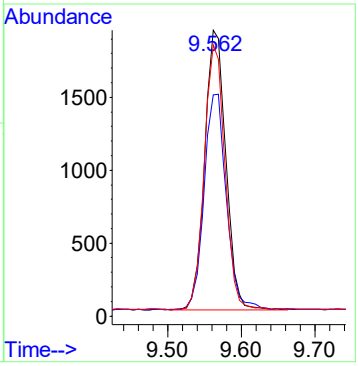


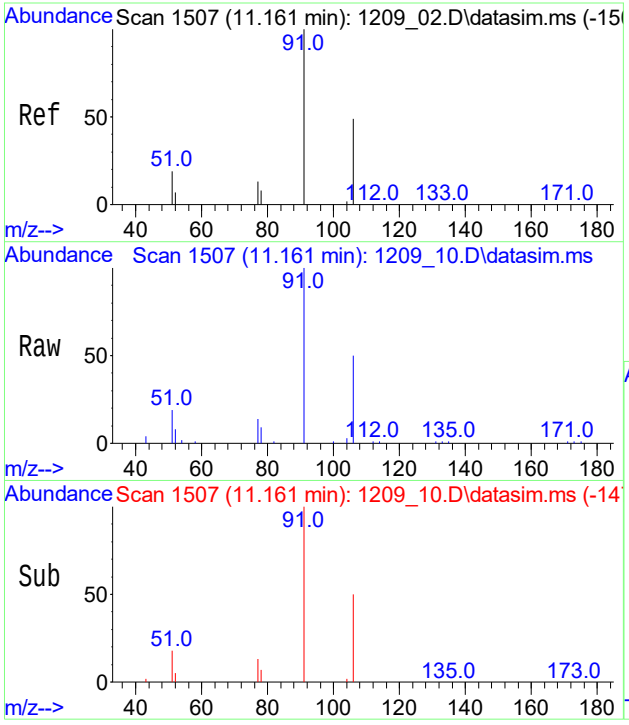


#104
Tetrachloroethene(sim)
Conc: 8$ 0.187 ppbv
RT: 9.562 min Scan# 1280
Delta R.T. 0.007 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion:166 Resp: 3821

Ion	Ratio	Lower	Upper
166	100		
164	81.5	59.1	99.1
129	92.4	72.1	112.1

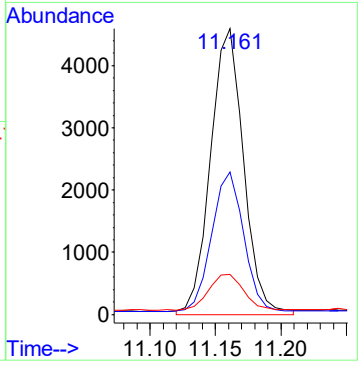




#109
m,p-Xylene(sim)
Conc: 8$ 0.191 ppbv
RT: 11.158 min Scan# 1507
Delta R.T. 0.014 min
Lab File: 1209_10.D
Acq: 9 Dec 2020 9:16 pm

Tgt Ion: 91 Resp: 6771

Ion	Ratio	Lower	Upper
91	100		
106	52.6	47.6	58.2
77	13.9	13.0	19.6



1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-4

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28477

Canister: 13633 Lab File ID: 1209_11.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/09/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.460		0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.369		0.150	0.150	r
75-09-2	Methylene Chloride	0.438	S	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
108-88-3	Toluene	0.273		0.200	0.200	r
127-18-4	Tetrachloroethene	0.223		0.100	0.100	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
71-43-2	Benzene(sim)	0.174		0.050	0.050	r
56-23-5	Carbon Tetrachloride(sim)	0.093		0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
100-41-4	Ethylbenzene(sim)	0.150	U	0.150	0.150	r
179601-23-1	m,p-Xylene(sim)	0.223		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_11.D
Acq On : 9 Dec 2020 9:56 pm
Operator : Keith
Client ID : IA-4
Lab ID : CH28477
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 10 09:01:12 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

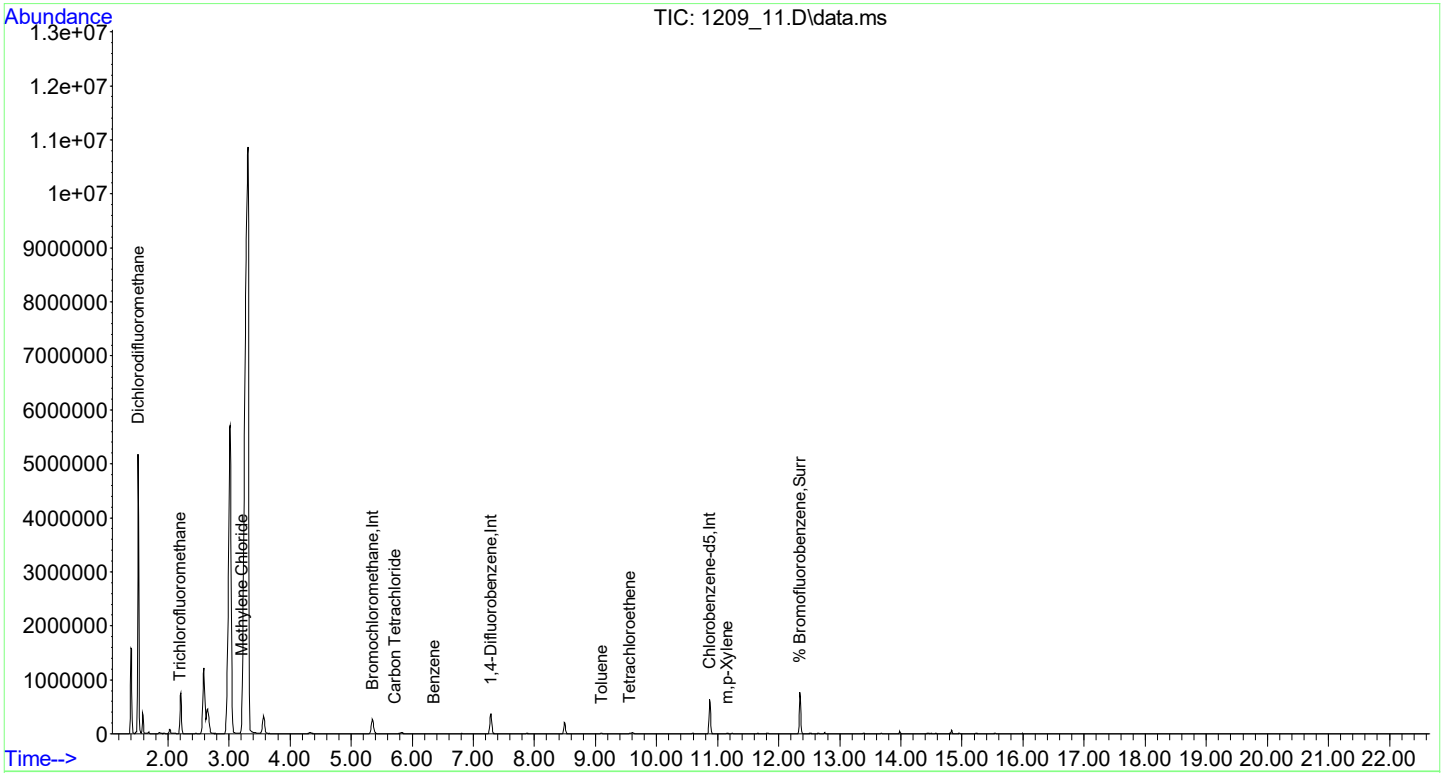
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.349	130	108129	10.000	ng		0.01
36) 1,4-Difluorobenzene	7.291	114	321947	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	147631	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	113344	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	321947	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	147631	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	223671	9.936	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.40%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	11370	0.460	ppbv		100
13) Trichlorofluoromethane	2.198	101	13272	0.369	ppbv		97
17) Methylene Chloride	3.217	49	7752	0.438	ppbv#		1
33) Benzene	6.353	78	4201	0.204	ppbv		99
34) Carbon Tetrachloride	5.717	117	2918	0.091	ppbv		90
39) Trichloroethene	7.223	130	542	0.035	ppbv#		86
48) Toluene	9.097	91	8041	0.273	ppbv#		98
52) Tetrachloroethene	9.559	166	3915	0.223	ppbv		82
57) m,p-Xylene	11.159	91	6998	0.222	ppbv		90
86) Benzene(sim)	6.363	78	4344	0.174	ppbv		97
87) Carbon Tetrachloride(sim)	5.717	117	2870	0.093	ppbv#		69
98) Trichloroethene(sim)	7.226	130	567	0.034	ppbv		97
104) Tetrachloroethene(sim)	9.562	166	3946	0.216	ppbv		97
109) m,p-Xylene(sim)	11.159	91	6998	0.223	ppbv#		88

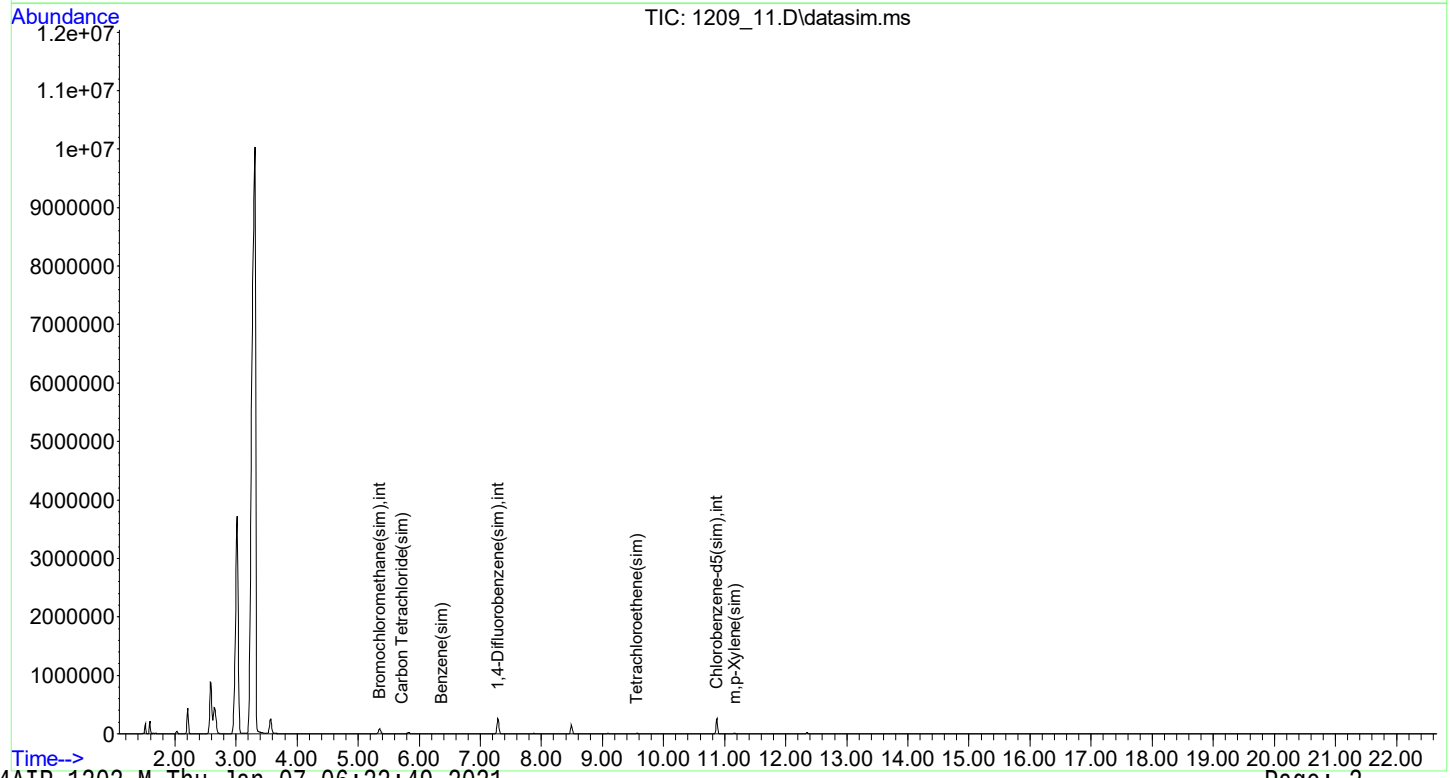
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

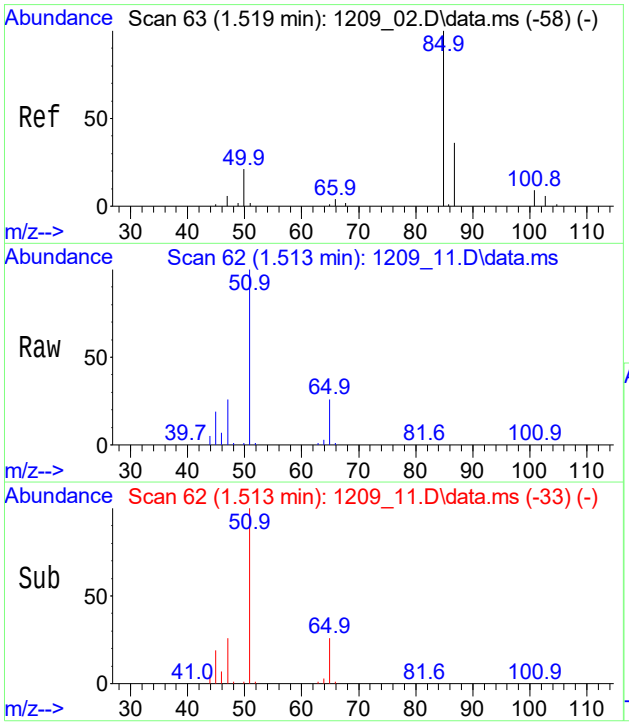
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_11.D
Acq On : 9 Dec 2020 9:56 pm
Operator : Keith
Client ID : IA-4
Lab ID : CH28477
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 10 09:01:12 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration



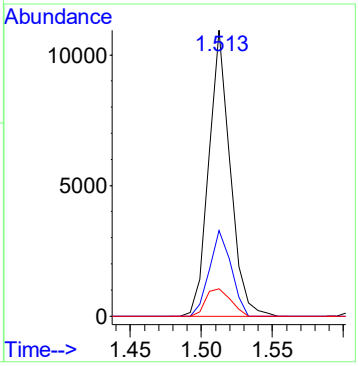


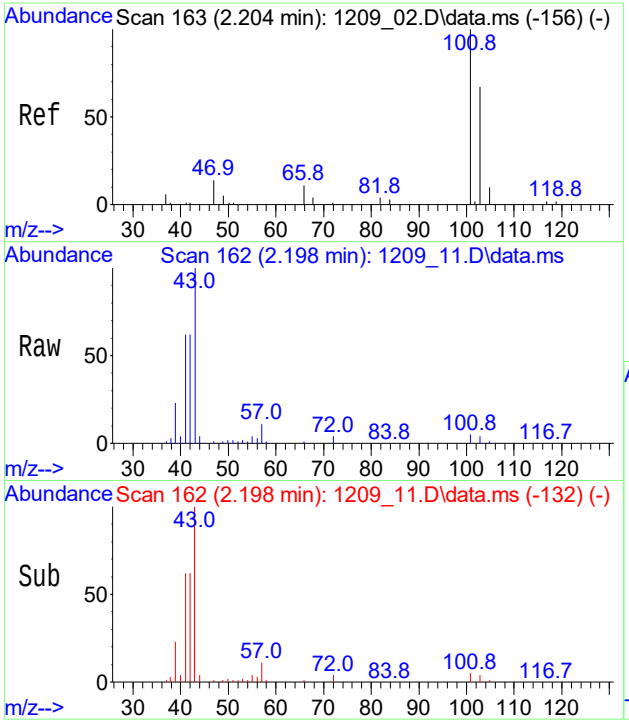


#3
Dichlorodifluoromethane
Conc: 8$ 0.460 ppbv
RT: 1.513 min Scan# 62
Delta R.T. 0.000 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 85 Resp: 11370

Ion	Ratio	Lower	Upper
85	100		
87	30.5	24.5	36.7
101	11.2	8.6	12.8

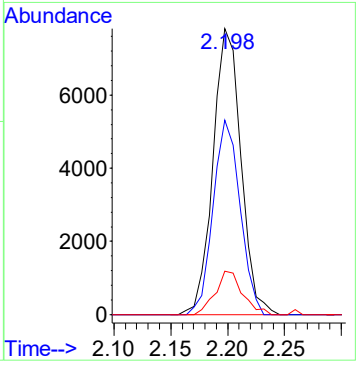


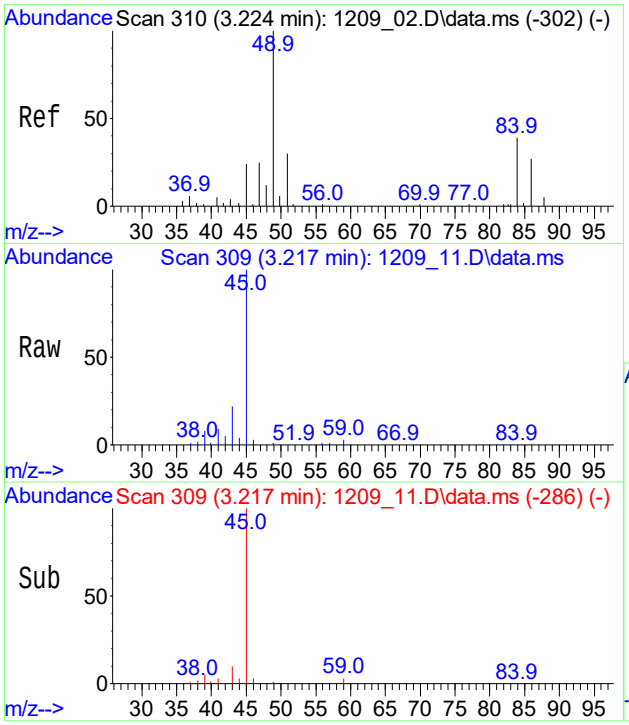


#13
Trichlorofluoromethane
Conc: 8$ 0.369 ppbv
RT: 2.198 min Scan# 162
Delta R.T. 0.007 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:101 Resp: 13272

Ion	Ratio	Lower	Upper
101	100		
103	65.5	54.5	81.7
66	14.7	12.7	19.1

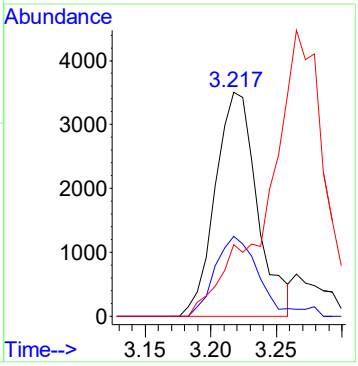


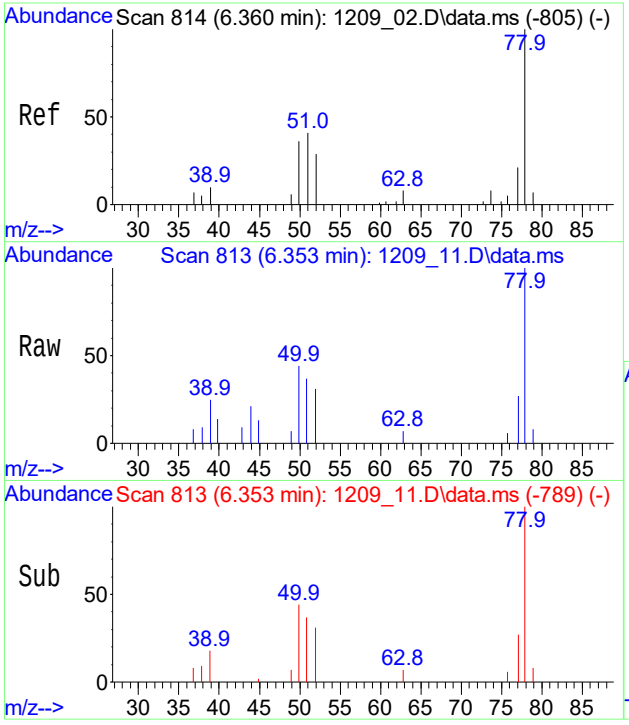


#17
Methylene Chloride
Conc: 8$ 0.438 ppbv
RT: 3.217 min Scan# 309
Delta R.T. 0.007 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 49 Resp: 7752

Ion	Ratio	Lower	Upper
49	100		
84	36.4	34.6	51.8
86	169.7	23.4	35.2#

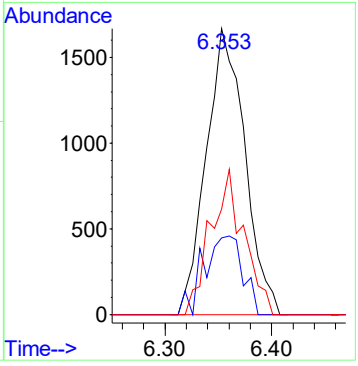


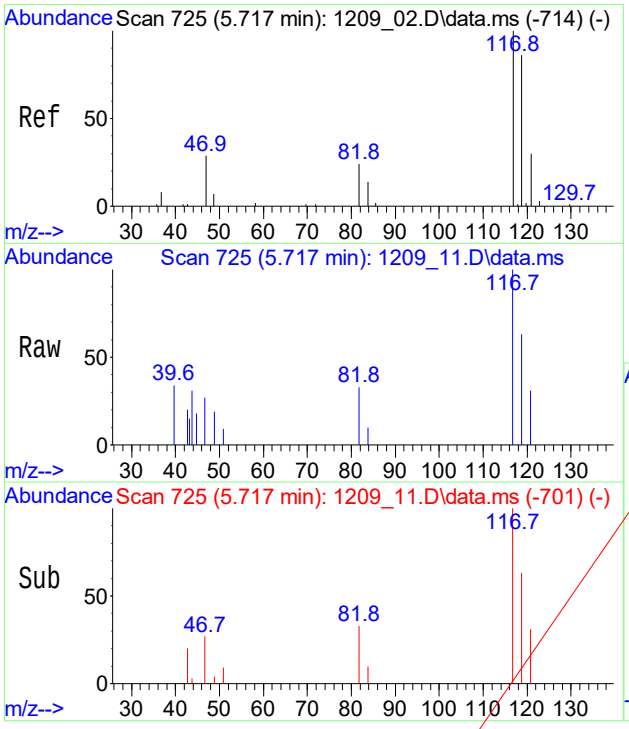


#33
Benzene
Conc: 8$ 0.204 ppbv
RT: 6.353 min Scan# 813
Delta R.T. 0.014 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 78 Resp: 4201

Ion	Ratio	Lower	Upper
78	100		
77	27.9	22.7	34.1
51	43.6	34.6	51.8

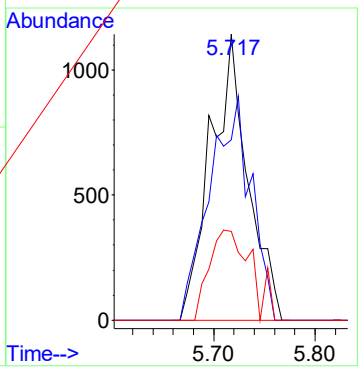


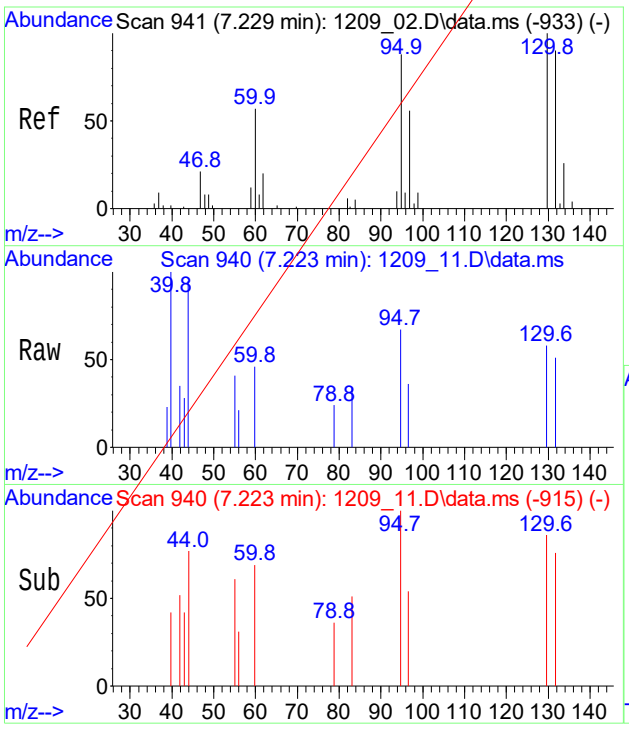


#34
Carbon Tetrachloride
Conc: 8$ Below Cal
RT: 5.717 min Scan# 725
Delta R.T. 0.022 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:117 Resp: 2918

Ion	Ratio	Lower	Upper
117	100		
119	87.1	78.5	118.5
121	35.3	11.7	51.7

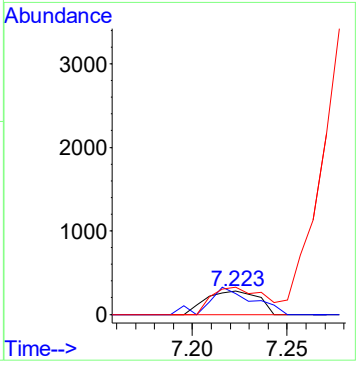


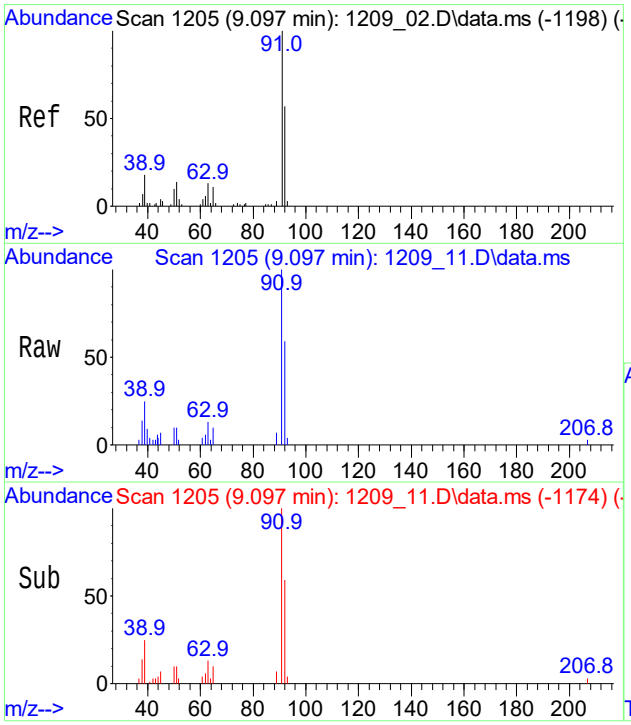


#39
Trichloroethene
Conc: 8$ Below Cal
RT: 7.223 min Scan# 940
Delta R.T. 0.021 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:130 Resp: 542

Ion	Ratio	Lower	Upper
130	100		
132	95.4	76.2	114.4
95	113.5	69.4	104.2#

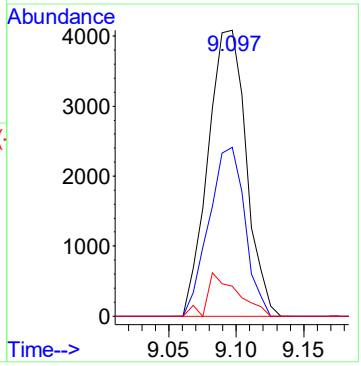


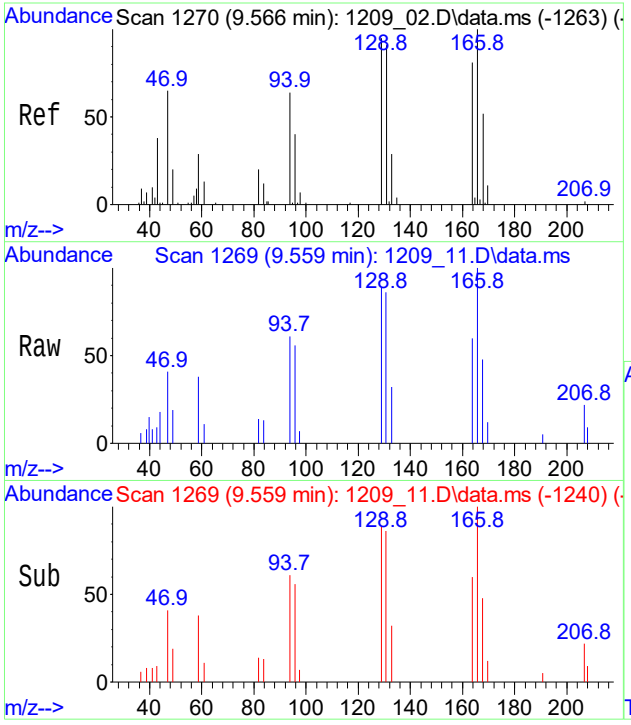


#48
Toluene
Conc: 8$ 0.273 ppbv
RT: 9.097 min Scan# 1205
Delta R.T. 0.022 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 91 Resp: 8041

Ion	Ratio	Lower	Upper
91	100		
92	55.5	44.5	66.7
65	12.1	12.6	19.0#

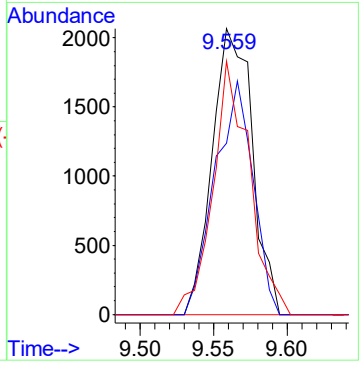


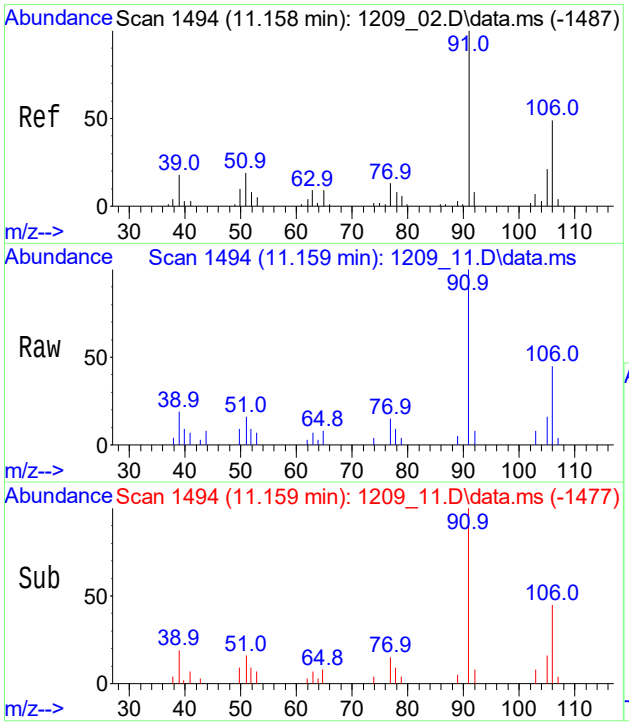


#52
Tetrachloroethene
Conc: 8$ 0.223 ppbv
RT: 9.559 min Scan# 1269
Delta R.T. 0.007 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:166 Resp: 3915

Ion	Ratio	Lower	Upper
166	100		
164	77.5	75.6	113.4
129	80.6	80.0	120.0

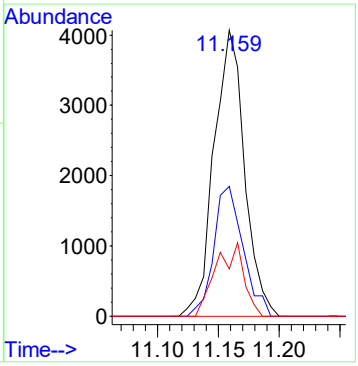


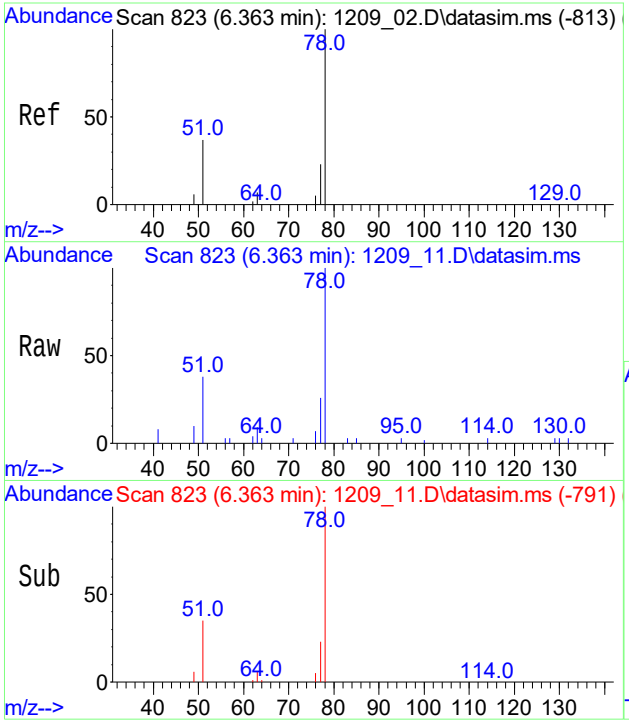


#57
m,p-Xylene
Conc: 8$ 0.222 ppbv
RT: 11.159 min Scan# 1494
Delta R.T. 0.014 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 91 Resp: 6998

Ion	Ratio	Lower	Upper
91	100		
106	43.4	42.3	63.5
105	23.6	19.5	29.3

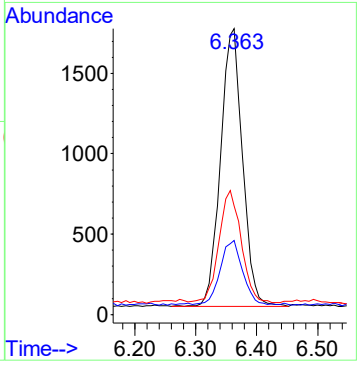


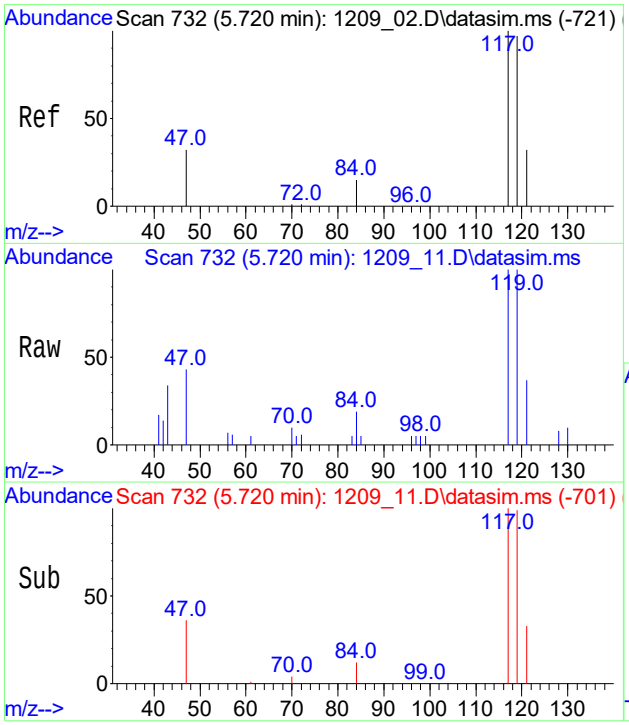


#86
Benzene(sim)
Conc: 8$ 0.174 ppbv
RT: 6.363 min Scan# 823
Delta R.T. 0.021 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 78 Resp: 4344

Ion	Ratio	Lower	Upper
78	100		
77	23.3	20.0	30.0
51	41.2	31.8	47.6

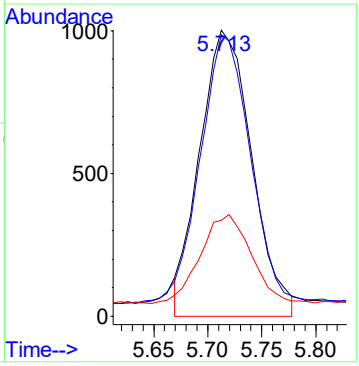


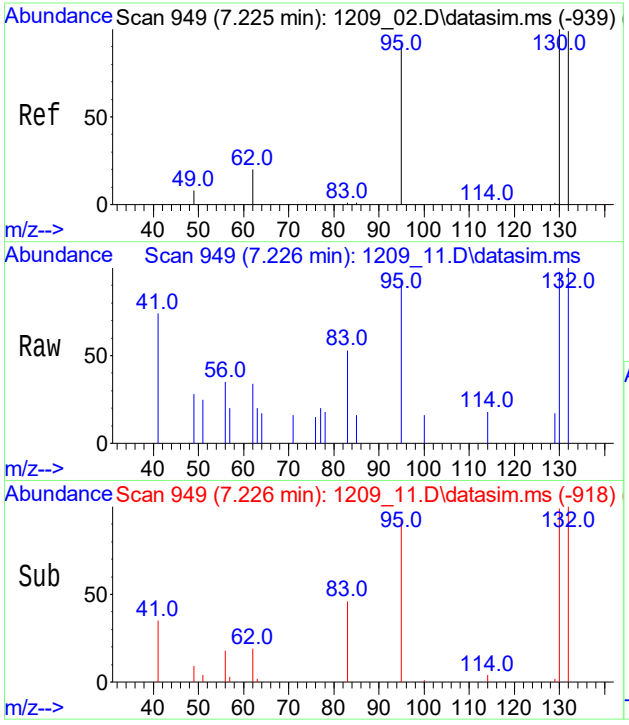


#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.093 ppbv
RT: 5.717 min Scan# 732
Delta R.T. 0.022 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:117 Resp: 2870

Ion	Ratio	Lower	Upper
117	100		
119	78.6	86.8	130.2#
121	7.9	24.0	36.0#

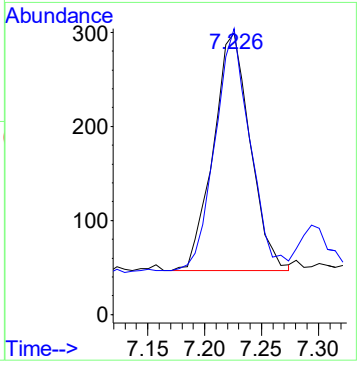


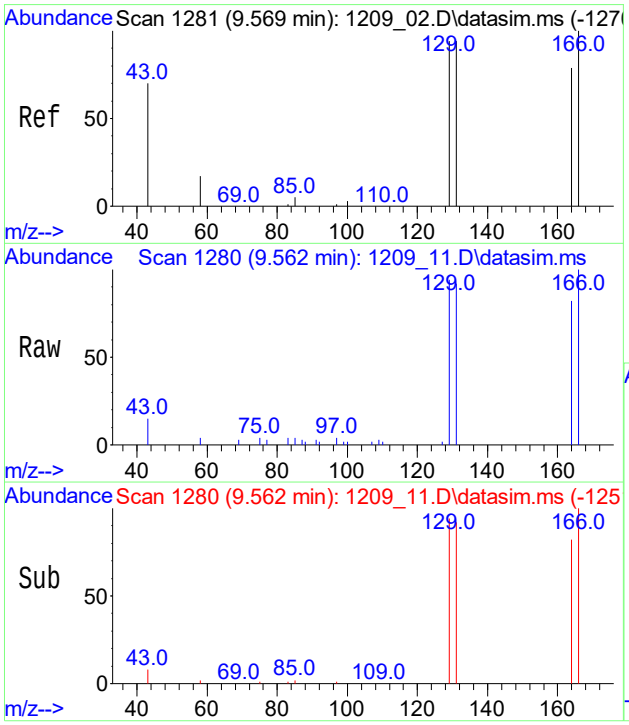


#98
Trichloroethene(sim)
Conc: 8$ 0.034 ppbv
RT: 7.226 min Scan# 949
Delta R.T. 0.014 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:130 Resp: 567

Ion	Ratio	Lower	Upper
130	100		
132	97.2	75.1	112.7

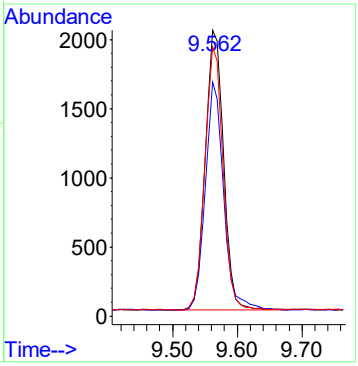


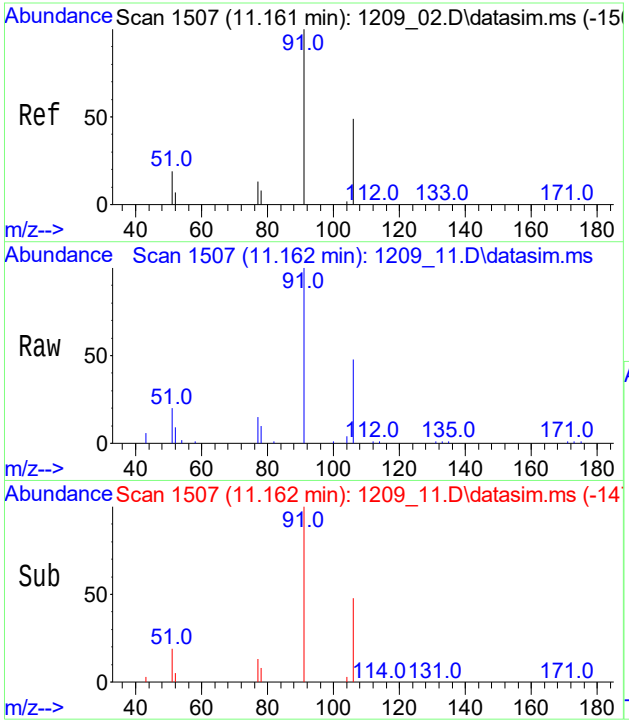


#104
Tetrachloroethene(sim)
Conc: 8$ 0.216 ppbv
RT: 9.562 min Scan# 1280
Delta R.T. 0.007 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion:166 Resp: 3946

Ion	Ratio	Lower	Upper
166	100		
164	82.3	59.1	99.1
129	93.6	72.1	112.1

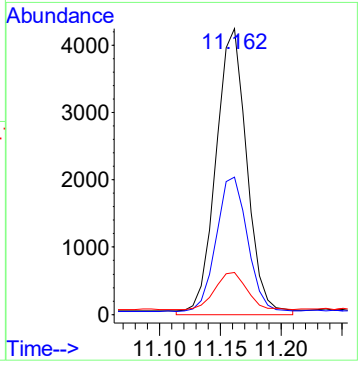




#109
m,p-Xylene(sim)
Conc: 8$ 0.223 ppbv
RT: 11.159 min Scan# 1507
Delta R.T. 0.014 min
Lab File: 1209_11.D
Acq: 9 Dec 2020 9:56 pm

Tgt Ion: 91 Resp: 6998

Ion	Ratio	Lower	Upper
91	100		
106	43.4	47.6	58.2#
77	13.0	13.0	19.6#



Response Factor Report Chem24

Method Path : H:\AIR2020\CHEM24\METHODS\
Method File : 24AIR_1203.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 04 08:35:47 2020
Response Via : Initial Calibration

Calibration Files (Note: Curves (l,lf,q,qf) display calculated conc and corr. coefficient.)
.035=1203_04.D 0.05=1203_05.D 0.1 =1203_06.D 0.2 =1203_07.D 0.5 =1203_08.D 1.0 =1203_14.D 2.5 =1203_09.D 5.0 =1203_10.D
10 =1203_15.D 25 =1203_11.D 40 =1203_12.D 0.02=1203_03.D

	Compound	.035	0.05	0.1	0.2	0.5	1.0	2.5	5.0	10	25	40	0.02	Avg	%RSD
1)	Int Bromochloromethane	----------					ISTD								
3)	Dichlorodifluo...			2.575	2.508	1.990	2.413	2.064	2.705	2.460	2.131	1.721		2.285	14.15
6)	Vinyl Chloride			0.887	0.875	0.925	0.941	0.851	0.946	0.913	0.887	0.835		0.896	4.32
12)	Acetone					3.557	3.428	3.128	2.921	2.846	2.877	2.694	2.437	2.986	12.42
13)	Trichlorofluor...			3.348	3.118	3.462	3.379	3.420	3.548	3.353	3.283	3.018		3.325	4.99
16)	1,1-Dichloroet...			1.988	1.844	1.739	1.893	1.786	1.932	1.844	1.802	1.693		1.835	5.07
17)	Methylene Chlo...					1.709	1.705	1.608	1.640	1.729	1.627	1.603	1.462	1.635	5.22
21)	Trichlorotrifl...			2.331	2.105	2.207	2.215	2.142	2.266	2.144	2.072	1.987		2.163	4.82
26)	Cis-1,2-Dichlo...			1.415	1.127	1.070	1.188	1.178	1.206	1.207	1.199	1.153		1.194	7.88
32)	1,1,1-Trichlor...			2.230	2.491	2.412	2.368	2.358	2.447	2.364	2.352	2.225		2.361	3.75
33)	Benzene			2.175	1.861	1.814	1.937	1.862	1.890	1.898	1.870	1.828		1.904	5.68
34)	Carbon Tetrach...			2.898	3.084	3.002	2.821	2.951	3.049	2.973	3.010	2.810		2.955	3.24
36)	Int 1,4-Difluorobenzene	----------					ISTD								
39)	Trichloroethene			0.478	0.478	0.455	0.475	0.456	0.504	0.493	0.501	0.494		0.482	3.75
48)	Toluene			0.897	0.847	0.869	0.877	0.882	0.952	0.965	0.975	0.963		0.914	5.39
52)	Tetrachloroethene			0.492	0.525	0.552	0.512	0.538	0.563	0.565	0.581	0.577		0.545	5.58
53)	Int Chlorobenzene-d5	----------					ISTD								
55)	Chlorobenzene			2.075	1.842	1.934	1.920	1.887	1.934	1.953	1.970	1.977		1.944	3.33
56)	Ethylbenzene			2.747	2.713	2.710	2.691	2.753	2.816	2.893	2.971	2.860		2.795	3.44
57)	m,p-Xylene			1.950	2.121	2.118	1.709	2.177	2.193	2.310	2.346	2.271		2.133	9.29
61)	o-Xylene			2.038	2.101	2.099	2.158	2.163	2.227	2.357	2.437	2.365		2.216	6.29
62)	Surr% Bromofluorob...			1.465	1.470	1.505	1.495	1.524	1.553	1.549	1.590	1.572		1.525	2.90
71)	1,3-Dichlorobe...			1.922	1.960	2.012	1.897	1.893	1.923	2.018	2.113	2.031		1.974	3.75
72)	1,4-Dichlorobe...			1.782	1.844	1.821	1.848	1.844	1.887	1.952	2.076	1.956		1.890	4.77
75)	1,2-Dichlorobe...			1.454	1.602	1.631	1.507	1.599	1.581	1.669	1.709	1.638		1.599	4.92
77)	1,2,4-Trichlor...			0.730	0.696	0.793	0.854	0.830	0.806	0.882	1.033			0.828	12.44
80)	int Bromochloromethane...	----------					ISTD								
82)	Vinyl Chloride...	1.117	1.037	0.979	0.890	0.885	0.993	0.885	0.991					0.972	8.54
86)	Benzene(sim)	2.449	2.318	2.156	2.026	1.997	2.066	1.943					2.650	2.201	11.34
87)	Carbon Tetrach...	2.825	2.463	2.512	3.001	2.770	2.719	2.788	2.933				2.554	2.729	6.84
88)	1,1-Dichloroet...	1.996	1.971	1.903	1.801	1.818	1.903	1.821	1.975				2.113	1.922	5.31
92)	Cis-1,2-Dichlo...	1.409	1.423	1.319	1.313	1.276	1.380	1.353	1.434				1.455	1.374	4.50
95)	int 1,4-Difluorobenzen...	----------					ISTD								
98)	Trichloroethen...	0.513	0.528	0.517	0.501	0.502	0.499	0.496	0.543				0.525	0.514	3.10
104)	Tetrachloroeth...	0.549	0.573	0.576	0.557	0.565	0.546	0.563	0.599	0.597			0.544	0.567	3.46
105)	int Chlorobenzene-d5(sim)	----------					ISTD								
108)	Ethylbenzene(sim)	3.123	3.152	2.995	3.008	3.118	3.101	3.058					3.979	3.192	10.12

Method Path : H:\AIR2020\CHEM24\METHODS\
Method File : 24AIR_1203.M
Title : VOA Standards for 5 point calibration

109)	m,p-Xylene(sim)	2.095	2.218	1.950	2.121	2.118	2.137	2.179	2.195			2.127	3.90
116)	1,4-Dichlorobe...	2.325	2.149	2.002	1.983	2.134	2.041	2.080	2.128			2.105	5.14
121)	1,2,4-Trichlor...	0.722	0.747	0.702	0.696	0.798	0.844	0.831	0.801		1.287	0.825	22.00

(#,$,@)=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 | Client: WALDENE-IPARK

Lab Code: Phoenix | SDG No.: GCH28475

Instrument ID: CHEM24 | Calibration Date From: 12/03/20 17:56

Heated Purge (Y/N): Y | Calibration Date Thru: 12/03/20 22:33

GC Column: | Method File: 24AIR_1203.M

Laboratory File Ids

RRF1 1203_03.D RRF2 1203_04.D RRF3 1203_05.D RRF4 1203_06.D RRF5 1203_07.D RRF6 1203_08.D
RRF7 1203_14.D RRF8 1203_09.D RRF9 1203_10.D RRF10 1203_15.D RRF11 1203_11.D RRF12 1203_12.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				2.575	2.508	1.990	2.413	2.064	2.705	2.460	2.131	1.721	2.285	14.15
Vinyl Chloride				0.887	0.875	0.925	0.941	0.851	0.946	0.913	0.887	0.835	0.896	4.32
Acetone					3.557	3.428	3.128	2.921	2.846	2.877	2.694	2.437	2.986	12.42
Trichlorofluoromethane				3.348	3.118	3.462	3.379	3.420	3.548	3.353	3.283	3.018	3.325	4.99
1,1-Dichloroethene				1.988	1.844	1.739	1.893	1.786	1.932	1.844	1.802	1.693	1.835	5.07
Methylene Chloride					1.709	1.705	1.608	1.640	1.729	1.627	1.603	1.462	1.635	5.22
Trichlorotrifluoroethane				2.331	2.105	2.207	2.215	2.142	2.266	2.144	2.072	1.987	2.163	4.82
Cis-1,2-Dichloroethene				1.415	1.127	1.070	1.188	1.178	1.206	1.207	1.199	1.153	1.194	7.88
1,1,1-Trichloroethane				2.230	2.491	2.412	2.368	2.358	2.447	2.364	2.352	2.225	2.361	3.75
Benzene				2.175	1.861	1.814	1.937	1.862	1.890	1.898	1.870	1.828	1.904	5.68
Carbon Tetrachloride				2.898	3.084	3.002	2.821	2.951	3.049	2.973	3.010	2.810	2.955	3.24
Trichloroethene				0.478	0.478	0.455	0.475	0.456	0.504	0.493	0.501	0.494	0.482	3.75
Toluene				0.897	0.847	0.869	0.877	0.882	0.952	0.965	0.975	0.963	0.914	5.39
Tetrachloroethene				0.492	0.525	0.552	0.512	0.538	0.563	0.565	0.581	0.577	0.545	5.58
Chlorobenzene				2.075	1.842	1.934	1.920	1.887	1.934	1.953	1.970	1.977	1.944	3.33
Ethylbenzene				2.747	2.713	2.710	2.691	2.753	2.816	2.893	2.971	2.860	2.795	3.44
m,p-Xylene				1.950	2.121	2.118	1.709	2.177	2.193	2.310	2.346	2.271	2.133	9.29
o-Xylene				2.038	2.101	2.099	2.158	2.163	2.227	2.357	2.437	2.365	2.216	6.29
1,3-Dichlorobenzene				1.922	1.960	2.012	1.897	1.893	1.923	2.018	2.113	2.031	1.974	3.75
1,4-Dichlorobenzene				1.782	1.844	1.821	1.848	1.844	1.887	1.952	2.076	1.956	1.890	4.77
1,2-Dichlorobenzene				1.454	1.602	1.631	1.507	1.599	1.581	1.669	1.709	1.638	1.599	4.92
1,2,4-Trichlorobenzene				0.730	0.696	0.793	0.854	0.830	0.806	0.882	1.033		0.828	12.44
Vinyl Chloride(sim)		1.117	1.037	0.979	0.890	0.885	0.993	0.885	0.991				0.972	8.54
Benzene(sim)	2.650	2.449	2.318	2.156	2.026	1.997	2.066	1.943					2.201	11.34
Carbon Tetrachloride(sim)	2.554	2.825	2.463	2.512	3.001	2.770	2.719	2.788	2.933				2.729	6.84

(#) 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

6B
AIR INITIAL CALIBRATION DATA

Lab Name: Phoenix Environmental Labs | Client: WALDENE-IPARK

Lab Code: Phoenix | SDG No.: GCH28475

Instrument ID: CHEM24 | Calibration Date From: 12/03/20 17:56

Heated Purge (Y/N): Y | Calibration Date Thru: 12/03/20 22:33

GC Column: | Method File: 24AIR_1203.M

Laboratory File Ids

RRF1 1203_03.D RRF2 1203_04.D RRF3 1203_05.D RRF4 1203_06.D RRF5 1203_07.D RRF6 1203_08.D
RRF7 1203_14.D RRF8 1203_09.D RRF9 1203_10.D RRF10 1203_15.D RRF11 1203_11.D RRF12 1203_12.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	$\overline{RRF}$	% RSD
1,1-Dichloroethene(sim)	2.113	1.996	1.971	1.903	1.801	1.818	1.903	1.821	1.975				1.922	5.31
Cis-1,2-Dichloroethene(sim)	1.455	1.409	1.423	1.319	1.313	1.276	1.380	1.353	1.434				1.374	4.50
Trichloroethene(sim)	0.525	0.513	0.528	0.517	0.501	0.502	0.499	0.496	0.543				0.514	3.10
Tetrachloroethene(sim)	0.544	0.549	0.573	0.576	0.557	0.565	0.546	0.563	0.599	0.597			0.567	3.46
Ethylbenzene(sim)	3.979	3.123	3.152	2.995	3.008	3.118	3.101	3.058					3.192	10.12
m,p-Xylene(sim)		2.095	2.218	1.950	2.121	2.118	2.137	2.179	2.195				2.127	3.90
1,4-Dichlorobenzene(sim)		2.325	2.149	2.002	1.983	2.134	2.041	2.080	2.128				2.105	5.14
1,2,4-Trichlorobenzene(sim)	1.287	0.722	0.747	0.702	0.696	0.798	0.844	0.831	0.801				0.825	22.00
% Bromofluorobenzene				1.465	1.470	1.505	1.495	1.524	1.553	1.549	1.590	1.572	1.525	2.90

(#) 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

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_03.D
Acq On : 3 Dec 2020 3:48 pm
Operator : Keith
Client ID : ICAL 0.02
Lab ID : 0.02
ALS Vial : 5 Sample Multiplier: 1

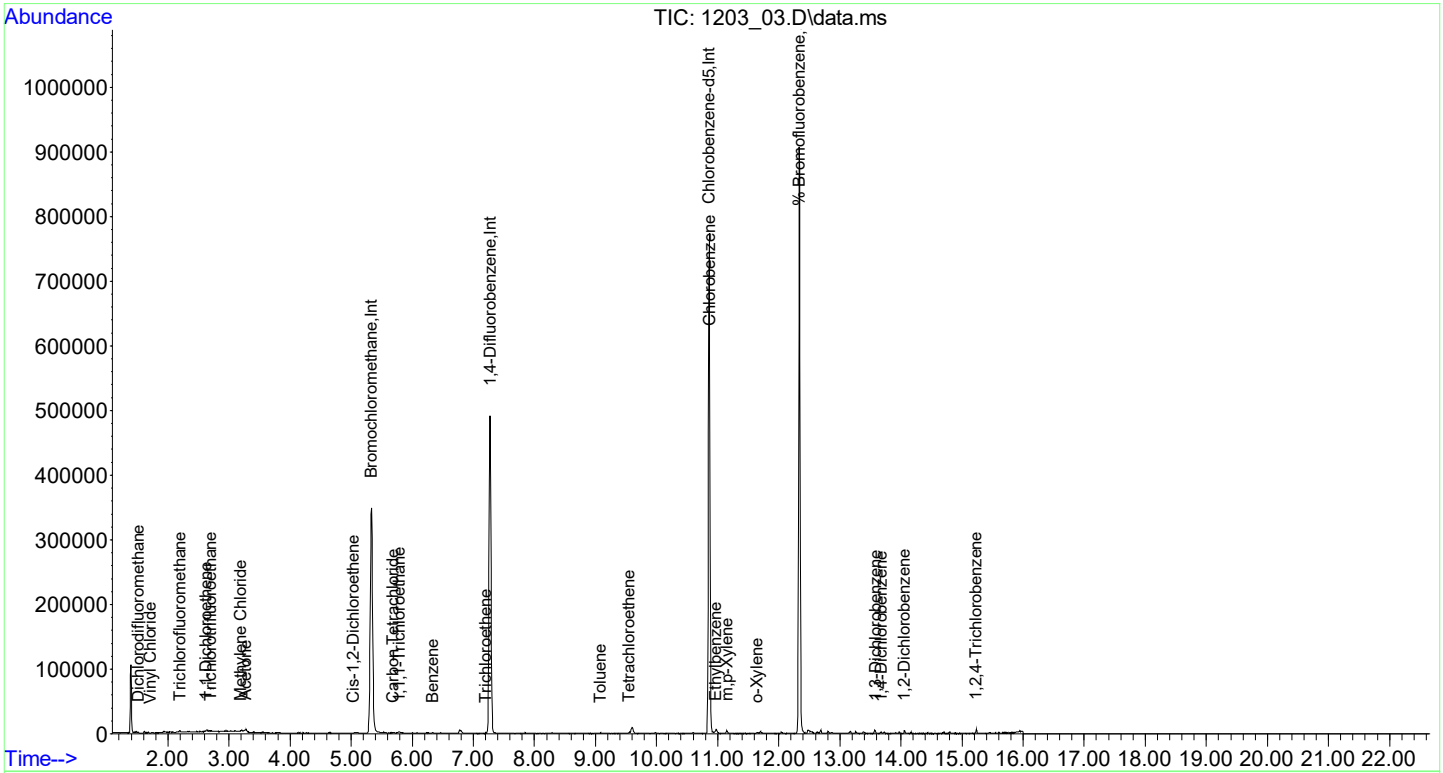
Quant Time: Dec 04 08:32:45 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:31:04 2020
Response via : Initial Calibration

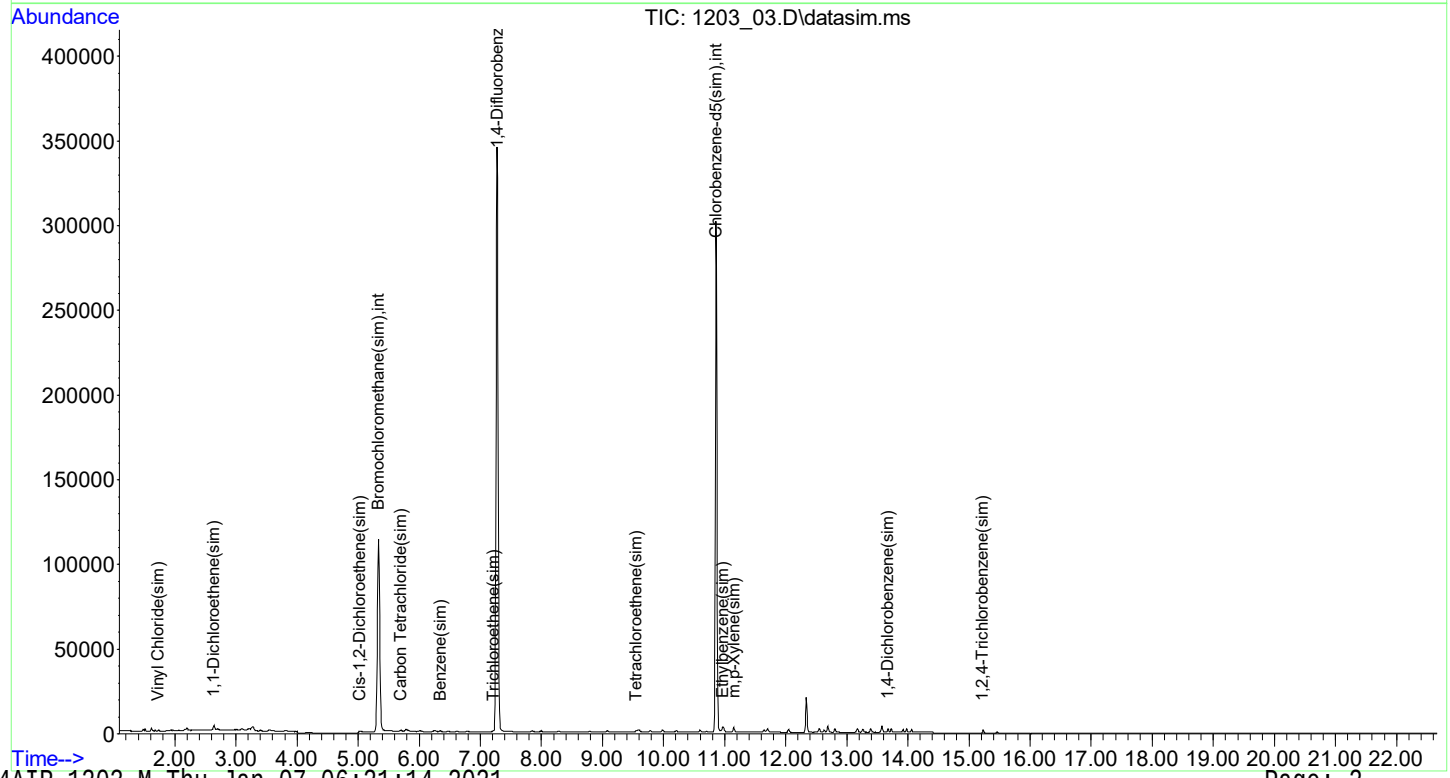
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	153700	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	449317	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	189618	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	161140	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	449317	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	189618	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	283228	9.748	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.50%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.512	85	1228	0.035	ppbv#		89
6) Vinyl Chloride	1.718	62	388	0.028	ppbv		67
12) Acetone	3.279	43	3641	0.079	ppbv#		89
13) Trichlorofluoromethane	2.197	101	1119	0.022	ppbv#		95
16) 1,1-Dichloroethene	2.629	61	807	0.029	ppbv#		83
17) Methylene Chloride	3.196	49	942	0.037	ppbv#		89
21) Trichlorotrifluoroethane	2.704	101	751	0.023	ppbv#		84
26) Cis-1,2-Dichloroethene	5.032	61	469	0.026	ppbv#		44
32) 1,1,1-Trichloroethane	5.789	97	685	0.019	ppbv#		65
33) Benzene	6.339	78	858	0.029	ppbv#		75
34) Carbon Tetrachloride	5.688	117	411	0.009	ppbv#		6
39) Trichloroethene	7.202	130	421	0.019	ppbv#		39
48) Toluene	9.082	91	725	0.018	ppbv#		92
52) Tetrachloroethene	9.551	166	391	0.016	ppbv		92
55) Chlorobenzene	10.870	112	980	0.027	ppbv#		1
56) Ethylbenzene	10.966	91	1287	0.024	ppbv		87
57) m,p-Xylene	11.152	91	2234	0.055	ppbv		98
61) o-Xylene	11.652	91	1300	0.031	ppbv#		85
71) 1,3-Dichlorobenzene	13.581	146	1077	0.029	ppbv		92
72) 1,4-Dichlorobenzene	13.678	146	953	0.027	ppbv#		91
75) 1,2-Dichlorobenzene	14.061	146	898	0.030	ppbv		89
77) 1,2,4-Trichlorobenzene	15.232	180	326	0.021	ppbv#		79
82] Vinyl Chloride(sim)	1.721	62	424	0.027	ppbv		91
86] Benzene(sim)	6.342	78	854	0.024	ppbv		98
87] Carbon Tetrachloride(sim)	5.698	117	823m	0.019	ppbv		12
88] 1,1-Dichloroethene(sim)	2.632	61	681	0.022	ppbv		92
92] Cis-1,2-Dichloroethene...	5.028	61	469	0.021	ppbv#		67
98] Trichloroethene(sim)	7.212	130	472	0.020	ppbv		98
104] Tetrachloroethene(sim)	9.554	166	489	0.019	ppbv		93
108] Ethylbenzene(sim)	10.962	91	1509	0.025	ppb #		96
109] m,p-Xylene(sim)	11.152	91	2234	0.055	ppbv#		92
116] 1,4-Dichlorobenzene(sim)	13.675	146	1186	0.030	ppbv		99
121] 1,2,4-Trichlorobenzene...	15.225	180	488m	0.031	ppbv		80

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_03.D
Acq On : 3 Dec 2020 3:48 pm
Operator : Keith
Client ID : ICAL 0.02
Lab ID : 0.02
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 04 08:32:45 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:31:04 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_04.D
Acq On : 3 Dec 2020 4:19 pm
Operator : Keith
Client ID : ICAL 0.035
Lab ID : 0.035
ALS Vial : 6 Sample Multiplier: 1

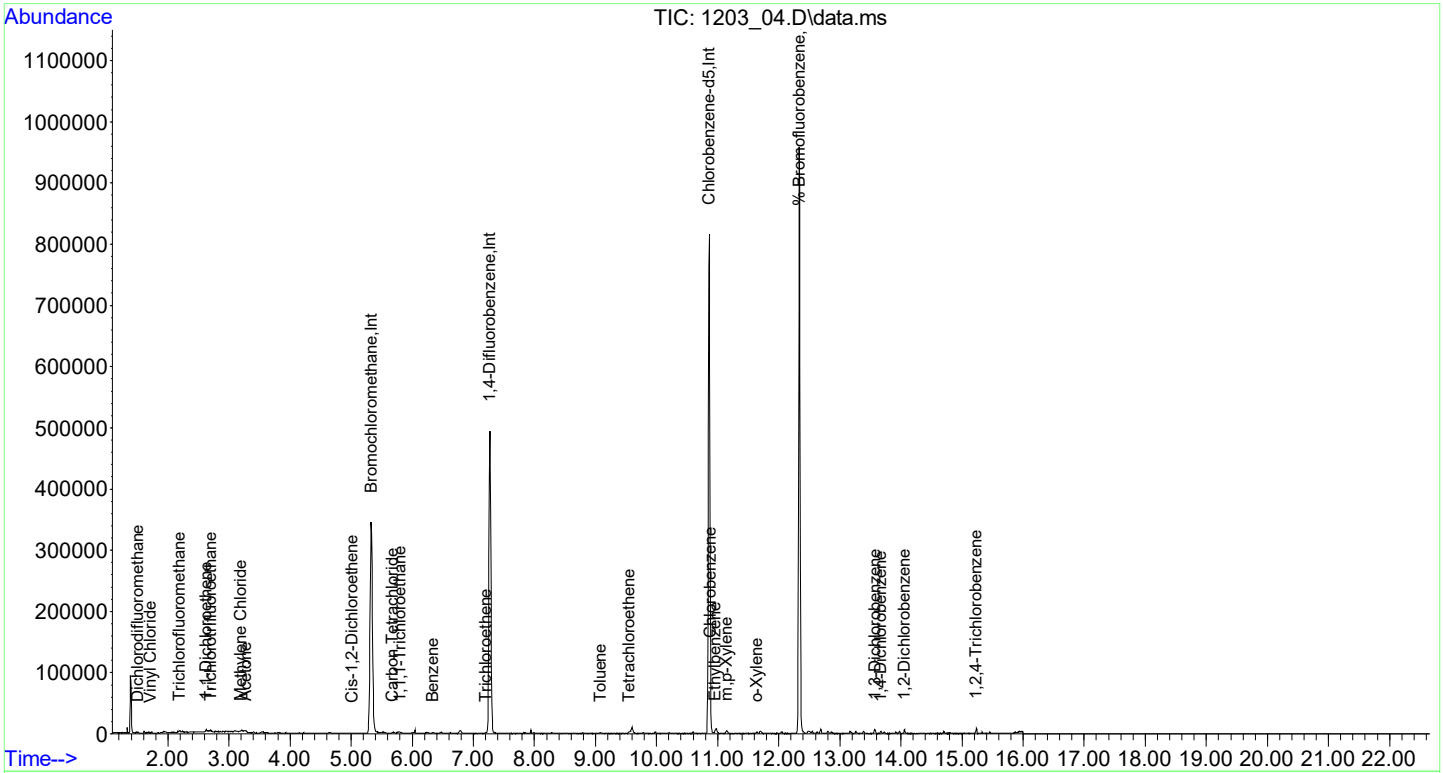
Quant Time: Dec 04 08:34:29 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:32:53 2020
Response via : Initial Calibration

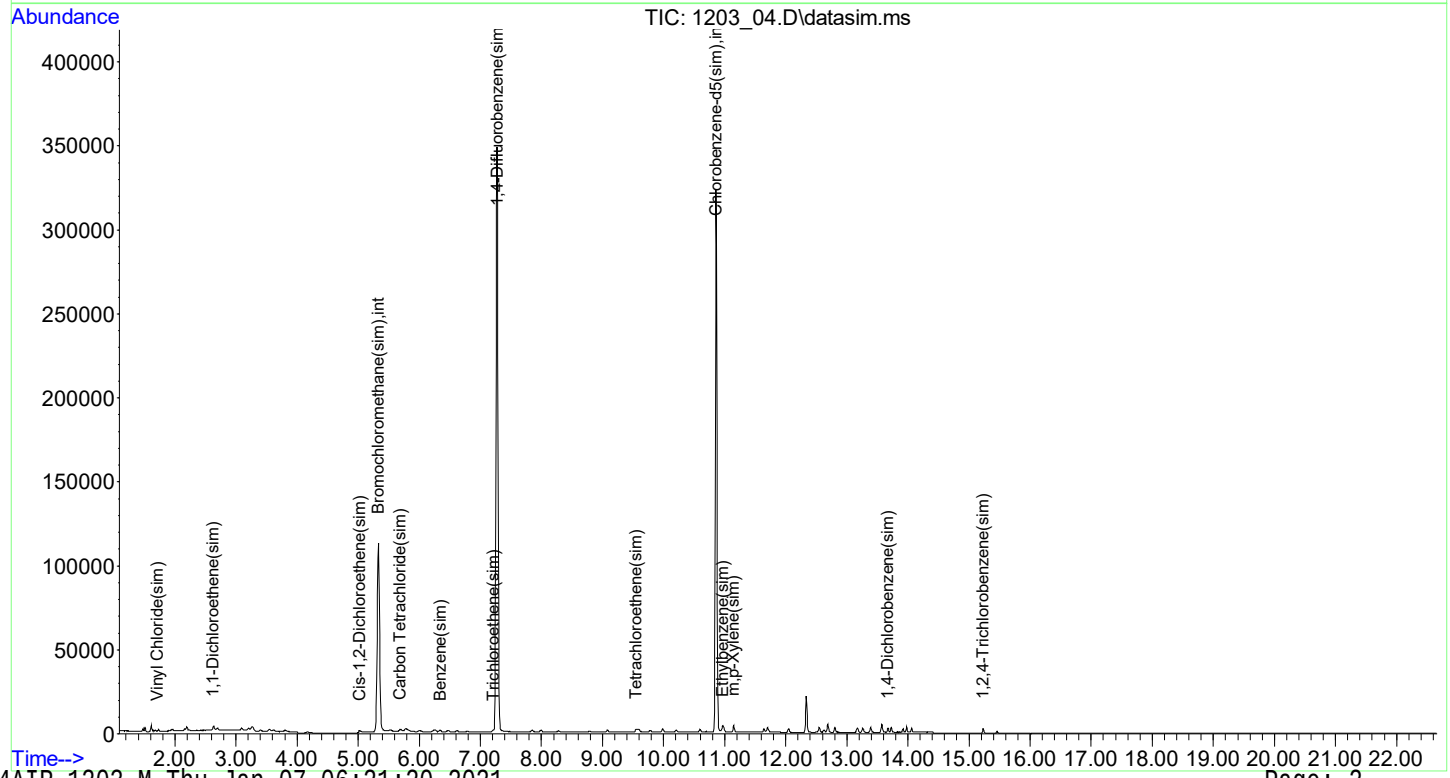
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.328	130	152742	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.271	114	448707	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	198345	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	158776	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.271	114	448707	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	198345	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	291706	9.598	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.00%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	1478	0.042	ppbv		99
6) Vinyl Chloride	1.711	62	556	0.041	ppbv		87
12) Acetone	3.279	43	4272	0.094	ppbv#		86
13) Trichlorofluoromethane	2.191	101	1815	0.036	ppbv#		96
16) 1,1-Dichloroethene	2.629	61	1184	0.042	ppbv		98
17) Methylene Chloride	3.197	49	1358	0.054	ppbv		97
21) Trichlorotrifluoroethane	2.697	101	1113	0.034	ppbv#		66
26) Cis-1,2-Dichloroethene	5.018	61	705	0.039	ppbv#		54
32) 1,1,1-Trichloroethane	5.796	97	1323	0.037	ppbv#		71
33) Benzene	6.332	78	1278	0.044	ppbv		98
34) Carbon Tetrachloride	5.674	117	576	0.013	ppbv#		65
39) Trichloroethene	7.209	130	751	0.035	ppbv#		64
48) Toluene	9.082	91	1505	0.037	ppbv		91
52) Tetrachloroethene	9.551	166	837	0.034	ppbv#		81
55) Chlorobenzene	10.884	112	1370	0.036	ppbv#		61
56) Ethylbenzene	10.959	91	2021	0.036	ppbv		75
57) m,p-Xylene	11.145	91	2909	0.069	ppbv		97
61) o-Xylene	11.639	91	1491	0.034	ppbv#		89
71) 1,3-Dichlorobenzene	13.574	146	1486	0.038	ppbv#		90
72) 1,4-Dichlorobenzene	13.672	146	1545	0.041	ppbv#		84
75) 1,2-Dichlorobenzene	14.061	146	1340	0.042	ppbv#		86
77) 1,2,4-Trichlorobenzene	15.232	180	501	0.031	ppbv#		82
82] Vinyl Chloride(sim)	1.714	62	621	0.040	ppbv		94
86] Benzene(sim)	6.342	78	1361	0.039	ppbv		98
87] Carbon Tetrachloride(sim)	5.691	117	1570m	0.036	ppbv		1
88] 1,1-Dichloroethene(sim)	2.625	61	1109	0.036	ppbv		97
92] Cis-1,2-Dichloroethene...	5.020	61	783	0.036	ppbv#		84
98] Trichloroethene(sim)	7.212	130	805	0.035	ppbv		94
104] Tetrachloroethene(sim)	9.554	166	862	0.034	ppbv		94
108] Ethylbenzene(sim)	10.962	91	2168	0.034	ppb #		97
109] m,p-Xylene(sim)	11.145	91	2909	0.069	ppbv#		92
116] 1,4-Dichlorobenzene(sim)	13.675	146	1614	0.039	ppbv		98
121] 1,2,4-Trichlorobenzene...	15.232	180	501	0.031	ppbv#		71

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_04.D
Acq On : 3 Dec 2020 4:19 pm
Operator : Keith
Client ID : ICAL 0.035
Lab ID : 0.035
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 04 08:34:29 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:32:53 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_05.D
Acq On : 3 Dec 2020 4:51 pm
Operator : Keith
Client ID : ICAL 0.05
Lab ID : 0.05
ALS Vial : 7 Sample Multiplier: 1

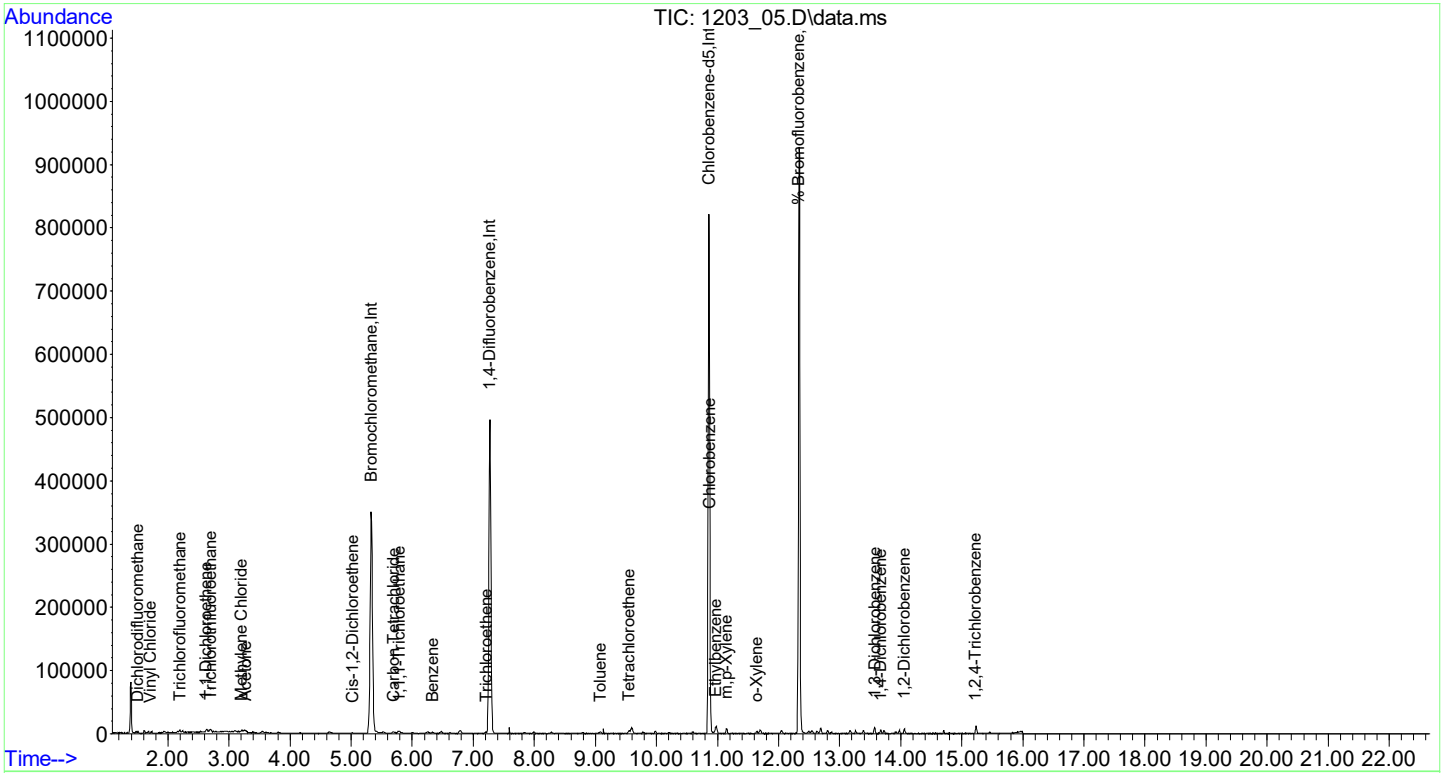
Quant Time: Dec 04 08:35:14 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:34:45 2020
Response via : Initial Calibration

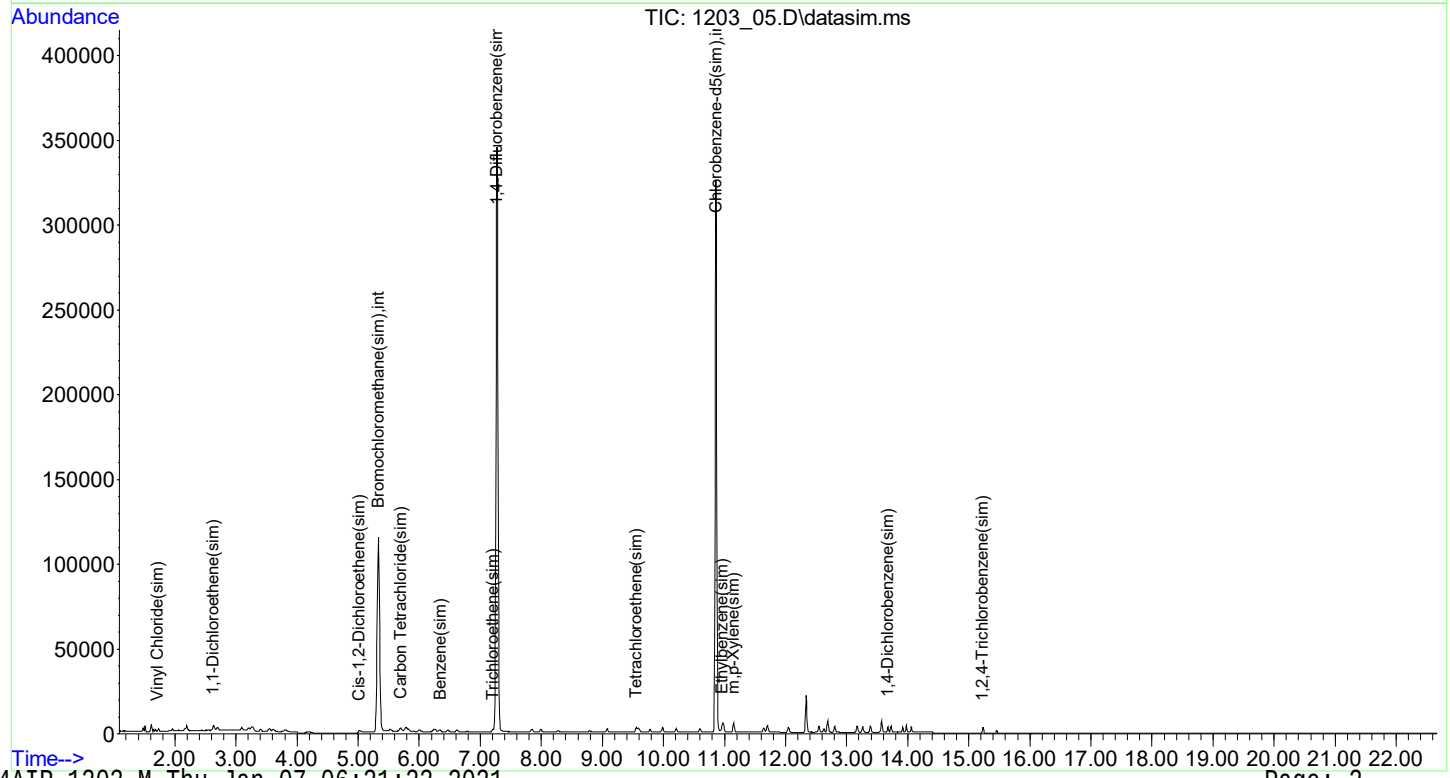
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.327	130	150392	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.270	114	441431	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	196635	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	156861	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.270	114	441431	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	196635	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	285729	9.483	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.80%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	2037	0.059	ppbv		99
6) Vinyl Chloride	1.718	62	769	0.057	ppbv#		42
12) Acetone	3.272	43	5115	0.114	ppbv		96
13) Trichlorofluoromethane	2.197	101	2482	0.050	ppbv		97
16) 1,1-Dichloroethene	2.629	61	1538	0.056	ppbv#		86
17) Methylene Chloride	3.203	49	1668	0.068	ppbv		95
21) Trichlorotrifluoroethane	2.697	101	2058	0.063	ppbv#		72
26) Cis-1,2-Dichloroethene	5.025	61	1032	0.057	ppbv#		71
32) 1,1,1-Trichloroethane	5.796	97	1952	0.055	ppbv#		74
33) Benzene	6.339	78	1606	0.056	ppbv#		88
34) Carbon Tetrachloride	5.695	117	2215	0.050	ppbv#		29
39) Trichloroethene	7.216	130	1010	0.048	ppbv		91
48) Toluene	9.082	91	2252	0.056	ppbv#		99
52) Tetrachloroethene	9.551	166	1046	0.043	ppbv#		81
55) Chlorobenzene	10.877	112	1914	0.050	ppbv#		66
56) Ethylbenzene	10.966	91	2646	0.048	ppbv		83
57) m,p-Xylene	11.145	91	4362	0.104	ppbv		99
61) o-Xylene	11.639	91	2236	0.051	ppbv		95
71) 1,3-Dichlorobenzene	13.574	146	1934	0.050	ppbv		92
72) 1,4-Dichlorobenzene	13.672	146	2099	0.056	ppbv		91
75) 1,2-Dichlorobenzene	14.061	146	1701	0.054	ppbv#		90
77) 1,2,4-Trichlorobenzene	15.222	180	734	0.045	ppbv		87
82) Vinyl Chloride(sim)	1.714	62	813	0.053	ppbv		98
86) Benzene(sim)	6.342	78	1818	0.053	ppbv		98
87) Carbon Tetrachloride(sim)	5.695	117	1932	0.045	ppbv#		63
88) 1,1-Dichloroethene(sim)	2.632	61	1546	0.051	ppbv		97
92) Cis-1,2-Dichloroethene...	5.020	61	1116	0.052	ppbv		94
98) Trichloroethene(sim)	7.205	130	1165	0.051	ppbv		98
104) Tetrachloroethene(sim)	9.554	166	1264	0.051	ppbv		99
108) Ethylbenzene(sim)	10.962	91	3099	0.049	ppb		99
109) m,p-Xylene(sim)	11.145	91	4362	0.104	ppbv#		97
116) 1,4-Dichlorobenzene(sim)	13.675	146	2113	0.051	ppbv		99
121) 1,2,4-Trichlorobenzene...	15.222	180	734	0.045	ppbv#		75

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_05.D
Acq On : 3 Dec 2020 4:51 pm
Operator : Keith
Client ID : ICAL 0.05
Lab ID : 0.05
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 04 08:35:14 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:34:45 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_06.D
Acq On : 3 Dec 2020 5:23 pm
Operator : Keith
Client ID : ICAL 0.1
Lab ID : 0.10
ALS Vial : 8 Sample Multiplier: 1

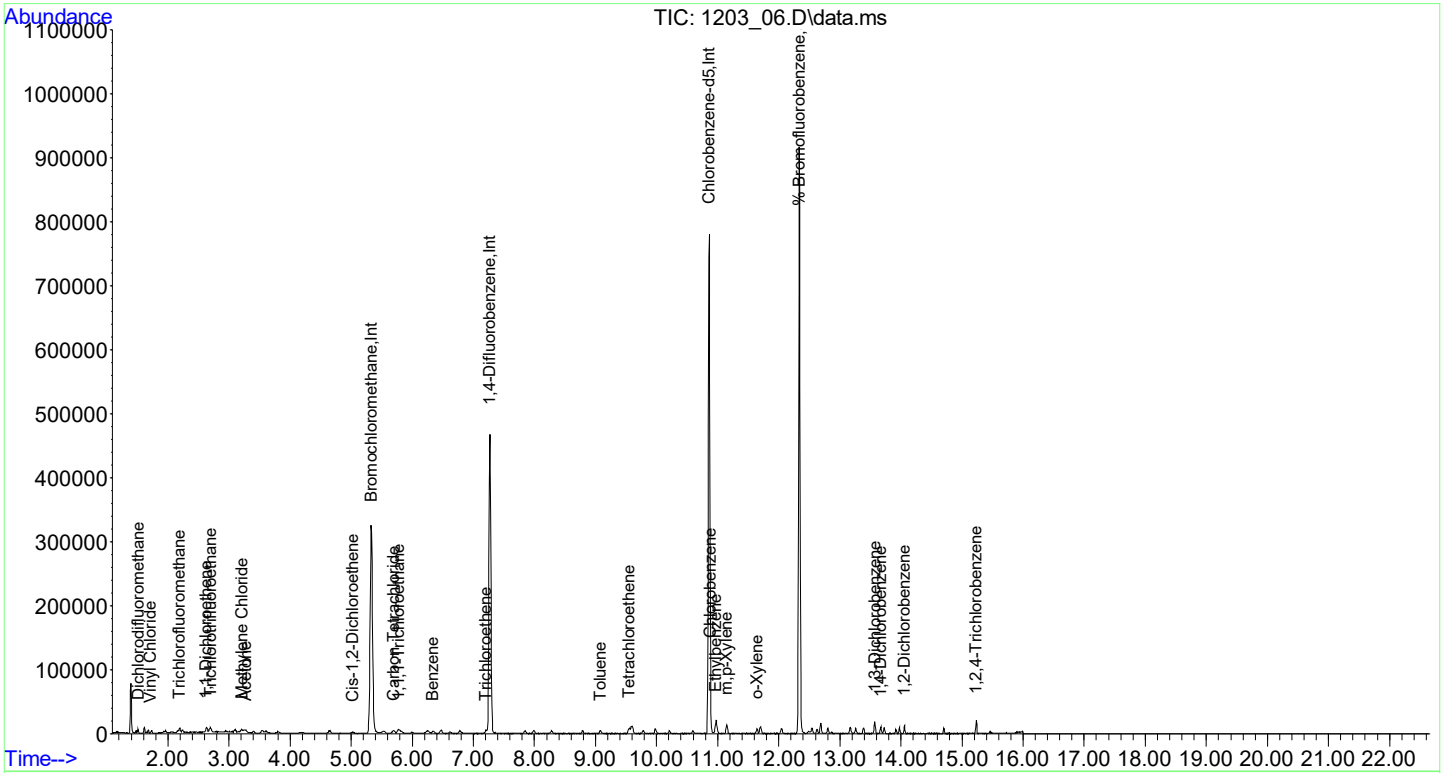
Quant Time: Dec 04 08:35:35 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:24 2020
Response via : Initial Calibration

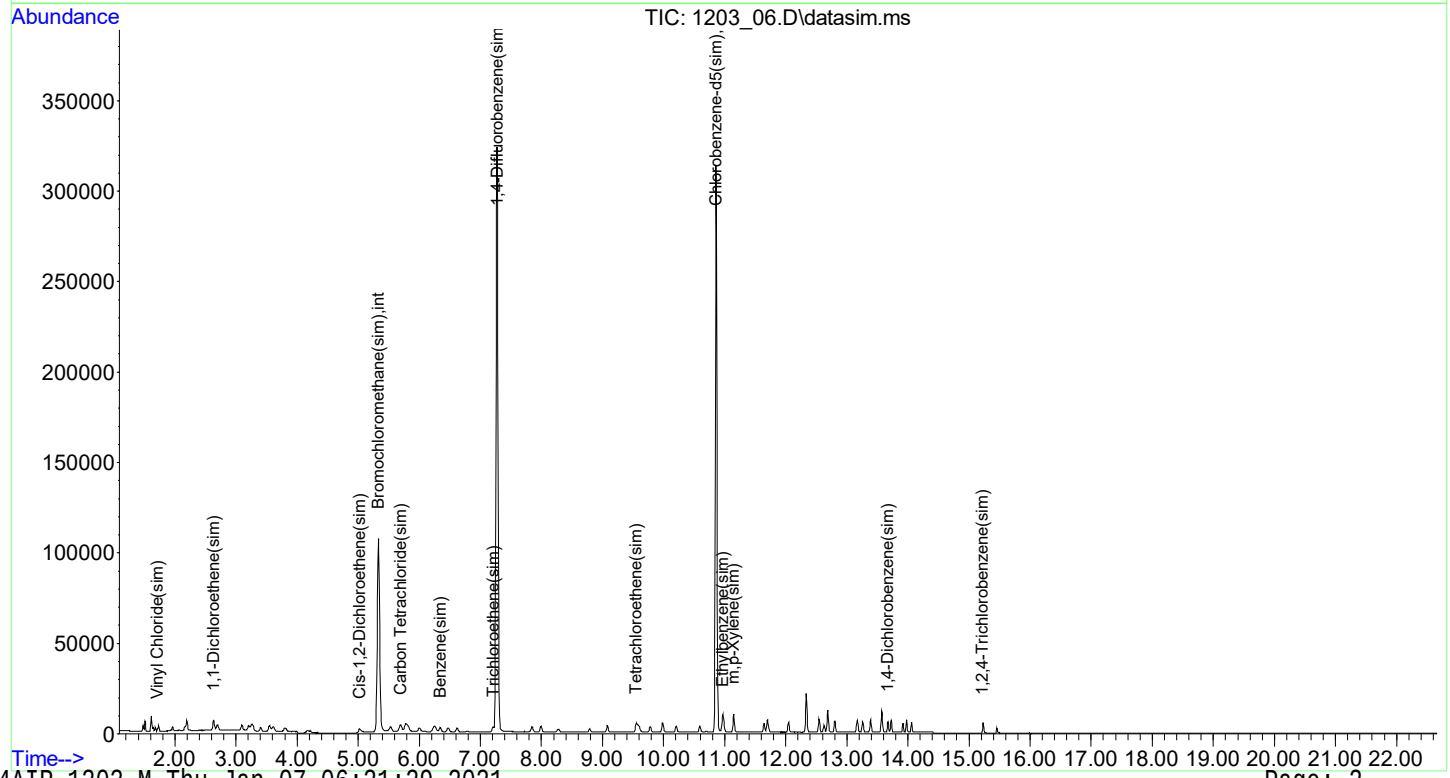
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	138423	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.270	114	413771	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	187093	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	146907	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.270	114	413771	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	187093	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	274119	9.562	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.60%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.512	85	3565	0.113	ppbv		98
6) Vinyl Chloride	1.711	62	1228	0.099	ppbv		90
12) Acetone	3.279	43	6538	0.158	ppbv		96
13) Trichlorofluoromethane	2.191	101	4635	0.101	ppbv		97
16) 1,1-Dichloroethene	2.622	61	2752	0.108	ppbv		96
17) Methylene Chloride	3.210	49	2512	0.111	ppbv#		86
21) Trichlorotrifluoroethane	2.697	101	3227	0.108	ppbv#		85
26) Cis-1,2-Dichloroethene	5.025	61	1958	0.119	ppbv#		67
32) 1,1,1-Trichloroethane	5.782	97	3087	0.094	ppbv#		68
33) Benzene	6.339	78	3011	0.114	ppbv		97
34) Carbon Tetrachloride	5.695	117	4011	0.098	ppbv		89
39) Trichloroethene	7.202	130	1979	0.099	ppbv		93
48) Toluene	9.075	91	3710	0.098	ppbv#		88
52) Tetrachloroethene	9.551	166	2035	0.090	ppbv		94
55) Chlorobenzene	10.884	112	3882	0.107	ppbv#		40
56) Ethylbenzene	10.966	91	5139	0.098	ppbv		93
57) m,p-Xylene	11.145	91	7297	0.183	ppbv		92
61) o-Xylene	11.646	91	3813	0.092	ppbv		98
71) 1,3-Dichlorobenzene	13.574	146	3595	0.097	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	3334	0.094	ppbv		93
75) 1,2-Dichlorobenzene	14.061	146	2720	0.091	ppbv		97
77) 1,2,4-Trichlorobenzene	15.227	180	1365	0.088	ppbv		94
82) Vinyl Chloride(sim)	1.714	62	1438	0.101	ppbv		99
86) Benzene(sim)	6.342	78	3167	0.098	ppbv		100
87) Carbon Tetrachloride(sim)	5.695	117	3690	0.092	ppbv#		40
88) 1,1-Dichloroethene(sim)	2.632	61	2796	0.099	ppbv		98
92) Cis-1,2-Dichloroethene...	5.020	61	1937	0.096	ppbv#		86
98) Trichloroethene(sim)	7.212	130	2141	0.101	ppbv		97
104) Tetrachloroethene(sim)	9.554	166	2382	0.102	ppbv		98
108) Ethylbenzene(sim)	10.962	91	5603	0.094	ppb		99
109) m,p-Xylene(sim)	11.145	91	7297	0.183	ppbv#		89
116) 1,4-Dichlorobenzene(sim)	13.675	146	3746	0.095	ppbv		99
121) 1,2,4-Trichlorobenzene...	15.227	180	1313	0.085	ppbv		91

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_06.D
Acq On : 3 Dec 2020 5:23 pm
Operator : Keith
Client ID : ICAL 0.1
Lab ID : 0.10
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 04 08:35:35 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:24 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_07.D
Acq On : 3 Dec 2020 5:56 pm
Operator : Keith
Client ID : ICAL 0.25
Lab ID : 0.20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 04 08:30:53 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:30:38 2020
Response via : Initial Calibration

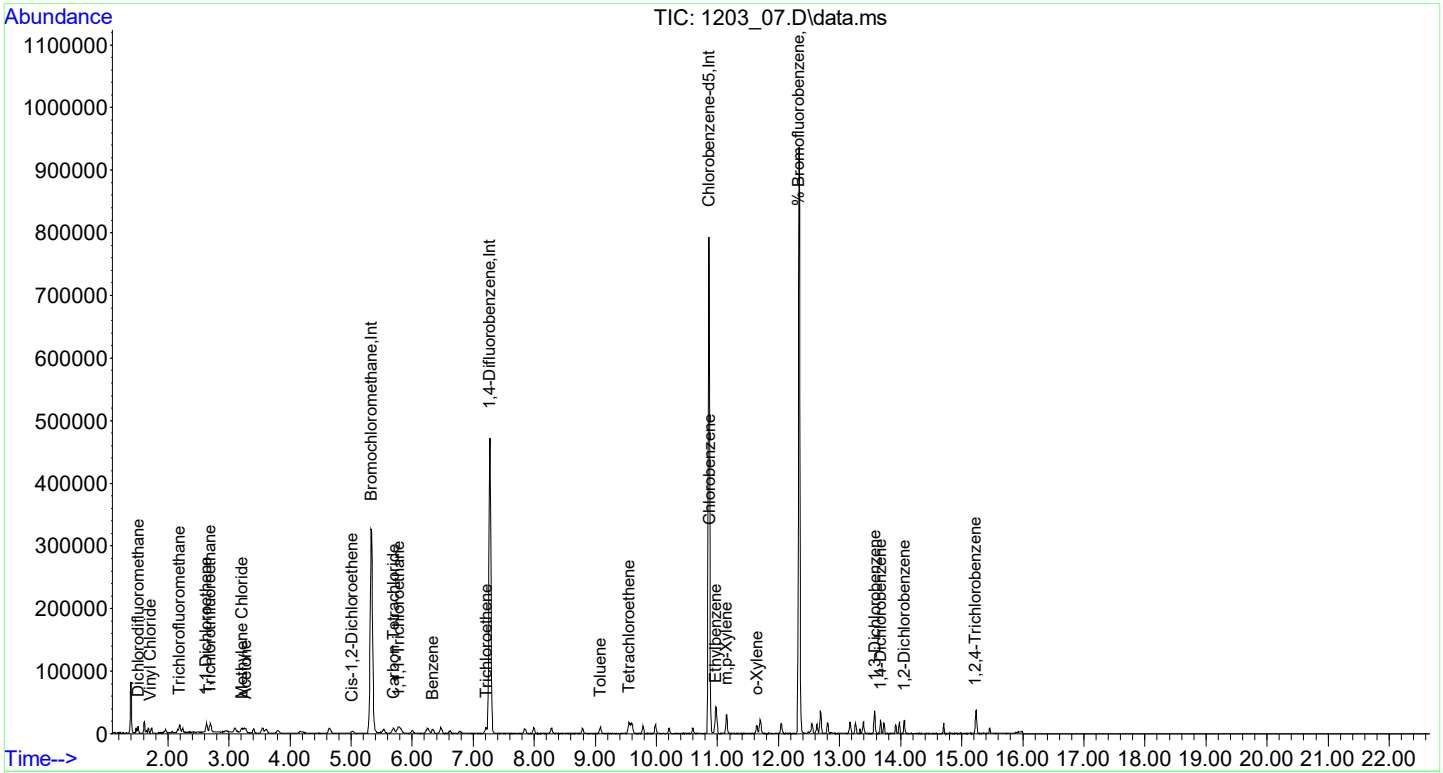
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	140105	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.271	114	414179	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	185742	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	146771	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.271	114	414179	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	185742	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	273016	9.537	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.40%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	7028	0.219	ppbv		98
6) Vinyl Chloride	1.718	62	2453	0.195	ppbv		87
12) Acetone	3.272	43	9966	0.238	ppbv		99
13) Trichlorofluoromethane	2.191	101	8738	0.188	ppbv		95
16) 1,1-Dichloroethene	2.629	61	5166	0.201	ppbv		95
17) Methylene Chloride	3.210	49	4790	0.209	ppbv		98
21) Trichlorotrifluoroethane	2.690	101	5898	0.195	ppbv		98
26) Cis-1,2-Dichloroethene	5.018	61	3158	0.189	ppbv		88
32) 1,1,1-Trichloroethane	5.782	97	6980	0.211	ppbv		95
33) Benzene	6.339	78	5215	0.195	ppbv		96
34) Carbon Tetrachloride	5.695	117	8643	0.209	ppbv		98
39) Trichloroethene	7.216	130	3956	0.198	ppbv		93
48) Toluene	9.082	91	7015	0.185	ppbv		99
52) Tetrachloroethene	9.552	166	4349	0.193	ppbv		93
55) Chlorobenzene	10.877	112	6843	0.190	ppbv	#	64
56) Ethylbenzene	10.966	91	10077	0.194	ppbv		93
57) m,p-Xylene	11.152	91	15762	0.398	ppbv		97
61) o-Xylene	11.646	91	7805	0.190	ppbv		92
71) 1,3-Dichlorobenzene	13.575	146	7281	0.199	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	6852	0.195	ppbv		96
75) 1,2-Dichlorobenzene	14.061	146	5951	0.200	ppbv		96
77) 1,2,4-Trichlorobenzene	15.227	180	2586	0.168	ppbv		98
82) Vinyl Chloride(sim)	1.714	62	2612	0.183	ppbv		99
86) Benzene(sim)	6.342	78	5948	0.184	ppbv		100
87) Carbon Tetrachloride(sim)	5.695	117	8808	0.220	ppbv	#	92
88) 1,1-Dichloroethene(sim)	2.632	61	5287	0.187	ppbv		99
92) Cis-1,2-Dichloroethene...	5.021	61	3854	0.191	ppbv		98
98) Trichloroethene(sim)	7.212	130	4152	0.195	ppbv		100
104) Tetrachloroethene(sim)	9.554	166	4616	0.197	ppbv		99
108) Ethylbenzene(sim)	10.962	91	11175	0.188	ppb		99
109) m,p-Xylene(sim)	11.152	91	15762	0.399	ppbv		97
116) 1,4-Dichlorobenzene(sim)	13.675	146	7365	0.188	ppbv		99
121) 1,2,4-Trichlorobenzene...	15.227	180	2586	0.169	ppbv		98

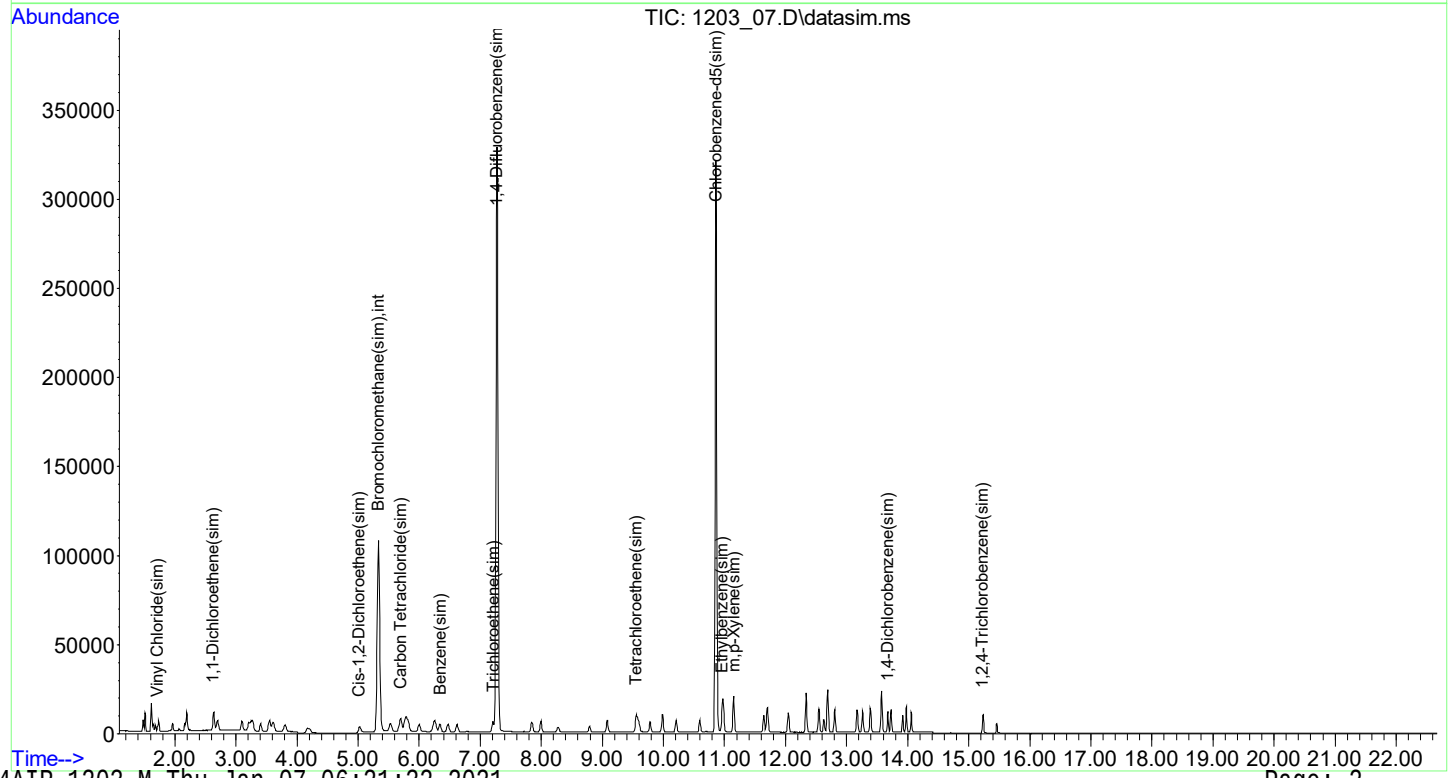
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_07.D
Acq On : 3 Dec 2020 5:56 pm
Operator : Keith
Client ID : ICAL 0.25
Lab ID : 0.20
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 04 08:30:53 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:30:38 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_08.D
Acq On : 3 Dec 2020 6:32 pm
Operator : Keith
Client ID : ICAL 0.5
Lab ID : 0.5
ALS Vial : 10 Sample Multiplier: 1

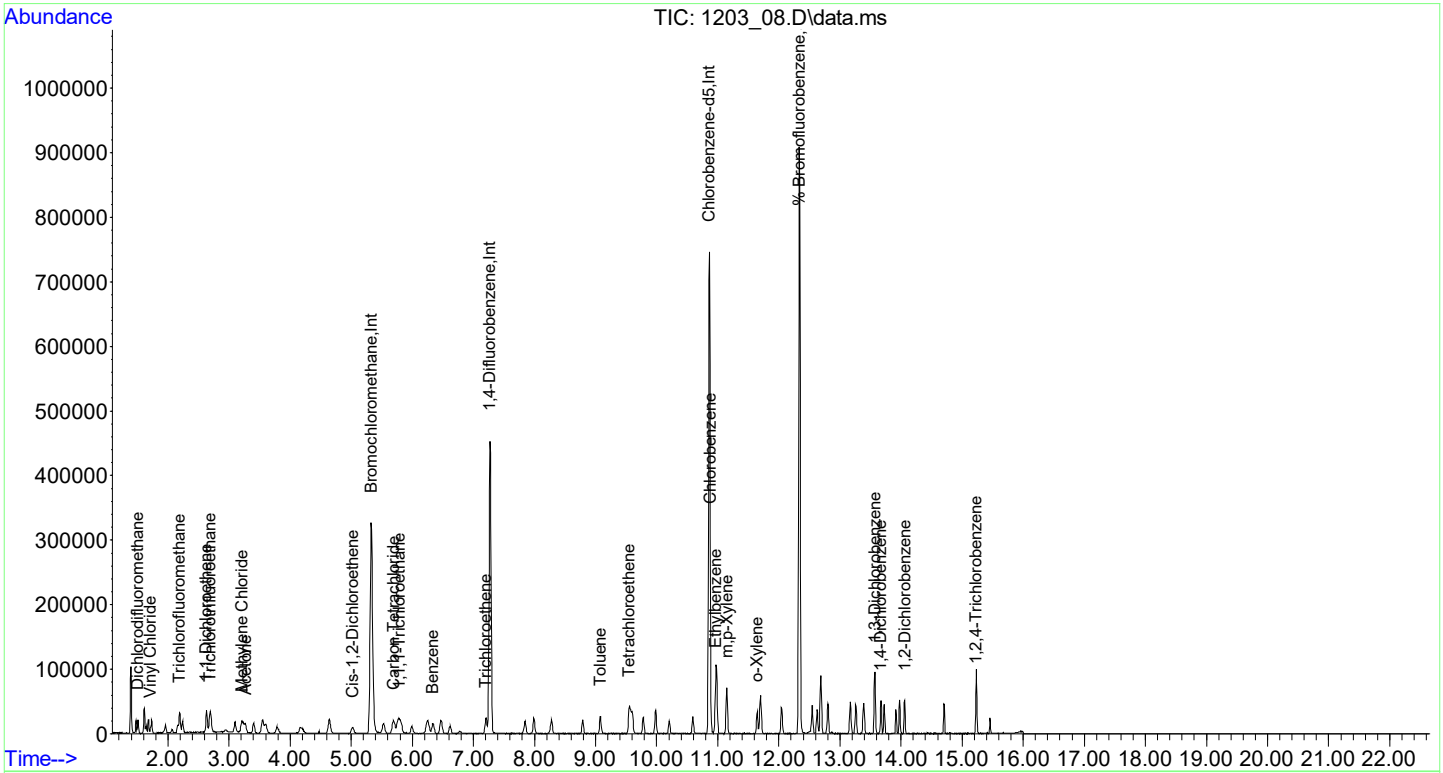
Quant Time: Dec 04 08:30:26 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:30:11 2020
Response via : Initial Calibration

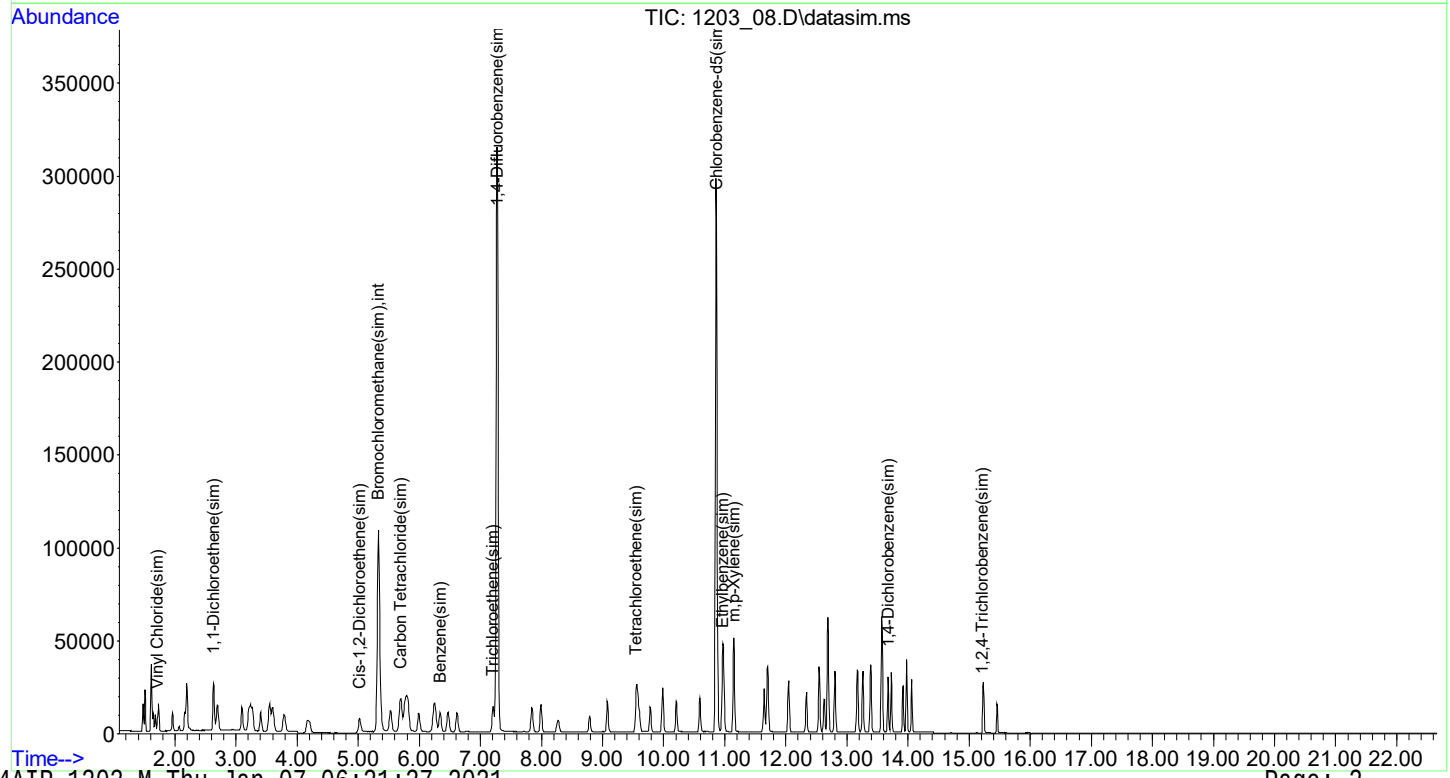
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.327	130	134237	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.270	114	396222	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	177106	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	142472	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.270	114	396222	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	177106	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	266596	9.729	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.30%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	13358	0.435	ppbv		99
6) Vinyl Chloride	1.711	62	6211	0.517	ppbv		96
12) Acetone	3.272	43	23007	0.574	ppbv		100
13) Trichlorofluoromethane	2.191	101	23234	0.520	ppbv		99
16) 1,1-Dichloroethene	2.629	61	11669	0.474	ppbv		96
17) Methylene Chloride	3.210	49	11444	0.521	ppbv		99
21) Trichlorotrifluoroethane	2.690	101	14813	0.510	ppbv		97
26) Cis-1,2-Dichloroethene	5.025	61	7181	0.448	ppbv		90
32) 1,1,1-Trichloroethane	5.789	97	16186	0.511	ppbv		95
33) Benzene	6.332	78	12177	0.476	ppbv		94
34) Carbon Tetrachloride	5.695	117	20149	0.508	ppbv		98
39) Trichloroethene	7.209	130	9012	0.472	ppbv		99
48) Toluene	9.082	91	17222	0.475	ppbv		100
52) Tetrachloroethene	9.551	166	10927	0.506	ppbv		95
55) Chlorobenzene	10.877	112	17123	0.497	ppbv		81
56) Ethylbenzene	10.966	91	23994	0.485	ppbv		96
57) m,p-Xylene	11.152	91	37514	0.993	ppbv		97
61) o-Xylene	11.646	91	18587	0.474	ppbv		98
71) 1,3-Dichlorobenzene	13.574	146	17821	0.510	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	16126	0.482	ppbv		98
75) 1,2-Dichlorobenzene	14.061	146	14443	0.510	ppbv		98
77) 1,2,4-Trichlorobenzene	15.223	180	7026	0.479	ppbv		95
82] Vinyl Chloride(sim)	1.714	62	6301	0.455	ppbv		99
86] Benzene(sim)	6.342	78	14226	0.454	ppbv		100
87] Carbon Tetrachloride(sim)	5.695	117	19732	0.507	ppbv		97
88] 1,1-Dichloroethene(sim)	2.632	61	12951	0.473	ppbv		99
92] Cis-1,2-Dichloroethene...	5.020	61	9093	0.465	ppbv		96
98] Trichloroethene(sim)	7.205	130	9952	0.489	ppbv		99
104] Tetrachloroethene(sim)	9.554	166	11202	0.499	ppbv		100
108] Ethylbenzene(sim)	10.962	91	27609	0.488	ppb		99
109] m,p-Xylene(sim)	11.152	91	37514	0.996	ppbv		97
116] 1,4-Dichlorobenzene(sim)	13.675	146	18896	0.507	ppbv		99
121] 1,2,4-Trichlorobenzene...	15.223	180	7065	0.483	ppbv		95

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_08.D
Acq On : 3 Dec 2020 6:32 pm
Operator : Keith
Client ID : ICAL 0.5
Lab ID : 0.5
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 04 08:30:26 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:30:11 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_09.D
Acq On : 3 Dec 2020 7:08 pm
Operator : Keith
Client ID : ICAL 2.5
Lab ID : 2.5
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 04 08:30:00 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:29:43 2020
Response via : Initial Calibration

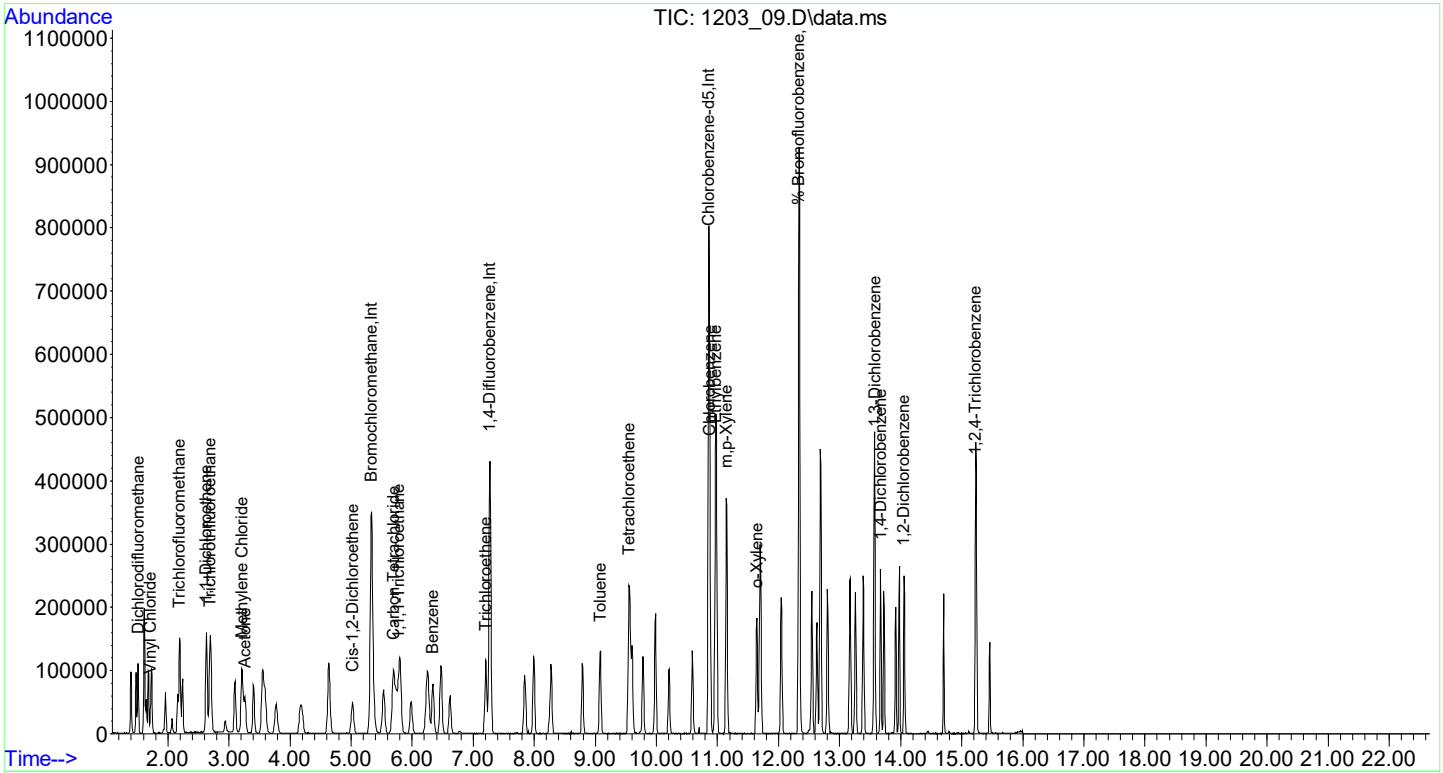
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	132589	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.271	114	388875	10.000	ng		0.00
53) Chlorobenzene-d5	10.857	82	178798	10.000	ng		0.00
80) Bromochloromethane(sim)	5.330	130	140338	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.271	114	388875	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.857	82	178798	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	272430	9.818	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.20%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	68413	2.258	ppbv		100
6) Vinyl Chloride	1.718	62	28216	2.376	ppbv		100
12) Acetone	3.265	43	96832	2.446	ppbv		98
13) Trichlorofluoromethane	2.191	101	113364	2.571	ppbv		99
16) 1,1-Dichloroethene	2.629	61	59198	2.433	ppbv		98
17) Methylene Chloride	3.210	49	54362	2.507	ppbv		97
21) Trichlorotrifluoroethane	2.690	101	70989	2.475	ppbv		97
26) Cis-1,2-Dichloroethene	5.025	61	39038	2.467	ppbv		99
32) 1,1,1-Trichloroethane	5.782	97	78175	2.497	ppbv		99
33) Benzene	6.339	78	61720	2.445	ppbv		99
34) Carbon Tetrachloride	5.695	117	97818	2.496	ppbv		99
39) Trichloroethene	7.209	130	44350	2.369	ppbv		99
48) Toluene	9.082	91	85702	2.411	ppbv		100
52) Tetrachloroethene	9.552	166	52326	2.469	ppbv		99
55) Chlorobenzene	10.877	112	84345	2.427	ppbv		97
56) Ethylbenzene	10.966	91	123079	2.463	ppbv		99
57) m,p-Xylene	11.145	91	194647	5.104	ppbv		99
61) o-Xylene	11.646	91	96672	2.440	ppbv		100
71) 1,3-Dichlorobenzene	13.575	146	84626	2.397	ppbv		99
72) 1,4-Dichlorobenzene	13.672	146	82437	2.439	ppbv		99
75) 1,2-Dichlorobenzene	14.055	146	71460	2.500	ppbv		98
77) 1,2,4-Trichlorobenzene	15.227	180	37100	2.506	ppbv		97
82] Vinyl Chloride(sim)	1.714	62	31043	2.276	ppbv		100
86] Benzene(sim)	6.342	78	68152	2.207	ppbv		100
87] Carbon Tetrachloride(sim)	5.695	117	97818	2.554	ppbv		99
88] 1,1-Dichloroethene(sim)	2.632	61	63903	2.369	ppbv		100
92] Cis-1,2-Dichloroethene...	5.021	61	47473	2.463	ppbv		99
98] Trichloroethene(sim)	7.205	130	48203	2.412	ppbv		100
104] Tetrachloroethene(sim)	9.554	166	54741	2.483	ppbv		99
108] Ethylbenzene(sim)	10.962	91	136693	2.395	ppb		100
109] m,p-Xylene(sim)	11.145	91	194776	5.122	ppbv		99
116] 1,4-Dichlorobenzene(sim)	13.675	146	92971	2.470	ppbv		100
121] 1,2,4-Trichlorobenzene...	15.227	180	37163	2.519	ppbv		98

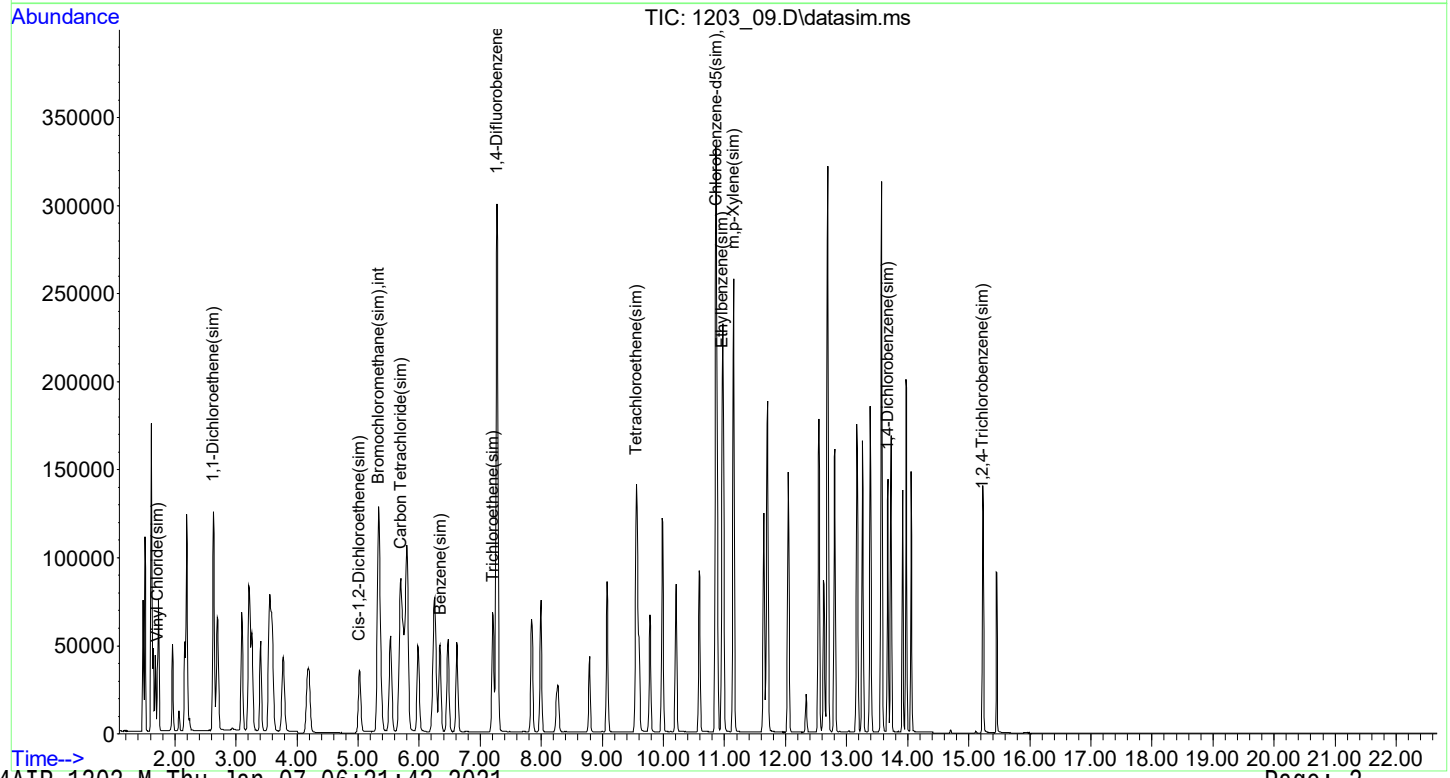
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_09.D
Acq On : 3 Dec 2020 7:08 pm
Operator : Keith
Client ID : ICAL 2.5
Lab ID : 2.5
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 04 08:30:00 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:29:43 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_10.D
Acq On : 3 Dec 2020 7:41 pm
Operator : Keith
Client ID : ICAL 5
Lab ID : 5.0
ALS Vial : 12 Sample Multiplier: 1

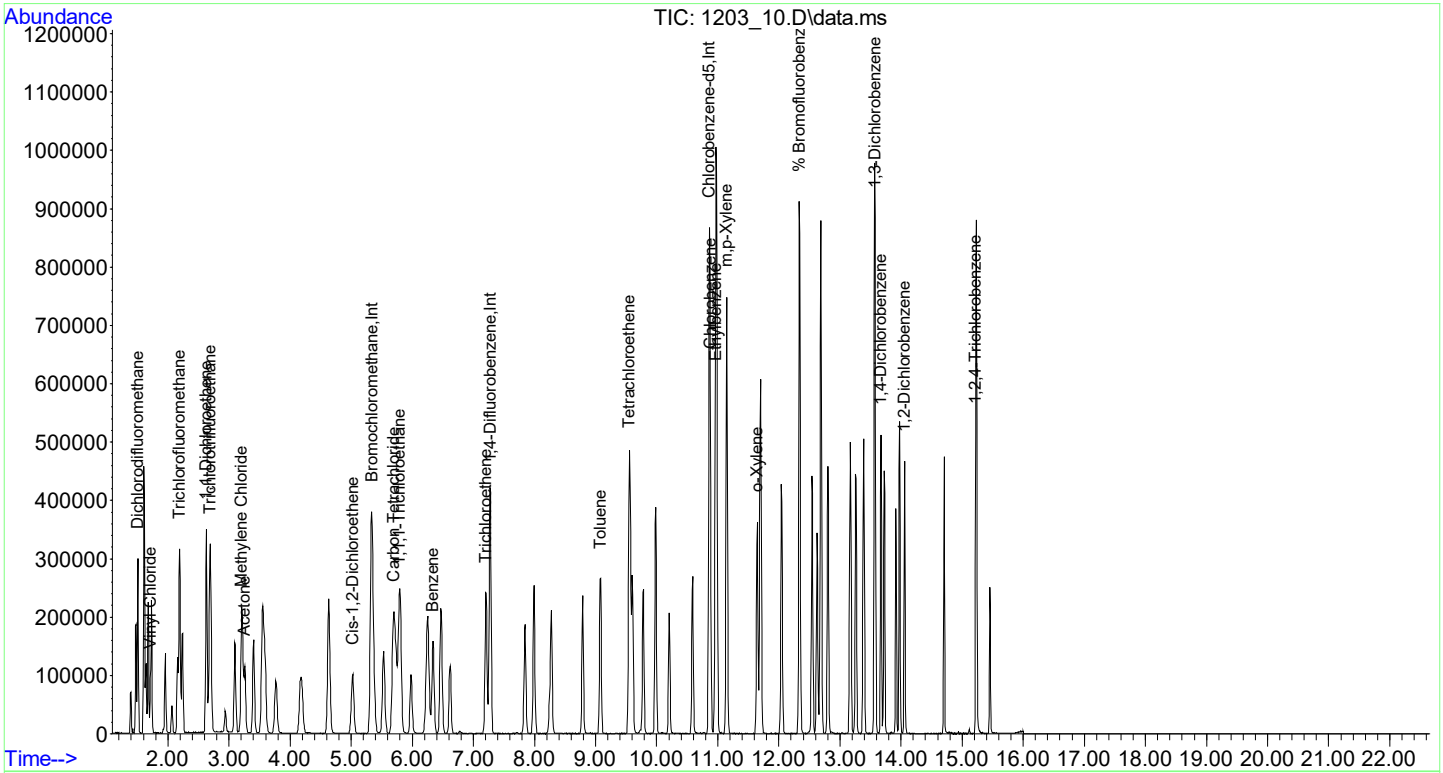
Quant Time: Dec 04 08:29:33 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:29:12 2020
Response via : Initial Calibration

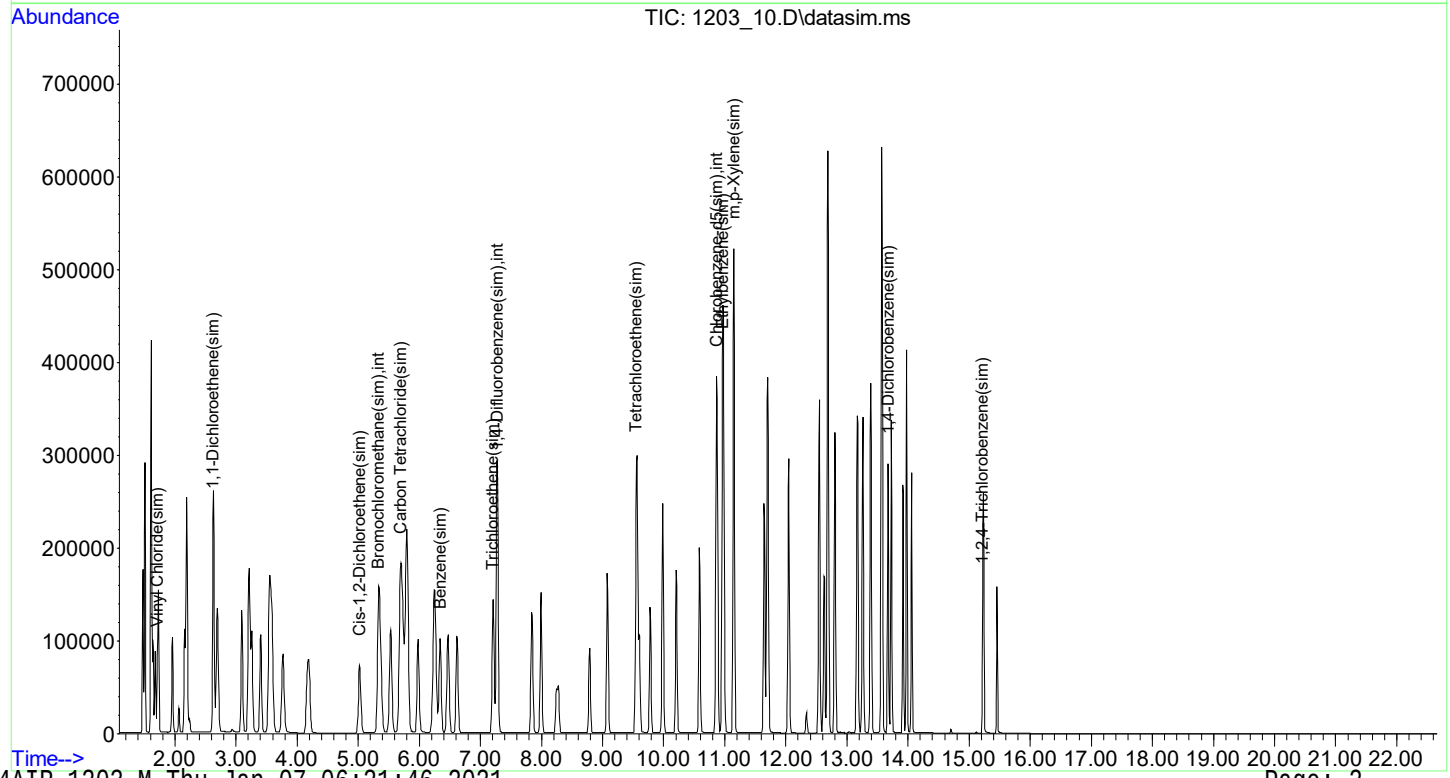
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	130484	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	371086	10.000	ng		0.00
53) Chlorobenzene-d5	10.864	82	174586	10.000	ng		0.00
80) Bromochloromethane(sim)	5.331	130	135648	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	371086	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.864	82	174586	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	271155	10.010	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.10%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	176490	5.919	ppbv		99
6) Vinyl Chloride	1.711	62	61721	5.281	ppbv		97
12) Acetone	3.258	43	185658	4.765	ppbv		99
13) Trichlorofluoromethane	2.191	101	231453	5.334	ppbv		100
16) 1,1-Dichloroethene	2.629	61	126030	5.263	ppbv		99
17) Methylene Chloride	3.203	49	112815	5.287	ppbv		99
21) Trichlorotrifluoroethane	2.690	101	147859	5.238	ppbv		99
26) Cis-1,2-Dichloroethene	5.025	61	78661	5.051	ppbv		99
32) 1,1,1-Trichloroethane	5.789	97	159664	5.183	ppbv		99
33) Benzene	6.339	78	123340	4.964	ppbv		98
34) Carbon Tetrachloride	5.695	117	198912	5.158	ppbv		98
39) Trichloroethene	7.209	130	93504	5.233	ppbv		99
48) Toluene	9.082	91	176607	5.206	ppbv		99
52) Tetrachloroethene	9.552	166	104520	5.169	ppbv		99
55) Chlorobenzene	10.877	112	168848	4.976	ppbv		99
56) Ethylbenzene	10.960	91	245775	5.037	ppbv		100
57) m,p-Xylene	11.145	91	382944	10.284	ppbv		100
61) o-Xylene	11.646	91	194365	5.024	ppbv		99
71) 1,3-Dichlorobenzene	13.575	146	167864	4.870	ppbv		100
72) 1,4-Dichlorobenzene	13.672	146	164761	4.993	ppbv		98
75) 1,2-Dichlorobenzene	14.055	146	138050	4.945	ppbv		99
77) 1,2,4-Trichlorobenzene	15.222	180	70355	4.867	ppbv		98
82] Vinyl Chloride(sim)	1.714	62	67238	5.099	ppbv		100
86] Benzene(sim)	6.342	78	136571	4.575	ppbv		99
87] Carbon Tetrachloride(sim)	5.695	117	198938	5.373	ppbv		98
88] 1,1-Dichloroethene(sim)	2.625	61	133951	5.137	ppbv		99
92] Cis-1,2-Dichloroethene...	5.021	61	97244	5.219	ppbv		98
98] Trichloroethene(sim)	7.205	130	100754	5.284	ppbv		100
104] Tetrachloroethene(sim)	9.554	166	111191	5.285	ppbv		100
108] Ethylbenzene(sim)	10.962	91	275386	4.942	ppb		100
109] m,p-Xylene(sim)	11.145	91	383131	10.319	ppbv		100
116] 1,4-Dichlorobenzene(sim)	13.675	146	185719	5.053	ppbv		99
121] 1,2,4-Trichlorobenzene...	15.222	180	69888	4.851	ppbv		98

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_10.D
Acq On : 3 Dec 2020 7:41 pm
Operator : Keith
Client ID : ICAL 5
Lab ID : 5.0
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 04 08:29:33 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:29:12 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_11.D
Acq On : 3 Dec 2020 8:17 pm
Operator : Keith
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 13 Sample Multiplier: 1

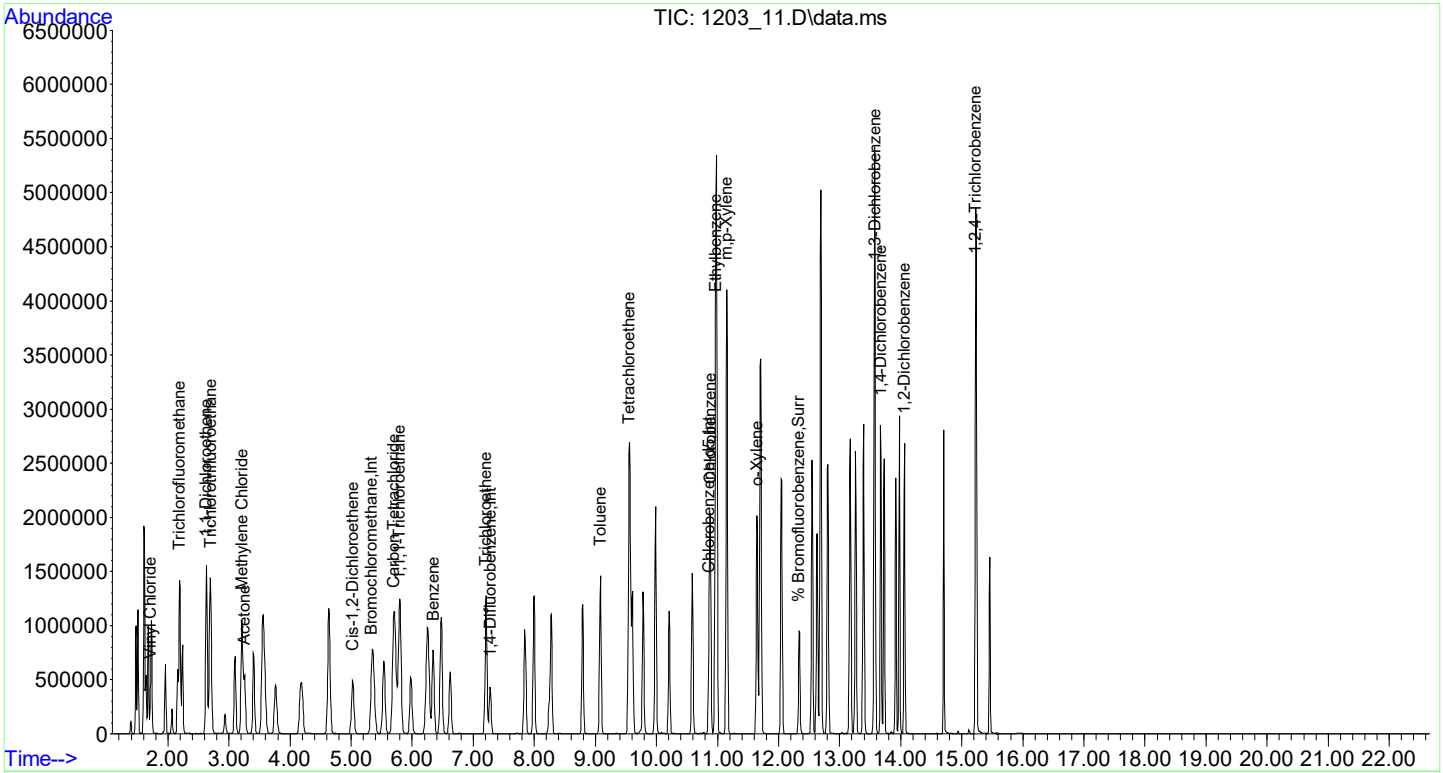
Quant Time: Dec 04 08:26:18 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Dec 02 20:32:16 2020
Response via : Initial Calibration

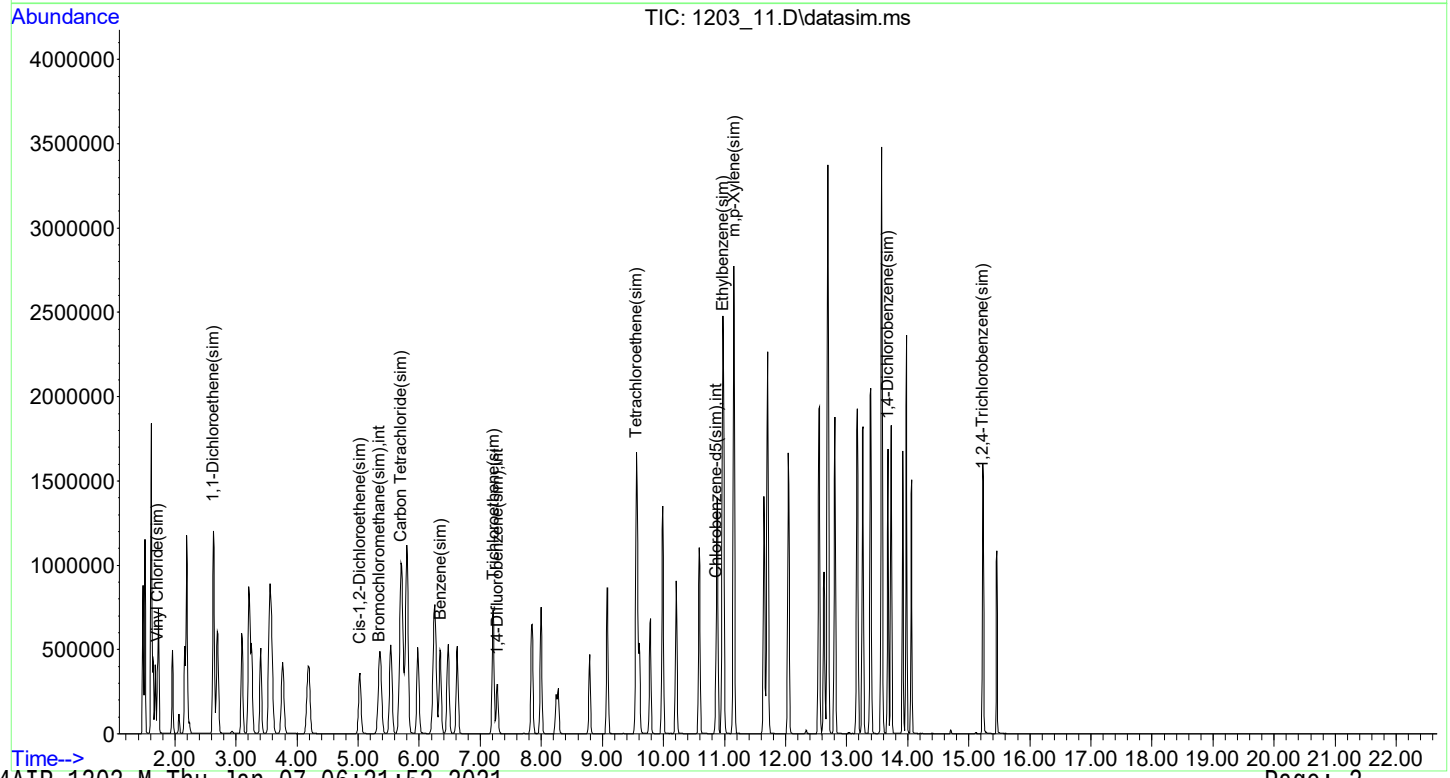
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	5.335	130	130388	10.000	ng	-0.04
36) 1,4-Difluorobenzene	7.277	114	382090	10.000	ng	-0.03
53) Chlorobenzene-d5	10.863	82	182308	10.000	ng	#-0.03
80) Bromochloromethane(sim)	5.338	130	135158	10.000	ng	#-0.04
95) 1,4-Difluorobenzene(sim)	7.277	114	382090	10.000	ng	-0.03
105) Chlorobenzene-d5(sim)	10.863	82	182308	10.000	ng	#-0.03
System Monitoring Compounds						
62) % Bromofluorobenzene	12.335	95	289784	10.675	ppbv	-0.03
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.80%			
Target Compounds						Qvalue
6) Vinyl Chloride	1.711	62	289267	24.768	ppbv	99
12) Acetone	3.258	43	878312	22.560	ppbv#	89
13) Trichlorofluoromethane	2.191	101	1070245	24.683	ppbv	99
16) 1,1-Dichloroethene	2.629	61	587236	24.539	ppbv	90
17) Methylene Chloride	3.210	49	522499	24.503	ppbv	88
21) Trichlorotrifluoroethane	2.697	101	675416	23.945	ppbv	98
26) Cis-1,2-Dichloroethene	5.025	61	390883	25.116	ppbv	91
32) 1,1,1-Trichloroethane	5.789	97	766600	24.904	ppbv	98
33) Benzene	6.346	78	609655	24.557	ppbv#	91
34) Carbon Tetrachloride	5.695	117	981245	25.464	ppbv	99
39) Trichloroethene	7.209	130	478591	26.013	ppbv	99
48) Toluene	9.082	91	931273	26.663	ppbv	99
52) Tetrachloroethene	9.551	166	554564	26.634	ppbv	96
55) Chlorobenzene	10.884	112	897941	25.343	ppbv	99
56) Ethylbenzene	10.966	91	1354066	26.576	ppbv	98
57) m,p-Xylene	11.152	91	2138476	54.995	ppbv	97
61) o-Xylene	11.646	91	1110568	27.490	ppbv	96
71) 1,3-Dichlorobenzene	13.581	146	962824	26.750	ppbv	98
72) 1,4-Dichlorobenzene	13.672	146	946019	27.454	ppbv	98
75) 1,2-Dichlorobenzene	14.061	146	779002	26.724	ppbv	98
77) 1,2,4-Trichlorobenzene	15.227	180	470602	31.176	ppbv	98
82] Vinyl Chloride(sim)	1.714	62	311945	23.743	ppbv	99
86] Benzene(sim)	6.342	78	674764	22.687	ppbv#	91
87] Carbon Tetrachloride(sim)	5.695	117	981179	26.597	ppbv	99
88] 1,1-Dichloroethene(sim)	2.632	61	622292	23.950	ppbv	93
92] Cis-1,2-Dichloroethene...	5.028	61	473271	25.494	ppbv#	88
98] Trichloroethene(sim)	7.212	130	509575	25.955	ppbv	100
104] Tetrachloroethene(sim)	9.554	166	580513	26.798	ppbv	96
108] Ethylbenzene(sim)	10.969	91	1490403	25.614	ppb	98
109] m,p-Xylene(sim)	11.152	91	2139888	55.193	ppbv	97
116] 1,4-Dichlorobenzene(sim)	13.675	146	1053689	27.456	ppbv	98
121] 1,2,4-Trichlorobenzene...	15.227	180	470602	31.280	ppbv	98

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_11.D
Acq On : 3 Dec 2020 8:17 pm
Operator : Keith
Client ID : ICAL 25
Lab ID : 25
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 04 08:26:18 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Dec 02 20:32:16 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_12.D
Acq On : 3 Dec 2020 8:56 pm
Operator : Keith
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 14 Sample Multiplier: 1

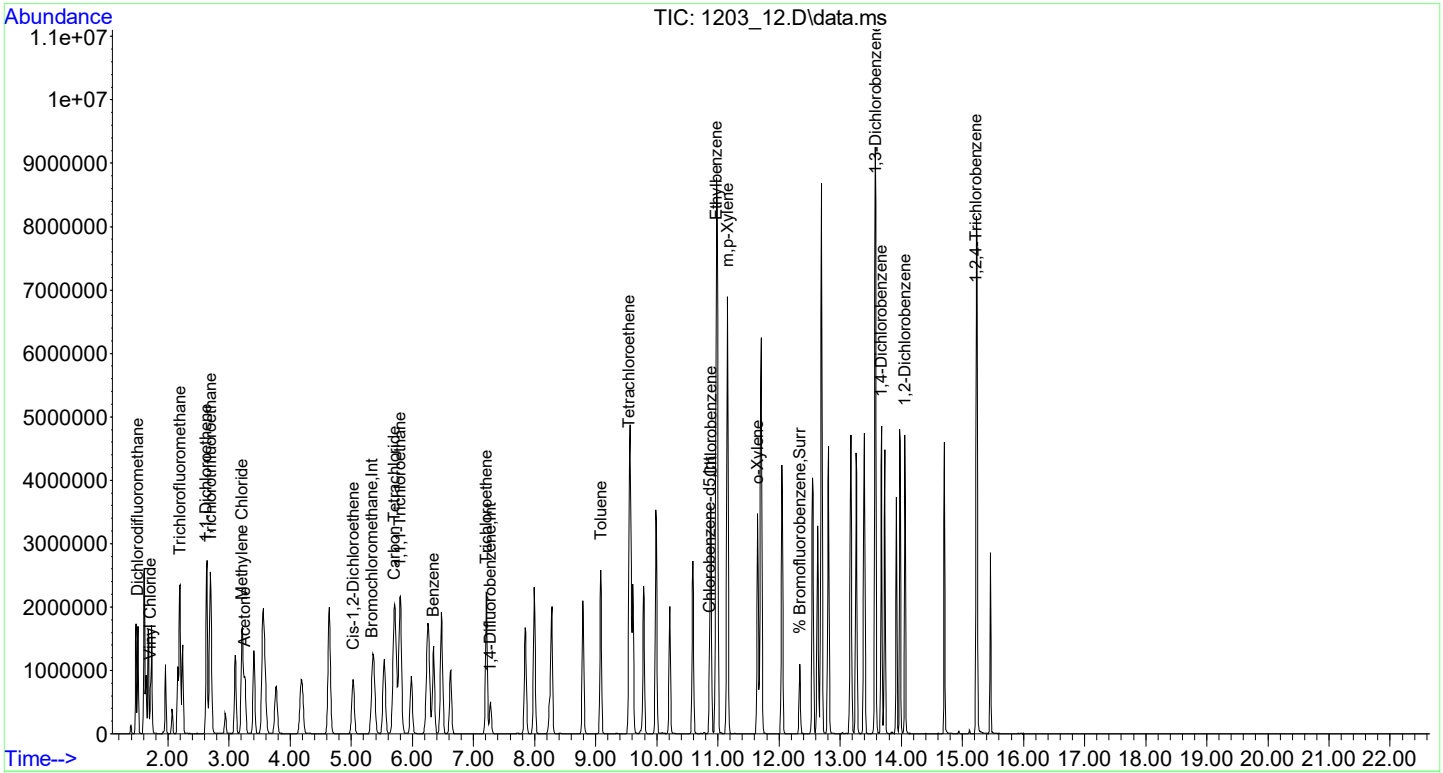
Quant Time: Dec 04 08:27:17 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:27:04 2020
Response via : Initial Calibration

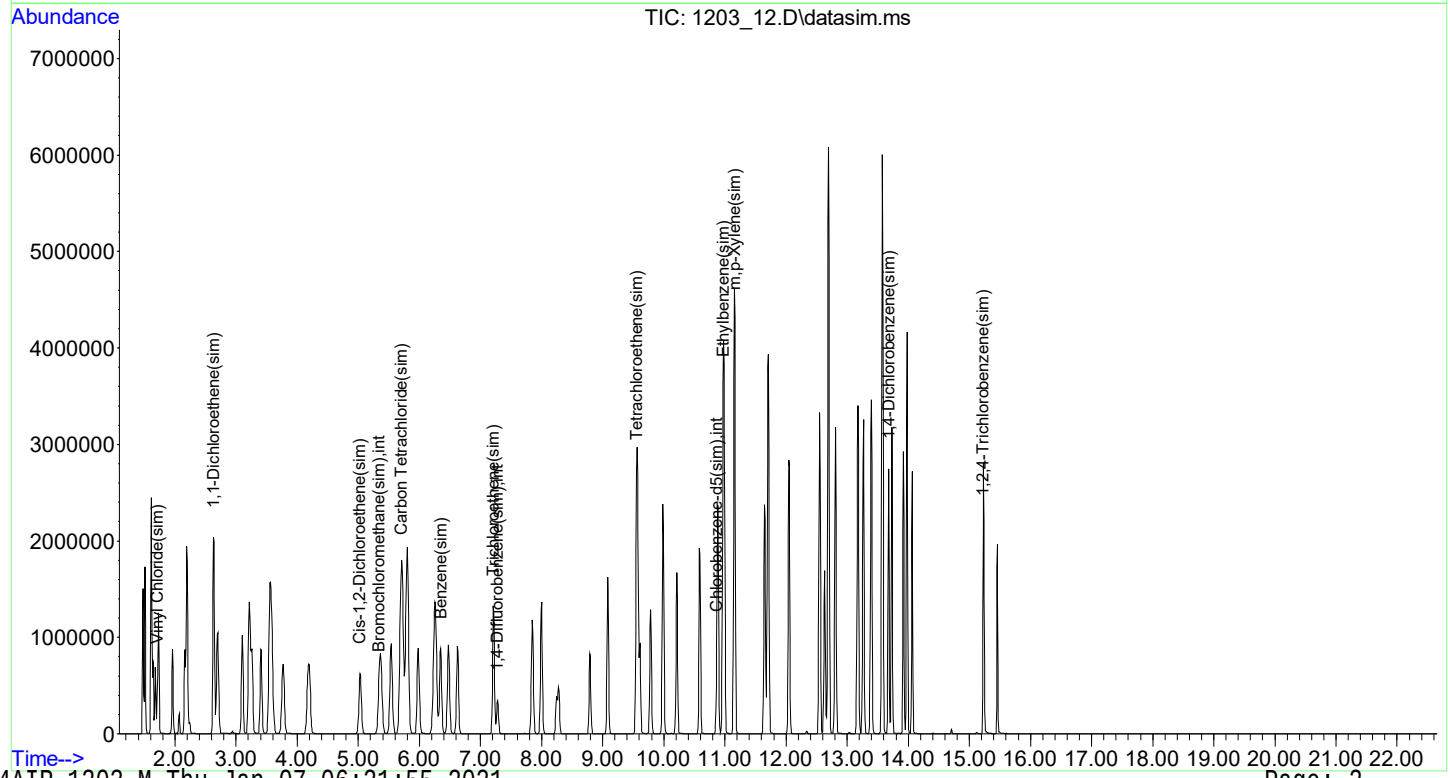
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.342	130	151205	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	438941	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	207897	10.000	ng		0.00
80) Bromochloromethane(sim)	5.338	130	155613	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	438941	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	207897	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.341	95	326861	9.891	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.90%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	1040616	30.115	ppbv		99
6) Vinyl Chloride	1.711	62	504977	37.285	ppbv		99
12) Acetone	3.258	43	1473783	32.644	ppbv		98
13) Trichlorofluoromethane	2.197	101	1825133	36.298	ppbv		100
16) 1,1-Dichloroethene	2.629	61	1023670	36.887	ppbv		98
17) Methylene Chloride	3.210	49	884253	35.758	ppbv		98
21) Trichlorotrifluoroethane	2.697	101	1202065	36.748	ppbv		99
26) Cis-1,2-Dichloroethene	5.032	61	697608	38.654	ppbv		99
32) 1,1,1-Trichloroethane	5.796	97	1345896	37.703	ppbv		99
33) Benzene	6.346	78	1105656	38.404	ppbv		99
34) Carbon Tetrachloride	5.702	117	1699822	38.038	ppbv		100
39) Trichloroethene	7.216	130	868052	41.071	ppbv		100
48) Toluene	9.082	91	1691077	42.146	ppbv		100
52) Tetrachloroethene	9.551	166	1012860	42.345	ppbv		99
55) Chlorobenzene	10.884	112	1644030	40.688	ppbv		99
56) Ethylbenzene	10.973	91	2378344	40.934	ppbv		100
57) m,p-Xylene	11.158	91	3776566	85.167	ppbv		100
61) o-Xylene	11.652	91	1966398	42.684	ppbv		99
71) 1,3-Dichlorobenzene	13.581	146	1689151	41.153	ppbv		100
72) 1,4-Dichlorobenzene	13.678	146	1626484	41.392	ppbv		99
75) 1,2-Dichlorobenzene	14.061	146	1362482	40.988	ppbv		100
77) 1,2,4-Trichlorobenzene	15.227	180	868869	50.475	ppbv		98
82) Vinyl Chloride(sim)	1.714	62	544347	35.985	ppbv		100
86) Benzene(sim)	6.349	78	1219787	35.621	ppbv		98
87) Carbon Tetrachloride(sim)	5.702	117	1699822	40.021	ppbv		100
88) 1,1-Dichloroethene(sim)	2.632	61	1076564	35.988	ppbv		99
92) Cis-1,2-Dichloroethene...	5.028	61	824343	38.568	ppbv		98
98) Trichloroethene(sim)	7.212	130	918523	40.725	ppbv		100
104) Tetrachloroethene(sim)	9.554	166	1063384	42.731	ppbv		99
108) Ethylbenzene(sim)	10.969	91	2588992	39.017	ppb		100
109) m,p-Xylene(sim)	11.158	91	3777874	85.447	ppbv		100
116) 1,4-Dichlorobenzene(sim)	13.681	146	1824517	41.690	ppbv		100
121) 1,2,4-Trichlorobenzene...	15.227	180	869482	50.680	ppbv		98

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_12.D
Acq On : 3 Dec 2020 8:56 pm
Operator : Keith
Client ID : ICAL 40
Lab ID : 40
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 04 08:27:17 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:27:04 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_14.D
Acq On : 3 Dec 2020 10:00 pm
Operator : Keith
Client ID : ICAL 1
Lab ID : 1ppb
ALS Vial : 16 Sample Multiplier: 1

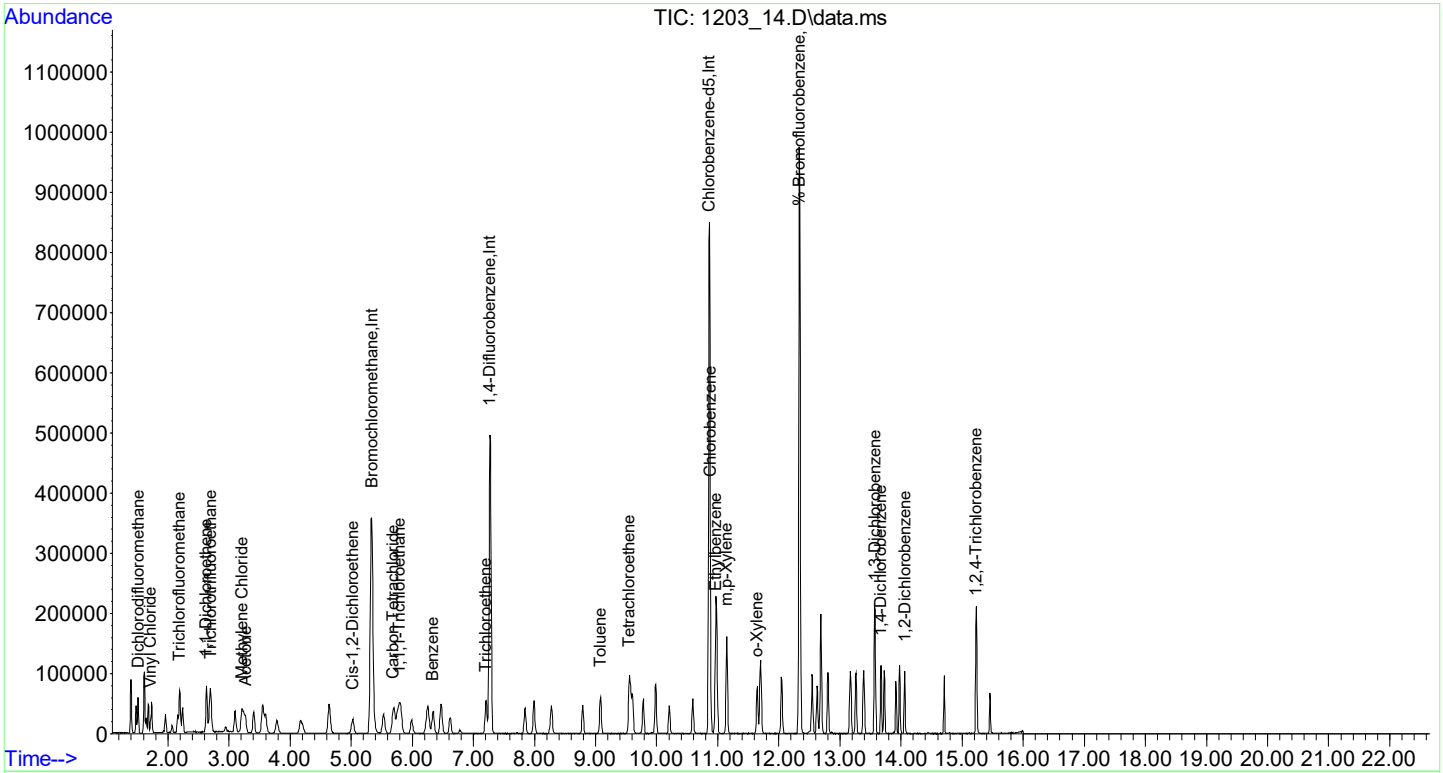
Quant Time: Dec 04 08:36:26 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

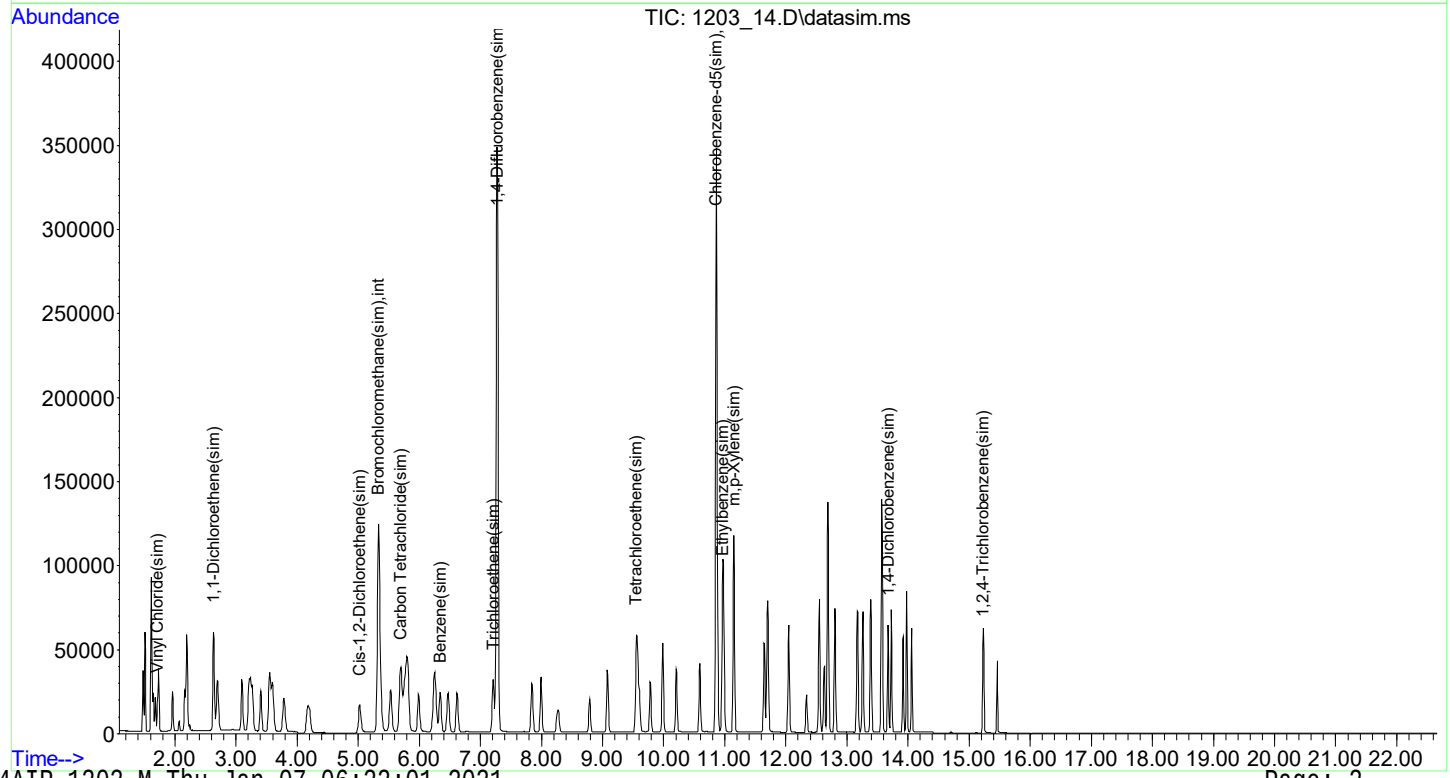
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	151794	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.271	114	446858	10.000	ng		0.00
53) Chlorobenzene-d5	10.857	82	200160	10.000	ng		0.00
80) Bromochloromethane(sim)	5.331	130	157374	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.271	114	446858	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.857	82	200160	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	299335	9.808	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.10%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	36635	1.056	ppbv		98
6) Vinyl Chloride	1.718	62	14287	1.051	ppbv		93
12) Acetone	3.272	43	47474	1.047	ppbv		95
13) Trichlorofluoromethane	2.191	101	51287	1.016	ppbv		95
16) 1,1-Dichloroethene	2.629	61	28729	1.031	ppbv		96
17) Methylene Chloride	3.210	49	24411	0.983	ppbv		94
21) Trichlorotrifluoroethane	2.697	101	33625	1.024	ppbv		97
26) Cis-1,2-Dichloroethene	5.025	61	18036	0.995	ppbv#		87
32) 1,1,1-Trichloroethane	5.789	97	35951	1.003	ppbv		85
33) Benzene	6.339	78	29405	1.017	ppbv		94
34) Carbon Tetrachloride	5.688	117	42827	0.955	ppbv		98
39) Trichloroethene	7.202	130	21204	0.985	ppbv		98
48) Toluene	9.082	91	39206	0.960	ppbv		97
52) Tetrachloroethene	9.552	166	22896	0.940	ppbv		89
55) Chlorobenzene	10.877	112	38428	0.988	ppbv#		36
56) Ethylbenzene	10.966	91	53863	0.963	ppbv		96
57) m,p-Xylene	11.145	91	85543	2.004	ppbv		95
61) o-Xylene	11.646	91	43193	0.974	ppbv		96
71) 1,3-Dichlorobenzene	13.575	146	37977	0.961	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	36994	0.978	ppbv		99
75) 1,2-Dichlorobenzene	14.061	146	30156	0.942	ppbv		96
77) 1,2,4-Trichlorobenzene	15.227	180	17093	1.031	ppbv		89
82] Vinyl Chloride(sim)	1.714	62	15645	1.023	ppbv		98
86] Benzene(sim)	6.342	78	32535	0.939	ppbv		96
87] Carbon Tetrachloride(sim)	5.688	117	42827	0.997	ppbv		90
88] 1,1-Dichloroethene(sim)	2.632	61	29968	0.991	ppbv		99
92] Cis-1,2-Dichloroethene...	5.021	61	21728	1.005	ppbv#		92
98] Trichloroethene(sim)	7.212	130	22298	0.971	ppbv		97
104] Tetrachloroethene(sim)	9.554	166	24398	0.963	ppbv		100
108] Ethylbenzene(sim)	10.963	91	62071	0.972	ppb		100
109] m,p-Xylene(sim)	11.145	91	85543	2.010	ppbv		94
116] 1,4-Dichlorobenzene(sim)	13.675	146	40843	0.969	ppbv		100
121] 1,2,4-Trichlorobenzene...	15.227	180	16900	1.023	ppbv		89

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

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_14.D
Acq On : 3 Dec 2020 10:00 pm
Operator : Keith
Client ID : ICAL 1
Lab ID : 1ppb
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 04 08:36:26 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_15.D
Acq On : 3 Dec 2020 10:33 pm
Operator : Keith
Client ID : ICAL 10
Lab ID : 10ppb
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 04 08:36:42 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

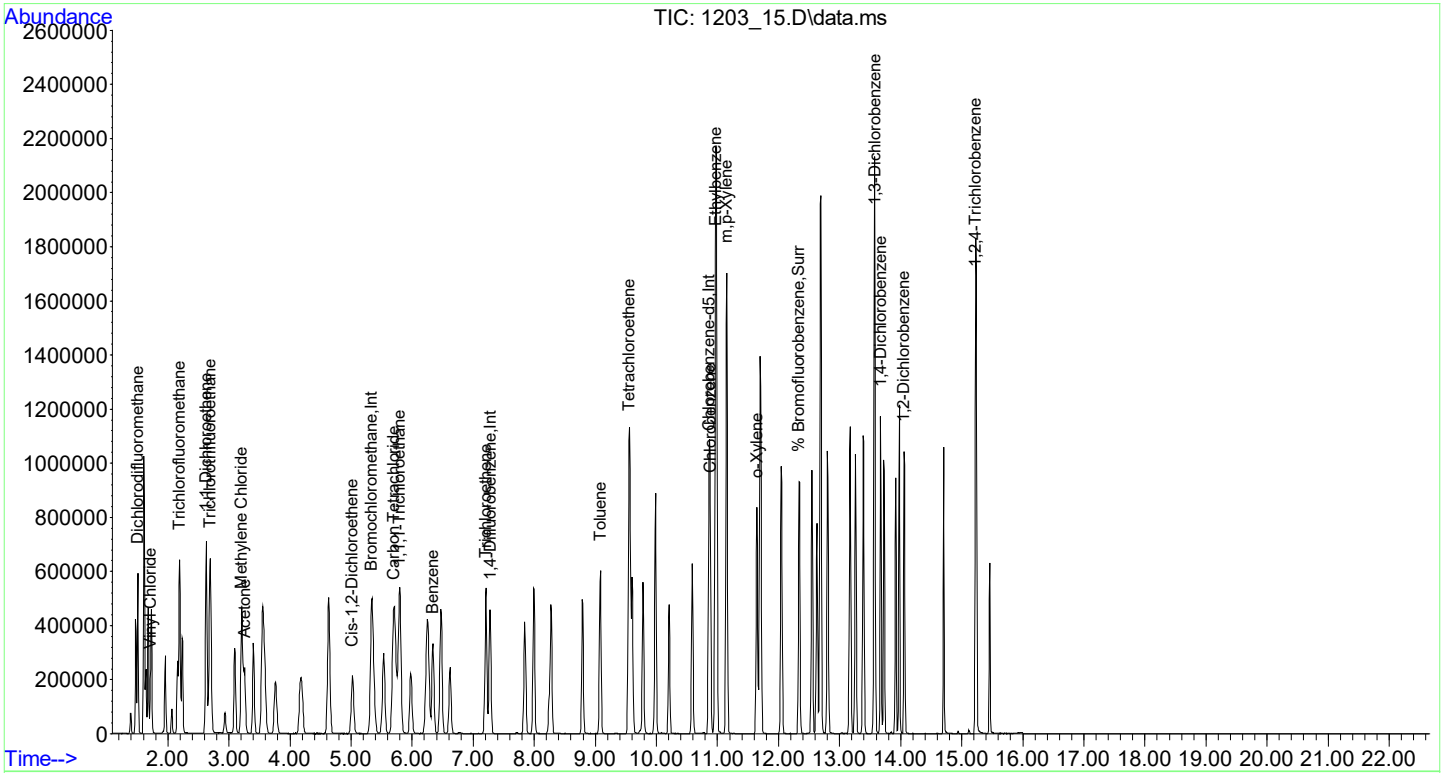
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	140406	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	408118	10.000	ng		0.00
53) Chlorobenzene-d5	10.864	82	189392	10.000	ng		0.00
80) Bromochloromethane(sim)	5.338	130	145887	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	408118	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.864	82	189392	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.335	95	293344	10.158	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 101.60%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.506	85	345412	10.765	ppbv		97
6) Vinyl Chloride	1.711	62	128141	10.189	ppbv		92
12) Acetone	3.258	43	403917	9.635	ppbv		95
13) Trichlorofluoromethane	2.191	101	470820	10.084	ppbv#		95
16) 1,1-Dichloroethene	2.629	61	258839	10.044	ppbv		97
17) Methylene Chloride	3.204	49	228412	9.947	ppbv		93
21) Trichlorotrifluoroethane	2.691	101	301076	9.912	ppbv		97
26) Cis-1,2-Dichloroethene	5.018	61	169430	10.110	ppbv#		87
32) 1,1,1-Trichloroethane	5.789	97	331910	10.013	ppbv		85
33) Benzene	6.339	78	266455	9.967	ppbv		92
34) Carbon Tetrachloride	5.695	117	417404	10.059	ppbv		99
39) Trichloroethene	7.209	130	201113	10.234	ppbv		98
48) Toluene	9.082	91	394035	10.562	ppbv		99
52) Tetrachloroethene	9.552	166	230452	10.362	ppbv		88
55) Chlorobenzene	10.884	112	369880	10.049	ppbv#		30
56) Ethylbenzene	10.966	91	547880	10.351	ppbv		96
57) m,p-Xylene	11.152	91	874864	21.657	ppbv		95
61) o-Xylene	11.646	91	446373	10.636	ppbv		95
71) 1,3-Dichlorobenzene	13.575	146	382111	10.219	ppbv		99
72) 1,4-Dichlorobenzene	13.672	146	369715	10.328	ppbv		99
75) 1,2-Dichlorobenzene	14.055	146	316121	10.439	ppbv		94
77) 1,2,4-Trichlorobenzene	15.227	180	167120	10.657	ppbv		90
82) Vinyl Chloride(sim)	1.714	62	139401	9.830	ppbv		97
86) Benzene(sim)	6.342	78	296531	9.237	ppbv		97
87) Carbon Tetrachloride(sim)	5.695	117	417295	10.480	ppbv		91
88) 1,1-Dichloroethene(sim)	2.625	61	272851	9.729	ppbv		99
92) Cis-1,2-Dichloroethene...	5.021	61	207118	10.336	ppbv#		91
98) Trichloroethene(sim)	7.212	130	215823	10.292	ppbv		98
104) Tetrachloroethene(sim)	9.554	166	243649	10.530	ppbv		100
108) Ethylbenzene(sim)	10.963	91	614237	10.161	ppb		99
109) m,p-Xylene(sim)	11.152	91	874865	21.721	ppbv#		94
116) 1,4-Dichlorobenzene(sim)	13.675	146	425518	10.673	ppbv		99
121) 1,2,4-Trichlorobenzene...	15.227	180	167120	10.693	ppbv		90

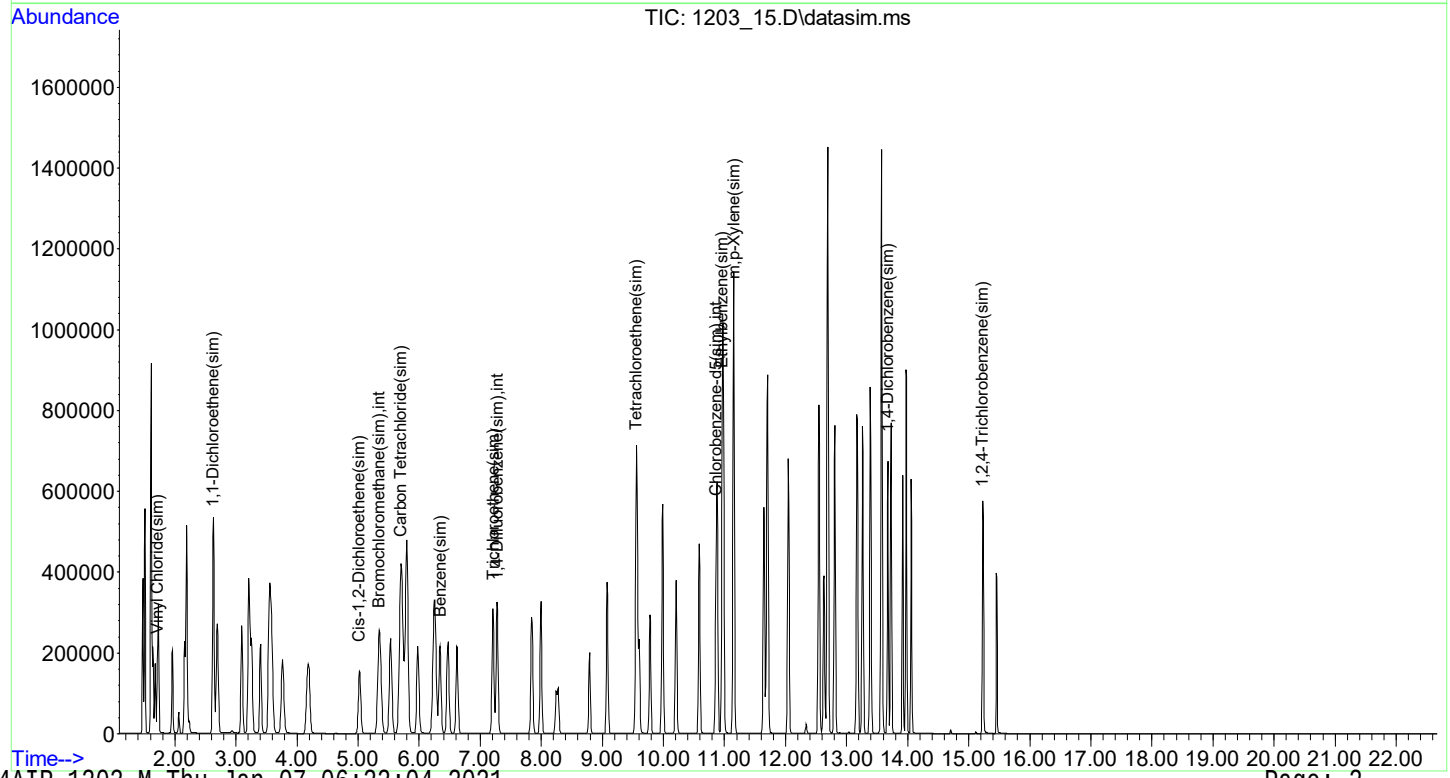
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (RF) (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\03\
Data File : 1203_15.D
Acq On : 3 Dec 2020 10:33 pm
Operator : Keith
Client ID : ICAL 10
Lab ID : 10ppb
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 04 08:36:42 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





7A
AIR CONTINUING CALIBRATION CHECK

Lab Name: Phoenix Environmental Labs Client: WALDENE-IPARK

Lab Code: Phoenix Case No.: SAS No.: SDG No.: GCH28475

Instrument: CHEM24 Calibration Date: 12/09/20 Time: 16:06

Lab File Id: 1209_02.D Init. Calib. Date(s): 12/03/20 12/03/20

Heated Purge (Y/N): Y Init. Calib. Times: 15:48 22:33

GC Column: RTX-VMS Method File: 24AIR_1203.M

COMPOUND	RRF	RRF1	RRF MIN	%D	% D LIMITS
Dichlorodifluoromethane	2.285	2.435		-6.6	30
Vinyl Chloride	0.896	0.901		-0.6	30
Acetone	2.986	3.057		-2.4	30
Trichlorofluoromethane	3.325	3.459		-4.0	30
1,1-Dichloroethene	1.835	1.864		-1.6	30
Methylene Chloride	1.635	1.896		-16.0	30
Trichlorotrifluoroethane	2.163	2.195		-1.5	30
Cis-1,2-Dichloroethene	1.194	1.389		-16.3	30
1,1,1-Trichloroethane	2.361	2.435		-3.1	30
Benzene	1.904	1.853		2.7	30
Carbon Tetrachloride	2.955	2.958		-0.1	30
Trichloroethene	0.482	0.458		5.0	30
Toluene	0.914	0.865		5.4	30
Tetrachloroethene	0.545	0.528		3.1	30
Chlorobenzene	1.944	1.893		2.6	30
Ethylbenzene	2.795	2.806		-0.4	30
m,p-Xylene	2.133	1.639		23.2	30
o-Xylene	2.216	2.036		8.1	30
1,3-Dichlorobenzene	1.974	1.785		9.6	30
1,4-Dichlorobenzene	1.890	1.689		10.6	30
1,2-Dichlorobenzene	1.599	1.423		11.0	30
1,2,4-Trichlorobenzene	0.828	0.357		56.9 #	30
Vinyl Chloride(sim)	0.972	0.919		5.5	30
Benzene(sim)	2.201	1.963		10.8	30
Carbon Tetrachloride(sim)	2.729	2.830		-3.7	30
1,1-Dichloroethene(sim)	1.922	1.910		0.6	30
Cis-1,2-Dichloroethene(sim)	1.374	1.277		7.1	30
Trichloroethene(sim)	0.514	0.492		4.3	30
Tetrachloroethene(sim)	0.567	0.553		2.5	30
Ethylbenzene(sim)	3.192	3.101		2.9	30
m,p-Xylene(sim)	2.127	2.049		3.7	30
1,4-Dichlorobenzene(sim)	2.105	1.913		9.1	30
1,2,4-Trichlorobenzene(sim)	0.825	0.348		57.8 #	30
% Bromofluorobenzene	1.525	1.487		2.5	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.

Evaluate Continuing Calibration Report

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_02.D
Acq On : 9 Dec 2020 4:06 pm
Operator : Keith
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 10 08:58:01 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

Note: Curves (l,lf,q,qf) display calculated concentration.
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.20min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%
1	Int	Bromochloromethane	1.000	1.000	0.0	96
3		Dichlorodifluoromethane	2.285	2.435	-6.6	
6		Vinyl Chloride	0.896	0.901	-0.6	
12		Acetone	2.986	3.057	-2.4	
13		Trichlorofluoromethane	3.325	3.459	-4.0	
16		1,1-Dichloroethene	1.835	1.864	-1.6	
17		Methylene Chloride	1.635	1.896	-16.0	
21		Trichlorotrifluoroethane	2.163	2.195	-1.5	
26		Cis-1,2-Dichloroethene	1.194	1.389	-16.3	
32		1,1,1-Trichloroethane	2.361	2.435	-3.1	
33		Benzene	1.904	1.853	2.7	
34		Carbon Tetrachloride	2.955	2.958	-0.1	
36	Int	1,4-Difluorobenzene	1.000	1.000	0.0	95
39		Trichloroethene	0.482	0.458	5.0	
48		Toluene	0.914	0.865	5.4	
52		Tetrachloroethene	0.545	0.528	3.1	
53	Int	Chlorobenzene-d5	1.000	1.000	0.0	96
55		Chlorobenzene	1.944	1.893	2.6	
56		Ethylbenzene	2.795	2.806	-0.4	
57		m,p-Xylene	2.133	1.639	23.2	
61		o-Xylene	2.216	2.036	8.1	
62	Surr	% Bromofluorobenzene	1.525	1.487	2.5	
71		1,3-Dichlorobenzene	1.974	1.785	9.6	
72		1,4-Dichlorobenzene	1.890	1.689	10.6	
75		1,2-Dichlorobenzene	1.599	1.423	11.0	
77		1,2,4-Trichlorobenzene	0.828	0.357	56.9#	
80	int	Bromochloromethane(sim)	1.000	1.000	0.0	97
82		Vinyl Chloride(sim)	0.972	0.919	5.5	
86		Benzene(sim)	2.201	1.963	10.8	
87		Carbon Tetrachloride(sim)	2.729	2.830	-3.7	
88		1,1-Dichloroethene(sim)	1.922	1.910	0.6	
92		Cis-1,2-Dichloroethene(sim)	1.374	1.277	7.1	
95	int	1,4-Difluorobenzene(sim)	1.000	1.000	0.0	95
98		Trichloroethene(sim)	0.514	0.492	4.3	
104		Tetrachloroethene(sim)	0.567	0.553	2.5	
105	int	Chlorobenzene-d5(sim)	1.000	1.000	0.0	96
108		Ethylbenzene(sim)	3.192	3.101	2.9	
109		m,p-Xylene(sim)	2.127	2.049	3.7	
116		1,4-Dichlorobenzene(sim)	2.105	1.913	9.1	
121		1,2,4-Trichlorobenzene(sim)	0.825	0.348	57.8#	

(#)=Out of Range l=linear, lf=liner(0,0), q=quadratic, qf=quadratic(0,0)
Laboratory Warning Limits Out = 0

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_02.D
Acq On : 9 Dec 2020 4:06 pm
Operator : Keith
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 10 08:58:01 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

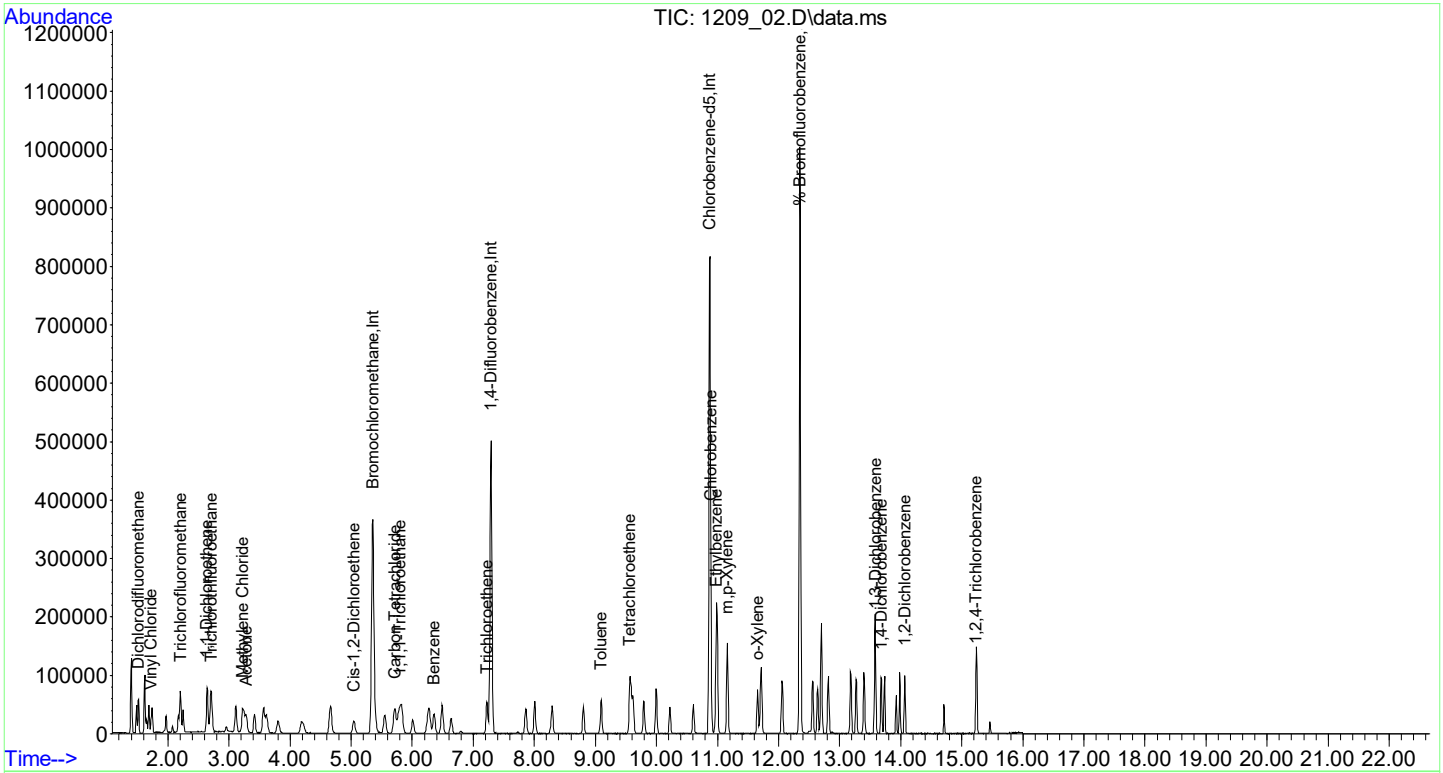
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.356	130	145423	10.000	ng		0.02
36) 1,4-Difluorobenzene	7.291	114	424306	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	191708	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	151994	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	424306	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	191708	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	285060	9.752	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.50%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.519	85	35409	1.065	ppbv		94
6) Vinyl Chloride	1.725	62	13106	1.006	ppbv		85
12) Acetone	3.285	43	44453	1.024	ppbv#		94
13) Trichlorofluoromethane	2.204	101	50299	1.040	ppbv		97
16) 1,1-Dichloroethene	2.642	61	27110	1.016	ppbv		97
17) Methylene Chloride	3.224	49	27566	1.159	ppbv		90
21) Trichlorotrifluoroethane	2.711	101	31918	1.015	ppbv		95
26) Cis-1,2-Dichloroethene	5.046	61	20194	1.163	ppbv#		90
32) 1,1,1-Trichloroethane	5.803	97	35410	1.031	ppbv		86
33) Benzene	6.360	78	26944	0.973	ppbv		95
34) Carbon Tetrachloride	5.717	117	43009	1.001	ppbv		96
39) Trichloroethene	7.229	130	19446	0.952	ppbv		95
48) Toluene	9.097	91	36698	0.946	ppbv		98
52) Tetrachloroethene	9.566	166	22385	0.968	ppbv		88
55) Chlorobenzene	10.891	112	36292	0.974	ppbv#		38
56) Ethylbenzene	10.980	91	53789	1.004	ppbv		99
57) m,p-Xylene	11.158	91	78575	1.922	ppbv		96
61) o-Xylene	11.659	91	39025	0.919	ppbv		95
71) 1,3-Dichlorobenzene	13.587	146	34226	0.904	ppbv		99
72) 1,4-Dichlorobenzene	13.685	146	32383	0.894	ppbv		96
75) 1,2-Dichlorobenzene	14.068	146	27284	0.890	ppbv		95
77) 1,2,4-Trichlorobenzene	15.232	180	6851m	0.432	ppbv		88
82) Vinyl Chloride(sim)	1.721	62	13961	0.945	ppbv		97
86) Benzene(sim)	6.363	78	29844	0.892	ppbv		99
87) Carbon Tetrachloride(sim)	5.717	117	43009	1.037	ppbv		88
88) 1,1-Dichloroethene(sim)	2.645	61	29038	0.994	ppbv		98
92) Cis-1,2-Dichloroethene...	5.049	61	19410	0.930	ppbv		95
98) Trichloroethene(sim)	7.225	130	20871	0.957	ppbv		97
104) Tetrachloroethene(sim)	9.569	166	23448	0.975	ppbv		99
108) Ethylbenzene(sim)	10.976	91	59456	0.972	ppb		100
109) m,p-Xylene(sim)	11.158	91	78575	1.927	ppbv		95
116) 1,4-Dichlorobenzene(sim)	13.681	146	36679	0.909	ppbv		99
121) 1,2,4-Trichlorobenzene...	15.232	180	6665	0.421	ppbv		83

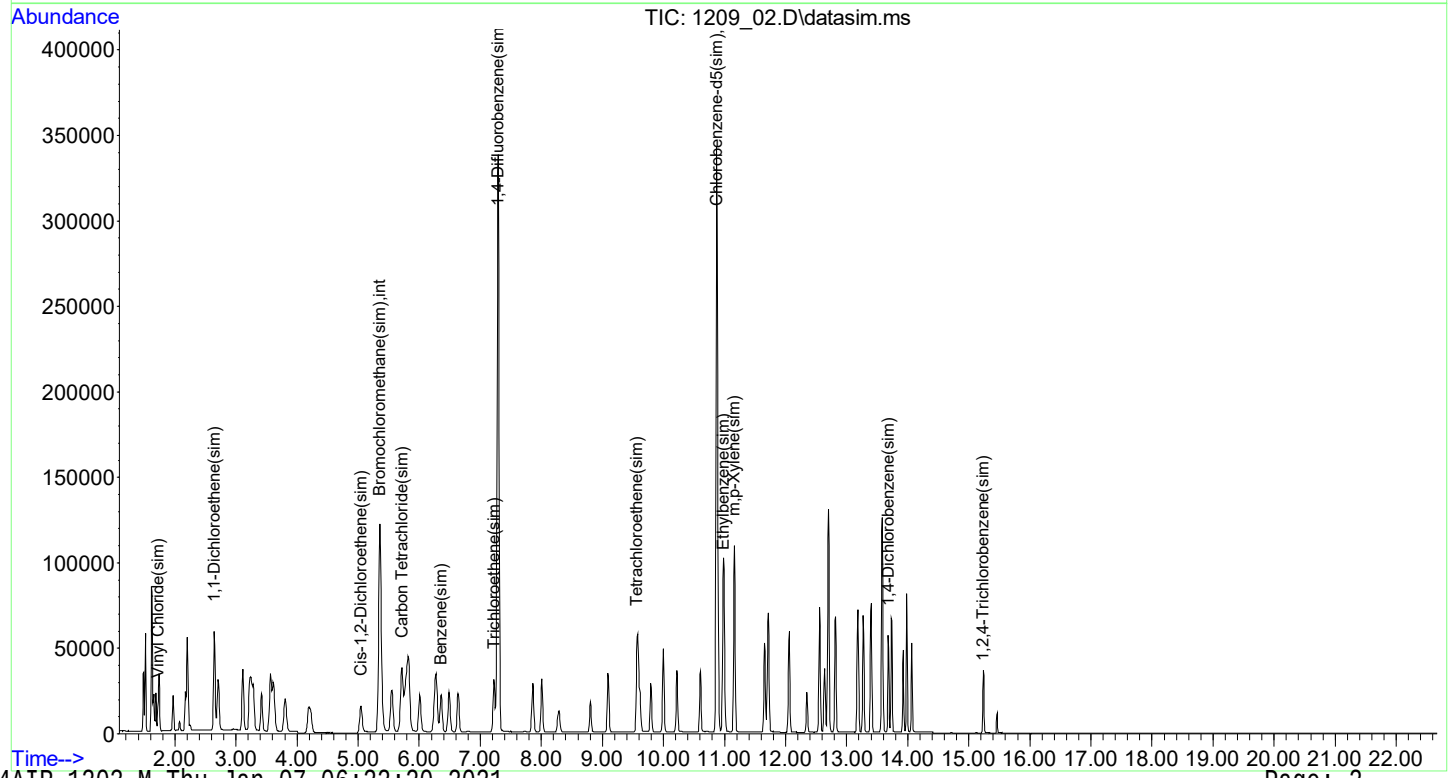
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_02.D
Acq On : 9 Dec 2020 4:06 pm
Operator : Keith
Client ID : BFB TUNE - CCAL 1
Lab ID : 1ppb cc - 1ppb cc
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 10 08:58:01 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





1

AIR ANALYSIS DATA SHEET

CLIENT ID: CH28475 LCSD

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28475 LCS

Canister: LCS Lab File ID: 1209_26.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/10/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	10.7		0.200	0.200	r
75-01-4	Vinyl Chloride	10.6		0.020	0.020	r
67-64-1	Acetone	11.0		1.00	1.00	r
75-69-4	Trichlorofluoromethane	13.0		0.150	0.150	r
75-35-4	1,1-Dichloroethene	12.7		0.050	0.050	r
75-09-2	Methylene Chloride	12.9		0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	12.3		0.150	0.150	r
156-59-2	Cis-1,2-Dichloroethene	10.6		0.050	0.050	r
71-55-6	1,1,1-Trichloroethane	11.1		0.200	0.200	r
71-43-2	Benzene	10.1		0.050	0.050	r
56-23-5	Carbon Tetrachloride	11.7		0.020	0.020	r
79-01-6	Trichloroethene	10.9		0.037	0.037	r
108-88-3	Toluene	10.8		0.200	0.200	r
127-18-4	Tetrachloroethene	10.8		0.100	0.100	r
108-90-7	Chlorobenzene	10.6		0.200	0.200	r
100-41-4	Ethylbenzene	10.9		0.150	0.150	r
179601-23-1	m,p-Xylene	23.0		0.150	0.150	r
95-47-6	o-Xylene	11.4		0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	11.4		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene	11.6		0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	11.8		0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene	9.25		0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_26.D
Acq On : 10 Dec 2020 10:21 am
Operator : Keith
Client ID : CH28475 LCSD
Lab ID : CH28475 LCSD
ALS Vial : 26 Sample Multiplier: 1

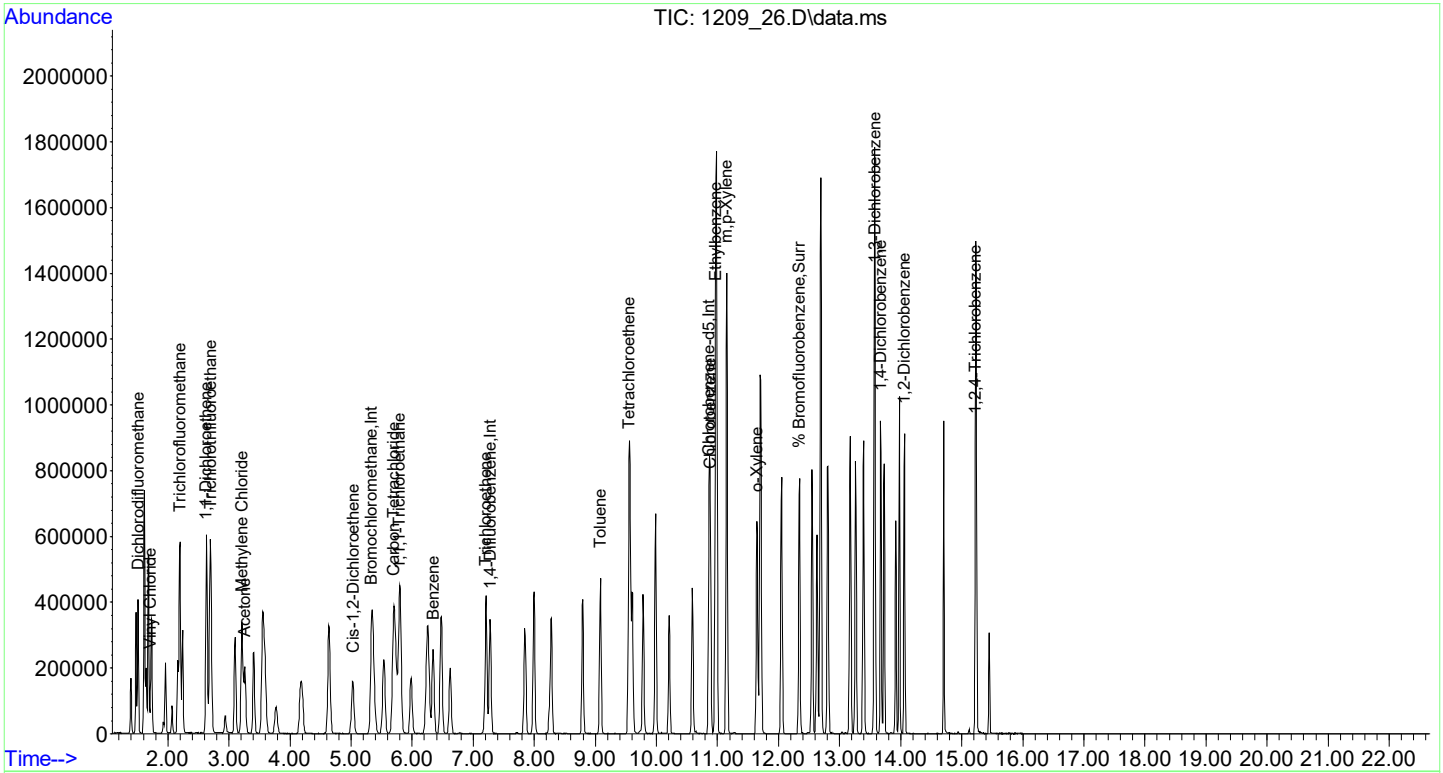
Quant Time: Dec 10 10:54:47 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

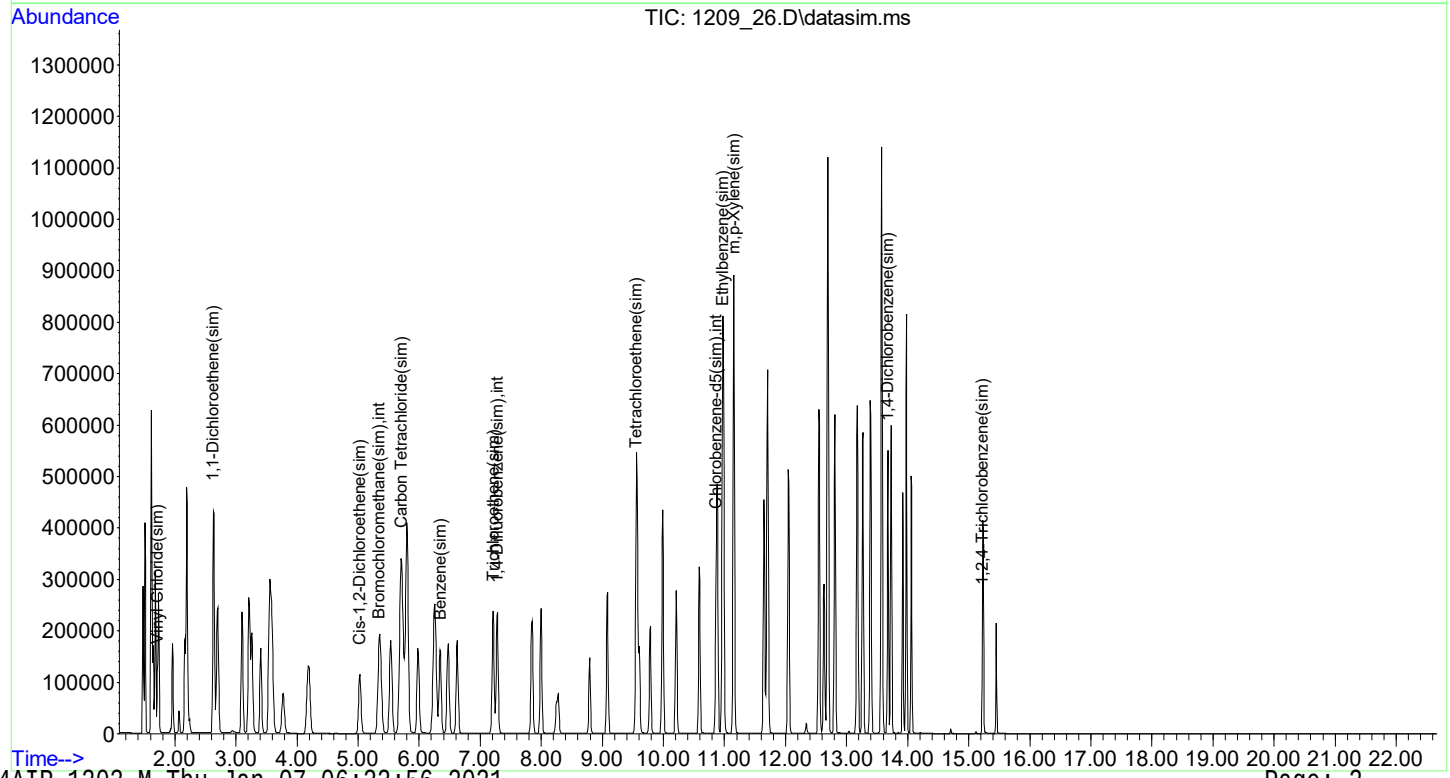
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	100081	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	287273	10.000	ng		0.00
53) Chlorobenzene-d5	10.864	82	135487	10.000	ng		0.00
80) Bromochloromethane(sim)	5.338	130	106270	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	287273	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.864	82	135487	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.342	95	220463	10.671	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.70%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	245185	10.720	ppbv		97
6) Vinyl Chloride	1.718	62	95283	10.629	ppbv		90
12) Acetone	3.258	43	327140	10.947	ppbv		94
13) Trichlorofluoromethane	2.198	101	432487	12.995	ppbv		96
16) 1,1-Dichloroethene	2.629	61	233454	12.710	ppbv		95
17) Methylene Chloride	3.210	49	210830	12.881	ppbv		89
21) Trichlorotrifluoroethane	2.697	101	265566	12.266	ppbv		97
26) Cis-1,2-Dichloroethene	5.032	61	126690	10.606	ppbv#		91
32) 1,1,1-Trichloroethane	5.789	97	262867	11.125	ppbv		86
33) Benzene	6.346	78	192586	10.106	ppbv		96
34) Carbon Tetrachloride	5.702	117	345594	11.684	ppbv		97
39) Trichloroethene	7.209	130	150110	10.852	ppbv		97
48) Toluene	9.082	91	282357	10.752	ppbv		97
52) Tetrachloroethene	9.552	166	169668	10.838	ppbv		88
55) Chlorobenzene	10.884	112	277941	10.555	ppbv#		30
56) Ethylbenzene	10.966	91	410968	10.853	ppbv		97
57) m,p-Xylene	11.152	91	663725	22.968	ppbv		94
61) o-Xylene	11.646	91	343079	11.427	ppbv		96
71) 1,3-Dichlorobenzene	13.581	146	303940	11.363	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	296548	11.580	ppbv		98
75) 1,2-Dichlorobenzene	14.061	146	254480	11.747	ppbv		93
77) 1,2,4-Trichlorobenzene	15.222	180	103725	9.246	ppbv		92
82) Vinyl Chloride(sim)	1.714	62	104990	10.163	ppbv		96
86) Benzene(sim)	6.342	78	213591	9.134	ppbv		96
87) Carbon Tetrachloride(sim)	5.702	117	345594	11.915	ppbv		89
88) 1,1-Dichloroethene(sim)	2.632	61	247983	12.139	ppbv		97
92) Cis-1,2-Dichloroethene...	5.028	61	150286	10.296	ppbv#		90
98) Trichloroethene(sim)	7.212	130	162032	10.977	ppbv		98
104) Tetrachloroethene(sim)	9.554	166	181512	11.145	ppbv		98
108) Ethylbenzene(sim)	10.969	91	463464	10.717	ppb		100
109) m,p-Xylene(sim)	11.152	91	663811	23.038	ppbv		94
116) 1,4-Dichlorobenzene(sim)	13.675	146	341975	11.990	ppbv		100
121) 1,2,4-Trichlorobenzene...	15.222	180	103787	9.283	ppbv		89

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

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_26.D
Acq On : 10 Dec 2020 10:21 am
Operator : Keith
Client ID : CH28475 LCSD
Lab ID : CH28475 LCSD
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 10 10:54:47 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





1

AIR ANALYSIS DATA SHEET

CLIENT ID: CH28475 LCS

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28475 LCS

Canister: LCS Lab File ID: 1209_27.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/10/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	11.0		0.200	0.200	r
75-01-4	Vinyl Chloride	11.4		0.020	0.020	r
67-64-1	Acetone	10.4		1.00	1.00	r
75-69-4	Trichlorofluoromethane	12.8		0.150	0.150	r
75-35-4	1,1-Dichloroethene	12.6		0.050	0.050	r
75-09-2	Methylene Chloride	12.5		0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	12.0		0.150	0.150	r
156-59-2	Cis-1,2-Dichloroethene	10.8		0.050	0.050	r
71-55-6	1,1,1-Trichloroethane	10.9		0.200	0.200	r
71-43-2	Benzene	9.75		0.050	0.050	r
56-23-5	Carbon Tetrachloride	11.2		0.020	0.020	r
79-01-6	Trichloroethene	10.5		0.037	0.037	r
108-88-3	Toluene	10.6		0.200	0.200	r
127-18-4	Tetrachloroethene	10.7		0.100	0.100	r
108-90-7	Chlorobenzene	10.1		0.200	0.200	r
100-41-4	Ethylbenzene	10.5		0.150	0.150	r
179601-23-1	m,p-Xylene	21.9		0.150	0.150	r
95-47-6	o-Xylene	11.0		0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	10.7		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene	10.9		0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	11.0		0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene	9.33		0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_27.D
Acq On : 10 Dec 2020 11:16 am
Operator : Keith
Client ID : CH28475 LCS
Lab ID : CH28475 LCS
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 10 12:18:04 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

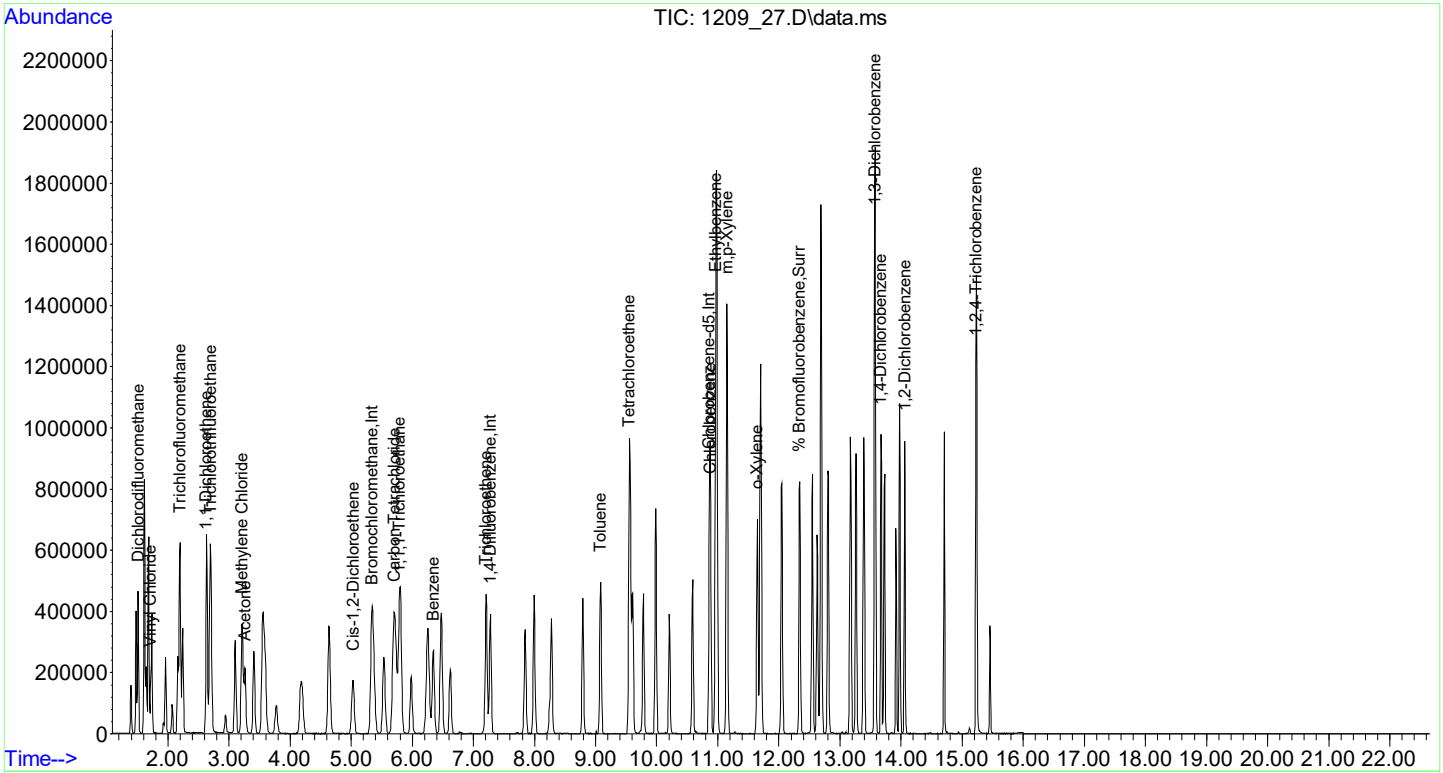
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.335	130	109004	10.000	ng		0.00
36) 1,4-Difluorobenzene	7.277	114	318885	10.000	ng		0.00
53) Chlorobenzene-d5	10.863	82	152161	10.000	ng		0.00
80) Bromochloromethane(sim)	5.338	130	116842	10.000	ng	#	0.00
95) 1,4-Difluorobenzene(sim)	7.277	114	318885	10.000	ng		0.00
105) Chlorobenzene-d5(sim)	10.863	82	152161	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.342	95	236689	10.201	ppbv		0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.00%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.512	85	272782	10.950	ppbv		97
6) Vinyl Chloride	1.718	62	111693	11.440	ppbv		90
12) Acetone	3.265	43	339644	10.435	ppbv		94
13) Trichlorofluoromethane	2.198	101	465480	12.841	ppbv	#	95
16) 1,1-Dichloroethene	2.629	61	252502	12.621	ppbv		94
17) Methylene Chloride	3.210	49	222723	12.494	ppbv		88
21) Trichlorotrifluoroethane	2.697	101	282215	11.968	ppbv		97
26) Cis-1,2-Dichloroethene	5.032	61	140168	10.773	ppbv	#	91
32) 1,1,1-Trichloroethane	5.789	97	281439	10.936	ppbv		86
33) Benzene	6.346	78	202394	9.752	ppbv		96
34) Carbon Tetrachloride	5.702	117	362112	11.240	ppbv		98
39) Trichloroethene	7.209	130	160817	10.473	ppbv		96
48) Toluene	9.082	91	307663	10.554	ppbv		98
52) Tetrachloroethene	9.551	166	186516	10.733	ppbv		88
55) Chlorobenzene	10.884	112	299459	10.126	ppbv	#	30
56) Ethylbenzene	10.966	91	444460	10.452	ppbv		96
57) m,p-Xylene	11.152	91	709719	21.868	ppbv		94
61) o-Xylene	11.646	91	371867	11.029	ppbv	#	96
71) 1,3-Dichlorobenzene	13.574	146	322669	10.741	ppbv		98
72) 1,4-Dichlorobenzene	13.672	146	313808	10.911	ppbv		99
75) 1,2-Dichlorobenzene	14.061	146	268095	11.019	ppbv		93
77) 1,2,4-Trichlorobenzene	15.227	180	117481	9.325	ppbv		92
82) Vinyl Chloride(sim)	1.714	62	121289	10.679	ppbv		96
86) Benzene(sim)	6.342	78	228814	8.899	ppbv		97
87) Carbon Tetrachloride(sim)	5.702	117	362037	11.352	ppbv		90
88) 1,1-Dichloroethene(sim)	2.632	61	264690	11.784	ppbv		98
92) Cis-1,2-Dichloroethene...	5.028	61	161845	10.085	ppbv	#	89
98) Trichloroethene(sim)	7.212	130	173790	10.606	ppbv		98
104) Tetrachloroethene(sim)	9.554	166	197073	10.901	ppbv		99
108) Ethylbenzene(sim)	10.969	91	503224	10.362	ppb		100
109) m,p-Xylene(sim)	11.152	91	710306	21.950	ppbv		94
116) 1,4-Dichlorobenzene(sim)	13.675	146	355442	11.097	ppbv		100
121) 1,2,4-Trichlorobenzene...	15.227	180	116454	9.274	ppbv		88

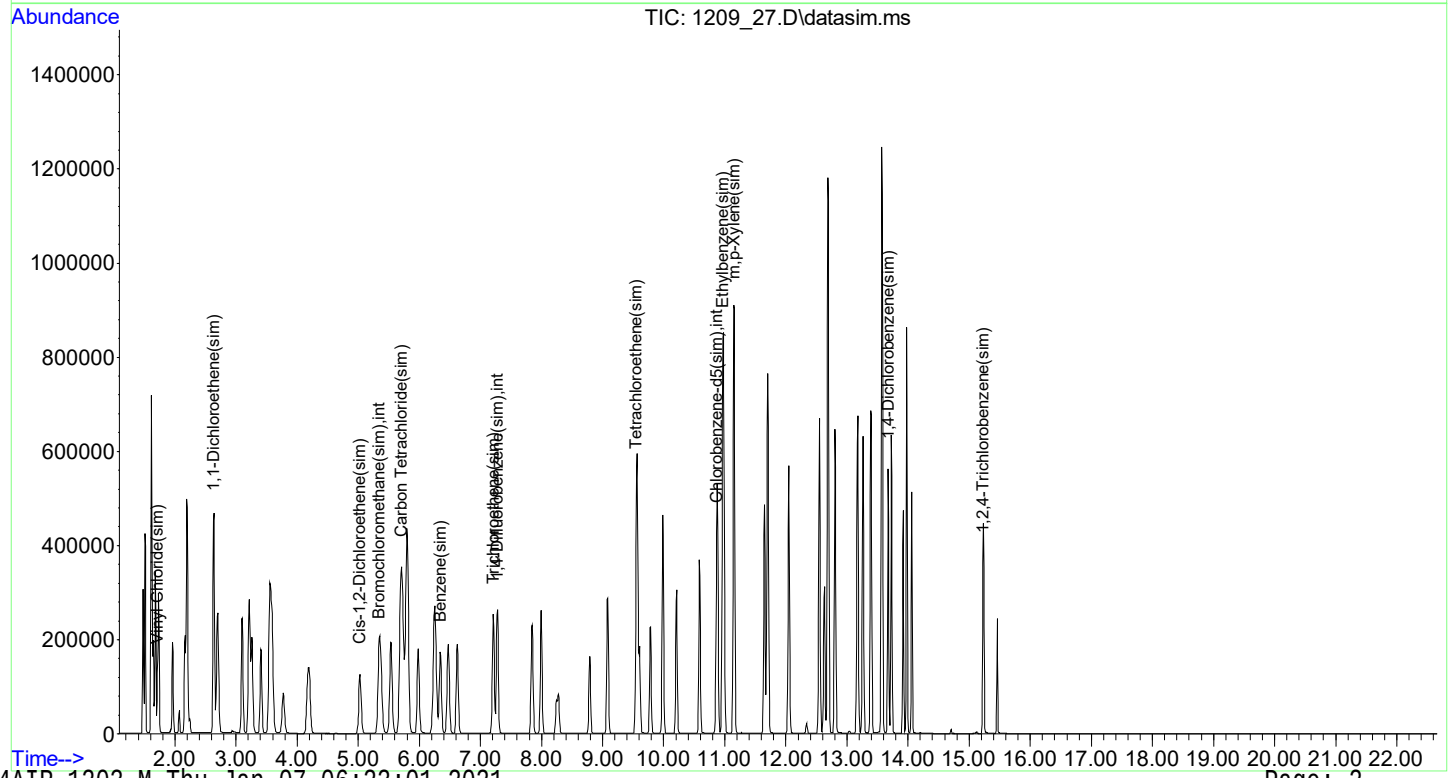
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_27.D
Acq On : 10 Dec 2020 11:16 am
Operator : Keith
Client ID : CH28475 LCS
Lab ID : CH28475 LCS
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 10 12:18:04 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





1

AIR ANALYSIS DATA SHEET

CLIENT ID: CH28475 BLANK

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28475 BL

Canister: BL Lab File ID: 1209_07.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/09/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.150	U	0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
108-88-3	Toluene	0.200	U	0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
71-43-2	Benzene(sim)	0.050	U	0.050	0.050	r
56-23-5	Carbon Tetrachloride(sim)	0.020	U	0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.100	U	0.100	0.100	r
100-41-4	Ethylbenzene(sim)	0.150	U	0.150	0.150	r
179601-23-1	m,p-Xylene(sim)	0.150	U	0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_07.D
Acq On : 9 Dec 2020 7:16 pm
Operator : Keith
Client ID : CH28475 BLANK
Lab ID : CH28475 BLANK
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 10 08:46:52 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

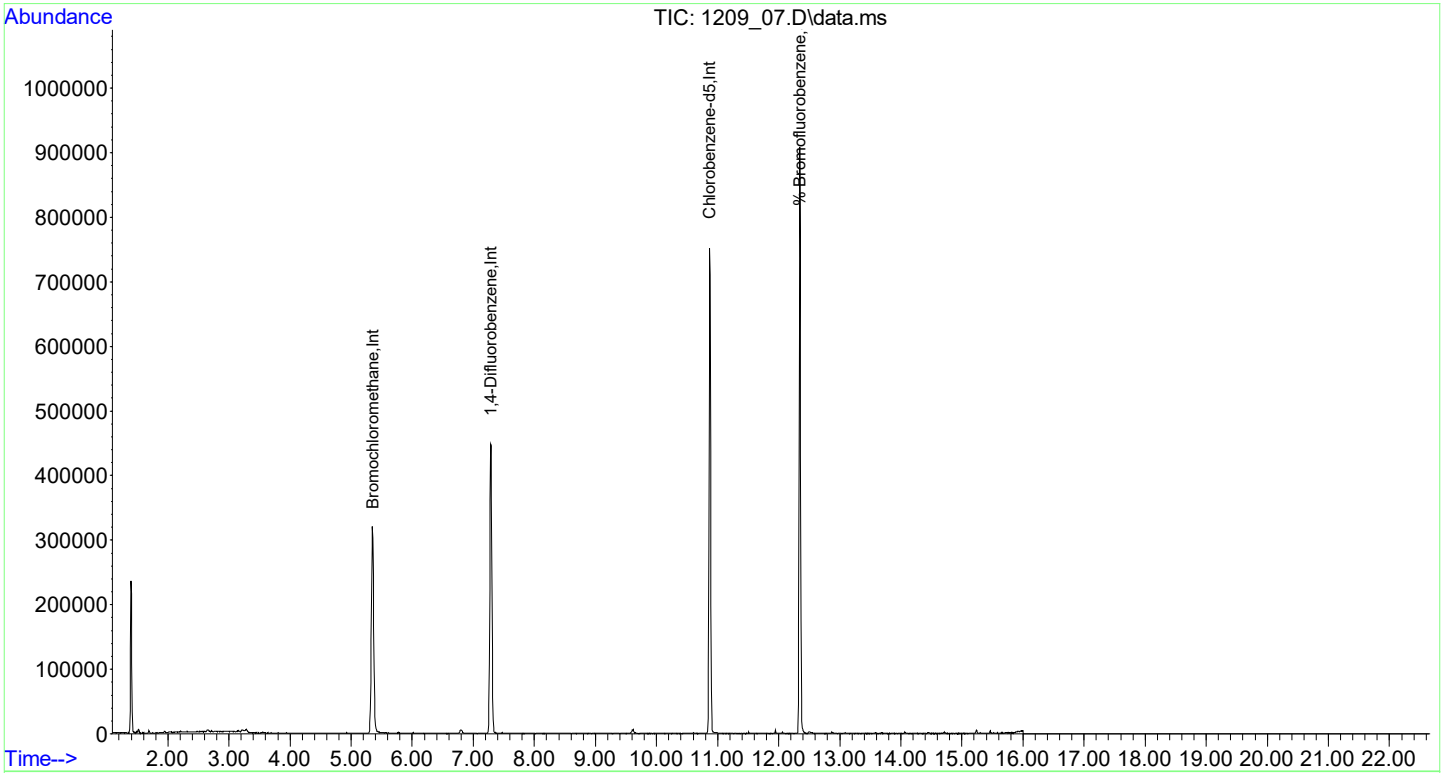
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.356	130	133095	10.000	ng		0.02
36) 1,4-Difluorobenzene	7.291	114	395073	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	182743	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	139497	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	395073	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	182743	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	263364	9.452	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 94.50%				
Target Compounds							Qvalue

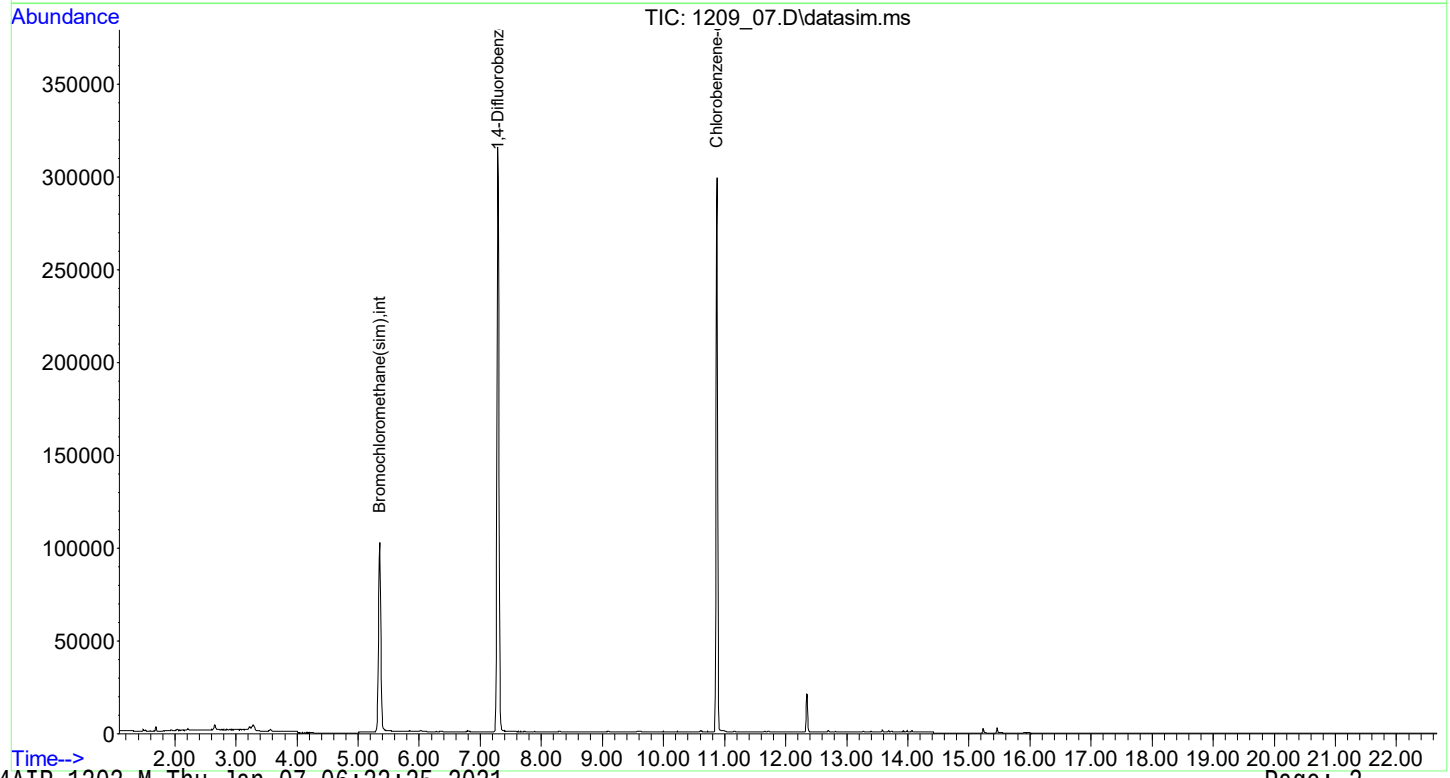
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_07.D
Acq On : 9 Dec 2020 7:16 pm
Operator : Keith
Client ID : CH28475 BLANK
Lab ID : CH28475 BLANK
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 10 08:46:52 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration





1

AIR ANALYSIS DATA SHEET

CLIENT ID: IA-2 DUP

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CH28475 DUP

Canister: 19806 Lab File ID: 1209_09.D

Instrument: CHEM24 Column: RTX-VMS Date Received: 12/09/20

Purge Volume 200 (cc) Date Analyzed: 12/09/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.403		0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.327		0.150	0.150	r
75-09-2	Methylene Chloride	0.409	S	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
108-88-3	Toluene	0.359		0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
71-43-2	Benzene(sim)	0.158		0.050	0.050	r
56-23-5	Carbon Tetrachloride(sim)	0.069		0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.164		0.100	0.100	r
100-41-4	Ethylbenzene(sim)	0.150	U	0.150	0.150	r
179601-23-1	m,p-Xylene(sim)	0.170		0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_09.D
Acq On : 9 Dec 2020 8:36 pm
Operator : Keith
Client ID : IA-2 DUP
Lab ID : CH28475 DUP
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 10 08:49:18 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration

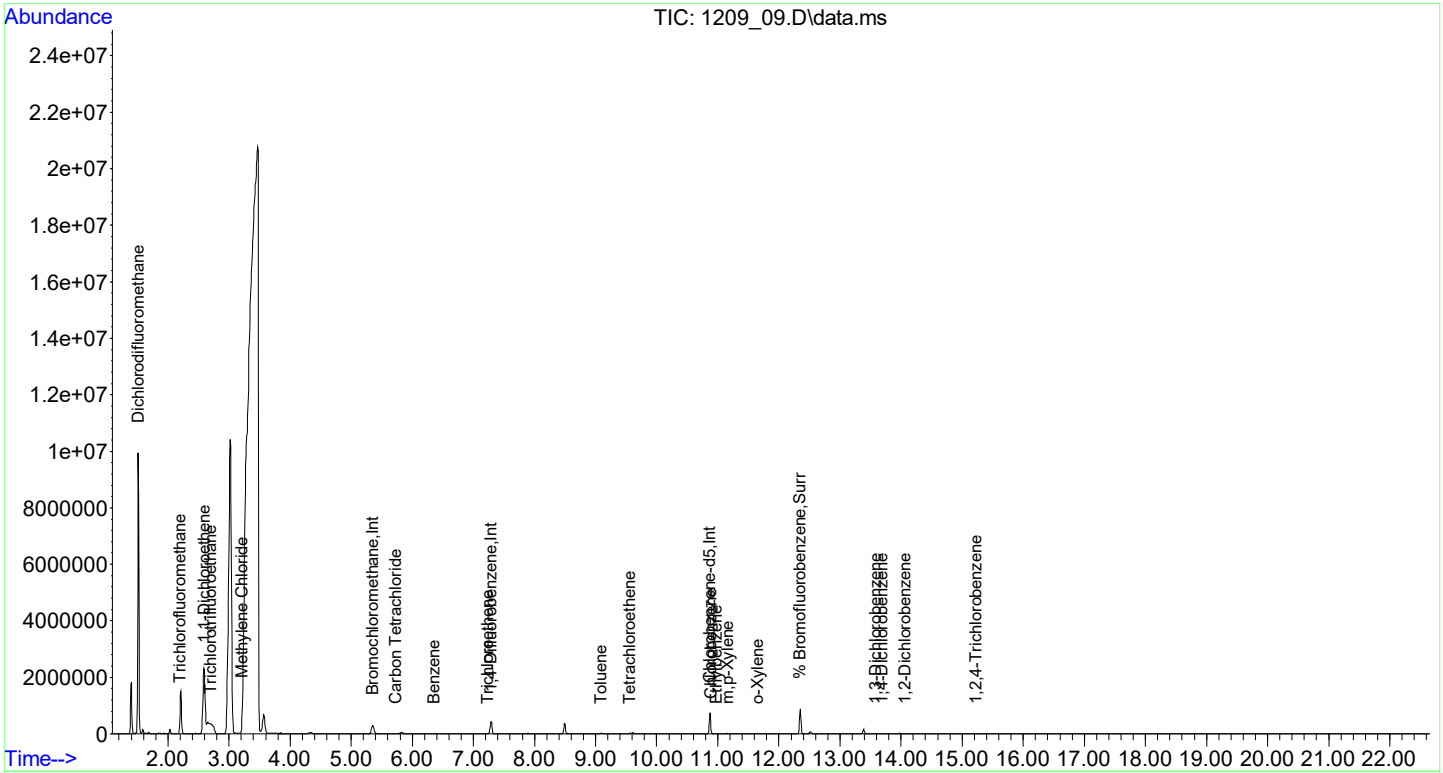
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Bromochloromethane	5.349	130	121643	10.000	ng		0.01
36) 1,4-Difluorobenzene	7.291	114	368368	10.000	ng		0.02
53) Chlorobenzene-d5	10.870	82	170445	10.000	ng		0.00
80) Bromochloromethane(sim)	5.352	130	127292	10.000	ng	#	0.02
95) 1,4-Difluorobenzene(sim)	7.291	114	368368	10.000	ng		0.02
105) Chlorobenzene-d5(sim)	10.870	82	170445	10.000	ng		0.00
System Monitoring Compounds							
62) % Bromofluorobenzene	12.348	95	253047	9.737	ppbv		0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 97.40%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.513	85	11201	0.403	ppbv		99
13) Trichlorofluoromethane	2.198	101	13226	0.327	ppbv		97
17) Methylene Chloride	3.217	49	8133	0.409	ppbv	#	77
34) Carbon Tetrachloride	5.724	117	2816	0.078	ppbv		91
48) Toluene	9.089	91	12092	0.359	ppbv		97
52) Tetrachloroethene	9.559	166	3249	0.162	ppbv		88
84) Trichlorofluoromethane...	2.200	101	13893	0.312	ppbv		98
86) Benzene(sim)	6.363	78	4428	0.158	ppbv		99
87) Carbon Tetrachloride(sim)	5.724	117	2393	0.069	ppbv	#	86
104) Tetrachloroethene(sim)	9.562	166	3430	0.164	ppbv		97
109) m,p-Xylene(sim)	11.158	91	6173	0.170	ppbv		95

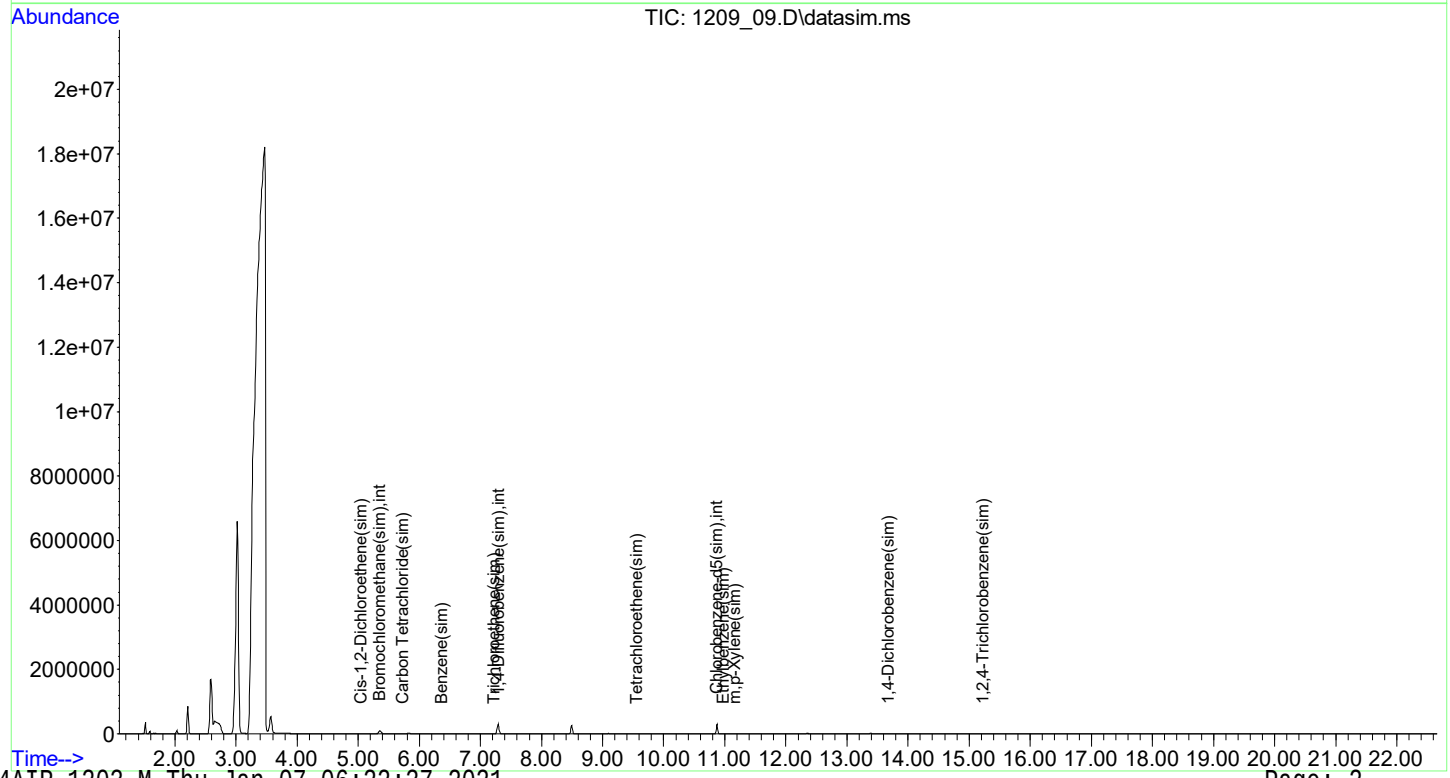
(#)out of range (m)manual integration reviewed by analyst (+)signals summed

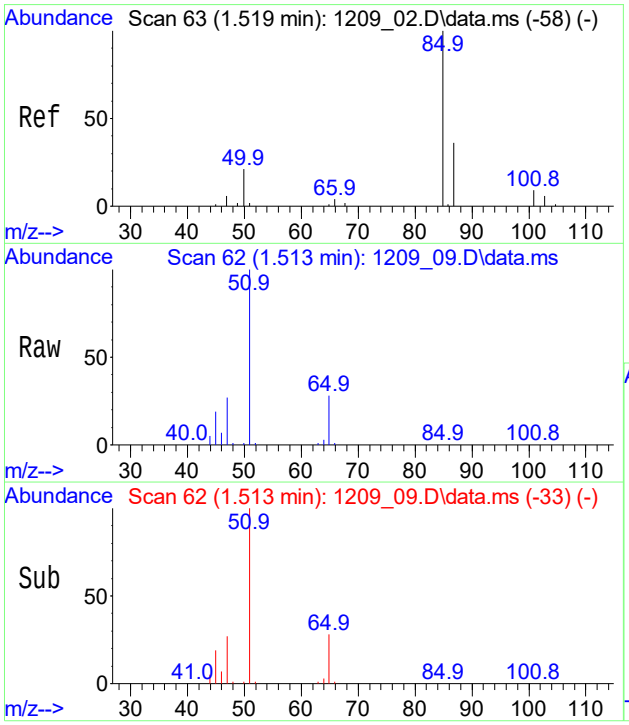
Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM24\12DEC\09\
Data File : 1209_09.D
Acq On : 9 Dec 2020 8:36 pm
Operator : Keith
Client ID : IA-2 DUP
Lab ID : CH28475 DUP
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 10 08:49:18 2020
Quant Method : H:\AIR2020\CHEM24\METHODS\24AIR_1203.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Fri Dec 04 08:35:56 2020
Response via : Initial Calibration



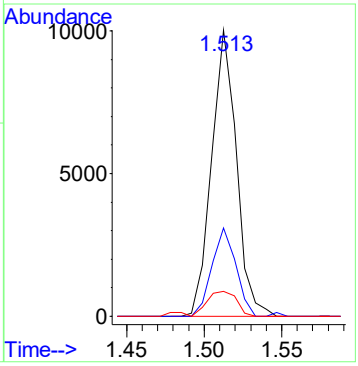


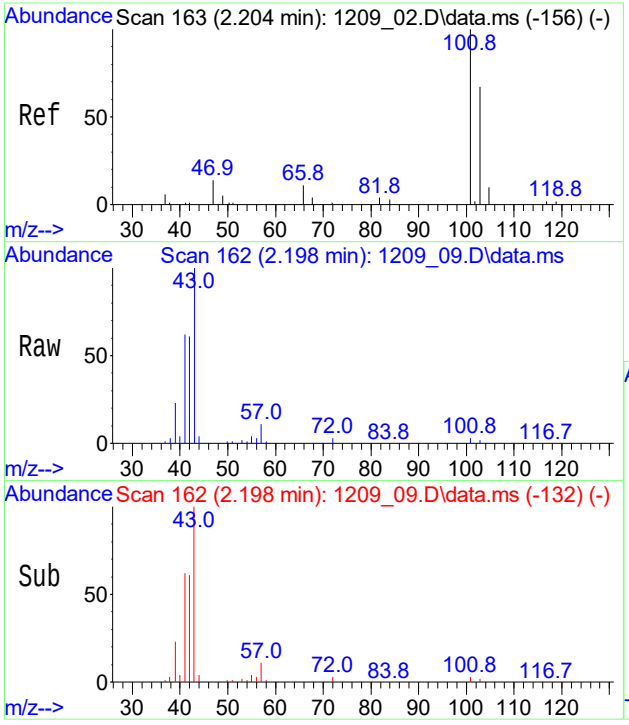


#3
Dichlorodifluoromethane
Conc: 8$ 0.403 ppbv
RT: 1.513 min Scan# 62
Delta R.T. 0.000 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion: 85 Resp: 11201

Ion	Ratio	Lower	Upper
85	100		
87	29.8	24.5	36.7
101	11.2	8.6	12.8

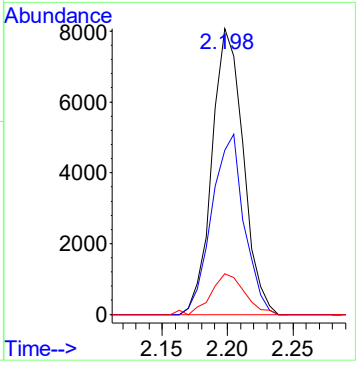


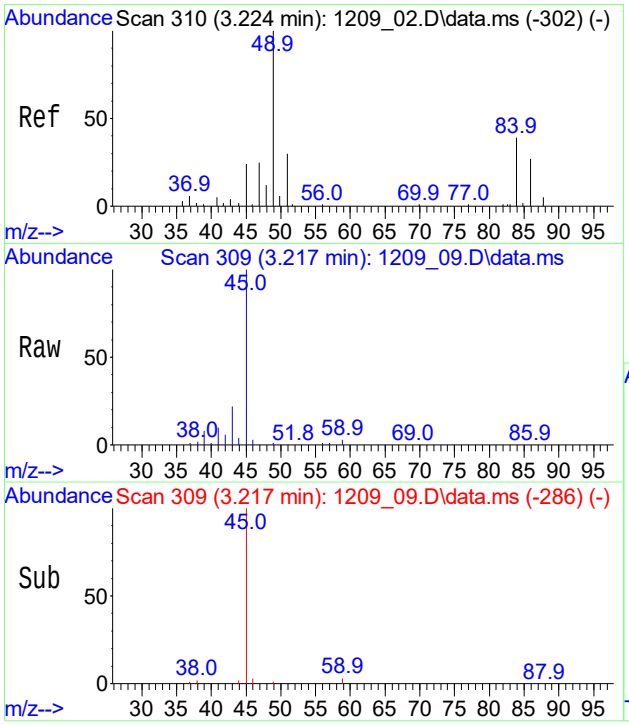


#13
Trichlorofluoromethane
Conc: 8$ 0.327 ppbv
RT: 2.198 min Scan# 162
Delta R.T. 0.007 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:101 Resp: 13226

Ion	Ratio	Lower	Upper
101	100		
103	65.4	54.5	81.7
66	15.5	12.7	19.1

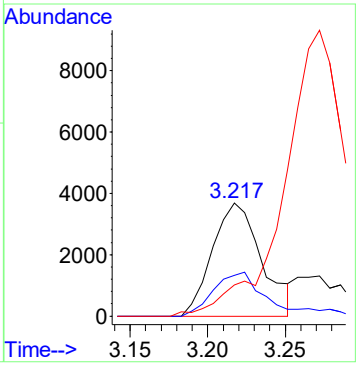


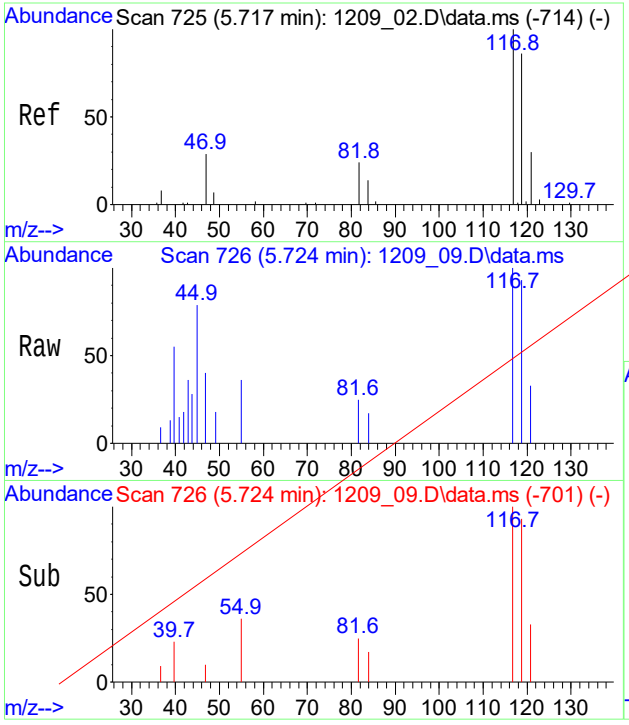


#17
Methylene Chloride
Conc: 8$ 0.409 ppbv
RT: 3.217 min Scan# 309
Delta R.T. 0.007 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion: 49 Resp: 8133

Ion	Ratio	Lower	Upper
49	100		
84	42.3	34.6	51.8
86	0.0	23.4	35.2#

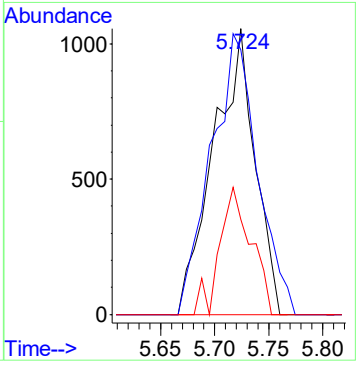


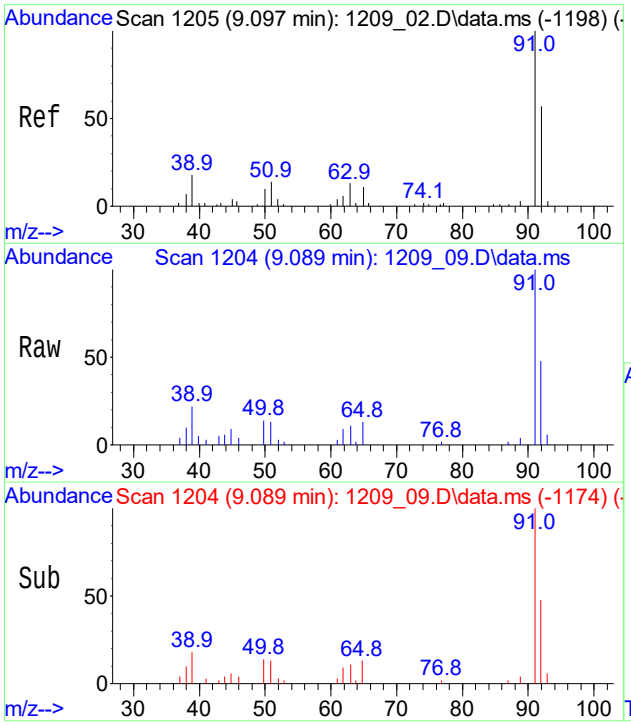


#34
Carbon Tetrachloride
Conc: 8$ Below Cal
RT: 5.724 min Scan# 726
Delta R.T. 0.029 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:117 Resp: 2816

Ion	Ratio	Lower	Upper
117	100		
119	109.2	78.5	118.5
121	33.7	11.7	51.7

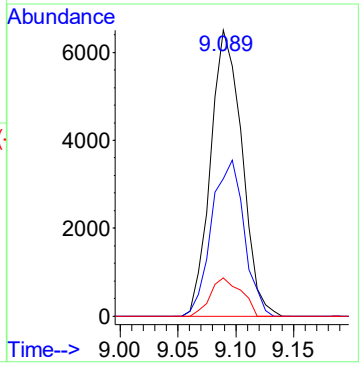


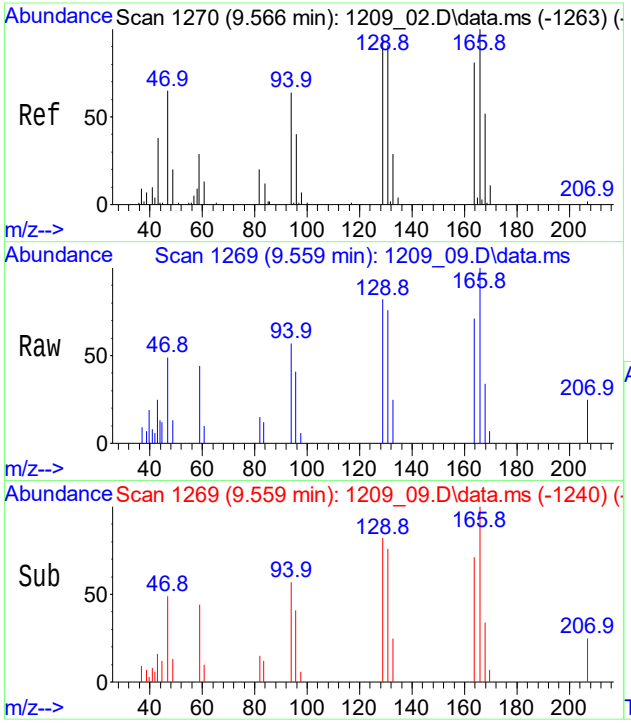


#48
Toluene
Conc: 8$ 0.359 ppbv
RT: 9.089 min Scan# 1204
Delta R.T. 0.014 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion: 91 Resp: 12092

Ion	Ratio	Lower	Upper
91	100		
92	56.8	44.5	66.7
65	13.2	12.6	19.0

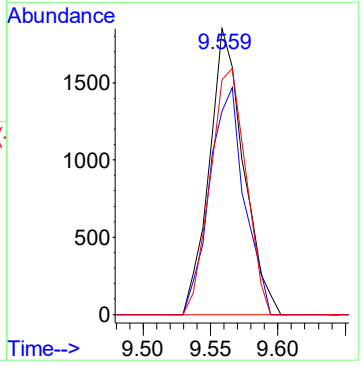


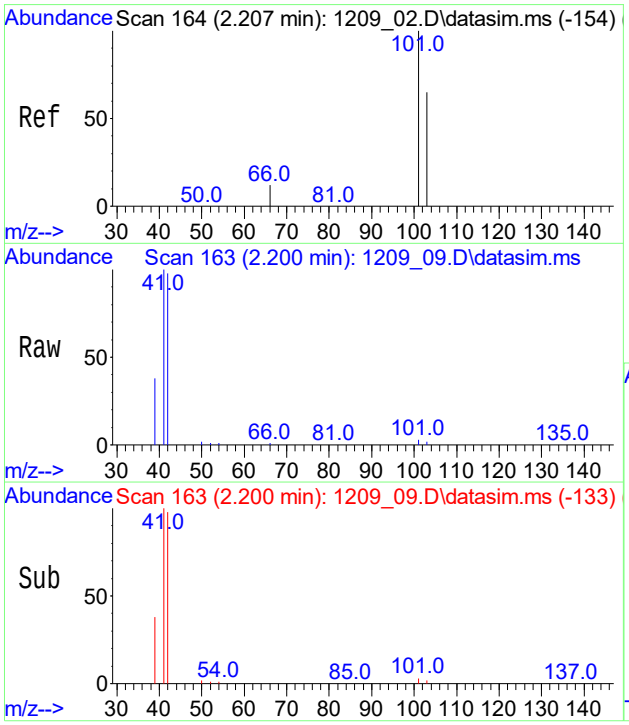


#52
Tetrachloroethene
Conc: 8$ 0.162 ppbv
RT: 9.559 min Scan# 1269
Delta R.T. 0.007 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:166 Resp: 3249

Ion	Ratio	Lower	Upper
166	100		
164	81.3	75.6	113.4
129	89.6	80.0	120.0

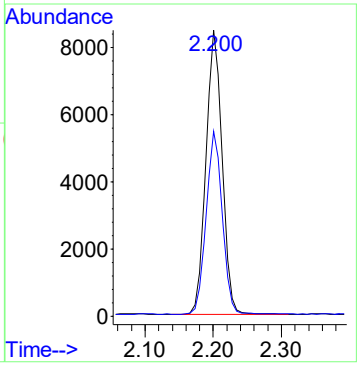


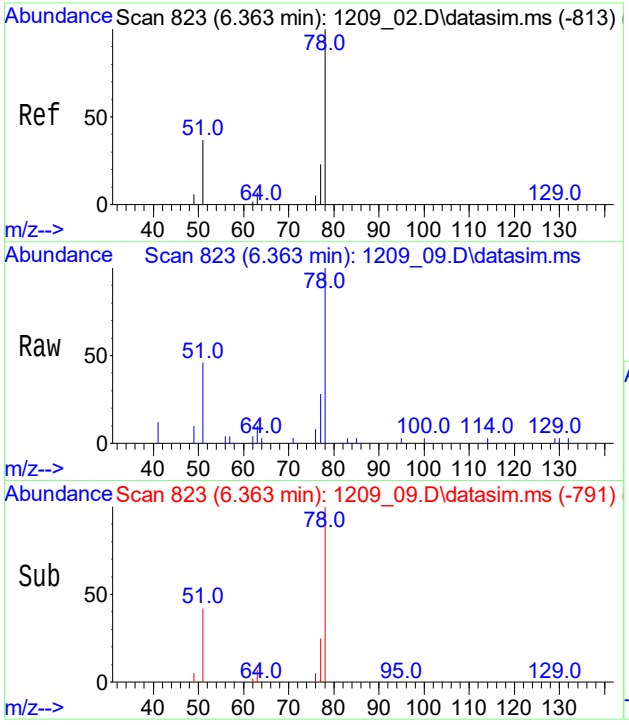


#84
Trichlorofluoromethane(sim)
Conc: 8$ 0.312 ppbv
RT: 2.200 min Scan# 163
Delta R.T. 0.007 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:101 Resp: 13893

Ion	Ratio	Lower	Upper
101	100		
103	64.0	52.5	78.7

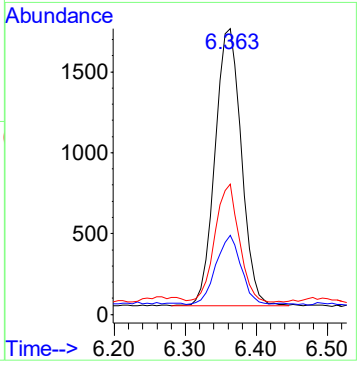


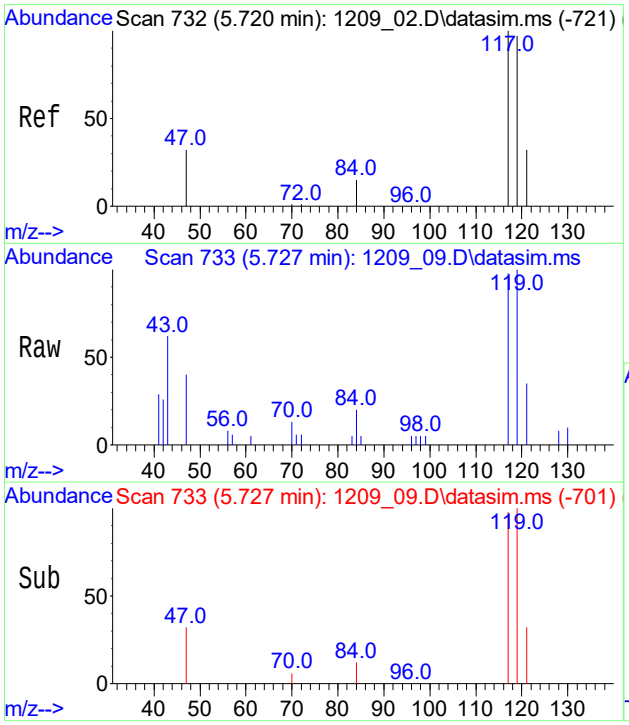


#86
Benzene(sim)
Conc: 8$ 0.158 ppbv
RT: 6.363 min Scan# 823
Delta R.T. 0.021 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion: 78 Resp: 4428

Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.0	30.0
51	39.8	31.8	47.6

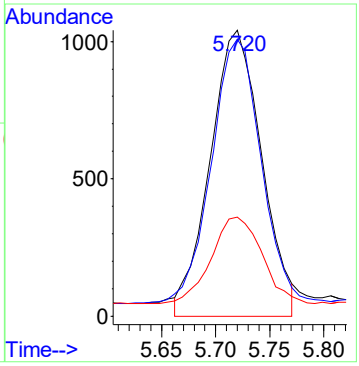


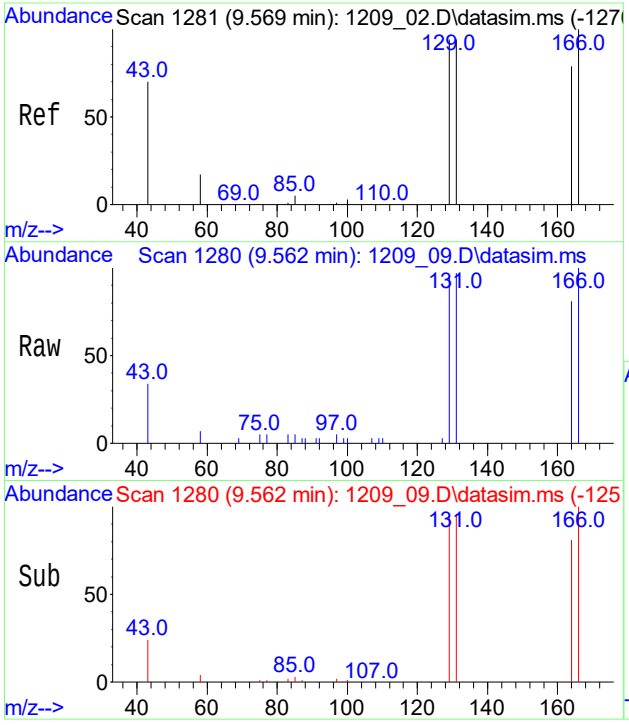


#87
Carbon Tetrachloride(sim)
Conc: 8$ 0.069 ppbv
RT: 5.724 min Scan# 733
Delta R.T. 0.029 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:117 Resp: 2393

Ion	Ratio	Lower	Upper
117	100		
119	123.7	86.8	130.2
121	37.3	24.0	36.0#

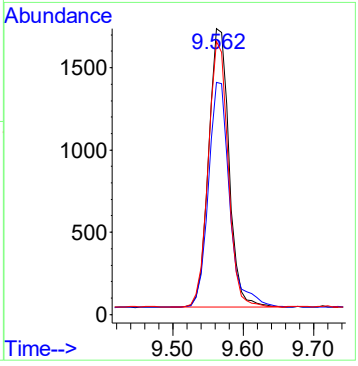


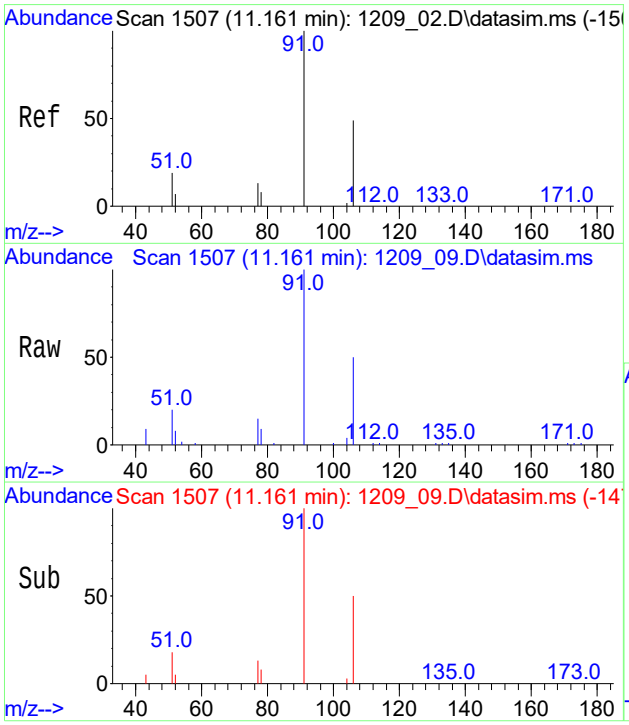


#104
Tetrachloroethene(sim)
Conc: 8$ 0.164 ppbv
RT: 9.562 min Scan# 1280
Delta R.T. 0.007 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion:166 Resp: 3430

Ion	Ratio	Lower	Upper
166	100		
164	83.6	59.1	99.1
129	93.0	72.1	112.1

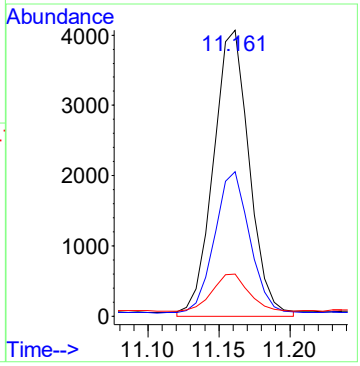




#109
m,p-Xylene(sim)
Conc: 8$ 0.170 ppbv
RT: 11.158 min Scan# 1507
Delta R.T. 0.014 min
Lab File: 1209_09.D
Acq: 9 Dec 2020 8:36 pm

Tgt Ion: 91 Resp: 6173

Ion	Ratio	Lower	Upper
91	100		
106	48.9	47.6	58.2
77	14.6	13.0	19.6



1

CLIENT ID

AIR ANALYSIS DATA SHEET

CANISTER BLK 13633

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CANISTER BLK 13633

Canister: CANBL Lab File ID: 0814_17.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 08/18/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.150	U	0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
71-43-2	Benzene	0.050	U	0.050	0.050	r
108-88-3	Toluene	0.200	U	0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
100-41-4	Ethylbenzene	0.150	U	0.150	0.150	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
56-23-5	Carbon Tetrachloride(sim)	0.020	U	0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.100	U	0.100	0.100	r
179601-23-1	m,p-Xylene(sim)	0.150	U	0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\08AUG\12\
Data File : 0814_17.D
Acq On : 15 Aug 2020 5:49 am
Operator :
Client ID : CANISTER BLK 13633
Lab ID : CANISTER BLK 13633
ALS Vial : 87 Sample Multiplier: 1

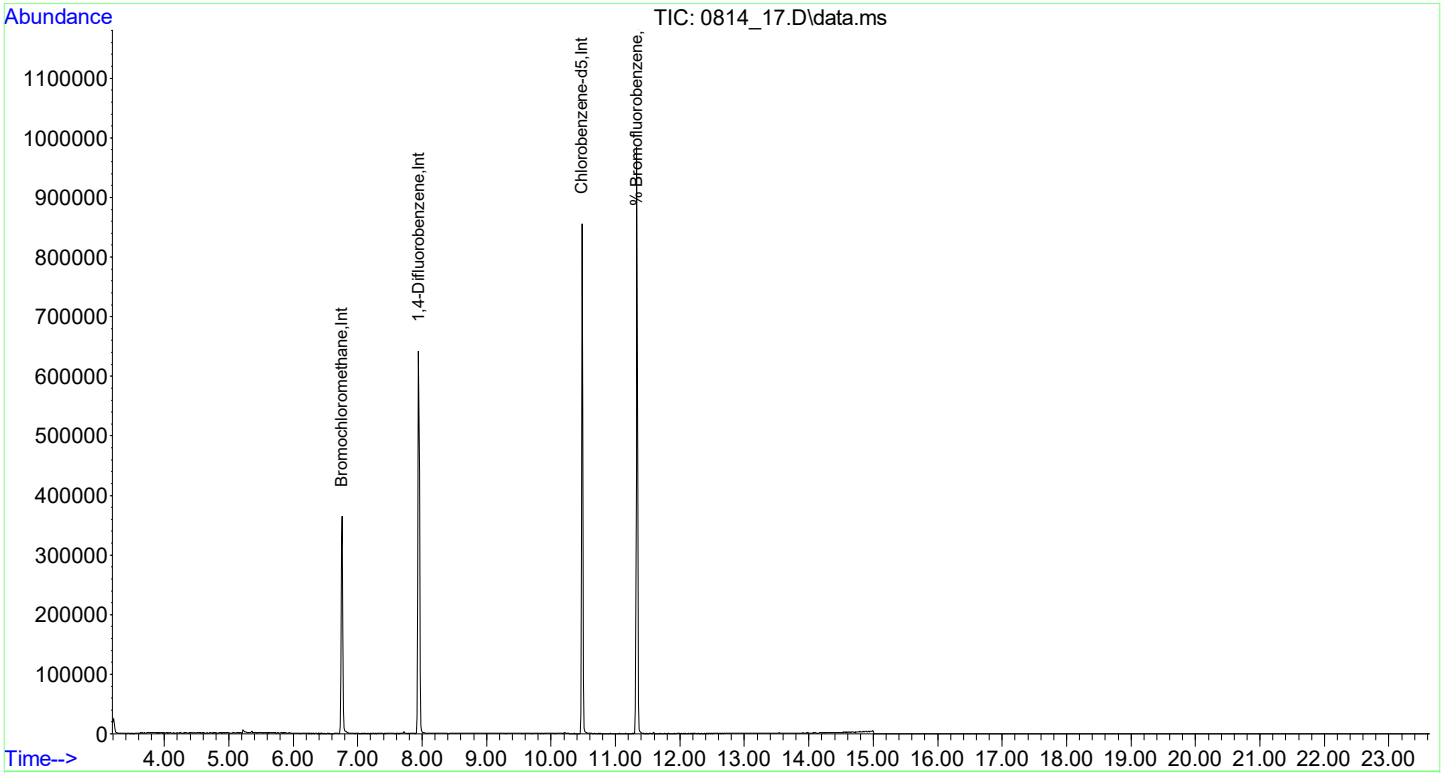
Quant Time: Aug 18 11:18:35 2020
Quant Method : H:\AIR2020\CHEM20\Methods\20_AIR_0812.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Aug 12 11:43:24 2020
Response via : Initial Calibration

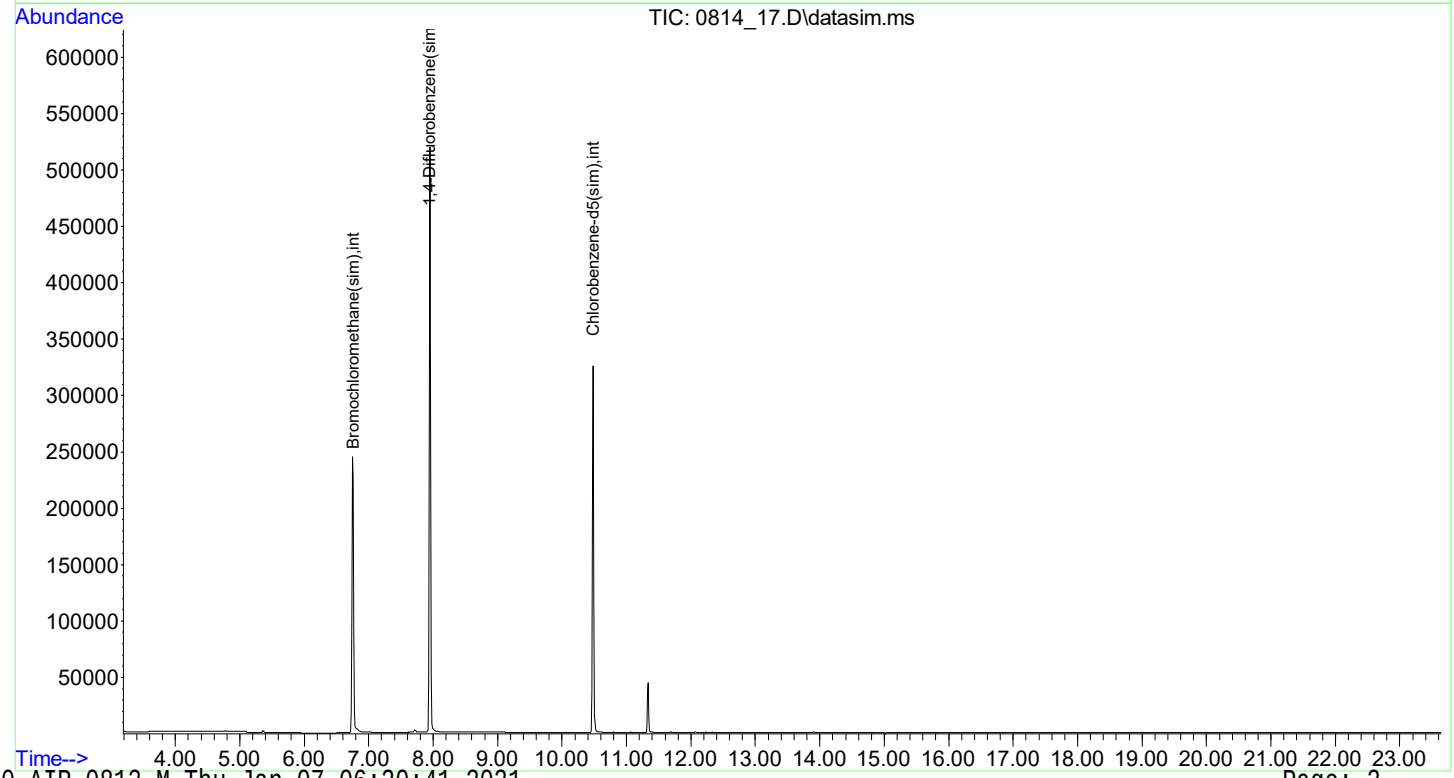
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.756	130	120629	10.000	ng	0.01
36) 1,4-Difluorobenzene	7.944	114	437680	10.000	ng	0.00
53) Chlorobenzene-d5	10.481	82	195688	10.000	ng	-0.01
80) Bromochloromethane(sim)	6.762	130	130929	10.000	ng	# 0.01
94) 1,4-Difluorobenzene(sim)	7.950	114	493689	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.487	82	214138	10.000	ng	# 0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.332	95	228154	9.528	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 95.30%			
Target Compounds						Qvalue

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

Data Path : H:\AIR2020\CHEM20\08AUG\12\
Data File : 0814_17.D
Acq On : 15 Aug 2020 5:49 am
Operator :
Client ID : CANISTER BLK 13633
Lab ID : CANISTER BLK 13633
ALS Vial : 87 Sample Multiplier: 1

Quant Time: Aug 18 11:18:35 2020
Quant Method : H:\AIR2020\CHEM20\Methods\20_AIR_0812.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Aug 12 11:43:24 2020
Response via : Initial Calibration





1

AIR ANALYSIS DATA SHEET

CLIENT ID: CANISTER BLK 16013

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CANISTER BLK 16013

Canister: CANBL Lab File ID: 0914_37.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 09/15/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.150	U	0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
71-43-2	Benzene	0.050	U	0.050	0.050	r
108-88-3	Toluene	0.200	U	0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
100-41-4	Ethylbenzene	0.150	U	0.150	0.150	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
56-23-5	Carbon Tetrachloride(sim)	0.020	U	0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.100	U	0.100	0.100	r
179601-23-1	m,p-Xylene(sim)	0.150	U	0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\09SEP\14\
Data File : 0914_37.D
Acq On : 15 Sep 2020 12:06 pm
Operator :
Client ID : CANISTER BLK 16013
Lab ID : CANISTER BLK 16013
ALS Vial : 41 Sample Multiplier: 1

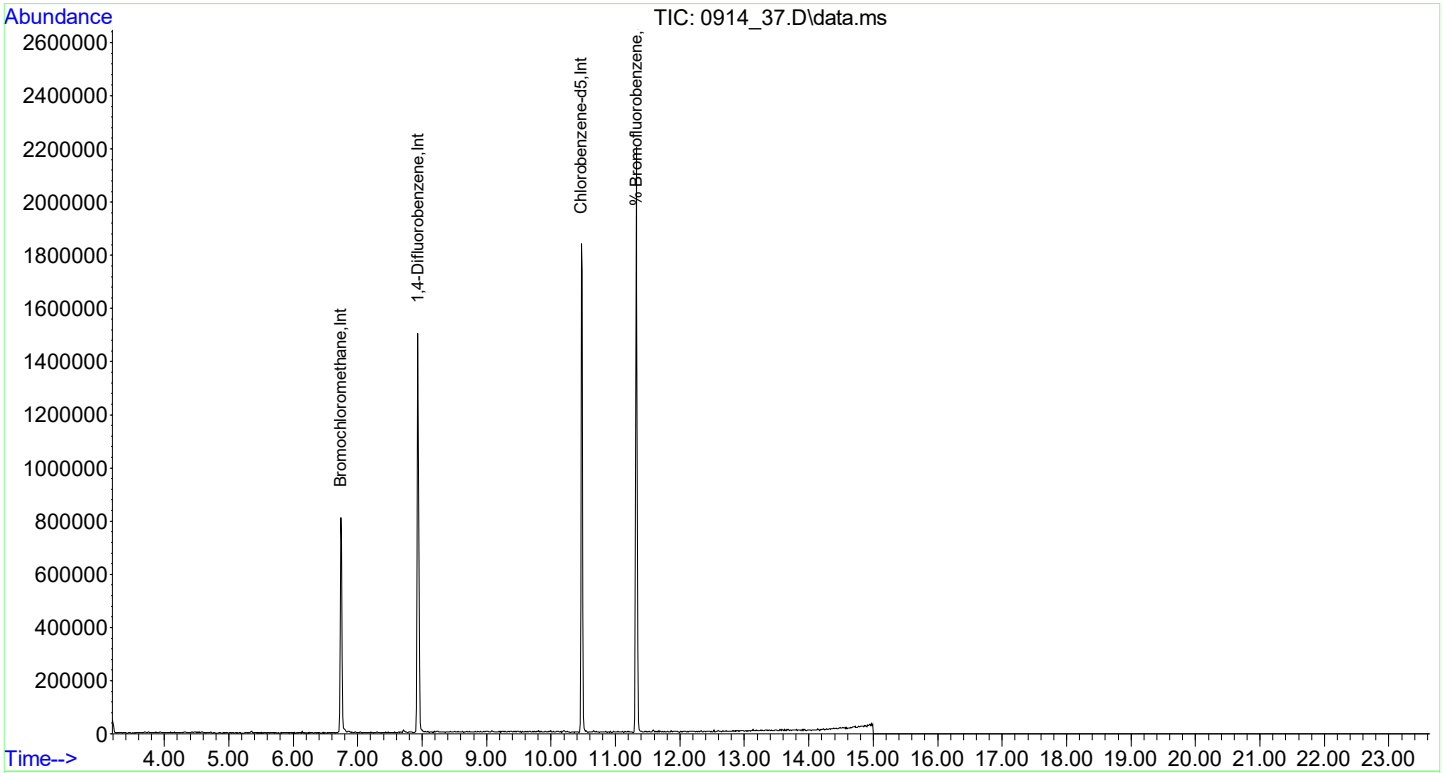
Quant Time: Sep 15 11:55:39 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0824.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Aug 25 09:30:02 2020
Response via : Initial Calibration

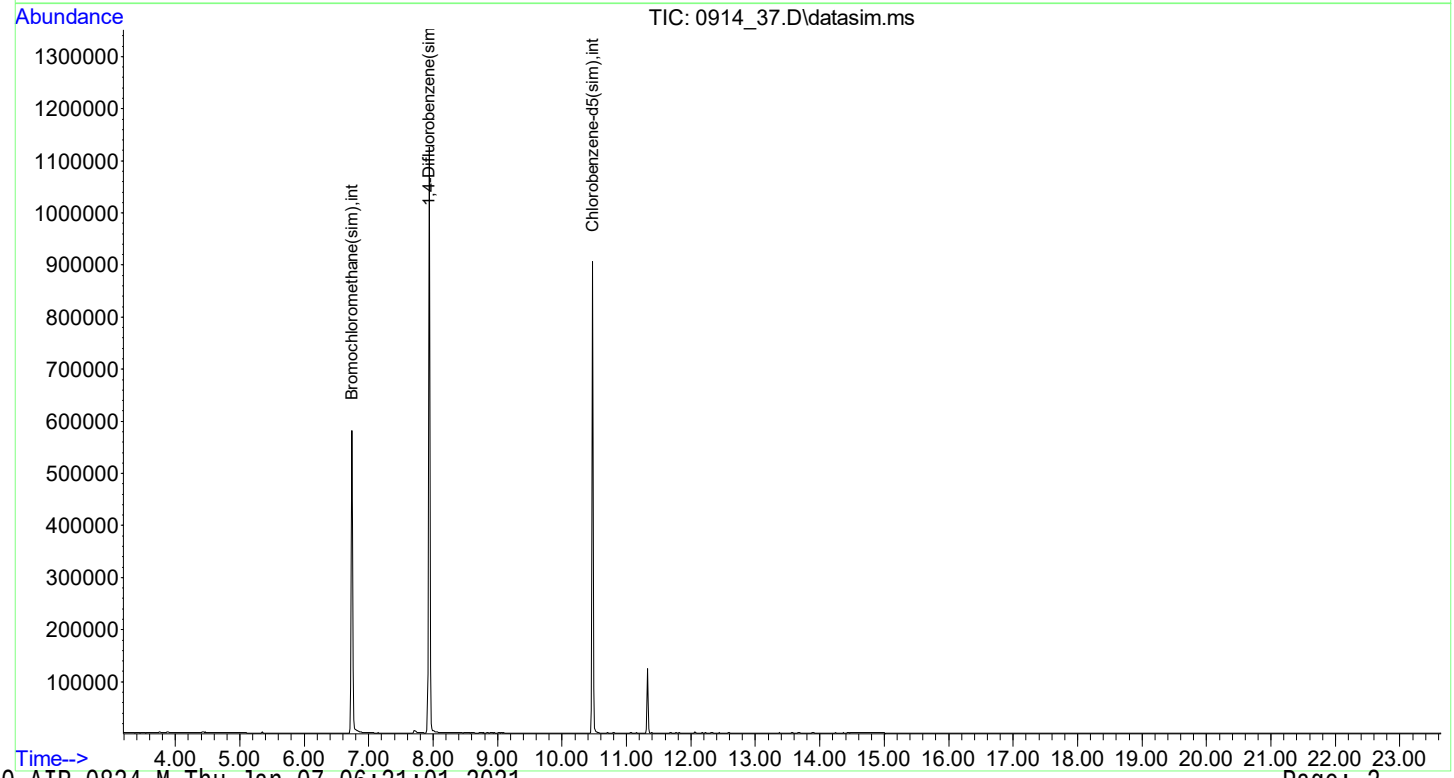
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.735	130	214988	10.000	ng	-0.01
36) 1,4-Difluorobenzene	7.933	114	901962	10.000	ng	-0.01
53) Chlorobenzene-d5	10.471	82	519113	10.000	ng	-0.01
80) Bromochloromethane(sim)	6.741	130	244357	10.000	ng	#-0.01
94) 1,4-Difluorobenzene(sim)	7.939	114	987556	10.000	ng	-0.01
104) Chlorobenzene-d5(sim)	10.477	82	555883	10.000	ng	-0.01
System Monitoring Compounds						
62) % Bromofluorobenzene	11.322	95	596387	9.815	ppbv	-0.01
Spiked Amount 10.000	Range 70 - 130		Recovery = 98.10%			
Target Compounds						Qvalue

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

Data Path : H:\AIR2020\CHEM20\09SEP\14\
Data File : 0914_37.D
Acq On : 15 Sep 2020 12:06 pm
Operator :
Client ID : CANISTER BLK 16013
Lab ID : CANISTER BLK 16013
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Sep 15 11:55:39 2020
Quant Method : H:\AIR2020\CHEM20\METHODS\20_AIR_0824.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Tue Aug 25 09:30:02 2020
Response via : Initial Calibration





1

CLIENT ID

AIR ANALYSIS DATA SHEET

CANISTER BLK 19806

Client: WALDENE-IPARK Lab: Phoenix Env. Labs

SDG No.: GCH28475 Lab Sample ID: CANISTER BLK 19806

Canister: CANBL Lab File ID: 0814_12.D

Instrument: CHEM20 Column: Date Received:

Purge Volume 200 (cc) Date Analyzed: 08/18/20

Matrix: AIR Dilution Factor: 1

CONCENTRATION UNITS: (ppbv or ug/m3) ppbv

CAS NO.	COMPOUND	CONC.	Q	MDL	PQL	R
75-71-8	Dichlorodifluoromethane	0.200	U	0.200	0.200	r
67-64-1	Acetone	1.00	U	1.00	1.00	r
75-69-4	Trichlorofluoromethane	0.150	U	0.150	0.150	r
75-09-2	Methylene Chloride	0.400	U	0.400	0.400	r
76-13-1	Trichlorotrifluoroethane	0.150	U	0.150	0.150	r
71-55-6	1,1,1-Trichloroethane	0.200	U	0.200	0.200	r
71-43-2	Benzene	0.050	U	0.050	0.050	r
108-88-3	Toluene	0.200	U	0.200	0.200	r
108-90-7	Chlorobenzene	0.200	U	0.200	0.200	r
100-41-4	Ethylbenzene	0.150	U	0.150	0.150	r
95-47-6	o-Xylene	0.150	U	0.150	0.150	r
541-73-1	1,3-Dichlorobenzene	0.150	U	0.150	0.150	r
95-50-1	1,2-Dichlorobenzene	0.150	U	0.150	0.150	r
75-01-4	Vinyl Chloride(sim)	0.020	U	0.020	0.020	r
56-23-5	Carbon Tetrachloride(sim)	0.020	U	0.020	0.020	r
75-35-4	1,1-Dichloroethene(sim)	0.050	U	0.050	0.050	r
156-59-2	Cis-1,2-Dichloroethene(sim)	0.050	U	0.050	0.050	r
79-01-6	Trichloroethene(sim)	0.037	U	0.037	0.037	r
127-18-4	Tetrachloroethene(sim)	0.100	U	0.100	0.100	r
179601-23-1	m,p-Xylene(sim)	0.150	U	0.150	0.150	r
106-46-7	1,4-Dichlorobenzene(sim)	0.150	U	0.150	0.150	r
120-82-1	1,2,4-Trichlorobenzene(sim)	0.250	U	0.250	0.250	r

FORM I AIR

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

Quantitation Report (QT Reviewed)

Data Path : H:\AIR2020\CHEM20\08AUG\12\
Data File : 0814_12.D
Acq On : 15 Aug 2020 2:35 am
Operator :
Client ID : CANISTER BLK 19806
Lab ID : CANISTER BLK 19806
ALS Vial : 82 Sample Multiplier: 1

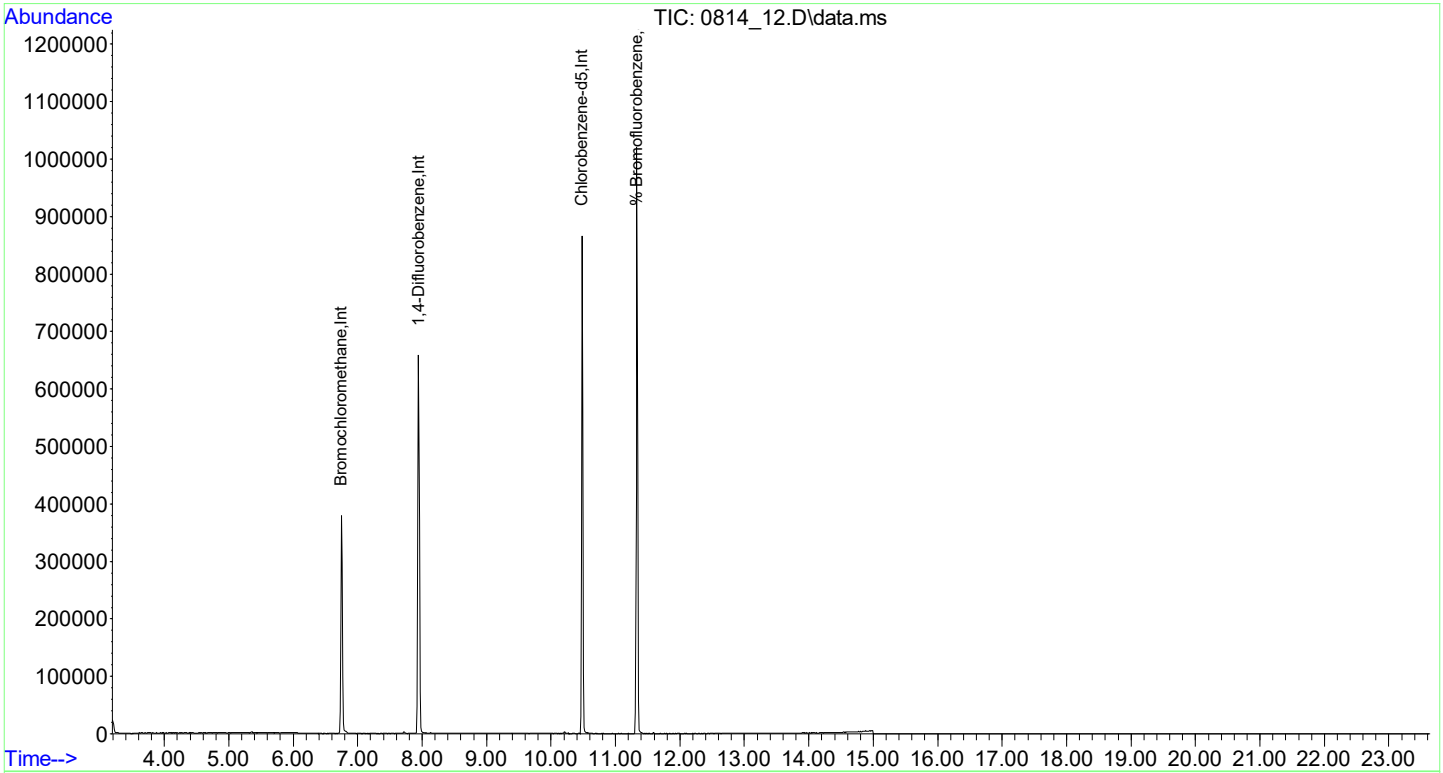
Quant Time: Aug 17 09:19:18 2020
Quant Method : H:\AIR2020\CHEM20\Methods\20_AIR_0812.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Aug 12 11:43:24 2020
Response via : Initial Calibration

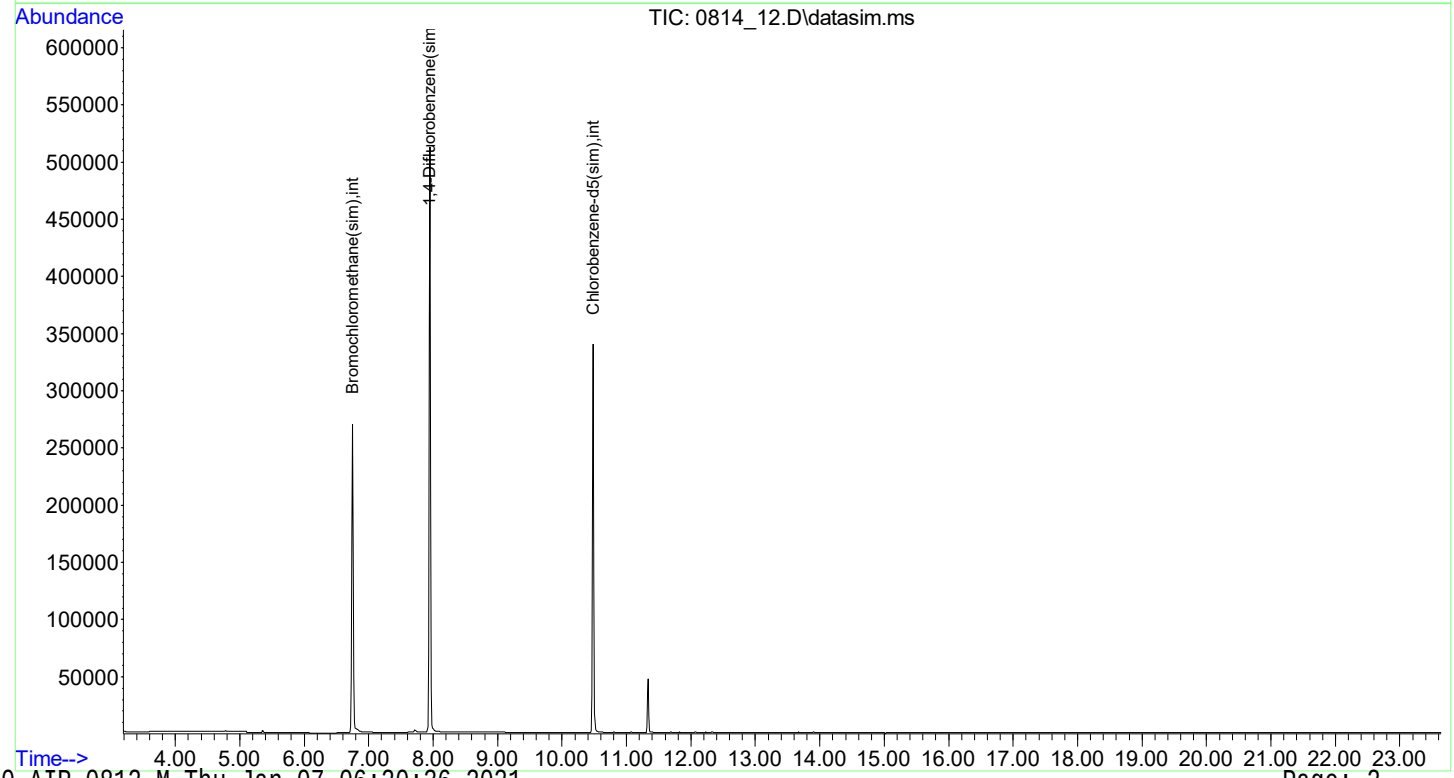
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Bromochloromethane	6.746	130	123969	10.000	ng	0.00
36) 1,4-Difluorobenzene	7.944	114	450970	10.000	ng	0.00
53) Chlorobenzene-d5	10.481	82	202836	10.000	ng	-0.01
80) Bromochloromethane(sim)	6.751	130	134482	10.000	ng	# 0.00
94) 1,4-Difluorobenzene(sim)	7.950	114	509080	10.000	ng	0.00
104) Chlorobenzene-d5(sim)	10.487	82	220854	10.000	ng	# 0.00
System Monitoring Compounds						
62) % Bromofluorobenzene	11.332	95	239423	9.646	ppbv	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.50%			
Target Compounds						Qvalue

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

Data Path : H:\AIR2020\CHEM20\08AUG\12\
Data File : 0814_12.D
Acq On : 15 Aug 2020 2:35 am
Operator :
Client ID : CANISTER BLK 19806
Lab ID : CANISTER BLK 19806
ALS Vial : 82 Sample Multiplier: 1

Quant Time: Aug 17 09:19:18 2020
Quant Method : H:\AIR2020\CHEM20\Methods\20_AIR_0812.M
Quant Title : VOA Standards for 5 point calibration
QLast Update : Wed Aug 12 11:43:24 2020
Response via : Initial Calibration





Injection Log

Data Directory: H:\AIR2020\CHEM20\08AUG\12\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	0	0814_23.D	xxxxxxxxxx		N/A
2)	1	0812_01.D	xxxxxxxxxx		08/12/20 14:15
3)	6	0812_02.D	xxxxxxxxxx		08/12/20 14:52
4)	7	0812_03.D	xxxxxxxxxx		08/12/20 15:29
5)	8	0812_04.D	xxxxxxxxxx		08/12/20 16:07
6)	9	0812_05.D	xxxxxxxxxx		08/12/20 16:45
7)	9	0812_06.D	xxxxxxxxxx		08/12/20 17:20
8)	10	0812_07.D	xxxxxxxxxx		08/12/20 17:54
9)	11	0812_08.D	xxxxxxxxxx		08/12/20 19:28
10)	12	0812_09.D	xxxxxxxxxx		08/12/20 20:09
11)	13	0812_10.D	xxxxxxxxxx		08/12/20 20:50
12)	14	0812_11.D	xxxxxxxxxx		08/12/20 21:31
13)	15	0812_12.D	xxxxxxxxxx		08/12/20 22:13
14)	16	0812_13.D	xxxxxxxxxx		08/12/20 22:53
15)	17	0812_14.D	xxxxxxxxxx		08/12/20 23:34
16)	18	0812_15.D	xxxxxxxxxx		08/13/20 0:15
17)	19	0812_16.D	xxxxxxxxxx		08/13/20 0:56
18)	20	0812_17.D	xxxxxxxxxx		08/13/20 1:37
19)	21	0812_18.D	xxxxxxxxxx		08/13/20 2:18
20)	22	0812_19.D	xxxxxxxxxx		08/13/20 2:58
21)	23	0812_20.D	xxxxxxxxxx		08/13/20 3:39
22)	24	0812_21.D	xxxxxxxxxx		08/13/20 4:18
23)	25	0812_22.D	xxxxxxxxxx		08/13/20 4:58
24)	26	0812_23.D	xxxxxxxxxx		08/13/20 5:38
25)	27	0812_24.D	xxxxxxxxxx		08/13/20 6:15
26)	28	0812_25.D	xxxxxxxxxx		08/13/20 6:52
27)	29	0812_26.D	xxxxxxxxxx		08/13/20 8:37
28)	30	0812_27.D	xxxxxxxxxx		08/13/20 9:14
29)	31	0812_28.D	xxxxxxxxxx		08/13/20 9:51
30)	32	0812_29.D	xxxxxxxxxx		08/13/20 10:50
31)	33	0812_30.D	xxxxxxxxxx		08/13/20 11:30
32)	34	0812_31.D	xxxxxxxxxx		08/13/20 12:08
33)	35	0812_32.D	xxxxxxxxxx		08/13/20 12:47
34)	36	0812_33.D	xxxxxxxxxx		08/13/20 13:34
35)	37	0813_01.D	xxxxxxxxxx		08/13/20 14:11
36)	38	0813_02.D	xxxxxxxxxx		08/13/20 14:48
37)	39	0813_03.D	xxxxxxxxxx		08/13/20 15:26
38)	40	0813_04.D	xxxxxxxxxx		08/13/20 16:01
39)	41	0813_05.D	xxxxxxxxxx		08/13/20 16:35
40)	42	0813_06.D	xxxxxxxxxx		08/13/20 17:12
41)	43	0813_07.D	xxxxxxxxxx		08/13/20 17:49
42)	44	0813_08.D	xxxxxxxxxx		08/13/20 18:26
43)	45	0813_09.D	xxxxxxxxxx		08/13/20 19:02
44)	46	0813_10.D	xxxxxxxxxx		08/13/20 19:38
45)	47	0813_11.D	xxxxxxxxxx		08/13/20 20:15
46)	48	0813_12.D	xxxxxxxxxx		08/13/20 20:56
47)	49	0813_13.D	xxxxxxxxxx		08/13/20 21:37
48)	50	0813_14.D	xxxxxxxxxx		08/13/20 22:16
49)	51	0813_15.D	xxxxxxxxxx		08/13/20 22:56
50)	52	0813_16.D	xxxxxxxxxx		08/13/20 23:35
51)	53	0813_17.D	xxxxxxxxxx		08/14/20 0:12
52)	54	0813_18.D	xxxxxxxxxx		08/14/20 0:50
53)	55	0813_19.D	xxxxxxxxxx		08/14/20 1:27
54)	56	0813_20.D	xxxxxxxxxx		08/14/20 2:04
55)	57	0813_21.D	xxxxxxxxxx		08/14/20 2:42
56)	58	0813_22.D	xxxxxxxxxx		08/14/20 3:19
57)	59	0813_23.D	xxxxxxxxxx		08/14/20 3:56
58)	60	0813_24.D	xxxxxxxxxx		08/14/20 4:33
59)	61	0813_25.D	xxxxxxxxxx		08/14/20 5:10
60)	62	0813_26.D	xxxxxxxxxx		08/14/20 5:47
61)	63	0813_27.D	xxxxxxxxxx		08/14/20 6:27
62)	64	0813_28.D	xxxxxxxxxx		08/14/20 7:04
63)	65	0813_29.D	xxxxxxxxxx		08/14/20 7:42
64)	66	0813_30.D	xxxxxxxxxx		08/14/20 8:19
65)	67	0813_31.D	xxxxxxxxxx		08/14/20 9:05
66)	68	0813_32.D	xxxxxxxxxx		08/14/20 9:41
67)	69	0813_33.D	xxxxxxxxxx		08/14/20 10:18
68)	70	0813_34.D	xxxxxxxxxx		08/14/20 10:55

69)	71	0814_01.D	xxxxxxxxxx		08/14/20	11:29
70)	72	0814_02.D	xxxxxxxxxx		08/14/20	12:06
71)	73	0814_03.D	xxxxxxxxxx		08/14/20	12:43
72)	74	0814_04.D	xxxxxxxxxx		08/14/20	13:21
73)	75	0814_05.D	xxxxxxxxxx		08/14/20	13:55
74)	76	0814_06.D	xxxxxxxxxx		08/14/20	14:30
75)	77	0814_07.D	xxxxxxxxxx		08/14/20	23:20
76)	78	0814_08.D	xxxxxxxxxx		08/14/20	23:59
77)	79	0814_09.D	xxxxxxxxxx		08/15/20	0:38
78)	80	0814_10.D	xxxxxxxxxx		08/15/20	1:17
79)	81	0814_11.D	xxxxxxxxxx		08/15/20	1:56
80)	82	0814_12.D	CANISTER BLK 19806	CANISTER BLK 19806	08/15/20	2:35
81)	83	0814_13.D	xxxxxxxxxx		08/15/20	3:13
82)	84	0814_14.D	xxxxxxxxxx		08/15/20	3:52
83)	85	0814_15.D	xxxxxxxxxx		08/15/20	4:31
84)	86	0814_16.D	xxxxxxxxxx		08/15/20	5:10
85)	87	0814_17.D	CANISTER BLK 13633	CANISTER BLK 13633	08/15/20	5:49
86)	88	0814_18.D	xxxxxxxxxx		08/15/20	6:28
87)	89	0814_19.D	xxxxxxxxxx		08/15/20	7:06
88)	90	0814_20.D	xxxxxxxxxx		08/15/20	7:45
89)	91	0814_21.D	xxxxxxxxxx		08/15/20	8:22
90)	92	0814_22.D	xxxxxxxxxx		08/15/20	8:59

Injection Log

Data Directory: H:\AIR2020\CHEM20\09SEP\14\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	1	0914_01.D	xxxxxxxxxx		09/14/20 8:45
2)	6	0914_02.D	xxxxxxxxxx		09/14/20 9:22
3)	7	0914_03.D	xxxxxxxxxx		09/14/20 11:07
4)	8	0914_04.D	xxxxxxxxxx		09/14/20 11:45
5)	9	0914_05.D	xxxxxxxxxx		09/14/20 12:20
6)	10	0914_06.D	xxxxxxxxxx		09/14/20 12:55
7)	11	0914_07.D	xxxxxxxxxx		09/14/20 13:35
8)	12	0914_08.D	xxxxxxxxxx		09/14/20 14:12
9)	13	0914_09.D	xxxxxxxxxx		09/14/20 14:49
10)	14	0914_10.D	xxxxxxxxxx		09/14/20 15:26
11)	15	0914_11.D	xxxxxxxxxx		09/14/20 16:03
12)	16	0914_12.D	xxxxxxxxxx		09/14/20 16:41
13)	17	0914_13.D	xxxxxxxxxx		09/14/20 17:18
14)	18	0914_14.D	xxxxxxxxxx		09/14/20 17:55
15)	19	0914_15.D	xxxxxxxxxx		09/14/20 18:44
16)	20	0914_16.D	xxxxxxxxxx		09/14/20 20:44
17)	21	0914_17.D	xxxxxxxxxx		09/14/20 21:21
18)	22	0914_18.D	xxxxxxxxxx		09/14/20 21:57
19)	23	0914_19.D	xxxxxxxxxx		09/14/20 22:36
20)	24	0914_20.D	xxxxxxxxxx		09/14/20 23:16
21)	25	0914_21.D	xxxxxxxxxx		09/14/20 23:56
22)	26	0914_22.D	xxxxxxxxxx		09/15/20 0:36
23)	27	0914_23.D	xxxxxxxxxx		09/15/20 1:48
24)	28	0914_24.D	xxxxxxxxxx		09/15/20 2:28
25)	29	0914_25.D	xxxxxxxxxx		09/15/20 3:08
26)	30	0914_26.D	xxxxxxxxxx		09/15/20 3:52
27)	31	0914_27.D	xxxxxxxxxx		09/15/20 4:29
28)	32	0914_28.D	xxxxxxxxxx		09/15/20 5:06
29)	33	0914_29.D	xxxxxxxxxx		09/15/20 5:40
30)	34	0914_30.D	xxxxxxxxxx		09/15/20 6:17
31)	35	0914_31.D	xxxxxxxxxx		09/15/20 6:54
32)	36	0914_32.D	xxxxxxxxxx		09/15/20 7:32
33)	37	0914_33.D	xxxxxxxxxx		09/15/20 8:06
34)	38	0914_34.D	xxxxxxxxxx		09/15/20 8:41
35)	39	0914_35.D	xxxxxxxxxx		09/15/20 10:48
36)	40	0914_36.D	xxxxxxxxxx		09/15/20 11:27
37)	41	0914_37.D	CANISTER BLK 16013	CANISTER BLK 16013	09/15/20 12:06
38)	42	0914_38.D	xxxxxxxxxx		09/15/20 12:45
39)	43	0914_39.D	xxxxxxxxxx		09/15/20 13:24
40)	44	0914_40.D	xxxxxxxxxx		09/15/20 14:03
41)	45	0914_41.D	xxxxxxxxxx		09/15/20 14:42
42)	46	0914_42.D	xxxxxxxxxx		09/15/20 15:20
43)	47	0914_43.D	xxxxxxxxxx		09/15/20 16:09
44)	48	0914_44.D	xxxxxxxxxx		09/15/20 16:48
45)	49	0914_45.D	xxxxxxxxxx		09/15/20 17:27
46)	50	0914_46.D	xxxxxxxxxx		09/15/20 18:39

Injection Log

Data Directory: H:\AIR2020\CHEM24\12DEC\03\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	0	1203_22.D	xxxxxxxxxx		N/A
2)	3	1203_01.D	xxxxxxxxxx		12/03/20 14:45
3)	4	1203_02.D	BFB TUNE	0/0	12/03/20 15:16
4)	5	1203_03.D	ICAL 0.02	0.02	12/03/20 15:48
5)	6	1203_04.D	ICAL 0.035	0.035	12/03/20 16:19
6)	7	1203_05.D	ICAL 0.05	0.05	12/03/20 16:51
7)	8	1203_06.D	ICAL 0.1	0.10	12/03/20 17:23
8)	9	1203_07.D	ICAL 0.25	0.20	12/03/20 17:56
9)	10	1203_08.D	ICAL 0.5	0.5	12/03/20 18:32
10)	11	1203_09.D	ICAL 2.5	2.5	12/03/20 19:08
11)	12	1203_10.D	ICAL 5	5.0	12/03/20 19:41
12)	13	1203_11.D	ICAL 25	25	12/03/20 20:17
13)	14	1203_12.D	ICAL 40	40	12/03/20 20:56
14)	18	1203_13.D	xxxxxxxxxx		12/03/20 21:27
15)	16	1203_14.D	ICAL 1	1ppb	12/03/20 22:00
16)	17	1203_15.D	ICAL 10	10ppb	12/03/20 22:33
17)	18	1203_16.D	xxxxxxxxxx		12/03/20 23:09
18)	19	1203_17.D	xxxxxxxxxx		12/03/20 23:46
19)	20	1203_18.D	xxxxxxxxxx		12/04/20 0:22
20)	21	1203_19.D	xxxxxxxxxx		12/04/20 0:58
21)	22	1203_20.D	xxxxxxxxxx		12/04/20 1:35
22)	23	1203_21.D	xxxxxxxxxx		12/04/20 2:16

Injection Log

Data Directory: H:\AIR2020\CHEM24\12DEC\09\

Line	Vl	FileName	SampleName	MiscInfo	Injection Time
1)	35	1209_01.D	xxxxxxxxxx		12/09/20 15:35
2)	2	1209_02.D	BFB TUNE - CCAL 1	1ppb cc - 1ppb cc	12/09/20 16:06
3)	3	1209_03.D	xxxxxxxxxx		12/09/20 16:40
4)	4	1209_04.D	xxxxxxxxxx		12/09/20 17:16
5)	5	1209_05.D	xxxxxxxxxx		12/09/20 18:14
6)	6	1209_06.D	xxxxxxxxxx		12/09/20 18:45
7)	7	1209_07.D	CH28475 BLANK	CH28475 BLANK	12/09/20 19:16
8)	8	1209_08.D	IA-2	CH28475	12/09/20 19:55
9)	9	1209_09.D	IA-2 DUP	CH28475 DUP	12/09/20 20:36
10)	10	1209_10.D	IA-3	CH28476	12/09/20 21:16
11)	11	1209_11.D	IA-4	CH28477	12/09/20 21:56
12)	12	1209_12.D	xxxxxxxxxx		12/09/20 22:37
13)	13	1209_13.D	xxxxxxxxxx		12/09/20 23:28
14)	14	1209_14.D	xxxxxxxxxx		12/10/20 0:30
15)	15	1209_15.D	xxxxxxxxxx		12/10/20 1:06
16)	16	1209_16.D	xxxxxxxxxx		12/10/20 1:42
17)	17	1209_17.D	xxxxxxxxxx		12/10/20 2:19
18)	18	1209_18.D	xxxxxxxxxx		12/10/20 2:54
19)	19	1209_19.D	xxxxxxxxxx		12/10/20 3:30
20)	20	1209_20.D	xxxxxxxxxx		12/10/20 4:06
21)	21	1209_21.D	xxxxxxxxxx		12/10/20 4:43
22)	22	1209_22.D	xxxxxxxxxx		12/10/20 5:19
23)	23	1209_23.D	xxxxxxxxxx		12/10/20 5:53
24)	26	1209_26.D	CH28475 LCSD	CH28475 LCSD	12/10/20 10:21
25)	27	1209_27.D	CH28475 LCS	CH28475 LCS	12/10/20 11:16
26)	28	1209_28.D	xxxxxxxxxx		12/10/20 11:48

ATTACHMENT 5
DATA USABILITY SUMMARY REPORT (SEPTEMBER 2021)

Building 700 (330D) HES Industries December 2020 Indoor Air Quality Sampling Data Usability Summary Report

at

iPark 84
Former IBM East Fishkill Facility

September 2021

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

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 additional air sampling conducted in Building 700 (formerly Building 330D) at the above-referenced facility. This supplemental sampling was conducted on December 8, 2020 in support of a continued re-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 supplemental sampling results was submitted to NYSDEC and NYSDOH in a report dated February 3, 2021. NYSDEC approved continued occupancy of the HES Semiconductor Parts Manufacture Space in a letter dated July 30, 2021.

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 (full list) to achieve lower reporting limits via selective ion monitoring for TCE, vinyl chloride and carbon tetrachloride. The IAQ sample reporting limits are set forth in the NYSDEC-approved 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 the *Building 330D – HES Semiconductor Parts Manufacturer 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. 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 30% for 1,2,4-Trichlorobenzene, for samples collected on December 8, 2020.

In summary, although one (1) analyte 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 *Building 330D – HES Semiconductor Parts Manufacturer 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 in the HES space at Building 700 (formerly Building 330D) on December 8, 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.

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

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;
- Preformed 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

APPENDIX A

***IAQ TESTING SUMMARY REPORT* (WALDEN, SEPTEMBER 8, 2020)**

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

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

WALDEN ENVIRONMENTAL ENGINEERING

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

Attachments:
Figure 1 – Site Location Map
Figure 2 – Sampling Locations

Table 1 – Summary of Field Information
Table 2 – Summary of IAQ Analysis

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

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.

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
iPARK 84 CAMPUS, 200 NORTH DRIVE, SUITE #108
HOPEWELL JUNCTION, NEW YORK 12533
P: (845) 253-8025; (516) 624-7200
F: (516) 624-3219
Walden Environmental Engineering

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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

REVISION NO: 0

DESIGNED BY: NMB	DRAWN BY: EJK	JOB NO: IPARK0118.40	DATE: 11/26/19	11x17	SHEET NO: 1 OF 2
APPROVED BY: JMH	SCALE: AS NOTED	CAD FILE NAME: Z:\iPark0118\iPark0118.40 Bldg 700 former 330D\Acad\iPark0118.40 Bldg 700 former 330D.dwg			

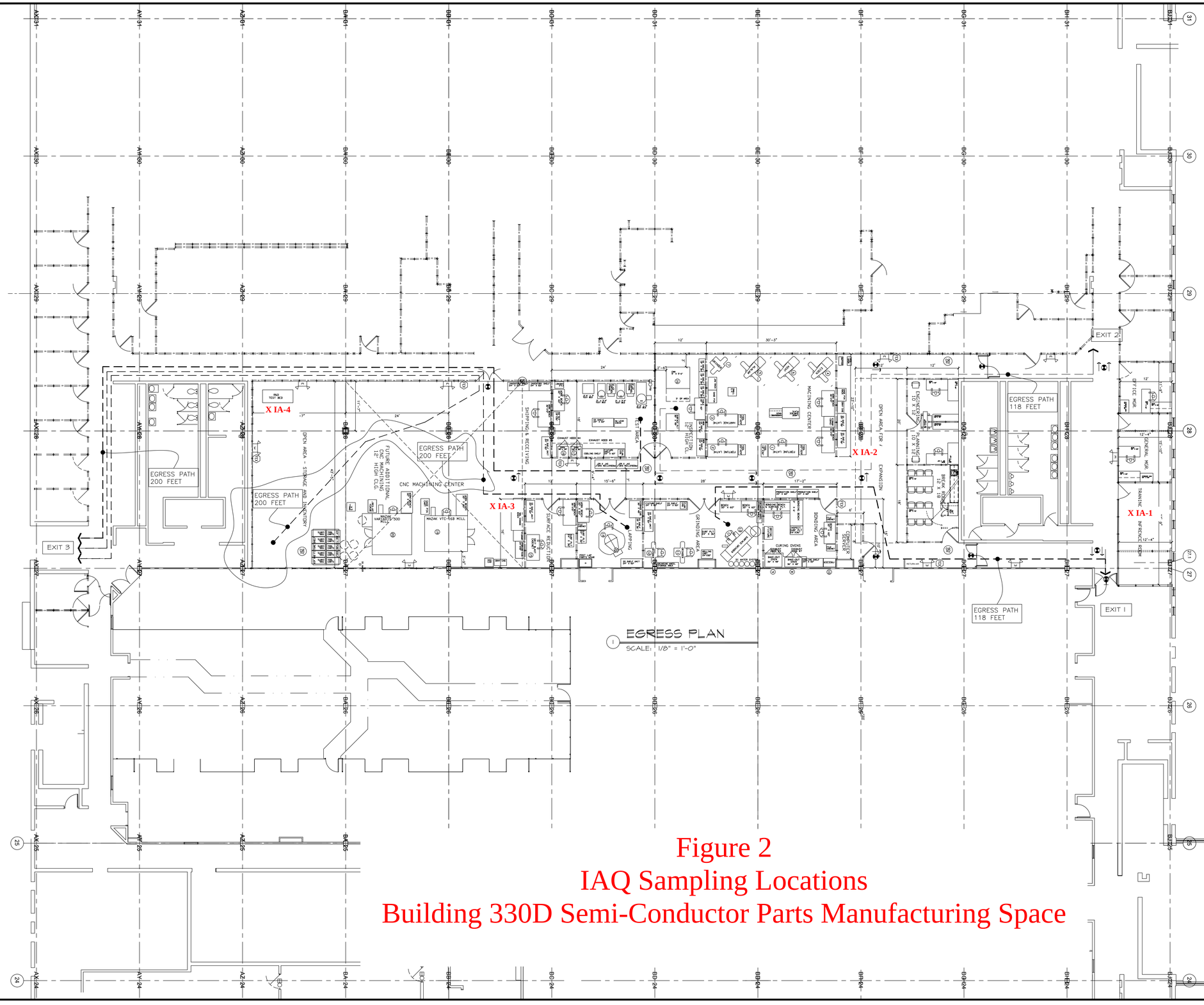


Figure 2
IAQ Sampling Locations
Building 330D Semi-Conductor Parts Manufacturing Space

HE Industries
(FM Industries)

700 South Drive
Suite 104

Hopewell Junction, NY

ANTHONY TOTILO ARCHITECTS
AND ASSOCIATES

Anthony Totilo, A.I.A.

114 Old North Stamford Road
Stamford, Connecticut 06905

(203) 517-6586

OWNER, USE AND ALTERATION OF DOCUMENTS:

The client acknowledges that the documents, drawings, specifications including electronic media files are instrument of Anthony Totilo Architects and Associates and shall remain the property of Anthony Totilo and Associates .The client or any person or entity that acquires or obtains the drawings and specifications from or through The Client shall not use them on any other project, shall not modify, alter or change the drawings and specifications without written authorization from Anthony Totilo Architects and Associates .Furthermore, the client agrees to the fullest extent permitted by law to indemnify and hold harmless Anthony Totilo Architects and Associates, its officers, directors and employees from any and all claims suits, liability, demands or costs, including attorney fees arising out of or resulting therefrom.

LOCATION PLAN: (NTS)

NOTES:

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

SHEET TITLE:

FIRE EGRESS
PLAN

REGISTERED ARCHITECT ANTHONY TOTILO 18454 STATE OF NEW YORK

N

DRAWN BY: AT/TC
PROJECT NO:
CHECKED BY:
SHEET NO: EP1
DATE: 11.15.18
SCALE: 1/8"=1'-0" U.O.N.

EP1.DWG - EGRESS PLAN REVISED RECORD DOCUMENT

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		7/7/2020 DUPLICATE Air Office Space on West Side		7/7/2020 IA-2 Air Machining Center		7/7/2020 IA-3 Air CNC Machining Center		7/7/2020 IA-4 Air Open Area		7/7/2020 AMBIENT AIR Air Outdoor Air Intake	
		75th Percentile	90th Percentile	95th Percentile	99th Percentile		Result	RL	Result	RL	Result	RL		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	0.40	< 0.20	0.40	< 0.20	0.40	< 0.20	0.40	< 0.20	0.40	< 0.20	0.40
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	< 0.16	0.16	< 0.16	0.16	< 0.16	0.16	0.56	0.16	0.58	0.16	< 0.16	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	0.79	< 0.20	0.79	< 0.20	0.79	< 0.20	0.79	< 0.20	0.79	< 0.20	0.79
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	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	5.9	15.9	25.4	55.6	ug/m3	1.04	0.68	1.23	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	1.2	4.2	6.5	57.0	ug/m3	< 0.20	0.20	< 0.20	0.20	0.32	0.20	0.25	0.20	0.26	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	.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05	< 0.05	0.05

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 I 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

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

WALDEN ENVIRONMENTAL ENGINEERING

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/m^3), carbon tetrachloride (maximum 0.45 ug/mg^3), acetone (maximum 8.5 ug/mg^3), freon 11(maximum 2.6 ug/mg^3) and freon 12 (maximum 2.6 ug/mg^3) 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.

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.
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

N

SITE PLAN
N.T.S.

Walden Environmental Engineering

WALDEN ENVIRONMENTAL ENGINEERING, PLLC
iPARK 84 CAMPUS, 200 NORTH DRIVE, SUITE #108
HOPEWELL JUNCTION, NEW YORK 12533
P: (845) 253-8025; (516) 624-7200
F: (516) 624-3219

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

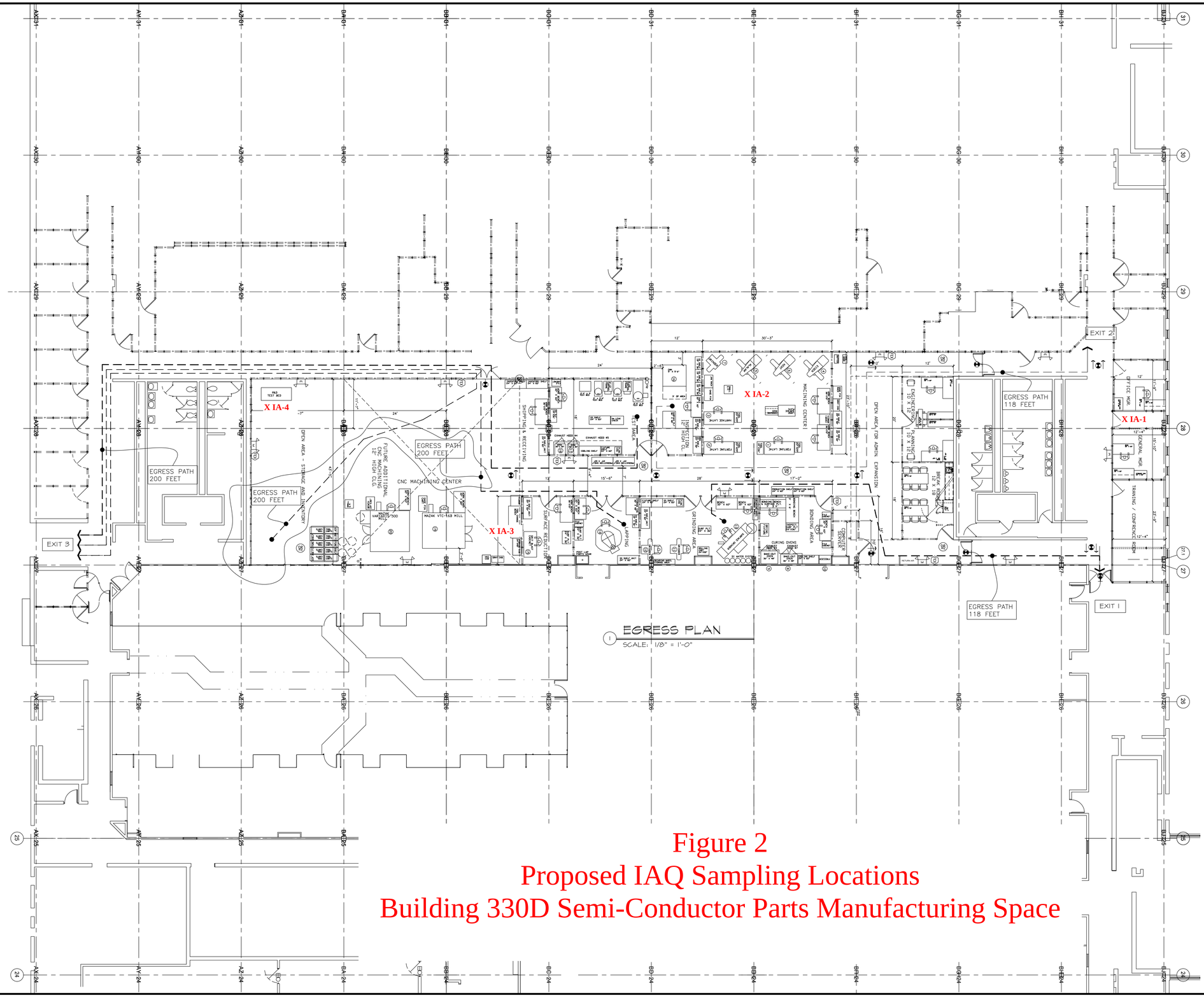
ISSUED

REVISION NO: 0

DESIGNED BY: NMB	DRAWN BY: EJK	JOB NO: IPARK0118.40	DATE: 11/26/19	11x17 SHEET NO: 1 OF 2
APPROVED BY: JMH	SCALE: AS NOTED	CAD FILE NAME: Z:\iPark0118\iPark0118.40 Bldg 700 former 330D\Acad\iPark0118.40 Bldg 700 former 330D.dwg		

FIGURE 2

IAQ SAMPLING LOCATIONS



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

LEGEND

- EMERGENY LIGHTING W/ BATTERY PACK
- FIRE ALARM HORN
- SMOKE / CARBON MONOXIDE DETECTOR
- EXIT SIGN, CEILING MOUNTED (ARROW INDICATES DIRECTION)
- EXIT SIGN, WALL MOUNTED (ARROW INDICATES DIRECTION)
- FIRE EXTINGUISHER (WALL MOUNTED)
- SPRINKLER

Figure 2
Proposed IAQ Sampling Locations
Building 330D Semi-Conductor Parts Manufacturing Space

EP1.DWG - EGRESS PLAN REVISED RECORD DOCUMENT

HE Industries
(FM Industries)

700 South Drive
Suite 104

Hopewell Junction, NY

ANTHONY TOTILO ARCHITECTS AND ASSOCIATES

Anthony Totilo, A.I.A.

114 Old North Stamford Road
Stamford, Connecticut 06905

(203) 517-6586

LOCATION PLAN: (NTS)

NOTES:

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

SHEET TITLE:

FIRE EGRESS PLAN

REGISTERED ARCHITECT ANTHONY TOTILO 18454 STATE OF NEW YORK

N

DRAWN BY: AT/TC	PROJECT NO:
CHECKED BY:	SHEET NO: EP1
DATE: 11.15.18	
SCALE: 1/8"=1'-0" U.O.N.	

ATTACHMENT A

EXISTING SSDS INFLUENCE IN NORTHERN SYSTEM

Last Edited By: ewright
Path: P:\2900s\2999.00\Graphics Files\GIS\Figures\B330D\B330D North Startup Rpt\DP_Values_201909.mxd

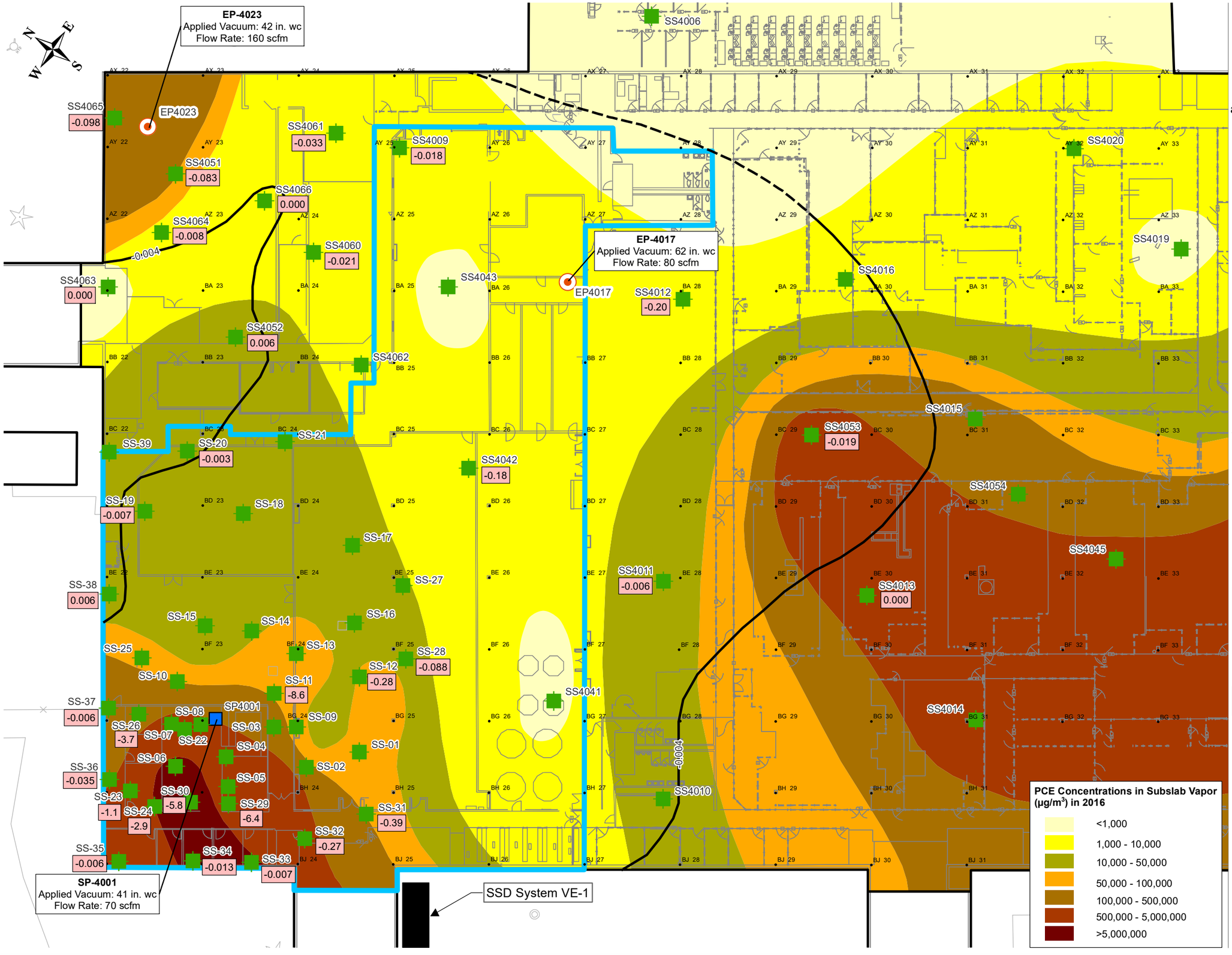


Figure 4

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

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 Kerriwrighr Date/Time Prepared 7/7/20

Preparer's Affiliation Project Scientist Phone No. 8452073043

Purpose of Investigation Indoor air quality 118.40 HES

1. OCCUPANT:

Interviewed: (Y) / N

Last Name: Vitiya 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	School	Commercial/Multi-use
Industrial	Church	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: NO

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)

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

The primary type of fuel used is:

(Natural Gas)	Fuel Oil	Kerosene
(Electric)	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

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

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: GFWWTP

Sewage Disposal: (Public Sewer) Septic Tank Leach Field Dry Well Other: L

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

13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: See Attached MSDS

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** Y / N

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

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

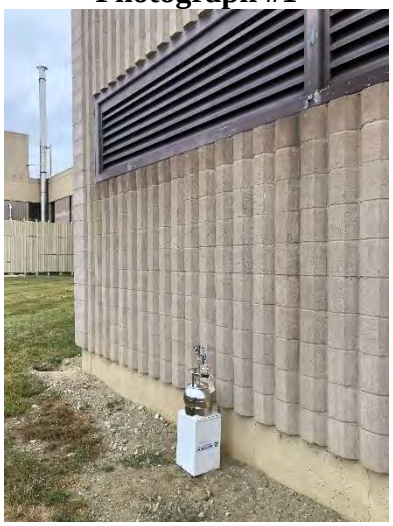
MSDS List

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, C63B, 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, 7910-7	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, 11290-3	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, 043318000300, 043318130137, 043318000652, 043318130335, 043318000393, 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	20JH92, 20JH93		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	000000000004011362		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												
Ultem												
Brass												
Titanium												
Meldin												

APPENDIX C
PHOTOGRAPHIC LOG OF SAMPLING LOCATIONS

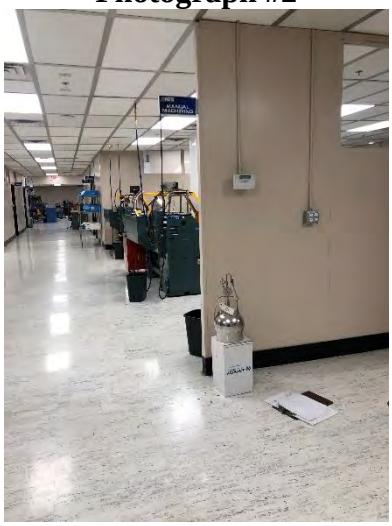
Site Photographs

Photograph #1



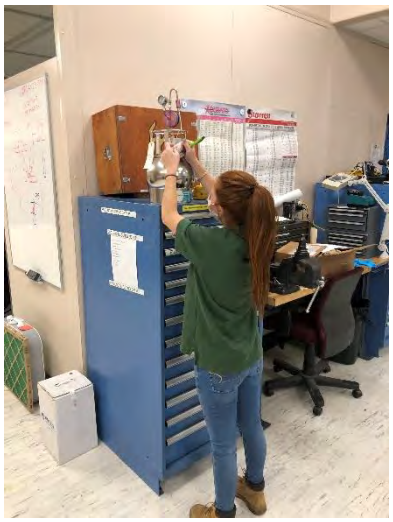
Sample Location AA-1, located Front of Building Under Air Intake for HES

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

PHOENIX
Environmental Laboratories, Inc.

Friday, July 10, 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.

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,

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

SDG Comments

July 10, 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.
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Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Sample Id Cross Reference

July 10, 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

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	16:12
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	495				

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
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*	0.100	ND	*0.20*	0.40	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*	0.200	ND	*0.20*	0.79	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	0.048	*0.037*	0.037	0.26	*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
QA/QC Surrogates/Internals									
% 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

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

Phoenix I.D.: CG29884

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	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
QA/QC Surrogates: Surrogates are compounds (preceeded 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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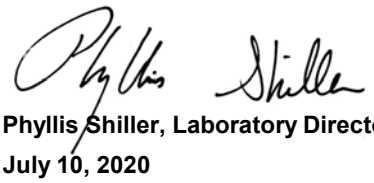

Phyllis Shiller, Laboratory Director
July 10, 2020
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	16:10
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	23350				

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*	0.100	ND	*0.20*	0.40	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*	0.200	ND	*0.20*	0.79	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	0.046	*0.037*	0.037	0.25	*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

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

Phoenix I.D.: CG29885

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	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
QA/QC Surrogates: Surrogates are compounds (preceeded 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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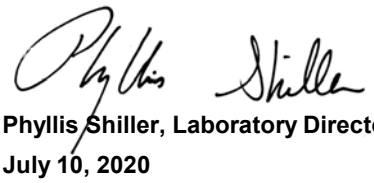

Phyllis Shiller, Laboratory Director

July 10, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	16:08
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	12864				

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
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*	0.100	ND	*0.20*	0.40	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	ND	*0.050*	0.050	ND	*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*	0.200	ND	*0.20*	0.79	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	0.059	*0.037*	0.037	0.32	*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
QA/QC Surrogates/Internals									
% 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

Ver 1

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

Phoenix I.D.: CG29886

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

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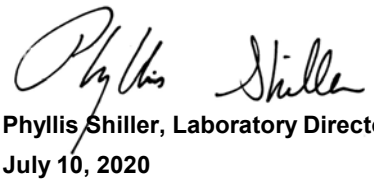

Phyllis Shiller, Laboratory Director
July 10, 2020
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	15:37
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	28571				

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*	0.100	ND	*0.20*	0.40	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	ND	*0.050*	0.050	ND	*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*	0.200	ND	*0.20*	0.79	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

Ver 1

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

Phoenix I.D.: CG29887

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	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
QA/QC Surrogates: Surrogates are compounds (preceeded 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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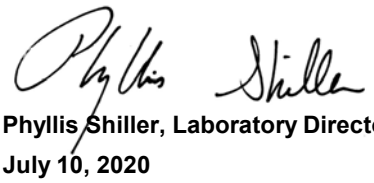

Phyllis Shiller, Laboratory Director
July 10, 2020
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	16:06
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	28583				

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
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*	0.100	ND	*0.20*	0.40	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	ND	*0.050*	0.050	ND	*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*	0.200	ND	*0.20*	0.79	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	0.181	*0.100*	0.100	1.23	*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
QA/QC Surrogates/Internals									
% 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

Ver 1

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

Phoenix I.D.: CG29888

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

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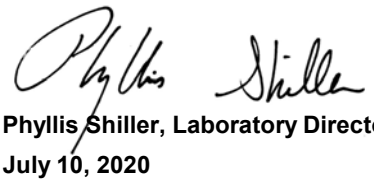

Phyllis Shiller, Laboratory Director
July 10, 2020
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

July 10, 2020

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

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	EJ	07/07/20	15:10
Location Code:	WALDENE-IPARK	Received by:	SW	07/08/20	16:37
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	0118.33+.40				
Canister Id:	23346				

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*	0.100	ND	*0.20*	0.40	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	ND	*0.050*	0.050	ND	*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*	0.200	ND	*0.20*	0.79	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	0.153	*0.100*	0.100	1.04	*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

Ver 1

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

Phoenix I.D.: CG29889

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	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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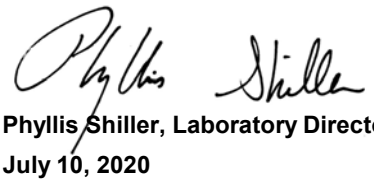

Phyllis Shiller, Laboratory Director
July 10, 2020
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

PHOENIX

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587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Canister Sampling Information

July 10, 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

						Laboratory					Field			
Client Id	Lab Id	Canister Id	Canister Type	Reg. Id	Chk Out Date	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	-3	-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 12:10
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

Friday, July 10, 2020

Criteria: NY: AIRIA

State: NY

Sample Criteria Exceedances Report

GCG29884 - WALDENE-IPARK

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	0.048	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	0.26	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	0.046	0.037	0.037	0.037	ppbv
CG29885	$AIR_WALDEN	Trichloroethene	NY / Air Guideline Values / Indor Air	0.25	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	0.059	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	0.32	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

CAN-CLEAN

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

Individual Canister Certification

July 10, 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	<0.10
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	<0.20	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

CAN-CLEAN

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

Individual Canister Certification

July 10, 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	<0.10
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	<0.20	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

CAN-CLEAN

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

Individual Canister Certification

July 10, 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	<0.10
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	<0.20	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

CAN-CLEAN

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

Individual Canister Certification

July 10, 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	<0.10
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	<0.20	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

CAN-CLEAN

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

Individual Canister Certification

July 10, 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	<0.10
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	<0.20	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

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

CHAIN OF CUSTODY RECORD
AIR ANALYSES
800-827-5426
email: greg@phoenixlabs.com

P.O. # Park0118.33 : Park0118.40 Page 1 of 2

Data Delivery:
☐ Fax #:
☑ Email: nbrew@walden-associates.com
☑ Phone #: 516-624-7200

Report to: Kern Wright
Customer: Walden
Address: 200 North Drive (Park)
Hopewell Junction, NY

Project Name: Park0118.33 (Call center) : Park0118.40 (HES)
Invoice to: Nora Brew, PE
16 Spring St, Oyster Bay NY 11771
Sampled by: E/M Erica Johnston

Data Format: (Circle) Equis Excel Other: PDF
Requested Deliverable:
RCP ASP CAT B
MCP NJ Deliverables
Quote Number:

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air (MATRIX)	Soil Gas (MATRIX)	Grab (G) Composite (C) (MATRIX)	TO-15 (ANALYSES)	APH (ANALYSES)	
		THIS SECTION FOR LAB USE ONLY																
	IA-Dup (Call center)	28581	6.0	-30		7036	10.3	845	1618	7/7/20	-30	-6	X		G	X		
29884	IA-4 (HES)	4415			-5	6987		828	1612	7/7/20	-30	-5	X		G	X		
29885	IA-3 (HES)	23350			-2	5389		827	1610	7/7/20	-30	-2	X		G	X		
		23610				6979												
	IA-4 (call center)	23343				5303		8:55	1619	7/7/20	-30	-6	X		G	X		
		4776				5600												
		19486				6042												
	IA-5 (call center)	28560				3604		8:56	1621	7/7/20	-30	-6	X		G	X		
29886	IA-2 (HES)	13864			-5	6673		823	1608	7/7/20	-30	-5	X		G	X		
		28577				6984												

Relinquished by:	Accepted by:	Date:	Time:
		7.8.20	11:05
		7.8.20	1037

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document.
Signature: Date: 7/7/20

State Where Samples Collected: NY

Turnaround Time:
1 Day ☐
2 Day ☐
3 Day ☒
4 Day ☐
5 Day ☐

Requested Criteria: (Please Circle)

CT:	MA:	NJ:	NY:	PA:	VT:
TAC I/C	Indoor Air: Residential Ind/Commercial	Indoor Air: Residential Ind/Commercial	Vapor Intrusion	Indoor Air Residential	Indoor Air Residential
TAC RES				Non-residential	Industrial
SVVC I/C	Soil Gas: Residential Ind/Commercial	Soil Gas: Residential Ind/Commercial			Sub-slab Residential
SVVC RES					Industrial
GWV I/C					
GWV CES					

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:
TO-15 "special code/list" needed (10% 6 VSHI) IND-CERT
See Bobbi/Greg. Modified TO-15 analysis per project QAPP provided

Please separate "call" center + HES samples in 2 reports & use as original. (KB)

PEL-115 Rev. 9/2019

CHAIN OF CUSTODY RECORD
AIR ANALYSES

PHOENIX Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823
800-827-5426
email: greg@phoenixlabs.com

P.O. # iPark0118.33 + .46 Page 2 of 2

Data Delivery:
☐ Fax #:
☒ Email: nbrew@walden-associates.com
☒ Phone #: 516-624-7200

Report to: Kern Wright
Customer: Walden
Address: 200 North Drive (iPark)
Hopewell Junction, NY

Project Name: (Callaway) iPark0118.33 + iPark0118.40 (HES)
Invoice to: Nora Brew, P.E.
16 Spring St, Oyster Bay NY 11771
Sampled by: EJ Erica Johnston

Data Format: (Circle) Equis (Excel) Other (PDF)
Requested Deliverable: RCP (ASP CAT B) MCP NJ Deliverables
Quote Number:

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure ("Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (ml/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start ("Hg)	Canister Pressure at End ("Hg)	MATRIX: Ambient/Indoor Air	MATRIX: Soil Gas	MATRIX: Grab (G) Composite (C)	ANALYSES: TO-15	ANALYSES: APH
		THIS SECTION FOR LAB USE ONLY															
29887	AA-1 (HES)	28571	6.0	-30	-3	7011	10.3	8:38	15:37	7/7/20	-30	-3.5	X		G	X	
		12855				6979											
		23348				5659											
	IA-1 (Call Center)	28624				5518		8:59	15:41	7/7/20	-30	-5	X		G	X	
		29554				5594											
	AA-1 (Call Center)	28549				7023		9:07	16:10	7/7/20	-29	-5	X		G	X	
29888	IA-Dup (HES)	28583			-6	3263		8:20	16:00	7/7/20	-30	-6	X		G	X	
	IA-2 (Call Center)	19426				6981		8:45	15:45	7/7/20	-30	-1	X		G	X	
	IA-3 (Call Center)	28570				7046		8:53	16:21	7/7/20	-30	-6	X		G	X	
29889	IA-1 (HES)	23346			-8	5986		8:20	15:10	7/7/20	-26	-5	X		G	X	

Relinquished by:	Accepted by:	Date:	Time:
		7-8-20	11:05
		7-8-20	1037

If attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:
Signature: Date: 7/7/20

State Where Samples Collected: NY

Turnaround Time:
☐ 1 Day
☐ 2 Day
☒ 3 Day
☐ 4 Day
☐ 5 Day

Requested Criteria:
CT:
TAC I/C
TAC RES
SVVC I/C
SVVC RES
GWV I/C
GWV CES

(Please Circle)
MA:
Indoor Air: Residential, Ind/Commercial
Soil Gas: Residential, Ind/Commercial

NJ:
Indoor Air: Residential, Ind/Commercial
Soil Gas: Residential, Ind/Commercial

NY: Vapor Intrusion

PA: Indoor Air: Residential, Non-residential

VT:
Indoor Air: Residential, Industrial
Sub-slab: Residential, Industrial

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:
TO-15 "special code / list" needed. (10 (6 wk) (5 HR)
See Bobbi/Greg, Modified TO-15 analysis per project QAPP provided IND-CERT
Please separate "Call Center" + "HES" samples in 2 reports

Use as original. (KB)

PEL-115 Rev. 9/2019

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