

From: Braun, Gary <Gary.Braun@aecom.com>
Sent: Monday, January 8, 2024 12:31 PM
To: Keller, Ethan J - DNR; info@kinsmanandcompany.com;
natelenz@gmail.com
Cc: Chad Erdmann; 'Howard.Law@gfgalliance.com'; Henderson, David;
Lutzen, Chris
Subject: Former FV Steel & Wire Company Site at 111 N. Douglas St. Hortonville,
WI (WDNR BRRTS#: 02-45-560221)
Attachments: 2023-11_Former FVSW Air Monitoring Results.pdf

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Good afternoon –

Attached are the November 2023 indoor air and sub-slab vapor monitoring results for the above referenced site. A sample location map is also included for reference.

Three indoor air samples were collected in Building E (IA-1), Building D-West (IA-2), and Building D-East (IA-3) in accordance with the October 16, 2023 Work Plan Addendum. A single target analyte constituent (Tetrachloroethene) was detected at monitoring point IA-1 in Building E at a concentration 0.89 ug/m³, which was slightly above the reporting limit of 0.75 ug/m³ but was significantly less than its Vapor Action Level (VAL) for indoor air of 180 ug/m³ as listed in DNR Publication RR-0136. No immediate actions appear to be required to address indoor air quality. The indoor air passive sampling will continue as outlined in the current Work Plan, which includes indoor air sample collection events in January 2024, between March 1st – April 15th, 2024, and June 2024 (assuming sub-slab depressurization system is not operational).

The November 2023 sub-slab sampling comprised of 13 monitoring locations, as shown on the attached figure. The sub-slab vapor sampling indicated trichloroethene (TCE) concentrations exceeded the Large Commercial Vapor Risk Screening Level (VRSL) at seven locations primarily located on the west side of Building D. No detections that exceeded the VRSL were found at the new sample location (SS-13), which was advanced near the center of Building C. As a result of the December 2023 sampling results, expansion of the current sub-slab monitoring program is not warranted considering TCE VRSL exceedances appear to be delineated in both Buildings D and E.

Please do not hesitate to contact me with any questions.

Regards,
Gary

Gary Braun, P.G.
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Indoor Air Concentrations of Target Analyte Constituents (Nov. 2023)

Former FV Steel and Wire Co
Hortonville, Wisconsin

Target Analyte List	Residential VAL	Small Commercial VAL	Large Commercial VAL	Indoor Air Samples		
				IA-1 (Building E)	IA-2 (Building D West)	IA-3 (Building D East)
(Units: ug/m ³)	(included for comparison)			27-Nov-23	27-Nov-23	27-Nov-23
1,1-Dichloroethane	18	77	77	< 1.8	< 1.8	< 1.8
1,1-Dichloroethene	210	880	880	< 8.3	< 8.3	< 8.3
1,2-Dichloroethane	1.1	4.7	4.7	< 1.3	< 1.3	< 1.3
cis-1,2-Dichloroethene	---	---	---	< 1.5	< 1.5	< 1.5
Tetrachloroethene	42	180	180	0.89	< 0.75	< 0.75
Trichloroethene	2.1	8.8	8.8	< 1.1	< 1.1	< 1.1
Vinyl chloride	1.7	28	28	< 9.7	< 9.7	< 9.7

Notes:

VAL = Vapor Action Level (Indoor Air)

(VALs based on Nov. 2022 USEPA Regional Screening Levels)

ug/m³ = micrograms per cubic meter

< = Less than reporting limit

Samples collected in November 2023 were analyzed by Eurofins Air Toxins LLC Folsom, CA

< = Not Detected at listed Reporting Limit

Sub-Slab Air Concentrations of Target Analyte Constituents

November 2023

Former FV Steel and Wire Site
Hortonville, Wisconsin

VOCs (ug/m3)	Large Commercial	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13
		11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023	11/27/2023
1,1,1-Trichloroethane	2,200,000	2200	1600	17000	1900	3100	2400	2000	450	640	150	2000	48	ND
1,1,2,2-Tetrachloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichlorotrifluoroethane (Freon 113)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	7,700	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	88,000	ND	ND	810	ND	ND	ND	ND	ND	ND	7.2	6.3	ND	ND
1,2,4-Trichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	26,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.8
1,2-Dibromoethane (EDB)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	470	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	26,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Butadiene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34
2-Hexanone		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Propanol		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	93 J0
4-Ethyltoluene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30	650
Benzene	1,600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
Benzyl chloride		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	530	22	9.8	ND	71	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	39,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12
Dibromochloromethane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane (Freon 12)	44,000	120	58	ND	420	370	21	3100	32000	ND	ND	ND	ND	ND
Dichlorotetrafluoroethane (Freon 114)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethanol		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	120
Ethyl acetate		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	4900	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	31
Hexachloro-1,3-butadiene (HCBd)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl ether	47,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	260,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	360	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	ND
Propylene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	18,000	340	170	1300	220	200	240	96	ND	280	31	160	9.4	6.8
Tetrahydrofuran		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	470
Trichloroethene	880	6700	1400	1400	9000	10000	130	3400	ND	190	42	1600	22	ND
Trichlorofluoromethane (Freon 11)		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2,800	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m&p-Xylene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	90
n-Heptane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.3
n-Hexane		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.3
o-Xylene	44,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20
trans-1,2-Dichloroethene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.7
trans-1,3-Dichloropropene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cumene		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

VRSL = Vapor Risk Screening Level (Sub-Slab Vapor)
 (VRSLs based on November 2022 U.S. EPA Regional Screening Levels)
 Values in **bold** exceeds Large Commercial VRSL
 ug/m3 = micrograms per cubic meter
 < = Less than reporting limit
 J = Estimated concentration
 Samples were analyzed for TO-15 by Eurofins Air Toxins LLC Folsom, CA
 VOCs = Volatile Organic Compounds
 NA = Not analyzed
 ND = Not Detected

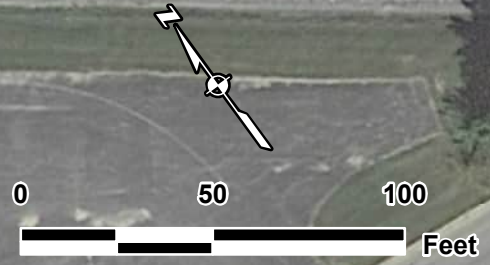


**VAPOR INTRUSION (SUB-SLAB & INDOOR AIR)
MONITORING LOCATIONS**

Former FV Steel & Wire Company Site
111 N. Douglas Street, Hortonville, WI

Legend

- ◆ Indoor Air Sample
- ▲ Soil Vapor Test Locations
- Railroad
- ▭ Project Area



Drawn: AAA	1/5/2024
Approved: CL	1/5/2024
Scale:	AS SHOWN
PROJECT NUMBER	60428891
FIGURE NUMBER	1

Indoor Air Monitoring Results
Nov. 2023

12/14/2023

Mr. Gary Braun

AECOM

1555 North RiverCenter Drive

Suite 214

Milwaukee WI 53212

Project Name: VI/FV STEEL

Project #:

Workorder #: 2311637

Dear Mr. Gary Braun

The following report includes the data for the above referenced project for sample(s) received on 11/30/2023 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Passive S.E. WMS are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

WORK ORDER #: 2311637

Work Order Summary

CLIENT:	Mr. Gary Braun AECOM 1555 North RiverCenter Drive Suite 214 Milwaukee, WI 53212	BILL TO:	Accounts Payable Austin AECOM PO Box 203970 Austin, TX 78720
PHONE:	(414)-831-4100	P.O. #	6048891
FAX:	(414)-831-4101	PROJECT #	VI/FV STEEL
DATE RECEIVED:	11/30/2023	CONTACT:	Jade White
DATE COMPLETED:	12/13/2023		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>
01A	IA-1	Passive S.E. WMS
02A	IA-2	Passive S.E. WMS
03A	IA-3	Passive S.E. WMS
04A	Trip Blank	Passive S.E. WMS
05A	Lab Blank	Passive S.E. WMS
06A	CCV	Passive S.E. WMS
07A	LCS	Passive S.E. WMS
07AA	LCSD	Passive S.E. WMS

CERTIFIED BY: 

 Technical Director

DATE: 12/13/23

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017
 Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

LABORATORY NARRATIVE
WMS Passive SE by Mod EPA TO-17
AECOM
Workorder# 2311637

Four WMS-SE samples were received on November 30, 2023. The laboratory analyzed the charcoal sorbent bed of the passive sampler following modified method EPA TO-17. The VOCs were chemically extracted using carbon disulfide and an aliquot of the extract was injected into a GC/MS for identification and quantification of volatile organic compounds (VOCs).

The mass of each target compound adsorbed by the sampler was converted to units of concentration using the sample deployment time and the sampling rate for each VOC. If sampling rates were calculated by the lab or the manufacturer, the concentration result has been flagged as an estimated value. Results are not corrected for desorption efficiency.

Please note that 1,1,2,2-Tetrachloroethane (1,1,2,2-PCA) can degrade into Trichloroethene (TCE) during storage on the charcoal-based sorbent used in the WMS device. Samples containing 1,1,2,2-PCA may yield reduced concentrations of 1,1,2,2-PCA and elevated concentrations of TCE.

The reference method used for this procedure is EPA TO-17, which describes the collection of VOCs in ambient air using sorbents and analysis by GC/MS. Because TO-17 describes active sample collection using a pump and thermal desorption as the preparation step, several modifications are required. Modifications to TO-17 are listed in the table below:

<i>Requirement</i>	<i>TO-17</i>	<i>ATL Modifications</i>
Sample Collection	Pump pulls measured air volume through sorbent tube	VOCs in air adsorbed onto sorbent bed passively through diffusion
Sample Preparation	Thermal extraction	Solvent extraction
Sorbent tube conditioning	Condition newly packed tubes prior to use	Charcoal-based sorbent is a single use media and conditioning is conducted by vendor.
Instrumentation	Thermal desorption introduction system	Liquid injection introduction system
Internal Standard	Gas-phase internal standard introduced on the tube or focusing trap during analysis	Liquid-phase internal standard introduced on the tube at the time of extraction
Media and sample storage	<4 deg C, 30 days	Media shelf life is determined by vendor; sample hold-time is 6 months for the RAD130 and WMS. Sample preservation requirements are storage in a cool, solvent-free refrigerator and optional use of ice during shipping.
Internal Standard Recovery	+/-40% of daily CCV area	-50% to +100% of daily CCV area

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

To calculate ug/m³ concentrations in the Lab Blank, a sampling duration of 17126 minutes was applied.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

C - Estimated concentration due to calculated sampling rate

CN - See case narrative explanation.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
VOC BY PASSIVE SAMPLER - GC/MS**

Client Sample ID: IA-1

Lab ID#: 2311637-01A

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Tetrachloroethene	0.050	0.75	0.060	0.89

Client Sample ID: IA-2

Lab ID#: 2311637-02A

No Detections Were Found.

Client Sample ID: IA-3

Lab ID#: 2311637-03A

No Detections Were Found.

Client Sample ID: Trip Blank

Lab ID#: 2311637-04A

No Detections Were Found.



Air Toxics

Client Sample ID: IA-1

Lab ID#: 2311637-01A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121209sim	Date of Collection:	11/27/23 9:06:00 AM
Dil. Factor:	1.00	Date of Analysis:	12/12/23 12:08 PM
		Date of Extraction:	12/12/23

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	9.7	Not Detected	Not Detected
1,1-Dichloroethene	0.20	8.3	Not Detected	Not Detected
1,1-Dichloroethane	0.050	1.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.5	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.3	Not Detected	Not Detected
Trichloroethene	0.050	1.1	Not Detected	Not Detected
Tetrachloroethene	0.050	0.75	0.060	0.89

Temperature = 77.0F , duration time = 17126 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130



Air Toxics

Client Sample ID: IA-2

Lab ID#: 2311637-02A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121210sim	Date of Collection:	11/27/23 9:19:00 AM
Dil. Factor:	1.00	Date of Analysis:	12/12/23 12:36 PM
		Date of Extraction:	12/12/23

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	9.7	Not Detected	Not Detected
1,1-Dichloroethene	0.20	8.3	Not Detected	Not Detected
1,1-Dichloroethane	0.050	1.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.5	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.3	Not Detected	Not Detected
Trichloroethene	0.050	1.1	Not Detected	Not Detected
Tetrachloroethene	0.050	0.75	Not Detected	Not Detected

Temperature = 77.0F , duration time = 17119 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130



Air Toxics

Client Sample ID: IA-3

Lab ID#: 2311637-03A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121211sim	Date of Collection:	11/27/23 9:30:00 AM
Dil. Factor:	1.00	Date of Analysis:	12/12/23 01:04 PM
		Date of Extraction:	12/12/23

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	9.7	Not Detected	Not Detected
1,1-Dichloroethene	0.20	8.3	Not Detected	Not Detected
1,1-Dichloroethane	0.050	1.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.5	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.3	Not Detected	Not Detected
Trichloroethene	0.050	1.1	Not Detected	Not Detected
Tetrachloroethene	0.050	0.75	Not Detected	Not Detected

Temperature = 77.0F , duration time = 17120 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130



Air Toxics

Client Sample ID: Trip Blank

Lab ID#: 2311637-04A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121212sim	Date of Collection:	11/27/23 9:37:00 AM
Dil. Factor:	1.00	Date of Analysis:	12/12/23 01:32 PM
		Date of Extraction:	12/12/23

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	9.7	Not Detected	Not Detected
1,1-Dichloroethene	0.20	8.3	Not Detected	Not Detected
1,1-Dichloroethane	0.050	1.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.5	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.3	Not Detected	Not Detected
Trichloroethene	0.050	1.1	Not Detected	Not Detected
Tetrachloroethene	0.050	0.75	Not Detected	Not Detected

Temperature = 77.0F , duration time = 17122 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2311637-05A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121206sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/12/23 10:42 AM
		Date of Extraction:	12/12/23

Compound	Rpt. Limit (ug)	Rpt. Limit (ug/m3)	Amount (ug)	Amount (ug/m3)
Vinyl Chloride	0.20	9.7	Not Detected	Not Detected
1,1-Dichloroethene	0.20	8.3	Not Detected	Not Detected
1,1-Dichloroethane	0.050	1.8	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.050	1.5	Not Detected	Not Detected
1,2-Dichloroethane	0.050	1.3	Not Detected	Not Detected
Trichloroethene	0.050	1.1	Not Detected	Not Detected
Tetrachloroethene	0.050	0.75	Not Detected	Not Detected

Temperature = 77.0F , duration time = 17126 minutes.

Container Type: WMS-SE

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130

Client Sample ID: CCV

Lab ID#: 2311637-06A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121203sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/12/23 09:07 AM
		Date of Extraction:	NA

Compound	%Recovery
Vinyl Chloride	126
1,1-Dichloroethene	119
1,1-Dichloroethane	114
cis-1,2-Dichloroethene	112
1,2-Dichloroethane	101
Trichloroethene	105
Tetrachloroethene	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 2311637-07A

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121204sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/12/23 09:35 AM
		Date of Extraction:	12/12/23

Compound	%Recovery	Method Limits
Vinyl Chloride	112	50-140
1,1-Dichloroethene	106	70-130
1,1-Dichloroethane	103	70-130
cis-1,2-Dichloroethene	100	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	105	70-130
Tetrachloroethene	99	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2311637-07AA

VOC BY PASSIVE SAMPLER - GC/MS

File Name:	18121205sim	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/12/23 10:03 AM
		Date of Extraction:	12/12/23

Compound	%Recovery	Method Limits
Vinyl Chloride	102	50-140
1,1-Dichloroethene	105	70-130
1,1-Dichloroethane	104	70-130
cis-1,2-Dichloroethene	101	70-130
1,2-Dichloroethane	97	70-130
Trichloroethene	106	70-130
Tetrachloroethene	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130



Air Toxics

Analysis Request / Canister Chain of Custody

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
 Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only
 PID: _____ Workorder #: 2311637

Click links below to view:
[Canister Sampling Guide](#)
[Helium Shroud Video](#)

Client: <u>FU STEEL AND WIRE</u> PID: _____	Special Instructions/Notes: <i>Sampled via Waterloo Membrane Sampler (WMS)</i>	Turnaround Time (Rush surcharges may apply)											
Project Name: <u>VI / FU STEEL</u>		Select TAT from drop down box ▼											
Project Manager: <u>Gary Braun</u> P.O.# _____		Canister Vacuum/Pressure											
Sampler: <u>Chris Wren</u>		Requested Analyses											
Site Name: <u>Fu Steel and wire</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Initial (in Hg)</th> <th rowspan="2">Final (in Hg)</th> <th colspan="2">Lab Use Only</th> </tr> <tr> <th>Receipt</th> <th>Final (psig) Gas: N₂ / He</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">10-17</td> </tr> </tbody> </table>			Initial (in Hg)	Final (in Hg)	Lab Use Only		Receipt	Final (psig) Gas: N ₂ / He				10-17
Initial (in Hg)	Final (in Hg)	Lab Use Only											
		Receipt	Final (psig) Gas: N ₂ / He										
			10-17										

Lab ID	Sample Identification	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	Requested Analyses					
				Date	Time	Date	Time										
01A	IA-1	NA	NA	11/15/23	11:40	11/27/23	9:06	NA	NA			X					
02A	IA-2	NA	NA	11/15/23	12:00	11/27/23	9:19	NA	NA			X					
03A	IA-3	NA	NA	11/15/23	12:10	11/27/23	9:30	NA	NA			X					
04A	Trip Blank	NA	NA	11/15/23	12:15	11/27/23	9:37	NA	NA			X					

Relinquished by: (Signature/Affiliation) <i>[Signature]</i> / AECOM	Date	11/28/23	Time	17:00	Received by: (Signature/Affiliation) <i>[Signature]</i> / EATZ	Date	11/30/23	Time	16:19
Relinquished by: (Signature/Affiliation)	Date		Time		Received by: (Signature/Affiliation)	Date		Time	
Relinquished by: (Signature/Affiliation)	Date		Time		Received by: (Signature/Affiliation)	Date		Time	

Lab Use Only			
Shipper Name: <u>Fedex</u>	Custody Seals Intact?	Yes <input type="checkbox"/> No <input type="checkbox"/> None <input checked="" type="checkbox"/>	

Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T Hotline (800) 467-4922

Sub-slab Monitoring Results
Nov. 2023

12/14/2023

Mr. Gary Braun

AECOM

1555 North RiverCenter Drive

Suite 214

Milwaukee WI 53212

Project Name: VI/FV STEEL

Project #:

Workorder #: 2311635

Dear Mr. Gary Braun

The following report includes the data for the above referenced project for sample(s) received on 11/30/2023 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics LLC. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Jade White at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Jade White

Project Manager

WORK ORDER #: 2311635

Work Order Summary

CLIENT:	Mr. Gary Braun AECOM 1555 North RiverCenter Drive Suite 214 Milwaukee, WI 53212	BILL TO:	Accounts Payable Austin AECOM PO Box 203970 Austin, TX 78720
PHONE:	(414)-831-4100	P.O. #	6048891
FAX:	(414)-831-4101	PROJECT #	VI/FV STEEL
DATE RECEIVED:	11/30/2023	CONTACT:	Jade White
DATE COMPLETED:	12/13/2023		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SS-2	TO-15	3.9 "Hg	9.9 psi
02A	SS-6	TO-15	8.6 "Hg	10 psi
03A	SS-8	TO-15	4.3 "Hg	10.1 psi
04A	SS-7	TO-15	5.3 "Hg	9.9 psi
05A	SS-5	TO-15	5.3 "Hg	9.8 psi
06A	SS-11	TO-15	3.9 "Hg	9.8 psi
07A	SS-12	TO-15	5.5 "Hg	9.9 psi
08A	SS-13	TO-15	4.7 "Hg	9.9 psi
09A	SS-3	TO-15	2.8 "Hg	10.1 psi
10A	SS-10	TO-15	5.1 "Hg	10 psi
11A	SS-9	TO-15	4.1 "Hg	9.9 psi
12A	SS-1	TO-15	6.1 "Hg	10 psi
13A	SS-4	TO-15	4.1 "Hg	9.9 psi
14A	Lab Blank	TO-15	NA	NA
14B	Lab Blank	TO-15	NA	NA
15A	CCV	TO-15	NA	NA
15B	CCV	TO-15	NA	NA
16A	LCS	TO-15	NA	NA
16AA	LCSD	TO-15	NA	NA
16B	LCS	TO-15	NA	NA
16BB	LCSD	TO-15	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 12/13/23

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP – 209222, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP – T104704434-22-18, UT NELAP – CA009332022-14, VA NELAP - 12240, WA ELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program) CA300005-017
 Eurofins Environment Testing Northern California, LLC certifies that the test results contained in this report meet all requirements of the 2016 TNI Standard.

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.
 180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000

LABORATORY NARRATIVE
EPA Method TO-15
AECOM
Workorder# 2311635

Thirteen 1 Liter Summa Canister samples were received on November 30, 2023. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

Receiving Notes

The Chain of Custody contained incorrect method information. The laboratory proceeded with the analysis as per the original contract or verbal agreement.

Analytical Notes

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Dilution was performed on samples SS-6, SS-8, SS-7, SS-5, SS-11, SS-3, SS-1, and SS-4 due to the presence of high level target species.

Definition of Data Qualifying Flags

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SS-2

Lab ID#: 2311635-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	12	4.7	58
Chloroform	0.96	2.0	4.7	9.8
1,1,1-Trichloroethane	0.96	290	5.2	1600
Trichloroethene	0.96	250	5.2	1400
Tetrachloroethene	0.96	26	6.5	170

Client Sample ID: SS-6

Lab ID#: 2311635-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.0	4.2	9.7	21
1,1-Dichloroethene	2.0	3.6	7.8	14
1,1,1-Trichloroethane	2.0	440	11	2400
Trichloroethene	2.0	24	10	130
Tetrachloroethene	2.0	36	13	240

Client Sample ID: SS-8

Lab ID#: 2311635-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	6500	160	32000
1,1,1-Trichloroethane	32	82	170	450

Client Sample ID: SS-7

Lab ID#: 2311635-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.4	630	17	3100
1,1,1-Trichloroethane	3.4	370	18	2000
Trichloroethene	3.4	630	18	3400
Tetrachloroethene	3.4	14	23	96

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SS-5

Lab ID#: 2311635-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.8	75	33	370
1,1,1-Trichloroethane	6.8	570	37	3100
Trichloroethene	6.8	1900	36	10000
Tetrachloroethene	6.8	29	46	200

Client Sample ID: SS-11

Lab ID#: 2311635-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	1.5	1.6	5.8	6.3
1,1,1-Trichloroethane	1.5	370	8.0	2000
Trichloroethene	1.5	290	7.9	1600
Tetrachloroethene	1.5	23	10	160

Client Sample ID: SS-12

Lab ID#: 2311635-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	10	13	24	30
1,1,1-Trichloroethane	1.0	8.9	5.6	48
Trichloroethene	1.0	4.0	5.5	22
Tetrachloroethene	1.0	1.4	7.0	9.4
Naphthalene	2.0	2.2	11	12

Client Sample ID: SS-13

Lab ID#: 2311635-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethanol	9.9	64	19	120
Acetone	9.9	270	24	650
2-Propanol	4.0	38 J0	9.7	93 J0
trans-1,2-Dichloroethene	0.99	2.2	3.9	8.7

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-13

Lab ID#: 2311635-08A

Hexane	0.99	2.4	3.5	8.3
2-Butanone (Methyl Ethyl Ketone)	4.0	12	12	34
Cyclohexane	0.99	3.6	3.4	12
Benzene	0.99	1.9	3.2	6.1
Heptane	0.99	1.0	4.0	4.3
Toluene	2.0	120	7.5	470
Tetrachloroethene	0.99	1.0	6.7	6.8
Ethyl Benzene	0.99	7.1	4.3	31
m,p-Xylene	2.0	21	8.6	90
o-Xylene	0.99	4.6	4.3	20
1,2,4-Trimethylbenzene	0.99	1.2	4.9	5.8

Client Sample ID: SS-3

Lab ID#: 2311635-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	9.3	200	37	810
1,1,1-Trichloroethane	9.3	3100	51	17000
Trichloroethene	9.3	270	50	1400
Tetrachloroethene	9.3	200	63	1300

Client Sample ID: SS-10

Lab ID#: 2311635-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	1.0	1.8	4.1	7.2
1,1,1-Trichloroethane	1.0	27	5.5	150
Trichloroethene	1.0	7.7	5.4	42
Tetrachloroethene	1.0	4.6	6.8	31

Client Sample ID: SS-9

Lab ID#: 2311635-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
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Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-9

Lab ID#: 2311635-11A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethane	0.97	3.1	3.9	13
1,1,1-Trichloroethane	0.97	120	5.3	640
Trichloroethene	0.97	36	5.2	190
Tetrachloroethene	0.97	41	6.6	280

Client Sample ID: SS-1

Lab ID#: 2311635-12A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	25	21	120
Chloroform	4.2	4.4	21	22
1,1,1-Trichloroethane	4.2	400	23	2200
Trichloroethene	4.2	1200	23	6700
Tetrachloroethene	4.2	50	29	340

Client Sample ID: SS-4

Lab ID#: 2311635-13A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.6	86	27	420
Chloroform	5.6	15	27	71
1,1,1-Trichloroethane	5.6	360	30	1900
Trichloroethene	5.6	1700	30	9000
Tetrachloroethene	5.6	33	38	220



Air Toxics

Client Sample ID: SS-2

Lab ID#: 2311635-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120523	Date of Collection:	11/27/23 12:50:00 P
Dil. Factor:	1.92	Date of Analysis:	12/6/23 03:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.96	12	4.7	58
Freon 114	0.96	Not Detected	6.7	Not Detected
Chloromethane	9.6	Not Detected	20	Not Detected
Vinyl Chloride	0.96	Not Detected	2.4	Not Detected
1,3-Butadiene	0.96	Not Detected	2.1	Not Detected
Bromomethane	9.6	Not Detected	37	Not Detected
Chloroethane	3.8	Not Detected	10	Not Detected
Freon 11	0.96	Not Detected	5.4	Not Detected
Ethanol	9.6	Not Detected	18	Not Detected
Freon 113	0.96	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Acetone	9.6	Not Detected	23	Not Detected
2-Propanol	3.8	Not Detected UJ	9.4	Not Detected UJ
Carbon Disulfide	3.8	Not Detected	12	Not Detected
Methylene Chloride	9.6	Not Detected	33	Not Detected
Methyl tert-butyl ether	3.8	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Hexane	0.96	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.96	Not Detected	3.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.8	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.96	Not Detected	3.8	Not Detected
Tetrahydrofuran	0.96	Not Detected UJ	2.8	Not Detected UJ
Chloroform	0.96	2.0	4.7	9.8
1,1,1-Trichloroethane	0.96	290	5.2	1600
Cyclohexane	0.96	Not Detected	3.3	Not Detected
Carbon Tetrachloride	0.96	Not Detected	6.0	Not Detected
Benzene	0.96	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.96	Not Detected	3.9	Not Detected
Heptane	0.96	Not Detected	3.9	Not Detected
Trichloroethene	0.96	250	5.2	1400
1,2-Dichloropropane	0.96	Not Detected	4.4	Not Detected
Bromodichloromethane	0.96	Not Detected	6.4	Not Detected
cis-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
4-Methyl-2-pentanone	0.96	Not Detected	3.9	Not Detected
Toluene	1.9	Not Detected	7.2	Not Detected
trans-1,3-Dichloropropene	0.96	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	0.96	Not Detected	5.2	Not Detected
Tetrachloroethene	0.96	26	6.5	170
2-Hexanone	3.8	Not Detected	16	Not Detected
Dibromochloromethane	0.96	Not Detected	8.2	Not Detected
1,2-Dibromoethane (EDB)	0.96	Not Detected	7.4	Not Detected
Chlorobenzene	0.96	Not Detected	4.4	Not Detected



Air Toxics

Client Sample ID: SS-2

Lab ID#: 2311635-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120523	Date of Collection: 11/27/23 12:50:00 P
Dil. Factor:	1.92	Date of Analysis: 12/6/23 03:23 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	0.96	Not Detected	4.2	Not Detected
m,p-Xylene	1.9	Not Detected	8.3	Not Detected
o-Xylene	0.96	Not Detected	4.2	Not Detected
Styrene	0.96	Not Detected	4.1	Not Detected
Bromoform	0.96	Not Detected	9.9	Not Detected
Cumene	0.96	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	0.96	Not Detected	6.6	Not Detected
4-Ethyltoluene	0.96	Not Detected	4.7	Not Detected
1,3,5-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,2,4-Trimethylbenzene	0.96	Not Detected	4.7	Not Detected
1,3-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,4-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	0.96	Not Detected	5.8	Not Detected
1,2,4-Trichlorobenzene	3.8	Not Detected	28	Not Detected
Hexachlorobutadiene	3.8	Not Detected	41	Not Detected
Naphthalene	1.9	Not Detected	10	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SS-6

Lab ID#: 2311635-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120607	Date of Collection:	11/27/23 12:55:00 P
Dil. Factor:	3.92	Date of Analysis:	12/6/23 04:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.0	4.2	9.7	21
Freon 114	2.0	Not Detected	14	Not Detected
Chloromethane	20	Not Detected	40	Not Detected
Vinyl Chloride	2.0	Not Detected	5.0	Not Detected
1,3-Butadiene	2.0	Not Detected	4.3	Not Detected
Bromomethane	20	Not Detected	76	Not Detected
Chloroethane	7.8	Not Detected	21	Not Detected
Freon 11	2.0	Not Detected	11	Not Detected
Ethanol	20	Not Detected	37	Not Detected
Freon 113	2.0	Not Detected	15	Not Detected
1,1-Dichloroethene	2.0	3.6	7.8	14
Acetone	20	Not Detected	46	Not Detected
2-Propanol	7.8	Not Detected UJ	19	Not Detected UJ
Carbon Disulfide	7.8	Not Detected	24	Not Detected
Methylene Chloride	20	Not Detected	68	Not Detected
Methyl tert-butyl ether	7.8	Not Detected	28	Not Detected
trans-1,2-Dichloroethene	2.0	Not Detected	7.8	Not Detected
Hexane	2.0	Not Detected	6.9	Not Detected
1,1-Dichloroethane	2.0	Not Detected	7.9	Not Detected
2-Butanone (Methyl Ethyl Ketone)	7.8	Not Detected	23	Not Detected
cis-1,2-Dichloroethene	2.0	Not Detected	7.8	Not Detected
Tetrahydrofuran	2.0	Not Detected UJ	5.8	Not Detected UJ
Chloroform	2.0	Not Detected	9.6	Not Detected
1,1,1-Trichloroethane	2.0	440	11	2400
Cyclohexane	2.0	Not Detected	6.7	Not Detected
Carbon Tetrachloride	2.0	Not Detected	12	Not Detected
Benzene	2.0	Not Detected	6.3	Not Detected
1,2-Dichloroethane	2.0	Not Detected	7.9	Not Detected
Heptane	2.0	Not Detected	8.0	Not Detected
Trichloroethene	2.0	24	10	130
1,2-Dichloropropane	2.0	Not Detected	9.0	Not Detected
Bromodichloromethane	2.0	Not Detected	13	Not Detected
cis-1,3-Dichloropropene	2.0	Not Detected	8.9	Not Detected
4-Methyl-2-pentanone	2.0	Not Detected	8.0	Not Detected
Toluene	3.9	Not Detected	15	Not Detected
trans-1,3-Dichloropropene	2.0	Not Detected	8.9	Not Detected
1,1,2-Trichloroethane	2.0	Not Detected	11	Not Detected
Tetrachloroethene	2.0	36	13	240
2-Hexanone	7.8	Not Detected	32	Not Detected
Dibromochloromethane	2.0	Not Detected	17	Not Detected
1,2-Dibromoethane (EDB)	2.0	Not Detected	15	Not Detected
Chlorobenzene	2.0	Not Detected	9.0	Not Detected

Client Sample ID: SS-6

Lab ID#: 2311635-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120607	Date of Collection: 11/27/23 12:55:00 P
Dil. Factor:	3.92	Date of Analysis: 12/6/23 04:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	2.0	Not Detected	8.5	Not Detected
m,p-Xylene	3.9	Not Detected	17	Not Detected
o-Xylene	2.0	Not Detected	8.5	Not Detected
Styrene	2.0	Not Detected	8.3	Not Detected
Bromoform	2.0	Not Detected	20	Not Detected
Cumene	2.0	Not Detected	9.6	Not Detected
1,1,2,2-Tetrachloroethane	2.0	Not Detected	13	Not Detected
4-Ethyltoluene	2.0	Not Detected	9.6	Not Detected
1,3,5-Trimethylbenzene	2.0	Not Detected	9.6	Not Detected
1,2,4-Trimethylbenzene	2.0	Not Detected	9.6	Not Detected
1,3-Dichlorobenzene	2.0	Not Detected	12	Not Detected
1,4-Dichlorobenzene	2.0	Not Detected	12	Not Detected
1,2-Dichlorobenzene	2.0	Not Detected	12	Not Detected
1,2,4-Trichlorobenzene	7.8	Not Detected	58	Not Detected
Hexachlorobutadiene	7.8	Not Detected	84	Not Detected
Naphthalene	3.9	Not Detected	20	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SS-8

Lab ID#: 2311635-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120618	Date of Collection:	11/27/23 11:31:00 A
Dil. Factor:	63.0	Date of Analysis:	12/7/23 12:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	32	6500	160	32000
Freon 114	32	Not Detected	220	Not Detected
Chloromethane	320	Not Detected	650	Not Detected
Vinyl Chloride	32	Not Detected	80	Not Detected
1,3-Butadiene	32	Not Detected	70	Not Detected
Bromomethane	320	Not Detected	1200	Not Detected
Chloroethane	130	Not Detected	330	Not Detected
Freon 11	32	Not Detected	180	Not Detected
Ethanol	320	Not Detected	590	Not Detected
Freon 113	32	Not Detected	240	Not Detected
1,1-Dichloroethene	32	Not Detected	120	Not Detected
Acetone	320	Not Detected	750	Not Detected
2-Propanol	130	Not Detected UJ	310	Not Detected UJ
Carbon Disulfide	130	Not Detected	390	Not Detected
Methylene Chloride	320	Not Detected	1100	Not Detected
Methyl tert-butyl ether	130	Not Detected	450	Not Detected
trans-1,2-Dichloroethene	32	Not Detected	120	Not Detected
Hexane	32	Not Detected	110	Not Detected
1,1-Dichloroethane	32	Not Detected	130	Not Detected
2-Butanone (Methyl Ethyl Ketone)	130	Not Detected	370	Not Detected
cis-1,2-Dichloroethene	32	Not Detected	120	Not Detected
Tetrahydrofuran	32	Not Detected UJ	93	Not Detected UJ
Chloroform	32	Not Detected	150	Not Detected
1,1,1-Trichloroethane	32	82	170	450
Cyclohexane	32	Not Detected	110	Not Detected
Carbon Tetrachloride	32	Not Detected	200	Not Detected
Benzene	32	Not Detected	100	Not Detected
1,2-Dichloroethane	32	Not Detected	130	Not Detected
Heptane	32	Not Detected	130	Not Detected
Trichloroethene	32	Not Detected	170	Not Detected
1,2-Dichloropropane	32	Not Detected	140	Not Detected
Bromodichloromethane	32	Not Detected	210	Not Detected
cis-1,3-Dichloropropene	32	Not Detected	140	Not Detected
4-Methyl-2-pentanone	32	Not Detected	130	Not Detected
Toluene	63	Not Detected	240	Not Detected
trans-1,3-Dichloropropene	32	Not Detected	140	Not Detected
1,1,2-Trichloroethane	32	Not Detected	170	Not Detected
Tetrachloroethene	32	Not Detected	210	Not Detected
2-Hexanone	130	Not Detected	520	Not Detected
Dibromochloromethane	32	Not Detected	270	Not Detected
1,2-Dibromoethane (EDB)	32	Not Detected	240	Not Detected
Chlorobenzene	32	Not Detected	140	Not Detected

Client Sample ID: SS-8

Lab ID#: 2311635-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120618	Date of Collection:	11/27/23 11:31:00 A
Dil. Factor:	63.0	Date of Analysis:	12/7/23 12:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	32	Not Detected	140	Not Detected
m,p-Xylene	63	Not Detected	270	Not Detected
o-Xylene	32	Not Detected	140	Not Detected
Styrene	32	Not Detected	130	Not Detected
Bromoform	32	Not Detected	320	Not Detected
Cumene	32	Not Detected	150	Not Detected
1,1,2,2-Tetrachloroethane	32	Not Detected	220	Not Detected
4-Ethyltoluene	32	Not Detected	150	Not Detected
1,3,5-Trimethylbenzene	32	Not Detected	150	Not Detected
1,2,4-Trimethylbenzene	32	Not Detected	150	Not Detected
1,3-Dichlorobenzene	32	Not Detected	190	Not Detected
1,4-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2-Dichlorobenzene	32	Not Detected	190	Not Detected
1,2,4-Trichlorobenzene	130	Not Detected	940	Not Detected
Hexachlorobutadiene	130	Not Detected	1300	Not Detected
Naphthalene	63	Not Detected	330	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-7

Lab ID#: 2311635-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120612	Date of Collection:	11/27/23 11:25:00 A
Dil. Factor:	6.78	Date of Analysis:	12/6/23 07:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	3.4	630	17	3100
Freon 114	3.4	Not Detected	24	Not Detected
Chloromethane	34	Not Detected	70	Not Detected
Vinyl Chloride	3.4	Not Detected	8.7	Not Detected
1,3-Butadiene	3.4	Not Detected	7.5	Not Detected
Bromomethane	34	Not Detected	130	Not Detected
Chloroethane	14	Not Detected	36	Not Detected
Freon 11	3.4	Not Detected	19	Not Detected
Ethanol	34	Not Detected	64	Not Detected
Freon 113	3.4	Not Detected	26	Not Detected
1,1-Dichloroethene	3.4	Not Detected	13	Not Detected
Acetone	34	Not Detected	80	Not Detected
2-Propanol	14	Not Detected UJ	33	Not Detected UJ
Carbon Disulfide	14	Not Detected	42	Not Detected
Methylene Chloride	34	Not Detected	120	Not Detected
Methyl tert-butyl ether	14	Not Detected	49	Not Detected
trans-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Hexane	3.4	Not Detected	12	Not Detected
1,1-Dichloroethane	3.4	Not Detected	14	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	Not Detected	40	Not Detected
cis-1,2-Dichloroethene	3.4	Not Detected	13	Not Detected
Tetrahydrofuran	3.4	Not Detected UJ	10	Not Detected UJ
Chloroform	3.4	Not Detected	16	Not Detected
1,1,1-Trichloroethane	3.4	370	18	2000
Cyclohexane	3.4	Not Detected	12	Not Detected
Carbon Tetrachloride	3.4	Not Detected	21	Not Detected
Benzene	3.4	Not Detected	11	Not Detected
1,2-Dichloroethane	3.4	Not Detected	14	Not Detected
Heptane	3.4	Not Detected	14	Not Detected
Trichloroethene	3.4	630	18	3400
1,2-Dichloropropane	3.4	Not Detected	16	Not Detected
Bromodichloromethane	3.4	Not Detected	23	Not Detected
cis-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
4-Methyl-2-pentanone	3.4	Not Detected	14	Not Detected
Toluene	6.8	Not Detected	26	Not Detected
trans-1,3-Dichloropropene	3.4	Not Detected	15	Not Detected
1,1,2-Trichloroethane	3.4	Not Detected	18	Not Detected
Tetrachloroethene	3.4	14	23	96
2-Hexanone	14	Not Detected	56	Not Detected
Dibromochloromethane	3.4	Not Detected	29	Not Detected
1,2-Dibromoethane (EDB)	3.4	Not Detected	26	Not Detected
Chlorobenzene	3.4	Not Detected	16	Not Detected



Air Toxics

Client Sample ID: SS-7

Lab ID#: 2311635-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120612	Date of Collection: 11/27/23 11:25:00 A
Dil. Factor:	6.78	Date of Analysis: 12/6/23 07:15 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	3.4	Not Detected	15	Not Detected
m,p-Xylene	6.8	Not Detected	29	Not Detected
o-Xylene	3.4	Not Detected	15	Not Detected
Styrene	3.4	Not Detected	14	Not Detected
Bromoform	3.4	Not Detected	35	Not Detected
Cumene	3.4	Not Detected	17	Not Detected
1,1,2,2-Tetrachloroethane	3.4	Not Detected	23	Not Detected
4-Ethyltoluene	3.4	Not Detected	17	Not Detected
1,3,5-Trimethylbenzene	3.4	Not Detected	17	Not Detected
1,2,4-Trimethylbenzene	3.4	Not Detected	17	Not Detected
1,3-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,4-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2-Dichlorobenzene	3.4	Not Detected	20	Not Detected
1,2,4-Trichlorobenzene	14	Not Detected	100	Not Detected
Hexachlorobutadiene	14	Not Detected	140	Not Detected
Naphthalene	6.8	Not Detected	36	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-5

Lab ID#: 2311635-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120613	Date of Collection:	11/27/23 2:44:00 PM
Dil. Factor:	13.5	Date of Analysis:	12/6/23 07:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.8	75	33	370
Freon 114	6.8	Not Detected	47	Not Detected
Chloromethane	68	Not Detected	140	Not Detected
Vinyl Chloride	6.8	Not Detected	17	Not Detected
1,3-Butadiene	6.8	Not Detected	15	Not Detected
Bromomethane	68	Not Detected	260	Not Detected
Chloroethane	27	Not Detected	71	Not Detected
Freon 11	6.8	Not Detected	38	Not Detected
Ethanol	68	Not Detected	130	Not Detected
Freon 113	6.8	Not Detected	52	Not Detected
1,1-Dichloroethene	6.8	Not Detected	27	Not Detected
Acetone	68	Not Detected	160	Not Detected
2-Propanol	27	Not Detected UJ	66	Not Detected UJ
Carbon Disulfide	27	Not Detected	84	Not Detected
Methylene Chloride	68	Not Detected	230	Not Detected
Methyl tert-butyl ether	27	Not Detected	97	Not Detected
trans-1,2-Dichloroethene	6.8	Not Detected	27	Not Detected
Hexane	6.8	Not Detected	24	Not Detected
1,1-Dichloroethane	6.8	Not Detected	27	Not Detected
2-Butanone (Methyl Ethyl Ketone)	27	Not Detected	80	Not Detected
cis-1,2-Dichloroethene	6.8	Not Detected	27	Not Detected
Tetrahydrofuran	6.8	Not Detected UJ	20	Not Detected UJ
Chloroform	6.8	Not Detected	33	Not Detected
1,1,1-Trichloroethane	6.8	570	37	3100
Cyclohexane	6.8	Not Detected	23	Not Detected
Carbon Tetrachloride	6.8	Not Detected	42	Not Detected
Benzene	6.8	Not Detected	22	Not Detected
1,2-Dichloroethane	6.8	Not Detected	27	Not Detected
Heptane	6.8	Not Detected	28	Not Detected
Trichloroethene	6.8	1900	36	10000
1,2-Dichloropropane	6.8	Not Detected	31	Not Detected
Bromodichloromethane	6.8	Not Detected	45	Not Detected
cis-1,3-Dichloropropene	6.8	Not Detected	31	Not Detected
4-Methyl-2-pentanone	6.8	Not Detected	28	Not Detected
Toluene	14	Not Detected	51	Not Detected
trans-1,3-Dichloropropene	6.8	Not Detected	31	Not Detected
1,1,2-Trichloroethane	6.8	Not Detected	37	Not Detected
Tetrachloroethene	6.8	29	46	200
2-Hexanone	27	Not Detected	110	Not Detected
Dibromochloromethane	6.8	Not Detected	58	Not Detected
1,2-Dibromoethane (EDB)	6.8	Not Detected	52	Not Detected
Chlorobenzene	6.8	Not Detected	31	Not Detected



Air Toxics

Client Sample ID: SS-5

Lab ID#: 2311635-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120613	Date of Collection: 11/27/23 2:44:00 PM
Dil. Factor:	13.5	Date of Analysis: 12/6/23 07:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	6.8	Not Detected	29	Not Detected
m,p-Xylene	14	Not Detected	59	Not Detected
o-Xylene	6.8	Not Detected	29	Not Detected
Styrene	6.8	Not Detected	29	Not Detected
Bromoform	6.8	Not Detected	70	Not Detected
Cumene	6.8	Not Detected	33	Not Detected
1,1,2,2-Tetrachloroethane	6.8	Not Detected	46	Not Detected
4-Ethyltoluene	6.8	Not Detected	33	Not Detected
1,3,5-Trimethylbenzene	6.8	Not Detected	33	Not Detected
1,2,4-Trimethylbenzene	6.8	Not Detected	33	Not Detected
1,3-Dichlorobenzene	6.8	Not Detected	40	Not Detected
1,4-Dichlorobenzene	6.8	Not Detected	40	Not Detected
1,2-Dichlorobenzene	6.8	Not Detected	40	Not Detected
1,2,4-Trichlorobenzene	27	Not Detected	200	Not Detected
Hexachlorobutadiene	27	Not Detected	290	Not Detected
Naphthalene	14	Not Detected	71	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-11

Lab ID#: 2311635-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120608	Date of Collection:	11/27/23 2:01:00 PM
Dil. Factor:	2.95	Date of Analysis:	12/6/23 04:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.5	Not Detected	7.3	Not Detected
Freon 114	1.5	Not Detected	10	Not Detected
Chloromethane	15	Not Detected	30	Not Detected
Vinyl Chloride	1.5	Not Detected	3.8	Not Detected
1,3-Butadiene	1.5	Not Detected	3.3	Not Detected
Bromomethane	15	Not Detected	57	Not Detected
Chloroethane	5.9	Not Detected	16	Not Detected
Freon 11	1.5	Not Detected	8.3	Not Detected
Ethanol	15	Not Detected	28	Not Detected
Freon 113	1.5	Not Detected	11	Not Detected
1,1-Dichloroethene	1.5	1.6	5.8	6.3
Acetone	15	Not Detected	35	Not Detected
2-Propanol	5.9	Not Detected UJ	14	Not Detected UJ
Carbon Disulfide	5.9	Not Detected	18	Not Detected
Methylene Chloride	15	Not Detected	51	Not Detected
Methyl tert-butyl ether	5.9	Not Detected	21	Not Detected
trans-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Hexane	1.5	Not Detected	5.2	Not Detected
1,1-Dichloroethane	1.5	Not Detected	6.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	5.9	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	1.5	Not Detected	5.8	Not Detected
Tetrahydrofuran	1.5	Not Detected UJ	4.3	Not Detected UJ
Chloroform	1.5	Not Detected	7.2	Not Detected
1,1,1-Trichloroethane	1.5	370	8.0	2000
Cyclohexane	1.5	Not Detected	5.1	Not Detected
Carbon Tetrachloride	1.5	Not Detected	9.3	Not Detected
Benzene	1.5	Not Detected	4.7	Not Detected
1,2-Dichloroethane	1.5	Not Detected	6.0	Not Detected
Heptane	1.5	Not Detected	6.0	Not Detected
Trichloroethene	1.5	290	7.9	1600
1,2-Dichloropropane	1.5	Not Detected	6.8	Not Detected
Bromodichloromethane	1.5	Not Detected	9.9	Not Detected
cis-1,3-Dichloropropene	1.5	Not Detected	6.7	Not Detected
4-Methyl-2-pentanone	1.5	Not Detected	6.0	Not Detected
Toluene	3.0	Not Detected	11	Not Detected
trans-1,3-Dichloropropene	1.5	Not Detected	6.7	Not Detected
1,1,2-Trichloroethane	1.5	Not Detected	8.0	Not Detected
Tetrachloroethene	1.5	23	10	160
2-Hexanone	5.9	Not Detected	24	Not Detected
Dibromochloromethane	1.5	Not Detected	12	Not Detected
1,2-Dibromoethane (EDB)	1.5	Not Detected	11	Not Detected
Chlorobenzene	1.5	Not Detected	6.8	Not Detected



Air Toxics

Client Sample ID: SS-11

Lab ID#: 2311635-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120608	Date of Collection:	11/27/23 2:01:00 PM
Dil. Factor:	2.95	Date of Analysis:	12/6/23 04:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	1.5	Not Detected	6.4	Not Detected
m,p-Xylene	3.0	Not Detected	13	Not Detected
o-Xylene	1.5	Not Detected	6.4	Not Detected
Styrene	1.5	Not Detected	6.3	Not Detected
Bromoform	1.5	Not Detected	15	Not Detected
Cumene	1.5	Not Detected	7.2	Not Detected
1,1,2,2-Tetrachloroethane	1.5	Not Detected	10	Not Detected
4-Ethyltoluene	1.5	Not Detected	7.2	Not Detected
1,3,5-Trimethylbenzene	1.5	Not Detected	7.2	Not Detected
1,2,4-Trimethylbenzene	1.5	Not Detected	7.2	Not Detected
1,3-Dichlorobenzene	1.5	Not Detected	8.9	Not Detected
1,4-Dichlorobenzene	1.5	Not Detected	8.9	Not Detected
1,2-Dichlorobenzene	1.5	Not Detected	8.9	Not Detected
1,2,4-Trichlorobenzene	5.9	Not Detected	44	Not Detected
Hexachlorobutadiene	5.9	Not Detected	63	Not Detected
Naphthalene	3.0	Not Detected	15	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SS-12

Lab ID#: 2311635-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120609	Date of Collection:	11/27/23 1:54:00 PM
Dil. Factor:	2.05	Date of Analysis:	12/6/23 05:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.1	Not Detected
Freon 114	1.0	Not Detected	7.2	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.3	Not Detected
Bromomethane	10	Not Detected	40	Not Detected
Chloroethane	4.1	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.8	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.8	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Acetone	10	13	24	30
2-Propanol	4.1	Not Detected UJ	10	Not Detected UJ
Carbon Disulfide	4.1	Not Detected	13	Not Detected
Methylene Chloride	10	Not Detected	36	Not Detected
Methyl tert-butyl ether	4.1	Not Detected	15	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	Not Detected	4.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.1	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.1	Not Detected
Tetrahydrofuran	1.0	Not Detected UJ	3.0	Not Detected UJ
Chloroform	1.0	Not Detected	5.0	Not Detected
1,1,1-Trichloroethane	1.0	8.9	5.6	48
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.3	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.2	Not Detected
Trichloroethene	1.0	4.0	5.5	22
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
Bromodichloromethane	1.0	Not Detected	6.9	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.2	Not Detected
Toluene	2.0	Not Detected	7.7	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.6	Not Detected
Tetrachloroethene	1.0	1.4	7.0	9.4
2-Hexanone	4.1	Not Detected	17	Not Detected
Dibromochloromethane	1.0	Not Detected	8.7	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.9	Not Detected
Chlorobenzene	1.0	Not Detected	4.7	Not Detected



Air Toxics

Client Sample ID: SS-12

Lab ID#: 2311635-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120609	Date of Collection:	11/27/23 1:54:00 PM
Dil. Factor:	2.05	Date of Analysis:	12/6/23 05:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	2.0	Not Detected	8.9	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.4	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	7.0	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.2	Not Detected
1,2,4-Trichlorobenzene	4.1	Not Detected	30	Not Detected
Hexachlorobutadiene	4.1	Not Detected	44	Not Detected
Naphthalene	2.0	2.2	11	12

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SS-13

Lab ID#: 2311635-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120610	Date of Collection:	11/28/23 2:18:00 PM
Dil. Factor:	1.98	Date of Analysis:	12/6/23 06:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.99	Not Detected	4.9	Not Detected
Freon 114	0.99	Not Detected	6.9	Not Detected
Chloromethane	9.9	Not Detected	20	Not Detected
Vinyl Chloride	0.99	Not Detected	2.5	Not Detected
1,3-Butadiene	0.99	Not Detected	2.2	Not Detected
Bromomethane	9.9	Not Detected	38	Not Detected
Chloroethane	4.0	Not Detected	10	Not Detected
Freon 11	0.99	Not Detected	5.6	Not Detected
Ethanol	9.9	64	19	120
Freon 113	0.99	Not Detected	7.6	Not Detected
1,1-Dichloroethene	0.99	Not Detected	3.9	Not Detected
Acetone	9.9	270	24	650
2-Propanol	4.0	38 J0	9.7	93 J0
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	9.9	Not Detected	34	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	0.99	2.2	3.9	8.7
Hexane	0.99	2.4	3.5	8.3
1,1-Dichloroethane	0.99	Not Detected	4.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	4.0	12	12	34
cis-1,2-Dichloroethene	0.99	Not Detected	3.9	Not Detected
Tetrahydrofuran	0.99	Not Detected UJ	2.9	Not Detected UJ
Chloroform	0.99	Not Detected	4.8	Not Detected
1,1,1-Trichloroethane	0.99	Not Detected	5.4	Not Detected
Cyclohexane	0.99	3.6	3.4	12
Carbon Tetrachloride	0.99	Not Detected	6.2	Not Detected
Benzene	0.99	1.9	3.2	6.1
1,2-Dichloroethane	0.99	Not Detected	4.0	Not Detected
Heptane	0.99	1.0	4.0	4.3
Trichloroethene	0.99	Not Detected	5.3	Not Detected
1,2-Dichloropropane	0.99	Not Detected	4.6	Not Detected
Bromodichloromethane	0.99	Not Detected	6.6	Not Detected
cis-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
4-Methyl-2-pentanone	0.99	Not Detected	4.0	Not Detected
Toluene	2.0	120	7.5	470
trans-1,3-Dichloropropene	0.99	Not Detected	4.5	Not Detected
1,1,2-Trichloroethane	0.99	Not Detected	5.4	Not Detected
Tetrachloroethene	0.99	1.0	6.7	6.8
2-Hexanone	4.0	Not Detected	16	Not Detected
Dibromochloromethane	0.99	Not Detected	8.4	Not Detected
1,2-Dibromoethane (EDB)	0.99	Not Detected	7.6	Not Detected
Chlorobenzene	0.99	Not Detected	4.6	Not Detected

Client Sample ID: SS-13

Lab ID#: 2311635-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120610	Date of Collection:	11/28/23 2:18:00 PM
Dil. Factor:	1.98	Date of Analysis:	12/6/23 06:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	0.99	7.1	4.3	31
m,p-Xylene	2.0	21	8.6	90
o-Xylene	0.99	4.6	4.3	20
Styrene	0.99	Not Detected	4.2	Not Detected
Bromoform	0.99	Not Detected	10	Not Detected
Cumene	0.99	Not Detected	4.9	Not Detected
1,1,2,2-Tetrachloroethane	0.99	Not Detected	6.8	Not Detected
4-Ethyltoluene	0.99	Not Detected	4.9	Not Detected
1,3,5-Trimethylbenzene	0.99	Not Detected	4.9	Not Detected
1,2,4-Trimethylbenzene	0.99	1.2	4.9	5.8
1,3-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,4-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	0.99	Not Detected	6.0	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	29	Not Detected
Hexachlorobutadiene	4.0	Not Detected	42	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

J0 = Estimated value due to bias in the CCV.

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SS-3

Lab ID#: 2311635-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120614	Date of Collection:	11/27/23 9:18:00 AM
Dil. Factor:	18.6	Date of Analysis:	12/6/23 08:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	9.3	Not Detected	46	Not Detected
Freon 114	9.3	Not Detected	65	Not Detected
Chloromethane	93	Not Detected	190	Not Detected
Vinyl Chloride	9.3	Not Detected	24	Not Detected
1,3-Butadiene	9.3	Not Detected	20	Not Detected
Bromomethane	93	Not Detected	360	Not Detected
Chloroethane	37	Not Detected	98	Not Detected
Freon 11	9.3	Not Detected	52	Not Detected
Ethanol	93	Not Detected	180	Not Detected
Freon 113	9.3	Not Detected	71	Not Detected
1,1-Dichloroethene	9.3	200	37	810
Acetone	93	Not Detected	220	Not Detected
2-Propanol	37	Not Detected UJ	91	Not Detected UJ
Carbon Disulfide	37	Not Detected	120	Not Detected
Methylene Chloride	93	Not Detected	320	Not Detected
Methyl tert-butyl ether	37	Not Detected	130	Not Detected
trans-1,2-Dichloroethene	9.3	Not Detected	37	Not Detected
Hexane	9.3	Not Detected	33	Not Detected
1,1-Dichloroethane	9.3	Not Detected	38	Not Detected
2-Butanone (Methyl Ethyl Ketone)	37	Not Detected	110	Not Detected
cis-1,2-Dichloroethene	9.3	Not Detected	37	Not Detected
Tetrahydrofuran	9.3	Not Detected UJ	27	Not Detected UJ
Chloroform	9.3	Not Detected	45	Not Detected
1,1,1-Trichloroethane	9.3	3100	51	17000
Cyclohexane	9.3	Not Detected	32	Not Detected
Carbon Tetrachloride	9.3	Not Detected	58	Not Detected
Benzene	9.3	Not Detected	30	Not Detected
1,2-Dichloroethane	9.3	Not Detected	38	Not Detected
Heptane	9.3	Not Detected	38	Not Detected
Trichloroethene	9.3	270	50	1400
1,2-Dichloropropane	9.3	Not Detected	43	Not Detected
Bromodichloromethane	9.3	Not Detected	62	Not Detected
cis-1,3-Dichloropropene	9.3	Not Detected	42	Not Detected
4-Methyl-2-pentanone	9.3	Not Detected	38	Not Detected
Toluene	19	Not Detected	70	Not Detected
trans-1,3-Dichloropropene	9.3	Not Detected	42	Not Detected
1,1,2-Trichloroethane	9.3	Not Detected	51	Not Detected
Tetrachloroethene	9.3	200	63	1300
2-Hexanone	37	Not Detected	150	Not Detected
Dibromochloromethane	9.3	Not Detected	79	Not Detected
1,2-Dibromoethane (EDB)	9.3	Not Detected	71	Not Detected
Chlorobenzene	9.3	Not Detected	43	Not Detected



Air Toxics

Client Sample ID: SS-3

Lab ID#: 2311635-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120614	Date of Collection:	11/27/23 9:18:00 AM
Dil. Factor:	18.6	Date of Analysis:	12/6/23 08:21 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	9.3	Not Detected	40	Not Detected
m,p-Xylene	19	Not Detected	81	Not Detected
o-Xylene	9.3	Not Detected	40	Not Detected
Styrene	9.3	Not Detected	40	Not Detected
Bromoform	9.3	Not Detected	96	Not Detected
Cumene	9.3	Not Detected	46	Not Detected
1,1,2,2-Tetrachloroethane	9.3	Not Detected	64	Not Detected
4-Ethyltoluene	9.3	Not Detected	46	Not Detected
1,3,5-Trimethylbenzene	9.3	Not Detected	46	Not Detected
1,2,4-Trimethylbenzene	9.3	Not Detected	46	Not Detected
1,3-Dichlorobenzene	9.3	Not Detected	56	Not Detected
1,4-Dichlorobenzene	9.3	Not Detected	56	Not Detected
1,2-Dichlorobenzene	9.3	Not Detected	56	Not Detected
1,2,4-Trichlorobenzene	37	Not Detected	280	Not Detected
Hexachlorobutadiene	37	Not Detected	400	Not Detected
Naphthalene	19	Not Detected	97	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-10

Lab ID#: 2311635-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120611	Date of Collection:	11/27/23 1:34:00 PM
Dil. Factor:	2.02	Date of Analysis:	12/6/23 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.0	Not Detected	5.0	Not Detected
Freon 114	1.0	Not Detected	7.1	Not Detected
Chloromethane	10	Not Detected	21	Not Detected
Vinyl Chloride	1.0	Not Detected	2.6	Not Detected
1,3-Butadiene	1.0	Not Detected	2.2	Not Detected
Bromomethane	10	Not Detected	39	Not Detected
Chloroethane	4.0	Not Detected	11	Not Detected
Freon 11	1.0	Not Detected	5.7	Not Detected
Ethanol	10	Not Detected	19	Not Detected
Freon 113	1.0	Not Detected	7.7	Not Detected
1,1-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Acetone	10	Not Detected	24	Not Detected
2-Propanol	4.0	Not Detected UJ	9.9	Not Detected UJ
Carbon Disulfide	4.0	Not Detected	12	Not Detected
Methylene Chloride	10	Not Detected	35	Not Detected
Methyl tert-butyl ether	4.0	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Hexane	1.0	Not Detected	3.6	Not Detected
1,1-Dichloroethane	1.0	1.8	4.1	7.2
2-Butanone (Methyl Ethyl Ketone)	4.0	Not Detected	12	Not Detected
cis-1,2-Dichloroethene	1.0	Not Detected	4.0	Not Detected
Tetrahydrofuran	1.0	Not Detected UJ	3.0	Not Detected UJ
Chloroform	1.0	Not Detected	4.9	Not Detected
1,1,1-Trichloroethane	1.0	27	5.5	150
Cyclohexane	1.0	Not Detected	3.5	Not Detected
Carbon Tetrachloride	1.0	Not Detected	6.4	Not Detected
Benzene	1.0	Not Detected	3.2	Not Detected
1,2-Dichloroethane	1.0	Not Detected	4.1	Not Detected
Heptane	1.0	Not Detected	4.1	Not Detected
Trichloroethene	1.0	7.7	5.4	42
1,2-Dichloropropane	1.0	Not Detected	4.7	Not Detected
Bromodichloromethane	1.0	Not Detected	6.8	Not Detected
cis-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
4-Methyl-2-pentanone	1.0	Not Detected	4.1	Not Detected
Toluene	2.0	Not Detected	7.6	Not Detected
trans-1,3-Dichloropropene	1.0	Not Detected	4.6	Not Detected
1,1,2-Trichloroethane	1.0	Not Detected	5.5	Not Detected
Tetrachloroethene	1.0	4.6	6.8	31
2-Hexanone	4.0	Not Detected	16	Not Detected
Dibromochloromethane	1.0	Not Detected	8.6	Not Detected
1,2-Dibromoethane (EDB)	1.0	Not Detected	7.8	Not Detected
Chlorobenzene	1.0	Not Detected	4.6	Not Detected



Air Toxics

Client Sample ID: SS-10

Lab ID#: 2311635-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120611	Date of Collection:	11/27/23 1:34:00 PM
Dil. Factor:	2.02	Date of Analysis:	12/6/23 06:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	1.0	Not Detected	4.4	Not Detected
m,p-Xylene	2.0	Not Detected	8.8	Not Detected
o-Xylene	1.0	Not Detected	4.4	Not Detected
Styrene	1.0	Not Detected	4.3	Not Detected
Bromoform	1.0	Not Detected	10	Not Detected
Cumene	1.0	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.0	Not Detected	6.9	Not Detected
4-Ethyltoluene	1.0	Not Detected	5.0	Not Detected
1,3,5-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,2,4-Trimethylbenzene	1.0	Not Detected	5.0	Not Detected
1,3-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,4-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2-Dichlorobenzene	1.0	Not Detected	6.1	Not Detected
1,2,4-Trichlorobenzene	4.0	Not Detected	30	Not Detected
Hexachlorobutadiene	4.0	Not Detected	43	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SS-9

Lab ID#: 2311635-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120615	Date of Collection:	11/27/23 1:19:00 PM
Dil. Factor:	1.94	Date of Analysis:	12/6/23 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.97	Not Detected	4.8	Not Detected
Freon 114	0.97	Not Detected	6.8	Not Detected
Chloromethane	9.7	Not Detected	20	Not Detected
Vinyl Chloride	0.97	Not Detected	2.5	Not Detected
1,3-Butadiene	0.97	Not Detected	2.1	Not Detected
Bromomethane	9.7	Not Detected	38	Not Detected
Chloroethane	3.9	Not Detected	10	Not Detected
Freon 11	0.97	Not Detected	5.4	Not Detected
Ethanol	9.7	Not Detected	18	Not Detected
Freon 113	0.97	Not Detected	7.4	Not Detected
1,1-Dichloroethene	0.97	Not Detected	3.8	Not Detected
Acetone	9.7	Not Detected	23	Not Detected
2-Propanol	3.9	Not Detected UJ	9.5	Not Detected UJ
Carbon Disulfide	3.9	Not Detected	12	Not Detected
Methylene Chloride	9.7	Not Detected	34	Not Detected
Methyl tert-butyl ether	3.9	Not Detected	14	Not Detected
trans-1,2-Dichloroethene	0.97	Not Detected	3.8	Not Detected
Hexane	0.97	Not Detected	3.4	Not Detected
1,1-Dichloroethane	0.97	3.1	3.9	13
2-Butanone (Methyl Ethyl Ketone)	3.9	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	0.97	Not Detected	3.8	Not Detected
Tetrahydrofuran	0.97	Not Detected UJ	2.9	Not Detected UJ
Chloroform	0.97	Not Detected	4.7	Not Detected
1,1,1-Trichloroethane	0.97	120	5.3	640
Cyclohexane	0.97	Not Detected	3.3	Not Detected
Carbon Tetrachloride	0.97	Not Detected	6.1	Not Detected
Benzene	0.97	Not Detected	3.1	Not Detected
1,2-Dichloroethane	0.97	Not Detected	3.9	Not Detected
Heptane	0.97	Not Detected	4.0	Not Detected
Trichloroethene	0.97	36	5.2	190
1,2-Dichloropropane	0.97	Not Detected	4.5	Not Detected
Bromodichloromethane	0.97	Not Detected	6.5	Not Detected
cis-1,3-Dichloropropene	0.97	Not Detected	4.4	Not Detected
4-Methyl-2-pentanone	0.97	Not Detected	4.0	Not Detected
Toluene	1.9	Not Detected	7.3	Not Detected
trans-1,3-Dichloropropene	0.97	Not Detected	4.4	Not Detected
1,1,2-Trichloroethane	0.97	Not Detected	5.3	Not Detected
Tetrachloroethene	0.97	41	6.6	280
2-Hexanone	3.9	Not Detected	16	Not Detected
Dibromochloromethane	0.97	Not Detected	8.3	Not Detected
1,2-Dibromoethane (EDB)	0.97	Not Detected	7.4	Not Detected
Chlorobenzene	0.97	Not Detected	4.5	Not Detected



Air Toxics

Client Sample ID: SS-9

Lab ID#: 2311635-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120615	Date of Collection:	11/27/23 1:19:00 PM
Dil. Factor:	1.94	Date of Analysis:	12/6/23 10:42 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	0.97	Not Detected	4.2	Not Detected
m,p-Xylene	1.9	Not Detected	8.4	Not Detected
o-Xylene	0.97	Not Detected	4.2	Not Detected
Styrene	0.97	Not Detected	4.1	Not Detected
Bromoform	0.97	Not Detected	10	Not Detected
Cumene	0.97	Not Detected	4.8	Not Detected
1,1,2,2-Tetrachloroethane	0.97	Not Detected	6.6	Not Detected
4-Ethyltoluene	0.97	Not Detected	4.8	Not Detected
1,3,5-Trimethylbenzene	0.97	Not Detected	4.8	Not Detected
1,2,4-Trimethylbenzene	0.97	Not Detected	4.8	Not Detected
1,3-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,4-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	0.97	Not Detected	5.8	Not Detected
1,2,4-Trichlorobenzene	3.9	Not Detected	29	Not Detected
Hexachlorobutadiene	3.9	Not Detected	41	Not Detected
Naphthalene	1.9	Not Detected	10	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SS-1

Lab ID#: 2311635-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120616	Date of Collection:	11/27/23 2:26:00 PM
Dil. Factor:	8.44	Date of Analysis:	12/6/23 11:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	25	21	120
Freon 114	4.2	Not Detected	30	Not Detected
Chloromethane	42	Not Detected	87	Not Detected
Vinyl Chloride	4.2	Not Detected	11	Not Detected
1,3-Butadiene	4.2	Not Detected	9.3	Not Detected
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	17	Not Detected	44	Not Detected
Freon 11	4.2	Not Detected	24	Not Detected
Ethanol	42	Not Detected	80	Not Detected
Freon 113	4.2	Not Detected	32	Not Detected
1,1-Dichloroethene	4.2	Not Detected	17	Not Detected
Acetone	42	Not Detected	100	Not Detected
2-Propanol	17	Not Detected UJ	41	Not Detected UJ
Carbon Disulfide	17	Not Detected	52	Not Detected
Methylene Chloride	42	Not Detected	150	Not Detected
Methyl tert-butyl ether	17	Not Detected	61	Not Detected
trans-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Hexane	4.2	Not Detected	15	Not Detected
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
2-Butanone (Methyl Ethyl Ketone)	17	Not Detected	50	Not Detected
cis-1,2-Dichloroethene	4.2	Not Detected	17	Not Detected
Tetrahydrofuran	4.2	Not Detected UJ	12	Not Detected UJ
Chloroform	4.2	4.4	21	22
1,1,1-Trichloroethane	4.2	400	23	2200
Cyclohexane	4.2	Not Detected	14	Not Detected
Carbon Tetrachloride	4.2	Not Detected	26	Not Detected
Benzene	4.2	Not Detected	13	Not Detected
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Heptane	4.2	Not Detected	17	Not Detected
Trichloroethene	4.2	1200	23	6700
1,2-Dichloropropane	4.2	Not Detected	20	Not Detected
Bromodichloromethane	4.2	Not Detected	28	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
4-Methyl-2-pentanone	4.2	Not Detected	17	Not Detected
Toluene	8.4	Not Detected	32	Not Detected
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	50	29	340
2-Hexanone	17	Not Detected	69	Not Detected
Dibromochloromethane	4.2	Not Detected	36	Not Detected
1,2-Dibromoethane (EDB)	4.2	Not Detected	32	Not Detected
Chlorobenzene	4.2	Not Detected	19	Not Detected

Client Sample ID: SS-1

Lab ID#: 2311635-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120616	Date of Collection: 11/27/23 2:26:00 PM
Dil. Factor:	8.44	Date of Analysis: 12/6/23 11:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	4.2	Not Detected	18	Not Detected
m,p-Xylene	8.4	Not Detected	37	Not Detected
o-Xylene	4.2	Not Detected	18	Not Detected
Styrene	4.2	Not Detected	18	Not Detected
Bromoform	4.2	Not Detected	44	Not Detected
Cumene	4.2	Not Detected	21	Not Detected
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
4-Ethyltoluene	4.2	Not Detected	21	Not Detected
1,3,5-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,2,4-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,3-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	25	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	120	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected
Naphthalene	8.4	Not Detected	44	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-4

Lab ID#: 2311635-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120617	Date of Collection:	11/27/23 2:25:00 PM
Dil. Factor:	11.1	Date of Analysis:	12/6/23 11:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.6	86	27	420
Freon 114	5.6	Not Detected	39	Not Detected
Chloromethane	56	Not Detected	110	Not Detected
Vinyl Chloride	5.6	Not Detected	14	Not Detected
1,3-Butadiene	5.6	Not Detected	12	Not Detected
Bromomethane	56	Not Detected	220	Not Detected
Chloroethane	22	Not Detected	58	Not Detected
Freon 11	5.6	Not Detected	31	Not Detected
Ethanol	56	Not Detected	100	Not Detected
Freon 113	5.6	Not Detected	42	Not Detected
1,1-Dichloroethene	5.6	Not Detected	22	Not Detected
Acetone	56	Not Detected	130	Not Detected
2-Propanol	22	Not Detected UJ	54	Not Detected UJ
Carbon Disulfide	22	Not Detected	69	Not Detected
Methylene Chloride	56	Not Detected	190	Not Detected
Methyl tert-butyl ether	22	Not Detected	80	Not Detected
trans-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
Hexane	5.6	Not Detected	20	Not Detected
1,1-Dichloroethane	5.6	Not Detected	22	Not Detected
2-Butanone (Methyl Ethyl Ketone)	22	Not Detected	65	Not Detected
cis-1,2-Dichloroethene	5.6	Not Detected	22	Not Detected
Tetrahydrofuran	5.6	Not Detected UJ	16	Not Detected UJ
Chloroform	5.6	15	27	71
1,1,1-Trichloroethane	5.6	360	30	1900
Cyclohexane	5.6	Not Detected	19	Not Detected
Carbon Tetrachloride	5.6	Not Detected	35	Not Detected
Benzene	5.6	Not Detected	18	Not Detected
1,2-Dichloroethane	5.6	Not Detected	22	Not Detected
Heptane	5.6	Not Detected	23	Not Detected
Trichloroethene	5.6	1700	30	9000
1,2-Dichloropropane	5.6	Not Detected	26	Not Detected
Bromodichloromethane	5.6	Not Detected	37	Not Detected
cis-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
4-Methyl-2-pentanone	5.6	Not Detected	23	Not Detected
Toluene	11	Not Detected	42	Not Detected
trans-1,3-Dichloropropene	5.6	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.6	Not Detected	30	Not Detected
Tetrachloroethene	5.6	33	38	220
2-Hexanone	22	Not Detected	91	Not Detected
Dibromochloromethane	5.6	Not Detected	47	Not Detected
1,2-Dibromoethane (EDB)	5.6	Not Detected	43	Not Detected
Chlorobenzene	5.6	Not Detected	26	Not Detected

Client Sample ID: SS-4

Lab ID#: 2311635-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120617	Date of Collection:	11/27/23 2:25:00 PM
Dil. Factor:	11.1	Date of Analysis:	12/6/23 11:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	5.6	Not Detected	24	Not Detected
m,p-Xylene	11	Not Detected	48	Not Detected
o-Xylene	5.6	Not Detected	24	Not Detected
Styrene	5.6	Not Detected	24	Not Detected
Bromoform	5.6	Not Detected	57	Not Detected
Cumene	5.6	Not Detected	27	Not Detected
1,1,2,2-Tetrachloroethane	5.6	Not Detected	38	Not Detected
4-Ethyltoluene	5.6	Not Detected	27	Not Detected
1,3,5-Trimethylbenzene	5.6	Not Detected	27	Not Detected
1,2,4-Trimethylbenzene	5.6	Not Detected	27	Not Detected
1,3-Dichlorobenzene	5.6	Not Detected	33	Not Detected
1,4-Dichlorobenzene	5.6	Not Detected	33	Not Detected
1,2-Dichlorobenzene	5.6	Not Detected	33	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	160	Not Detected
Hexachlorobutadiene	22	Not Detected	240	Not Detected
Naphthalene	11	Not Detected	58	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2311635-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120507d	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 03:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected UJ	4.9	Not Detected UJ
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected UJ	1.5	Not Detected UJ
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2311635-14A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120507d	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 03:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	1.0	Not Detected	4.3	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2311635-14B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120606c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 01:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	5.0	Not Detected	9.4	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
2-Propanol	2.0	Not Detected UJ	4.9	Not Detected UJ
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected UJ	1.5	Not Detected UJ
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	1.0	Not Detected	3.8	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected

Client Sample ID: Lab Blank

Lab ID#: 2311635-14B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120606c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 01:43 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	1.0	Not Detected	4.3	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	1.0	Not Detected	5.2	Not Detected

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: CCV

Lab ID#: 2311635-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 12:46 PM

Compound	%Recovery
Freon 12	88
Freon 114	95
Chloromethane	76
Vinyl Chloride	88
1,3-Butadiene	81
Bromomethane	96
Chloroethane	76
Freon 11	90
Ethanol	74
Freon 113	95
1,1-Dichloroethene	97
Acetone	83
2-Propanol	68 Q
Carbon Disulfide	90
Methylene Chloride	79
Methyl tert-butyl ether	81
trans-1,2-Dichloroethene	94
Hexane	81
1,1-Dichloroethane	87
2-Butanone (Methyl Ethyl Ketone)	86
cis-1,2-Dichloroethene	93
Tetrahydrofuran	68 Q
Chloroform	87
1,1,1-Trichloroethane	90
Cyclohexane	88
Carbon Tetrachloride	94
Benzene	93
1,2-Dichloroethane	89
Heptane	90
Trichloroethene	97
1,2-Dichloropropane	92
Bromodichloromethane	97
cis-1,3-Dichloropropene	95
4-Methyl-2-pentanone	86
Toluene	96
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	96
Tetrachloroethene	100
2-Hexanone	86
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	101
Chlorobenzene	96

Client Sample ID: CCV

Lab ID#: 2311635-15A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 12:46 PM

Compound	%Recovery
Ethyl Benzene	96
m,p-Xylene	95
o-Xylene	94
Styrene	100
Bromoform	113
Cumene	95
1,1,2,2-Tetrachloroethane	97
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	102
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	104
Naphthalene	88

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: CCV

Lab ID#: 2311635-15B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 11:55 AM

Compound	%Recovery
Freon 12	87
Freon 114	93
Chloromethane	76
Vinyl Chloride	87
1,3-Butadiene	80
Bromomethane	98
Chloroethane	76
Freon 11	89
Ethanol	72
Freon 113	94
1,1-Dichloroethene	94
Acetone	82
2-Propanol	67 Q
Carbon Disulfide	90
Methylene Chloride	79
Methyl tert-butyl ether	80
trans-1,2-Dichloroethene	93
Hexane	80
1,1-Dichloroethane	86
2-Butanone (Methyl Ethyl Ketone)	84
cis-1,2-Dichloroethene	93
Tetrahydrofuran	67 Q
Chloroform	87
1,1,1-Trichloroethane	88
Cyclohexane	87
Carbon Tetrachloride	93
Benzene	92
1,2-Dichloroethane	89
Heptane	91
Trichloroethene	98
1,2-Dichloropropane	92
Bromodichloromethane	97
cis-1,3-Dichloropropene	96
4-Methyl-2-pentanone	86
Toluene	96
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	98
Tetrachloroethene	100
2-Hexanone	86
Dibromochloromethane	104
1,2-Dibromoethane (EDB)	101
Chlorobenzene	97

Client Sample ID: CCV

Lab ID#: 2311635-15B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120603	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 11:55 AM

Compound	%Recovery
Ethyl Benzene	97
m,p-Xylene	96
o-Xylene	95
Styrene	100
Bromoform	113
Cumene	96
1,1,2,2-Tetrachloroethane	97
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	103
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	102
Hexachlorobutadiene	106
Naphthalene	88

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: LCS

Lab ID#: 2311635-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 01:21 PM

Compound	%Recovery	Method Limits
Freon 12	87	70-130
Freon 114	94	70-130
Chloromethane	74	70-130
Vinyl Chloride	86	70-130
1,3-Butadiene	79	70-130
Bromomethane	96	70-130
Chloroethane	74	70-130
Freon 11	88	70-130
Ethanol	85	70-130
Freon 113	92	70-130
1,1-Dichloroethene	91	70-130
Acetone	82	70-130
2-Propanol	70	70-130
Carbon Disulfide	90	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	92	70-130
Hexane	79	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	82	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	71	70-130
Chloroform	84	70-130
1,1,1-Trichloroethane	87	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	91	70-130
Benzene	90	70-130
1,2-Dichloroethane	88	70-130
Heptane	89	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	88	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	94	70-130
Tetrachloroethene	98	70-130
2-Hexanone	85	70-130
Dibromochloromethane	100	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	95	70-130

Client Sample ID: LCS

Lab ID#: 2311635-16A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 01:21 PM

Compound	%Recovery	Method Limits
Ethyl Benzene	96	70-130
m,p-Xylene	93	70-130
o-Xylene	92	70-130
Styrene	96	70-130
Bromoform	109	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	95	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	98	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	99	70-130
Hexachlorobutadiene	104	70-130
Naphthalene	97	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	106	70-130

Client Sample ID: LCSD

Lab ID#: 2311635-16AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 01:56 PM

Compound	%Recovery	Method Limits
Freon 12	87	70-130
Freon 114	95	70-130
Chloromethane	74	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	79	70-130
Bromomethane	96	70-130
Chloroethane	75	70-130
Freon 11	88	70-130
Ethanol	85	70-130
Freon 113	92	70-130
1,1-Dichloroethene	91	70-130
Acetone	82	70-130
2-Propanol	70	70-130
Carbon Disulfide	91	70-130
Methylene Chloride	76	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	79	70-130
1,1-Dichloroethane	85	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	92	70-130
Tetrahydrofuran	72	70-130
Chloroform	84	70-130
1,1,1-Trichloroethane	88	70-130
Cyclohexane	87	70-130
Carbon Tetrachloride	92	70-130
Benzene	90	70-130
1,2-Dichloroethane	88	70-130
Heptane	88	70-130
Trichloroethene	95	70-130
1,2-Dichloropropane	88	70-130
Bromodichloromethane	93	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	83	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	95	70-130
Tetrachloroethene	98	70-130
2-Hexanone	85	70-130
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	95	70-130

Client Sample ID: LCSD

Lab ID#: 2311635-16AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/5/23 01:56 PM

Compound	%Recovery	Method Limits
Ethyl Benzene	97	70-130
m,p-Xylene	93	70-130
o-Xylene	93	70-130
Styrene	96	70-130
Bromoform	109	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	95	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	97	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	98	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	104	70-130
Naphthalene	100	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: LCS

Lab ID#: 2311635-16B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 12:30 PM

Compound	%Recovery	Method Limits
Freon 12	86	70-130
Freon 114	94	70-130
Chloromethane	72	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	77	70-130
Bromomethane	95	70-130
Chloroethane	73	70-130
Freon 11	87	70-130
Ethanol	83	70-130
Freon 113	91	70-130
1,1-Dichloroethene	90	70-130
Acetone	81	70-130
2-Propanol	69 Q	70-130
Carbon Disulfide	90	70-130
Methylene Chloride	74	70-130
Methyl tert-butyl ether	80	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	77	70-130
1,1-Dichloroethane	83	70-130
2-Butanone (Methyl Ethyl Ketone)	84	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	71	70-130
Chloroform	84	70-130
1,1,1-Trichloroethane	86	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	90	70-130
Benzene	91	70-130
1,2-Dichloroethane	89	70-130
Heptane	90	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	87	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	93	70-130
4-Methyl-2-pentanone	85	70-130
Toluene	92	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	99	70-130
2-Hexanone	85	70-130
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	99	70-130
Chlorobenzene	96	70-130

Client Sample ID: LCS

Lab ID#: 2311635-16B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 12:30 PM

Compound	%Recovery	Method Limits
Ethyl Benzene	97	70-130
m,p-Xylene	93	70-130
o-Xylene	92	70-130
Styrene	97	70-130
Bromoform	109	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	95	70-130
4-Ethyltoluene	96	70-130
1,3,5-Trimethylbenzene	98	70-130
1,2,4-Trimethylbenzene	99	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	98	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	105	70-130
Naphthalene	98	60-140

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	108	70-130

Client Sample ID: LCSD

Lab ID#: 2311635-16BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 01:05 PM

Compound	%Recovery	Method Limits
Freon 12	86	70-130
Freon 114	93	70-130
Chloromethane	76	70-130
Vinyl Chloride	85	70-130
1,3-Butadiene	79	70-130
Bromomethane	97	70-130
Chloroethane	74	70-130
Freon 11	88	70-130
Ethanol	82	70-130
Freon 113	92	70-130
1,1-Dichloroethene	90	70-130
Acetone	82	70-130
2-Propanol	70	70-130
Carbon Disulfide	90	70-130
Methylene Chloride	75	70-130
Methyl tert-butyl ether	81	70-130
trans-1,2-Dichloroethene	91	70-130
Hexane	79	70-130
1,1-Dichloroethane	84	70-130
2-Butanone (Methyl Ethyl Ketone)	83	70-130
cis-1,2-Dichloroethene	91	70-130
Tetrahydrofuran	71	70-130
Chloroform	84	70-130
1,1,1-Trichloroethane	87	70-130
Cyclohexane	86	70-130
Carbon Tetrachloride	91	70-130
Benzene	90	70-130
1,2-Dichloroethane	87	70-130
Heptane	88	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	87	70-130
Bromodichloromethane	94	70-130
cis-1,3-Dichloropropene	92	70-130
4-Methyl-2-pentanone	84	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	91	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	100	70-130
2-Hexanone	85	70-130
Dibromochloromethane	101	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	96	70-130

Client Sample ID: LCSD

Lab ID#: 2311635-16BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a120605	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/6/23 01:05 PM

Compound	%Recovery	Method Limits
Ethyl Benzene	98	70-130
m,p-Xylene	94	70-130
o-Xylene	94	70-130
Styrene	97	70-130
Bromoform	109	70-130
Cumene	93	70-130
1,1,2,2-Tetrachloroethane	96	70-130
4-Ethyltoluene	97	70-130
1,3,5-Trimethylbenzene	99	70-130
1,2,4-Trimethylbenzene	100	70-130
1,3-Dichlorobenzene	101	70-130
1,4-Dichlorobenzene	99	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	102	70-130
Hexachlorobutadiene	106	70-130
Naphthalene	100	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	107	70-130

180 Blue Ravine Rd. Suite B, Folsom, CA 95630
 Phone (800) 985-5955; Fax (916) 351-8279

For Laboratory Use Only

PID: _____ Workorder #: 2311635

Click links below to view:

[Canister Sampling Guide](#)

[Helium Shroud Video](#)

Client: <u>FV STEEL AND WIRE</u>	PID: _____	Special Instructions/Notes: _____	Turnaround Time (Rush surcharges may apply)	
Project Name: <u>VI / FV STEEL</u>			Select TAT from drop down box	
Project Manager: <u>Gary Braun</u>	P.O.# _____		Canister Vacuum/Pressure	
Sampler: <u>Chris Lutan</u>			Requested Analyses	
Site Name: _____		<u>55-7: Start 11:17</u>	Lab Use Only	

Lab ID	Sample Identification	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	T-O-S			
				Date	Time	Date	Time								
01A	55-2	N3122	23118	11/27/23	1243	11/27/23	1250	30.0	5.0			X			
02A	55-6	N8401	24282	11/27/23	1250	11/27/23	1255	24.5	2.0			X			
03A	55-8	N5470	26674	11/27/23	11:23	11/27/23	1131	30.0	4.2			X			
04A	55-7	N1929	23223	11/27/23	11:17	11/27/23	1125	29.5	5.0			X			
05A	55-5	N6742	23725	11/27/23	1437	11/27/23	1444	29.5	5.0			X			
06A	55-11	N2680	23735	11/27/23	1352	11/27/23	1401	29.5	5.0			X			
07A	55-12	N6226	23129	11/27/23	1325	11/27/23	1354	29.5	5.0			X			
08A	55-13	N6737	23969	11/28/23	1350	11/28/23	1418	29.48	5.0			X			
09A	55-3	N7999	23216	11/27/23	910	11/27/23	918	29.0	5.0			X			
10A	55-10	N7786	23609	11/27/23	1327	11/27/23	1334	29.34	5.0			X			
11A	55-9	N3440	23171	11/27/23	1310	11/27/23	1319	29.5	5.0			X			
12A	55-1	N7556	24921	11/27/23	1419	11/27/23	1426	28.5	5.0			X			
13A	55-4	LC644	23527	11/27/23	1418	11/27/23	1425	28.8	5.0			X			

Relinquished by: (Signature/Affiliation) <u>Chris Lutan / AECOM</u>	Date <u>11/28/23</u>	Time <u>1705</u>	Received by: (Signature/Affiliation) <u>Z NUGG EATL</u>	Date <u>11/20/23</u>	Time <u>1015</u>
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only		
Shipper Name: <u>Fed Ex</u>	Custody Seals Intact?	Yes No <u>None</u>
<p>Sample Transportation Notice: Relinquishing signature on this document indicates that samples are shipped in compliance with all applicable local, State, Federal, and international laws, regulations, and ordinances of any kind. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Eurofins Air Toxics against any claim, demand, or action, of any kind, related to the collection, handling, of shipping of samples. D.O.T Hotline (800) 467-4922</p>		