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GHD Reference No: 081618

31 October 2024

Mr. Steven Scharf
New York State Department of Environmental Conservation
Division of Solid & Hazardous Materials
Bureau of Solid Waste and Corrective Action
625 Broadway
Albany, New York
12233-7015

Interim Sampling Results Report
Operable Unit 5, RUCO Polymer Corp., Hicksville, NY

Dear Mr. Scharf

As proposed in the "Revised 2023 Annual Sampling Event Results/Periodic Review Report", dated May 22, 2024 (2023 Report), an interim sampling event was to be conducted in the summer of 2024 associated with Operable Unit 05 (OU5) at RUCO Polymer Corp. (RUCO) Site in Hicksville, New York. A soil vapor remediation system was installed beneath the building at 1 Enterprise Place as the remedy for OU-5. The remedy consists of six Sub-Slab depressurization (SSD) systems that have been in passive operation since 2018. The locations of the SSD systems are shown on Figure 1. The purpose of the interim sampling was to determine current indoor air concentrations and sub-slab vapor concentrations beneath the building following a temporary shutdown of the six SSD systems. The New York State Department of Environmental Conservation (NYSDEC) approved the interim sampling via letter dated May 29, 2024. The purpose of this letter is to present the results of the interim sampling.

The general scope of the proposed interim sampling was as follows:

– Shut down the SSDs, cap each riser pipe, and allow sub-slab conditions to equilibrate for a period of approximately one-month period.
– Collect sub-slab vapor samples from locations near historical sampling locations SSV-4, SSV-5, and SSV-6.
– Collect indoor air samples at the locations used for the indoor air sampling event conducted in 2020 (which are near SSV-4, SSV-5, and SSV-6).

The purpose of this letter report is to present the results of the interim sampling.

The six SSD systems were shut down and capped on July 3, 2024.

As indicated in the 2023 Report, sub-slab vapor samples were to be collected from locations near historical sub-slab sampling locations SSV-4, SSV-5, and SSV-6. A vapor probe (SV-1) was previously installed near SSV-5 and was used for this interim sampling event. New vapor probes (SV-2 and SV-3) were installed near SSV-4 and SSV-6 using the same protocols for installation of SV-1. The vapor probes were installed on August 16, 2024. The locations of the vapor probes are shown on Figure 1.

Samples were collected on August 30, 2024.

Sub-slab vapor samples were collected from the three soil vapor probes using the protocols utilized for previous sampling of SV-1 (Remedial Design (RD), dated January 16, 2018, and approved by NYSDEC on January 25, 2018).

Indoor air samples were collected at the locations used for the indoor air sampling event conducted in 2020 (near SSV-4, SSV-5, and SSV-6). This event included the collection of an outdoor air sample as well. Sample locations are presented on Figure 1. Sample collection followed protocols previously implemented for indoor air sampling (RD). A building questionnaire and product inventory was completed consistent with past indoor air sampling events and is presented in Attachment 1.

Samples were analyzed for volatile organic compounds (VOCs) using method TO-15. Results are presented in Table 1. The laboratory report is presented in Attachment 2 and a data validation memorandum is presented in Attachment 3. The data were found to be acceptable with the qualifications noted.

The interim sampling sub-slab soil vapor and indoor air analytical results were screened against New York State Department of Health (NYSDOH) Soil Vapor/Indoor Air Matrices, dated May 2017 (Matrices), for the chemicals of concern (COCs) as indicated in the Record of Decision (ROD) issued March 31, 2017 for Operable Unit 05: Offsite Soil Vapor. These COCs are tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride. A summary of concentrations for these COCs is presented in Table 2. Concentrations for the five other VOCs listed in Matrices A, B, and C (cis-1,2-dichloroethene, 1,1-dichloroethene, carbon tetrachloride, 1,1,1-trichloroethane, and methylene chloride) are also presented in Table 2. The SSD systems located in the general area corresponding to each the three sub-slab vapor and indoor air sample locations are also identified in Table 2.

Vinyl chloride, cis-1,2-dichloroethene, 1,1-dichloroethene, carbon tetrachloride, 1,1,1-trichloroethane, and methylene chloride were either not detected in the indoor air and sub-slab vapor samples or at very low concentrations, and based on the Matrices, no further action would be required to address these chemicals.

TCE was not detected in indoor air samples. TCE concentrations in sub-slab vapor samples were low except for SV-1 (130 $\mu g/m^3$), which is above the mitigation threshold concentration of 100 $\mu g/m^3$ for sub-slab soil vapor. SV-1 is in proximity to SSD-3 and SSD-4.

PCE was either not detected or detected at very low concentrations in the indoor air samples (less than 3 $\mu g/m^3$); however, PCE was detected in sub-slab vapor samples collected from SV-1 and SV-3 at concentrations of 27,000 $\mu g/m^3$ and 7,100 $\mu g/m^3$, respectively. These concentrations are greater than 1,000 $\mu g/m^3$ threshold for mitigation. SV-1 is in proximity to SSD-3 and SSD-4 and SV-3 is in proximity to SSD-2 and SSD-3.

As indicated in the 2023 Report, PCE was detected above the 1,000 $\mu g/m^3$ threshold for mitigation in all SSD samples collected in December 2023 except for SSD-2. The PCE concentrations above 1,000 $\mu g/m^3$ ranged between 1,100 $\mu g/m^3$ and 6,400 $\mu g/m^3$.

Based on the soil vapor and indoor air sampling results, further mitigation to address sub-slab vapor concentrations of primarily PCE is required in the vicinity of SSD-1, SSD-2, SSD-3, and SSD-4. These SSDs will be returned to operation. Mitigation in the SSD-5 and SSD-6 area is not required based on the soil vapor and indoor air sampling results; however, these two SSDs will be returned to operation.

The following is recommended:

– Continue passive operation of the six SSD systems. The SSD systems will return to operation on November 14, 2024.
– Continue annual sampling of the six SSD systems and VP-46 in accordance with the Site Management Plan (SMP), dated February 9, 2021 (Revision No. 3,) and approved by NYSDEC on June 24, 2021.
– Consider future interim sampling events when PCE and TCE concentrations decrease. The SSD systems will be modified with valving to cease air flow in November 2024 to facilitate future shut down events.

– When concentration decreases are indicative of meeting no further action per the Matrices, implement shut down as proposed in the 2023 Report.

Should you have any questions on the above, please do not hesitate to contact the undersigned at 519-340-4313 or email john.pentilchuk@GHD.com.

Regards

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JP/kf/LTR-#132

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COMMERCIAL

COMMERCE STREET

ADMIN. BLDG.

RUCO SITE

PLANT3

PLANT 2

PLANT 1

PILOT PLANT

WAREHOUSE

1 ENTERPRISE PLACE BUILDING

LOADING DOCK

COMMERCIAL

SSD-6

87'

SSD-5

SV-2
IA-3

LOADING DOCK

97'

SV-1

SSD-4

IA-1

104'

SSD-3

98'

SV-3

LOADING DOCK

IA-2

SSD-2

96'

SSD-1

132'

VP-46

MINEOLA AVENUE

FERNEY STREET

RESIDENTIAL

NEW SOUTH ROAD

RESIDENTIAL

SOMERSET AVENUE

COMMERCIAL

RESIDENTIAL

LEGEND

- VP-41 — SOIL VAPOR SAMPLE LOCATION SHALLOW = 5 - 5.5 ft
- SSD-4 — SUBSLAB DEPRESSURIZATION SYSTEM
- OFFICE AREAS
- IA-1 — INDOOR AIR SAMPLE LOCATION
- SV-1 — SOIL VAPOR PROBE LOCATION

0 75 150 ft

1" = 150 ft

N

GHD

RUCO POLYMER CORP, SITE
HICKSVILLE, NEW YORK
OU5

SUB SLAB DEPRESSURIZATION SYSTEM AND SAMPLE LOCATIONS

Project No. **81618**
Date **October 2024**

FIGURE 1

Filename: \\ghdnet\ghd\CA\Waterloo\Projects\662\081618\Digital_Design\ACAD\Figures\LTR132\081618-GHD-00-00-LTR-EN-D101_WA-132.dwg
Plot Date: 29 October 2024 7:46 AM

Table 1

Analytical Results Summary
OU-5 Soil Vapor and Air Sampling
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York

Location ID:		IA-1	IA-2	IA-3	OA-1	SV-1	SV-2	SV-3
Sample Name:		IA083024CZ02	IA083024CZ03	IA083024CZ01	OA083024CZ01	SSV083024CZ02	SSV083024CZ01	SSV083024CZ03
Sample Date:		08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/m^3	1.1 U	1.1 U	1.1 U	1.1 U	13 J	7.0	22 U
1,1,2,2-Tetrachloroethane	µg/m^3	1.4 U	1.4 U	1.4 U	1.4 U	68 U	1.4 U	27 U
1,1,2-Trichloroethane	µg/m^3	1.1 U	1.1 U	1.1 U	1.1 U	54 U	1.1 U	22 U
1,1-Dichloroethane	µg/m^3	0.81 U	0.81 U	0.81 U	0.81 U	40 U	0.81 U	16 U
1,1-Dichloroethene	µg/m^3	0.20 U	0.20 U	0.20 U	0.20 U	9.9 U	0.20 U	4.0 U
1,2,4-Trichlorobenzene	µg/m^3	3.7 U	3.7 U	3.7 U	3.7 U	180 U	3.7 U	74 U
1,2,4-Trimethylbenzene	µg/m^3	2.7	0.98 U	0.39 J	0.53 J	49 U	1.0	20 U
1,2-Dibromoethane (Ethylene dibromide)	µg/m^3	1.5 U	1.5 U	1.5 U	1.5 U	76 U	1.5 U	31 U
1,2-Dichlorobenzene	µg/m^3	1.2 U	1.2 U	1.2 U	1.2 U	60 U	1.2 U	24 U
1,2-Dichloroethane	µg/m^3	0.81 U	0.81 U	0.81 U	0.81 U	40 U	0.81 U	16 U
1,2-Dichloropropane	µg/m^3	0.92 U	0.92 U	0.92 U	0.92 U	46 U	0.92 U	18 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/m^3	1.4 U	1.4 U	1.4 U	1.4 U	69 U	1.4 U	28 U
1,3,5-Trimethylbenzene	µg/m^3	0.88 J	0.98 U	0.98 U	0.98 U	49 U	0.34 J	20 U
1,3-Butadiene	µg/m^3	0.44 U	0.44 U	0.44 U	0.44 U	22 U	0.44 U	8.8 U
1,3-Dichlorobenzene	µg/m^3	1.2 U	1.2 U	1.2 U	1.2 U	60 U	1.2 U	24 U
1,4-Dichlorobenzene	µg/m^3	1.2 U	1.2 U	1.2 U	1.2 U	60 U	1.2 U	24 U
1,4-Dioxane	µg/m^3	0.38 J	18 U	18 U	18 U	890 U	0.35 J	360 U
2,2,4-Trimethylpentane	µg/m^3	0.48 J	0.34 J	0.39 J	0.93 U	46 U	0.45 J	19 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/m^3	9.6	1.5 U	1.5 U	1.5 U	73 U	1.5 U	29 U
2-Chlorotoluene	µg/m^3	1.0 U	1.0 U	1.0 U	1.0 U	51 U	1.0 U	21 U
2-Hexanone	µg/m^3	2.0 U	2.0 U	2.0 U	2.0 U	100 U	2.0 U	41 U
2-Phenylbutane (sec-Butylbenzene)	µg/m^3	1.1 U	1.1 U	1.1 U	1.1 U	54 U	1.1 U	22 U
4-Ethyl toluene	µg/m^3	0.95 J	0.98 U	0.98 U	0.98 U	49 U	0.26 J	20 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/m^3	2.0 U	2.0 U	2.0 U	2.0 U	100 U	2.0 U	41 U
Acetone	µg/m^3	44	24	23	12	590 U	34	240 U
Allyl chloride	µg/m^3	1.6 U	1.6 U	1.6 U	1.6 U	78 U	1.6 U	31 U
Benzene	µg/m^3	0.51 J	0.36 J	0.38 J	0.28 J	32 U	0.63 J	13 U
Benzyl chloride	µg/m^3	1.0 U	1.0 U	1.0 U	1.0 U	51 U	1.0 U	21 U
Bromodichloromethane	µg/m^3	1.3 U	1.3 U	1.3 U	1.3 U	66 U	1.3 U	27 U
Bromoform	µg/m^3	2.1 U	2.1 U	2.1 U	2.1 U	100 U	2.1 U	41 U
Bromomethane (Methyl bromide)	µg/m^3	0.78 U	0.78 U	0.78 U	0.78 U	39 U	0.78 U	15 U
Butane	µg/m^3	3.0	1.4	3.7	0.63 J	59 U	2.2	24 U
Carbon disulfide	µg/m^3	1.3 J	0.42 J	1.6 U	1.5 J	50 J	0.58 J	31 U
Carbon tetrachloride	µg/m^3	0.34	0.38	0.33	0.33	11 U	0.67	4.4 U
Chlorobenzene	µg/m^3	0.92 U	0.92 U	0.92 U	0.92 U	46 U	0.92 U	18 U
Chlorodifluoromethane	µg/m^3	2.2	3.2	2.2	2.9	88 U	0.97 J	35 U
Chloroethane	µg/m^3	1.3 U	1.3 U	1.3 U	1.3 U	65 U	1.3 U	26 U
Chloroform (Trichloromethane)	µg/m^3	0.98 U	0.26 J	0.98 U	0.98 U	48 U	0.24 J	19 U
Chloromethane (Methyl chloride)	µg/m^3	1.1	2.1	0.96 J	1.3	51 U	0.96 J	21 U
cis-1,2-Dichloroethene	µg/m^3	0.20 U	0.20 U	0.20 U	0.20 U	9.9 U	0.20 U	4.0 U
cis-1,3-Dichloropropene	µg/m^3	0.91 U	0.91 U	0.91 U	0.91 U	45 U	0.91 U	18 U
Cyclohexane	µg/m^3	0.83	0.69 U	0.69 U	0.69 U	34 U	0.29 J	14 U

Table 1

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OU-5 Soil Vapor and Air Sampling
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York

Location ID:		IA-1	IA-2	IA-3	OA-1	SV-1	SV-2	SV-3
Sample Name:		IA083024CZ02	IA083024CZ03	IA083024CZ01	OA083024CZ01	SSV083024CZ02	SSV083024CZ01	SSV083024CZ03
Sample Date:		08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024	08/30/2024
Parameters	**Unit**							
Volatile Organic Compounds								
Cymene (p-Isopropyltoluene)	µg/m^3	0.94 J	1.1 U	1.1 U	1.1 U	54 U	0.90 J	22 U
Dibromochloromethane	µg/m^3	1.7 U	1.7 U	1.7 U	1.7 U	85 U	1.7 U	34 U
Dichlorodifluoromethane (CFC-12)	µg/m^3	2.1 J	2.1 J	1.9 J	2.1 J	120 U	2.7	49 U
Ethanol	µg/m^3	57	6.8 J	17	9.4 U	470 U	17	190 U
Ethylbenzene	µg/m^3	1.9	0.60 J	0.46 J	0.33 J	43 U	0.77 J	17 U
Hexachlorobutadiene	µg/m^3	2.1 U	2.1 U	2.1 U	2.1 U	110 U	2.1 U	42 U
Hexane	µg/m^3	1.0 J	1.8 U	0.46 J	1.8 U	87 U	0.67 J	35 U
Isopropyl alcohol	µg/m^3	5.2 J	4.3 J	12 U	12 U	610 U	12 U	240 U
Isopropyl benzene	µg/m^3	0.97 J	0.98 U	0.98 U	0.98 U	49 U	0.20 J	20 U
m&p-Xylenes	µg/m^3	5.4	0.92 J	1.0 J	0.93 J	110 U	2.1 J	43 U
Methyl methacrylate	µg/m^3	97	18	27	1.0 J	100 U	74	41 U
Methyl tert butyl ether (MTBE)	µg/m^3	0.72 U	0.72 U	0.72 U	0.72 U	36 U	0.72 U	14 U
Methylene chloride	µg/m^3	0.99 J	0.81 J	0.92 J	0.85 J	86 U	0.81 J	35 U
N-Butylbenzene	µg/m^3	1.1 U	1.1 U	1.1 U	1.1 U	54 U	1.1 U	22 U
N-Heptane	µg/m^3	1.4	0.39 J	0.46 J	0.82 U	41 U	1.0	16 U
N-Propylbenzene	µg/m^3	0.70 J	0.98 U	0.98 U	0.98 U	49 U	0.23 J	20 U
Naphthalene	µg/m^3	2.6 U	2.6 U	2.6 U	2.6 U	130 U	2.6 U	52 U
o-Xylene	µg/m^3	1.8	0.29 J	0.35 J	0.31 J	43 U	0.79 J	17 U
Styrene	µg/m^3	4.1	1.2	0.85 U	0.79 J	42 U	0.36 J	17 U
tert-Butyl alcohol	µg/m^3	9.2 J	15 U	15 U	15 U	750 U	5.2 J	300 U
tert-Butylbenzene	µg/m^3	1.1 U	1.1 U	1.1 U	1.1 U	54 U	1.1 U	22 U
Tetrachloroethene	µg/m^3	1.3 J	1.4 U	2.4	1.4 U	27000	100	7100
Tetrahydrofuran	µg/m^3	15 U	15 U	15 U	15 U	730 U	15 U	290 U
Toluene	µg/m^3	15	3.8	17	0.73 J	37 U	18	15 U
trans-1,2-Dichloroethene	µg/m^3	0.79 U	0.79 U	0.79 U	0.79 U	39 U	0.79 U	16 U
trans-1,3-Dichloropropene	µg/m^3	0.91 U	0.91 U	0.91 U	0.91 U	45 U	0.91 U	18 U
Trichloroethene	µg/m^3	0.20 U	0.20 U	0.20 U	0.20 U	130	18	29
Trichlorofluoromethane (CFC-11)	µg/m^3	1.1	1.1	0.97 J	1.1	56 U	1.5	22 U
Trifluorotrichloroethane (CFC-113)	µg/m^3	1.5 U	1.5 U	0.42 J	1.5 U	76 U	4.8	31 U
Vinyl bromide (Bromoethene)	µg/m^3	0.87 U	0.87 U	0.87 U	0.87 U	43 U	0.87 U	17 U
Vinyl chloride	µg/m^3	0.20 U	0.20 U	0.20 U	0.20 U	9.9 U	0.20 U	4.0 U
Helium	%v/v	--	--	--	--	0.025 U	0.063	0.025 U

Notes:

U - Not detected at the associated reporting limit
J - Estimated concentration
"--" - Not applicable
µg/m^3 - microgram per cubic meter

Table 2

NYSDOH Matrix Concentration Evaluation
OU-5 Soil Vapor and Air Sampling
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York

	SSD-3/SSD-4 Area			SSD-3/SSD-2 Area			SSD-6/SSD-5 Area		
Location ID:	**IA-1**	**SV-1**	**Matrix Action**	**IA-2**	**SV-3**	**Matrix Action**	**IA-3**	**SV-2**	**Matrix Action**
Volatile Organic Compounds (µg/m^3)									
Matrix A									
Trichloroethene	0.20 U	130	Mitigate	0.20 U	29	NFA	0.20 U	18	NFA
cis-1,2-Dichloroethene	0.20 U	9.9 U	NFA	0.20 U	4.0 U	NFA	0.20 U	0.20 U	NFA
1,1-Dichloroethene	0.20 U	9.9 U	NFA	0.20 U	4.0 U	NFA	0.20 U	0.20 U	NFA
Carbon tetrachloride	0.34	11 U	NFA	0.38	4.4 U	NFA	0.33	0.67	NFA
Matrix B									
Tetrachloroethene	1.3 J	27000	Mitigate	1.4 U	7100	Mitigate	2.4	100	NFA
1,1,1-Trichloroethane	1.1 U	13 J	NFA	1.1 U	22 U	NFA	1.1 U	7.0	NFA
Methylene chloride	0.99 J	86 U	NFA	0.81 J	35 U	NFA	0.92 J	0.81 J	NFA
Matrix C									
Vinyl chloride	0.20 U	9.9 U	NFA	0.20 U	4.0 U	NFA	0.20 U	0.20 U	NFA

Notes:

IA - Indoor Air Sample
SV - Sub-Slab Vapor Sample
U - Not detected at the associated reporting limit
J - Estimated concentration
µg/m^3 - microgram per cubic meter
NFA - No Further Action
Matricies and actions per New York State Department of Health Soil Vapor/Indoor Air Matrix A, B, and C, dated May 2017

Attachments

Attachment 1

Building Questionnaire and Product Inventory

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

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

Preparer's Name Kennedy Thomas Cancellierie Date/Time Prepared 8/20/24

Preparer's Affiliation Preferred Env. Phone No. _____

Purpose of Investigation Indoor Air Survey

1. OCCUPANT:

Interviewed: (Y)/ N

Allied Building Supply - A BeaconCompany
~~Last Name:~~ _____ ~~First Name:~~ _____

Address: 1 Enterprise Place, Hicksville NY

County: Nassau

Home Phone: NA Office Phone: 516-733-2900

Number of Occupants/persons at this location 25+ Age of Occupants 20+

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

Interviewed: (Y)/ N

Last Name: Mejas First Name: Eric

Address: 1 Enterprise Place, Hicksville NY

County: Nassau

Home Phone: NA Office Phone: 646-772-1531

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential	School	(Commercial/Multi-use)
Industrial	Church	Other: _____

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

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

If multiple units, how many? NA

If the property is commercial, type?

Business Type(s) Roofing/building supply company

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

Other characteristics:

Number of floors 1 Building age 1960

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

Partially - office area

4. AIRFLOW

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

Airflow between floors

NA

Airflow near source

NA

Outdoor air infiltration

The bay doors of the warehouse are left open most of the day allowing for an on-going fresh air exchange

Infiltration into air ducts

NA

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

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

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

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

No drains visible. There are cracks in the warehouse that were previously sealed that appear to need repairs and newer cracks in the concrete. Pictures attached.

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

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

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

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: Natural gas

Boiler/furnace located in: Basement Outdoors Main Floor Other_____

Air conditioning: Central Air Window units Open Windows None

Rooftop units for office area

Are there air distribution ducts present? Y /(N)

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

NA

7. OCCUPANCY

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

Level	**General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**
Basement	
1st Floor	Warehouse for roofing supplies and attached office
2nd Floor	
3rd Floor	
4th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

a. Is there an attached garage? Y /(N)

b. Does the garage have a separate heating unit? Y / N /(NA)

c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N /(NA) Please specify_____

d. Has the building ever had a fire? Y /(N) When?_____

e. Is a kerosene or unvented gas space heater present? Y /(N) Where? _____

f. Is there a workshop or hobby/craft area? (Y)/ N Where & Type? _____

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

h. Have cleaning products been used recently? Y /(N) When & Type? _____

i. Have cosmetic products been used recently? Y /(N) When & Type? _____

j. Has painting/staining been done in the last 6 months? Y / (N) Where & When? _____

k. Is there new carpet, drapes or other textiles? Y / (N) Where & When? _____

l. Have air fresheners been used recently? Y / (N) When & Type? _____

m. Is there a kitchen exhaust fan? Y / (N) If yes, where vented?_____

n. Is there a bathroom exhaust fan? (Y) / N If yes, where vented?_____

o. Is there a clothes dryer? Y / (N) If yes, is it vented outside? Y / N

p. Has there been a pesticide application? Y / (N) When & Type?_____

Are there odors in the building? Y / (N)
If yes, please describe: _____

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

If yes, what types of solvents are used? None used on site

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

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

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

Is there a radon mitigation system for the building/structure? (Y) / N Date of Installation: 7/2019
Is the system active or passive? (Active)/Passive Currently off/capped for indoor air sampling

9. WATER AND SEWAGE

Water Supply: (Public Water) Drilled Well Driven Well Dug Well Other: _____

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

10. RELOCATION INFORMATION (for oil spill residential emergency) NA

a. Provide reasons why relocation is recommended: _____

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

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

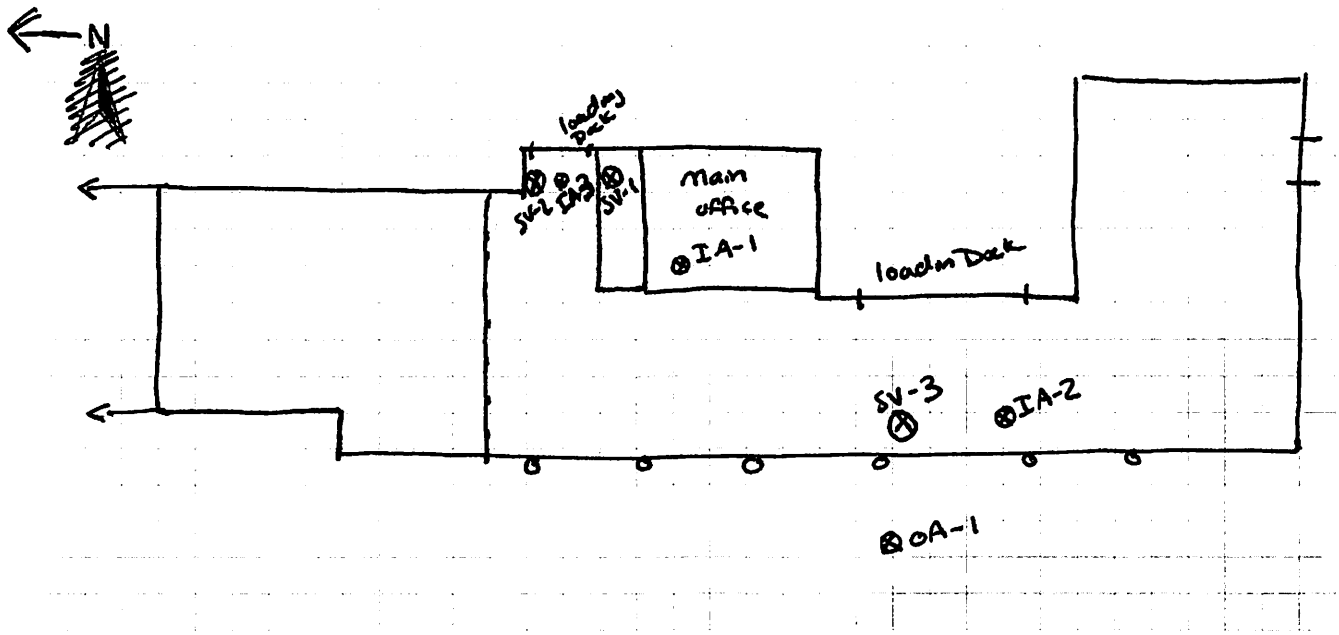
d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

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

Basement:

First Floor:



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: Mini Rae 3000

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

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)(ppm)	Photo ** Y / N
near SSV-2	Diesel Treat	64oz	used		0.4	Y
near SSV-2	Low VOC PVC Stp 1 + 2 Activator / Primer	2 gals	used	toluene, acetone, sulfur	0.8	Y
near SSV-2	PVC Kee HP Membrane cleaner	25gal	UO	Acetone, xylene, ethylbenzene	88.3	Y
near SSV-2	Calcium Chloride Pellets - Ice melt		used	calcium chloride	0.1	Y
near SSV-2	CAV-Grip PVC Adhesive	14 Units	UO	acetone	0.0	Y
near SSV-2	Low-VOC PVC Bonding Adhesive	72 units	UO	toluene, acetone	1.7-10.9	Y
near SSV-2	EPDM X-23 low VOC Bonding Adhesive	140-5gal units	UO	pho	3.8	Y
near SSV-2	Low-VOC PVC Bonding Adhesive	13 5-gal units	UO	toluene, acetone	20.3	Y
near IA-2	Para pro Roof Resin	137 5-gal units	UO	methyl methacrylate	13.2	Y
West of IA-2	Parapro Flashing Resin	127 5gal units	UO	methyl methacrylate, ethylhexyl acrylate	4.9	Y
West of IA-2	Bitutnene Adhesive Primer BZLVC	40 5gal units	UO	Hydrocarbon Resin Ethly benzene	0.4	Y
West of IA-2	Bitutnene Liquid Membrane	36 1.5gal units	UO	methylene Diphenyl diisocyanate	0.1	N
West of IA-2	PA-311 R Adhesive	90gal	UO	asphalt, naphtha solvent	4.8	Y
West of IA-2	Pro Primer Resin	21 gals	UO		0.8	Y
West of IA-2	Polyurethane Adhesive for Versi Fleece Roofing	780gal	UO	polyurethane, Trisphosphate	0.0	Y
West of IA-2	Pro prep	18 gal	UO	ethyle acetate	0.5	Y
West of IA-2	PA 828 Flashing cement	27 5-gal units	UO	asphalt, mineral spirits	0.4	Y
Western Central Building	Sika Top Dispesion Part A	1 gal	Used	2-2 Dimethyl-1,3 propanediol	0.1	Y
SE of SSV-3	Kemperol AC Spand FR Gray - component A	56 3-gal units	UO	methyl methacrylate	1.0	Y

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**

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

Location	Description	Size	condition	Ingredients	Reading	Photos?
SE of SSV-3	Kemperol 022 components A+B	15 gals	UO	calcium carbonate Barium sulfate	0.1	Y
SE of SSV-3	Kempertec AC Primer component A	9 gals	UO	methyl methacrylate	0.1	Y
↓	Kemperol 2K-Pur components A+B	54 3-gal units	UO	photo	0.1	Y
↓	LUCAS No. 315 Asphalt Primer	14 5-gal units	UO	Asphalts Aliphatic hydrocarbons	0.6	Y
↓	Weed Zapper	3-55-gal Drums	Used	Petroleum Distallites Bromacil	0.7	Y

Attachment 2

Laboratory Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Michelle Kukta
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, New York 14304

Generated 9/24/2024 9:08:27 AM

JOB DESCRIPTION

Hooker Chemical/Ruco Polymer Superfund Site
200-74969-1

JOB NUMBER

200-74969-1

Eurofins Burlington
530 Community Drive
Suite 11
South Burlington VT 05403

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization

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9/24/2024 9:08:27 AM

Authorized for release by
Elizabeth Nye, Project Manager I
Elizabeth.Nye@et.eurofinsus.com
(802)923-1029

Table of Contents

Definitions/Glossary

Client: GHD Services Inc. Job ID: 200-74969-1
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site SDG: 200-74969-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Air - GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 200-74969-1 Eurofins Burlington

Job Narrative
200-74969-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/31/2024 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice.

Receipt Exceptions
During the canister pressure check performed upon receipt, it was observed that the following sample was received at an elevated residual vacuum level: IA083024CZ03 (200-74969-6). The associated flow controller was evaluated upon receipt and was found to be within the acceptable flow range as compared to the original set flow rate.

The residual vacuum for sample 200-74969-6 is just above the target range. There will be no change to the sample analysis or increase in sample RL.

Air - GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Air - GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: SSV083024CZ01

Lab Sample ID: 200-74969-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.7		2.5	0.54	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	0.97	J	1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	0.96	J	1.0	0.31	ug/m3	1		TO-15	Total/NA
n-Butane	2.2		1.2	0.48	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.5		1.1	0.28	ug/m3	1		TO-15	Total/NA
1,1,2-Trichlorotrifluoroethane	4.8		1.5	0.41	ug/m3	1		TO-15	Total/NA
Ethanol	17		9.4	4.9	ug/m3	1		TO-15	Total/NA
Acetone	34		12	3.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	0.58	J	1.6	0.40	ug/m3	1		TO-15	Total/NA
Methylene Chloride	0.81	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
tert-Butyl alcohol	5.2	J	15	3.6	ug/m3	1		TO-15	Total/NA
n-Hexane	0.67	J	1.8	0.39	ug/m3	1		TO-15	Total/NA
Chloroform	0.24	J	0.98	0.20	ug/m3	1		TO-15	Total/NA
1,1,1-Trichloroethane	7.0		1.1	0.24	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.29	J	0.69	0.20	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.67		0.22	0.14	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.45	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Benzene	0.63	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
n-Heptane	1.0		0.82	0.23	ug/m3	1		TO-15	Total/NA
Trichloroethene	18		0.20	0.13	ug/m3	1		TO-15	Total/NA
Methyl methacrylate	74		2.0	0.57	ug/m3	1		TO-15	Total/NA
1,4-Dioxane	0.35	J	18	0.30	ug/m3	1		TO-15	Total/NA
Toluene	18		0.75	0.23	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	100		1.4	0.14	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.77	J	0.87	0.30	ug/m3	1		TO-15	Total/NA
m,p-Xylene	2.1	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
o-Xylene	0.79	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
Styrene	0.36	J	0.85	0.25	ug/m3	1		TO-15	Total/NA
Cumene	0.20	J	0.98	0.20	ug/m3	1		TO-15	Total/NA
n-Propylbenzene	0.23	J	0.98	0.23	ug/m3	1		TO-15	Total/NA
4-Ethyltoluene	0.26	J	0.98	0.24	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.34	J	0.98	0.23	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.0		0.98	0.39	ug/m3	1		TO-15	Total/NA
4-Isopropyltoluene	0.90	J	1.1	0.33	ug/m3	1		TO-15	Total/NA
Helium	0.063		0.025	0.0082	% v/v	1		D1946	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.54		0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.27	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.47	J	0.50	0.15	ppb v/v	1		TO-15	Total/NA
n-Butane	0.93		0.50	0.20	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.27		0.20	0.050	ppb v/v	1		TO-15	Total/NA
1,1,2-Trichlorotrifluoroethane	0.62		0.20	0.053	ppb v/v	1		TO-15	Total/NA
Ethanol	8.8		5.0	2.6	ppb v/v	1		TO-15	Total/NA
Acetone	14		5.0	1.6	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.19	J	0.50	0.13	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.23	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
tert-Butyl alcohol	1.7	J	5.0	1.2	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.19	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chloroform	0.048	J	0.20	0.041	ppb v/v	1		TO-15	Total/NA
1,1,1-Trichloroethane	1.3		0.20	0.044	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.083	J	0.20	0.058	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Burlington

Client Sample ID: SSV083024CZ01 (Continued)

Lab Sample ID: 200-74969-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.11		0.035	0.022	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.096	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Benzene	0.20	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.25		0.20	0.055	ppb v/v	1		TO-15	Total/NA
Trichloroethene	3.3		0.037	0.025	ppb v/v	1		TO-15	Total/NA
Methyl methacrylate	18		0.50	0.14	ppb v/v	1		TO-15	Total/NA
1,4-Dioxane	0.096	J	5.0	0.082	ppb v/v	1		TO-15	Total/NA
Toluene	4.8		0.20	0.062	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	15		0.20	0.021	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.18	J	0.20	0.069	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.49	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.18	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Styrene	0.084	J	0.20	0.059	ppb v/v	1		TO-15	Total/NA
Cumene	0.041	J	0.20	0.041	ppb v/v	1		TO-15	Total/NA
n-Propylbenzene	0.047	J	0.20	0.047	ppb v/v	1		TO-15	Total/NA
4-Ethyltoluene	0.054	J	0.20	0.049	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.069	J	0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.21		0.20	0.080	ppb v/v	1		TO-15	Total/NA
4-Isopropyltoluene	0.16	J	0.20	0.061	ppb v/v	1		TO-15	Total/NA

Client Sample ID: SSV083024CZ02

Lab Sample ID: 200-74969-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	50	J	77	20	ug/m3	49.6		TO-15	Total/NA
1,1,1-Trichloroethane	13	J	54	12	ug/m3	49.6		TO-15	Total/NA
Trichloroethene	130		9.9	6.7	ug/m3	49.6		TO-15	Total/NA
Tetrachloroethene	24000	E	67	7.1	ug/m3	49.6		TO-15	Total/NA
Trichloroethene - DL	140	D	51	34	ug/m3	253		TO-15	Total/NA
Tetrachloroethene - DL	27000	D	340	36	ug/m3	253		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	16	J	25	6.4	ppb v/v	49.6		TO-15	Total/NA
1,1,1-Trichloroethane	2.3	J	9.9	2.2	ppb v/v	49.6		TO-15	Total/NA
Trichloroethene	23		1.8	1.2	ppb v/v	49.6		TO-15	Total/NA
Tetrachloroethene	3600	E	9.9	1.0	ppb v/v	49.6		TO-15	Total/NA
Trichloroethene - DL	27	D	9.4	6.3	ppb v/v	253		TO-15	Total/NA
Tetrachloroethene - DL	4000	D	51	5.3	ppb v/v	253		TO-15	Total/NA

Client Sample ID: SSV083024CZ03

Lab Sample ID: 200-74969-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	29		4.0	2.7	ug/m3	19.9		TO-15	Total/NA
Tetrachloroethene	8300	E	27	2.8	ug/m3	19.9		TO-15	Total/NA
Trichloroethene - DL	25	D	20	14	ug/m3	101		TO-15	Total/NA
Tetrachloroethene - DL	7100	D	140	14	ug/m3	101		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.5		0.74	0.50	ppb v/v	19.9		TO-15	Total/NA
Tetrachloroethene	1200	E	4.0	0.42	ppb v/v	19.9		TO-15	Total/NA
Trichloroethene - DL	4.7	D	3.8	2.5	ppb v/v	101		TO-15	Total/NA
Tetrachloroethene - DL	1000	D	20	2.1	ppb v/v	101		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA083024CZ01 — Lab Sample ID: 200-74969-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	1.9	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	2.2		1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	0.96	J	1.0	0.31	ug/m3	1		TO-15	Total/NA
n-Butane	3.7		1.2	0.48	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	0.97	J	1.1	0.28	ug/m3	1		TO-15	Total/NA
1,1,2-Trichlorotrifluoroethane	0.42	J	1.5	0.41	ug/m3	1		TO-15	Total/NA
Ethanol	17		9.4	4.9	ug/m3	1		TO-15	Total/NA
Acetone	23		12	3.8	ug/m3	1		TO-15	Total/NA
Methylene Chloride	0.92	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
n-Hexane	0.46	J	1.8	0.39	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.33		0.22	0.14	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.39	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Benzene	0.38	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
n-Heptane	0.46	J	0.82	0.23	ug/m3	1		TO-15	Total/NA
Methyl methacrylate	27		2.0	0.57	ug/m3	1		TO-15	Total/NA
Toluene	17		0.75	0.23	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	2.4		1.4	0.14	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.46	J	0.87	0.30	ug/m3	1		TO-15	Total/NA
m,p-Xylene	1.0	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
o-Xylene	0.35	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.39	J	0.98	0.39	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.39	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.63		0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.46	J	0.50	0.15	ppb v/v	1		TO-15	Total/NA
n-Butane	1.5		0.50	0.20	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.17	J	0.20	0.050	ppb v/v	1		TO-15	Total/NA
1,1,2-Trichlorotrifluoroethane	0.055	J	0.20	0.053	ppb v/v	1		TO-15	Total/NA
Ethanol	8.8		5.0	2.6	ppb v/v	1		TO-15	Total/NA
Acetone	9.6		5.0	1.6	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.27	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.13	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.053		0.035	0.022	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.083	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Benzene	0.12	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.11	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA
Methyl methacrylate	6.6		0.50	0.14	ppb v/v	1		TO-15	Total/NA
Toluene	4.6		0.20	0.062	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.35		0.20	0.021	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.11	J	0.20	0.069	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.24	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.081	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.080	J	0.20	0.080	ppb v/v	1		TO-15	Total/NA

Client Sample ID: IA083024CZ02 — Lab Sample ID: 200-74969-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	2.2		1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	1.1		1.0	0.31	ug/m3	1		TO-15	Total/NA
n-Butane	3.0		1.2	0.48	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA083024CZ02 (Continued)

Lab Sample ID: 200-74969-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichlorofluoromethane	1.1		1.1	0.28	ug/m3	1		TO-15	Total/NA
Ethanol	57		9.4	4.9	ug/m3	1		TO-15	Total/NA
Acetone	44		12	3.8	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	5.2	J	12	3.9	ug/m3	1		TO-15	Total/NA
Carbon disulfide	1.3	J	1.6	0.40	ug/m3	1		TO-15	Total/NA
Methylene Chloride	0.99	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
tert-Butyl alcohol	9.2	J	15	3.6	ug/m3	1		TO-15	Total/NA
n-Hexane	1.0	J	1.8	0.39	ug/m3	1		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	9.6		1.5	1.4	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.83		0.69	0.20	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.34		0.22	0.14	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.48	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Benzene	0.51	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
n-Heptane	1.4		0.82	0.23	ug/m3	1		TO-15	Total/NA
Methyl methacrylate	97		2.0	0.57	ug/m3	1		TO-15	Total/NA
1,4-Dioxane	0.38	J	18	0.30	ug/m3	1		TO-15	Total/NA
Toluene	15		0.75	0.23	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	1.3	J	1.4	0.14	ug/m3	1		TO-15	Total/NA
Ethylbenzene	1.9		0.87	0.30	ug/m3	1		TO-15	Total/NA
m,p-Xylene	5.4		2.2	0.41	ug/m3	1		TO-15	Total/NA
o-Xylene	1.8		0.87	0.27	ug/m3	1		TO-15	Total/NA
Styrene	4.1		0.85	0.25	ug/m3	1		TO-15	Total/NA
Cumene	0.97	J	0.98	0.20	ug/m3	1		TO-15	Total/NA
n-Propylbenzene	0.70	J	0.98	0.23	ug/m3	1		TO-15	Total/NA
4-Ethyltoluene	0.95	J	0.98	0.24	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.88	J	0.98	0.23	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	2.7		0.98	0.39	ug/m3	1		TO-15	Total/NA
4-Isopropyltoluene	0.94	J	1.1	0.33	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.42	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.62		0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.53		0.50	0.15	ppb v/v	1		TO-15	Total/NA
n-Butane	1.3		0.50	0.20	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.19		0.20	0.050	ppb v/v	1		TO-15	Total/NA
Ethanol	30		5.0	2.6	ppb v/v	1		TO-15	Total/NA
Acetone	19		5.0	1.6	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	2.1	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.42	J	0.50	0.13	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.29	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
tert-Butyl alcohol	3.0	J	5.0	1.2	ppb v/v	1		TO-15	Total/NA
n-Hexane	0.29	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Methyl Ethyl Ketone (2-Butanone)	3.3		0.50	0.49	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.24		0.20	0.058	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.054		0.035	0.022	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.10	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Benzene	0.16	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.35		0.20	0.055	ppb v/v	1		TO-15	Total/NA
Methyl methacrylate	24		0.50	0.14	ppb v/v	1		TO-15	Total/NA
1,4-Dioxane	0.11	J	5.0	0.082	ppb v/v	1		TO-15	Total/NA
Toluene	4.0		0.20	0.062	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.19	J	0.20	0.021	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA083024CZ02 (Continued)

Lab Sample ID: 200-74969-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.45		0.20	0.069	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	1.2		0.50	0.095	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.42		0.20	0.063	ppb v/v	1		TO-15	Total/NA
Styrene	0.96		0.20	0.059	ppb v/v	1		TO-15	Total/NA
Cumene	0.20	J	0.20	0.041	ppb v/v	1		TO-15	Total/NA
n-Propylbenzene	0.14	J	0.20	0.047	ppb v/v	1		TO-15	Total/NA
4-Ethyltoluene	0.19	J	0.20	0.049	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.18	J	0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.54		0.20	0.080	ppb v/v	1		TO-15	Total/NA
4-Isopropyltoluene	0.17	J	0.20	0.061	ppb v/v	1		TO-15	Total/NA

Client Sample ID: IA083024CZ03

Lab Sample ID: 200-74969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	3.2		1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	2.1		1.0	0.31	ug/m3	1		TO-15	Total/NA
n-Butane	1.4		1.2	0.48	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.1		1.1	0.28	ug/m3	1		TO-15	Total/NA
Ethanol	6.8	J	9.4	4.9	ug/m3	1		TO-15	Total/NA
Acetone	24		12	3.8	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	4.3	J	12	3.9	ug/m3	1		TO-15	Total/NA
Carbon disulfide	0.42	J	1.6	0.40	ug/m3	1		TO-15	Total/NA
Methylene Chloride	0.81	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
Chloroform	0.26	J	0.98	0.20	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.38		0.22	0.14	ug/m3	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.34	J	0.93	0.18	ug/m3	1		TO-15	Total/NA
Benzene	0.36	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
n-Heptane	0.39	J	0.82	0.23	ug/m3	1		TO-15	Total/NA
Methyl methacrylate	18		2.0	0.57	ug/m3	1		TO-15	Total/NA
Toluene	3.8		0.75	0.23	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.60	J	0.87	0.30	ug/m3	1		TO-15	Total/NA
m,p-Xylene	0.92	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
o-Xylene	0.29	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
Styrene	1.2		0.85	0.25	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.42	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.91		0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	1.0		0.50	0.15	ppb v/v	1		TO-15	Total/NA
n-Butane	0.61		0.50	0.20	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.20		0.20	0.050	ppb v/v	1		TO-15	Total/NA
Ethanol	3.6	J	5.0	2.6	ppb v/v	1		TO-15	Total/NA
Acetone	9.9		5.0	1.6	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	1.7	J	5.0	1.6	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.14	J	0.50	0.13	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.23	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
Chloroform	0.054	J	0.20	0.041	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.061		0.035	0.022	ppb v/v	1		TO-15	Total/NA
2,2,4-Trimethylpentane	0.072	J	0.20	0.038	ppb v/v	1		TO-15	Total/NA
Benzene	0.11	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
n-Heptane	0.094	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: IA083024CZ03 (Continued)

Lab Sample ID: 200-74969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl methacrylate	4.3		0.50	0.14	ppb v/v	1		TO-15	Total/NA
Toluene	1.0		0.20	0.062	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.14	J	0.20	0.069	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.21	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.067	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Styrene	0.28		0.20	0.059	ppb v/v	1		TO-15	Total/NA

Client Sample ID: OA083024CZ01

Lab Sample ID: 200-74969-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	2.1	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	2.9		1.8	0.42	ug/m3	1		TO-15	Total/NA
Chloromethane	1.3		1.0	0.31	ug/m3	1		TO-15	Total/NA
n-Butane	0.63	J	1.2	0.48	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.1		1.1	0.28	ug/m3	1		TO-15	Total/NA
Acetone	12		12	3.8	ug/m3	1		TO-15	Total/NA
Carbon disulfide	1.5	J	1.6	0.40	ug/m3	1		TO-15	Total/NA
Methylene Chloride	0.85	J	1.7	0.63	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.33		0.22	0.14	ug/m3	1		TO-15	Total/NA
Benzene	0.28	J	0.64	0.14	ug/m3	1		TO-15	Total/NA
Methyl methacrylate	1.0	J	2.0	0.57	ug/m3	1		TO-15	Total/NA
Toluene	0.73	J	0.75	0.23	ug/m3	1		TO-15	Total/NA
Ethylbenzene	0.33	J	0.87	0.30	ug/m3	1		TO-15	Total/NA
m,p-Xylene	0.93	J	2.2	0.41	ug/m3	1		TO-15	Total/NA
o-Xylene	0.31	J	0.87	0.27	ug/m3	1		TO-15	Total/NA
Styrene	0.79	J	0.85	0.25	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.53	J	0.98	0.39	ug/m3	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorodifluoromethane	0.42	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Chlorodifluoromethane	0.81		0.50	0.12	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.63		0.50	0.15	ppb v/v	1		TO-15	Total/NA
n-Butane	0.27	J	0.50	0.20	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.20		0.20	0.050	ppb v/v	1		TO-15	Total/NA
Acetone	4.9		5.0	1.6	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.47	J	0.50	0.13	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.24	J	0.50	0.18	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.052		0.035	0.022	ppb v/v	1		TO-15	Total/NA
Benzene	0.088	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
Methyl methacrylate	0.25	J	0.50	0.14	ppb v/v	1		TO-15	Total/NA
Toluene	0.19	J	0.20	0.062	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.076	J	0.20	0.069	ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.21	J	0.50	0.095	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.072	J	0.20	0.063	ppb v/v	1		TO-15	Total/NA
Styrene	0.18	J	0.20	0.059	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.11	J	0.20	0.080	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SSV083024CZ01

Lab Sample ID: 200-74969-1

Date Collected: 08/30/24 07:19
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**2.7**		2.5	0.54	ug/m3			09/04/24 20:43	1
Chlorodifluoromethane	**0.97**	**J**	1.8	0.42	ug/m3			09/04/24 20:43	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/04/24 20:43	1
Chloromethane	**0.96**	**J**	1.0	0.31	ug/m3			09/04/24 20:43	1
n-Butane	**2.2**		1.2	0.48	ug/m3			09/04/24 20:43	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/04/24 20:43	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/04/24 20:43	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/04/24 20:43	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/04/24 20:43	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/04/24 20:43	1
Trichlorofluoromethane	**1.5**		1.1	0.28	ug/m3			09/04/24 20:43	1
1,1,2-Trichlorotrifluoroethane	**4.8**		1.5	0.41	ug/m3			09/04/24 20:43	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/04/24 20:43	1
Ethanol	**17**		9.4	4.9	ug/m3			09/04/24 20:43	1
Acetone	**34**		12	3.8	ug/m3			09/04/24 20:43	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			09/04/24 20:43	1
Carbon disulfide	**0.58**	**J**	1.6	0.40	ug/m3			09/04/24 20:43	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/04/24 20:43	1
Methylene Chloride	**0.81**	**J**	1.7	0.63	ug/m3			09/04/24 20:43	1
tert-Butyl alcohol	**5.2**	**J**	15	3.6	ug/m3			09/04/24 20:43	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/04/24 20:43	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/04/24 20:43	1
n-Hexane	**0.67**	**J**	1.8	0.39	ug/m3			09/04/24 20:43	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/04/24 20:43	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/04/24 20:43	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/04/24 20:43	1
Chloroform	**0.24**	**J**	0.98	0.20	ug/m3			09/04/24 20:43	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/04/24 20:43	1
1,1,1-Trichloroethane	**7.0**		1.1	0.24	ug/m3			09/04/24 20:43	1
Cyclohexane	**0.29**	**J**	0.69	0.20	ug/m3			09/04/24 20:43	1
Carbon tetrachloride	**0.67**		0.22	0.14	ug/m3			09/04/24 20:43	1
2,2,4-Trimethylpentane	**0.45**	**J**	0.93	0.18	ug/m3			09/04/24 20:43	1
Benzene	**0.63**	**J**	0.64	0.14	ug/m3			09/04/24 20:43	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/04/24 20:43	1
n-Heptane	**1.0**		0.82	0.23	ug/m3			09/04/24 20:43	1
Trichloroethene	**18**		0.20	0.13	ug/m3			09/04/24 20:43	1
Methyl methacrylate	**74**		2.0	0.57	ug/m3			09/04/24 20:43	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/04/24 20:43	1
1,4-Dioxane	**0.35**	**J**	18	0.30	ug/m3			09/04/24 20:43	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/04/24 20:43	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/04/24 20:43	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/04/24 20:43	1
Toluene	**18**		0.75	0.23	ug/m3			09/04/24 20:43	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/04/24 20:43	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/04/24 20:43	1
Tetrachloroethene	**100**		1.4	0.14	ug/m3			09/04/24 20:43	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/04/24 20:43	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/04/24 20:43	1

Client Sample ID: SSV083024CZ01

Lab Sample ID: 200-74969-1

Date Collected: 08/30/24 07:19
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/04/24 20:43	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/04/24 20:43	1
Ethylbenzene	**0.77**	**J**	0.87	0.30	ug/m3			09/04/24 20:43	1
m,p-Xylene	**2.1**	**J**	2.2	0.41	ug/m3			09/04/24 20:43	1
o-Xylene	**0.79**	**J**	0.87	0.27	ug/m3			09/04/24 20:43	1
Styrene	**0.36**	**J**	0.85	0.25	ug/m3			09/04/24 20:43	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/04/24 20:43	1
Cumene	**0.20**	**J**	0.98	0.20	ug/m3			09/04/24 20:43	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/04/24 20:43	1
n-Propylbenzene	**0.23**	**J**	0.98	0.23	ug/m3			09/04/24 20:43	1
4-Ethyltoluene	**0.26**	**J**	0.98	0.24	ug/m3			09/04/24 20:43	1
1,3,5-Trimethylbenzene	**0.34**	**J**	0.98	0.23	ug/m3			09/04/24 20:43	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/04/24 20:43	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/04/24 20:43	1
1,2,4-Trimethylbenzene	**1.0**		0.98	0.39	ug/m3			09/04/24 20:43	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/04/24 20:43	1
4-Isopropyltoluene	**0.90**	**J**	1.1	0.33	ug/m3			09/04/24 20:43	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/04/24 20:43	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/04/24 20:43	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/04/24 20:43	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/04/24 20:43	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/04/24 20:43	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/04/24 20:43	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/04/24 20:43	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/04/24 20:43	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**0.54**		0.50	0.11	ppb v/v			09/04/24 20:43	1
Chlorodifluoromethane	**0.27**	**J**	0.50	0.12	ppb v/v			09/04/24 20:43	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/04/24 20:43	1
Chloromethane	**0.47**	**J**	0.50	0.15	ppb v/v			09/04/24 20:43	1
n-Butane	**0.93**		0.50	0.20	ppb v/v			09/04/24 20:43	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/04/24 20:43	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/04/24 20:43	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/04/24 20:43	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/04/24 20:43	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/04/24 20:43	1
Trichlorofluoromethane	**0.27**		0.20	0.050	ppb v/v			09/04/24 20:43	1
1,1,2-Trichlorotrifluoroethane	**0.62**		0.20	0.053	ppb v/v			09/04/24 20:43	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/04/24 20:43	1
Ethanol	**8.8**		5.0	2.6	ppb v/v			09/04/24 20:43	1
Acetone	**14**		5.0	1.6	ppb v/v			09/04/24 20:43	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			09/04/24 20:43	1
Carbon disulfide	**0.19**	**J**	0.50	0.13	ppb v/v			09/04/24 20:43	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/04/24 20:43	1
Methylene Chloride	**0.23**	**J**	0.50	0.18	ppb v/v			09/04/24 20:43	1
tert-Butyl alcohol	**1.7**	**J**	5.0	1.2	ppb v/v			09/04/24 20:43	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/04/24 20:43	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/04/24 20:43	1

Client Sample ID: SSV083024CZ01

Lab Sample ID: 200-74969-1

Date Collected: 08/30/24 07:19
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	**0.19**	**J**	0.50	0.11	ppb v/v			09/04/24 20:43	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/04/24 20:43	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/04/24 20:43	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/04/24 20:43	1
Chloroform	**0.048**	**J**	0.20	0.041	ppb v/v			09/04/24 20:43	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/04/24 20:43	1
1,1,1-Trichloroethane	**1.3**		0.20	0.044	ppb v/v			09/04/24 20:43	1
Cyclohexane	**0.083**	**J**	0.20	0.058	ppb v/v			09/04/24 20:43	1
Carbon tetrachloride	**0.11**		0.035	0.022	ppb v/v			09/04/24 20:43	1
2,2,4-Trimethylpentane	**0.096**	**J**	0.20	0.038	ppb v/v			09/04/24 20:43	1
Benzene	**0.20**	**J**	0.20	0.044	ppb v/v			09/04/24 20:43	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/04/24 20:43	1
n-Heptane	**0.25**		0.20	0.055	ppb v/v			09/04/24 20:43	1
Trichloroethene	**3.3**		0.037	0.025	ppb v/v			09/04/24 20:43	1
Methyl methacrylate	**18**		0.50	0.14	ppb v/v			09/04/24 20:43	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/04/24 20:43	1
1,4-Dioxane	**0.096**	**J**	5.0	0.082	ppb v/v			09/04/24 20:43	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 20:43	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/04/24 20:43	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/04/24 20:43	1
Toluene	**4.8**		0.20	0.062	ppb v/v			09/04/24 20:43	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/04/24 20:43	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/04/24 20:43	1
Tetrachloroethene	**15**		0.20	0.021	ppb v/v			09/04/24 20:43	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/04/24 20:43	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/04/24 20:43	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/04/24 20:43	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 20:43	1
Ethylbenzene	**0.18**	**J**	0.20	0.069	ppb v/v			09/04/24 20:43	1
m,p-Xylene	**0.49**	**J**	0.50	0.095	ppb v/v			09/04/24 20:43	1
o-Xylene	**0.18**	**J**	0.20	0.063	ppb v/v			09/04/24 20:43	1
Styrene	**0.084**	**J**	0.20	0.059	ppb v/v			09/04/24 20:43	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/04/24 20:43	1
Cumene	**0.041**	**J**	0.20	0.041	ppb v/v			09/04/24 20:43	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/04/24 20:43	1
n-Propylbenzene	**0.047**	**J**	0.20	0.047	ppb v/v			09/04/24 20:43	1
4-Ethyltoluene	**0.054**	**J**	0.20	0.049	ppb v/v			09/04/24 20:43	1
1,3,5-Trimethylbenzene	**0.069**	**J**	0.20	0.047	ppb v/v			09/04/24 20:43	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/04/24 20:43	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 20:43	1
1,2,4-Trimethylbenzene	**0.21**		0.20	0.080	ppb v/v			09/04/24 20:43	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/04/24 20:43	1
4-Isopropyltoluene	**0.16**	**J**	0.20	0.061	ppb v/v			09/04/24 20:43	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/04/24 20:43	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/04/24 20:43	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/04/24 20:43	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/04/24 20:43	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/04/24 20:43	1

Client Sample ID: SSV083024CZ01 — Lab Sample ID: 200-74969-1

Date Collected: 08/30/24 07:19 — **Matrix: Air**
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/04/24 20:43	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/04/24 20:43	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/04/24 20:43	1

Method: ASTM D1946 - Fixed Gases (Helium)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Helium	**0.063**		0.025	0.0082	% v/v			09/06/24 19:54	1

Client Sample ID: SSV083024CZ02 — Lab Sample ID: 200-74969-2

Date Collected: 08/30/24 07:29 — **Matrix: Air**
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	120	U	120	27	ug/m3			09/04/24 21:34	49.6
Chlorodifluoromethane	88	U	88	21	ug/m3			09/04/24 21:34	49.6
1,2-Dichlorotetrafluoroethane	69	U	69	17	ug/m3			09/04/24 21:34	49.6
Chloromethane	51	U	51	15	ug/m3			09/04/24 21:34	49.6
n-Butane	59	U	59	24	ug/m3			09/04/24 21:34	49.6
Vinyl chloride	9.9	U	9.9	2.7	ug/m3			09/04/24 21:34	49.6
1,3-Butadiene	22	U	22	4.3	ug/m3			09/04/24 21:34	49.6
Bromomethane	39	U	39	14	ug/m3			09/04/24 21:34	49.6
Chloroethane	65	U	65	24	ug/m3			09/04/24 21:34	49.6
Bromoethene(Vinyl Bromide)	43	U	43	11	ug/m3			09/04/24 21:34	49.6
Trichlorofluoromethane	56	U	56	14	ug/m3			09/04/24 21:34	49.6
1,1,2-Trichlorotrifluoroethane	76	U	76	20	ug/m3			09/04/24 21:34	49.6
1,1-Dichloroethene	9.9	U	9.9	5.1	ug/m3			09/04/24 21:34	49.6
Ethanol	470	U	470	240	ug/m3			09/04/24 21:34	49.6
Acetone	590	U	590	190	ug/m3			09/04/24 21:34	49.6
Isopropyl alcohol	610	U	610	200	ug/m3			09/04/24 21:34	49.6
Carbon disulfide	**50**	**J**	77	20	ug/m3			09/04/24 21:34	49.6
3-Chloropropene	78	U	78	19	ug/m3			09/04/24 21:34	49.6
Methylene Chloride	86	U	86	31	ug/m3			09/04/24 21:34	49.6
tert-Butyl alcohol	750	U	750	180	ug/m3			09/04/24 21:34	49.6
Methyl tert-butyl ether	36	U	36	6.4	ug/m3			09/04/24 21:34	49.6
trans-1,2-Dichloroethene	39	U	39	4.5	ug/m3			09/04/24 21:34	49.6
n-Hexane	87	U	87	19	ug/m3			09/04/24 21:34	49.6
1,1-Dichloroethane	40	U	40	5.0	ug/m3			09/04/24 21:34	49.6
Methyl Ethyl Ketone (2-Butanone)	73	U	73	72	ug/m3			09/04/24 21:34	49.6
cis-1,2-Dichloroethene	9.9	U	9.9	4.1	ug/m3			09/04/24 21:34	49.6
Chloroform	48	U	48	9.9	ug/m3			09/04/24 21:34	49.6
Tetrahydrofuran	730	U	730	190	ug/m3			09/04/24 21:34	49.6
1,1,1-Trichloroethane	**13**	**J**	54	12	ug/m3			09/04/24 21:34	49.6
Cyclohexane	34	U	34	9.9	ug/m3			09/04/24 21:34	49.6
Carbon tetrachloride	11	U	11	6.9	ug/m3			09/04/24 21:34	49.6
2,2,4-Trimethylpentane	46	U	46	8.8	ug/m3			09/04/24 21:34	49.6
Benzene	32	U	32	7.0	ug/m3			09/04/24 21:34	49.6
1,2-Dichloroethane	40	U	40	19	ug/m3			09/04/24 21:34	49.6

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: SSV083024CZ02
Date Collected: 08/30/24 07:29
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-2
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Heptane	41	U	41	11	ug/m3			09/04/24 21:34	49.6
Trichloroethene	**130**		9.9	6.7	ug/m3			09/04/24 21:34	49.6
Methyl methacrylate	100	U	100	28	ug/m3			09/04/24 21:34	49.6
1,2-Dichloropropane	46	U	46	22	ug/m3			09/04/24 21:34	49.6
1,4-Dioxane	890	U	890	15	ug/m3			09/04/24 21:34	49.6
Bromodichloromethane	66	U	66	17	ug/m3			09/04/24 21:34	49.6
cis-1,3-Dichloropropene	45	U	45	10	ug/m3			09/04/24 21:34	49.6
4-Methyl-2-pentanone (Methyl isobutyl ketone)	100	U	100	26	ug/m3			09/04/24 21:34	49.6
Toluene	37	U	37	12	ug/m3			09/04/24 21:34	49.6
trans-1,3-Dichloropropene	45	U	45	12	ug/m3			09/04/24 21:34	49.6
1,1,2-Trichloroethane	54	U	54	20	ug/m3			09/04/24 21:34	49.6
Tetrachloroethene	**24000**	**E**	67	7.1	ug/m3			09/04/24 21:34	49.6
Methyl Butyl Ketone (2-Hexanone)	100	U	100	30	ug/m3			09/04/24 21:34	49.6
Dibromochloromethane	85	U	85	27	ug/m3			09/04/24 21:34	49.6
1,2-Dibromoethane	76	U	76	16	ug/m3			09/04/24 21:34	49.6
Chlorobenzene	46	U	46	10	ug/m3			09/04/24 21:34	49.6
Ethylbenzene	43	U	43	15	ug/m3			09/04/24 21:34	49.6
m,p-Xylene	110	U	110	20	ug/m3			09/04/24 21:34	49.6
o-Xylene	43	U	43	14	ug/m3			09/04/24 21:34	49.6
Styrene	42	U	42	12	ug/m3			09/04/24 21:34	49.6
Bromoform	100	U	100	62	ug/m3			09/04/24 21:34	49.6
Cumene	49	U	49	10	ug/m3			09/04/24 21:34	49.6
1,1,2,2-Tetrachloroethane	68	U	68	15	ug/m3			09/04/24 21:34	49.6
n-Propylbenzene	49	U	49	11	ug/m3			09/04/24 21:34	49.6
4-Ethyltoluene	49	U	49	12	ug/m3			09/04/24 21:34	49.6
1,3,5-Trimethylbenzene	49	U	49	11	ug/m3			09/04/24 21:34	49.6
2-Chlorotoluene	51	U	51	12	ug/m3			09/04/24 21:34	49.6
tert-Butylbenzene	54	U	54	13	ug/m3			09/04/24 21:34	49.6
1,2,4-Trimethylbenzene	49	U	49	20	ug/m3			09/04/24 21:34	49.6
sec-Butylbenzene	54	U	54	12	ug/m3			09/04/24 21:34	49.6
4-Isopropyltoluene	54	U	54	17	ug/m3			09/04/24 21:34	49.6
1,3-Dichlorobenzene	60	U	60	22	ug/m3			09/04/24 21:34	49.6
1,4-Dichlorobenzene	60	U	60	27	ug/m3			09/04/24 21:34	49.6
Benzyl chloride	51	U	51	23	ug/m3			09/04/24 21:34	49.6
n-Butylbenzene	54	U	54	30	ug/m3			09/04/24 21:34	49.6
1,2-Dichlorobenzene	60	U	60	20	ug/m3			09/04/24 21:34	49.6
1,2,4-Trichlorobenzene	180	U	180	120	ug/m3			09/04/24 21:34	49.6
Hexachlorobutadiene	110	U	110	58	ug/m3			09/04/24 21:34	49.6
Naphthalene	130	U	130	78	ug/m3			09/04/24 21:34	49.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25	5.5	ppb v/v			09/04/24 21:34	49.6
Chlorodifluoromethane	25	U	25	6.0	ppb v/v			09/04/24 21:34	49.6
1,2-Dichlorotetrafluoroethane	9.9	U	9.9	2.4	ppb v/v			09/04/24 21:34	49.6
Chloromethane	25	U	25	7.4	ppb v/v			09/04/24 21:34	49.6
n-Butane	25	U	25	9.9	ppb v/v			09/04/24 21:34	49.6
Vinyl chloride	3.9	U	3.9	1.0	ppb v/v			09/04/24 21:34	49.6
1,3-Butadiene	9.9	U	9.9	1.9	ppb v/v			09/04/24 21:34	49.6

Client Sample ID: SSV083024CZ02

Date Collected: 08/30/24 07:29
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-2

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	9.9	U	9.9	3.5	ppb v/v			09/04/24 21:34	49.6
Chloroethane	25	U	25	8.9	ppb v/v			09/04/24 21:34	49.6
Bromoethene(Vinyl Bromide)	9.9	U	9.9	2.5	ppb v/v			09/04/24 21:34	49.6
Trichlorofluoromethane	9.9	U	9.9	2.5	ppb v/v			09/04/24 21:34	49.6
1,1,2-Trichlorotrifluoroethane	9.9	U	9.9	2.6	ppb v/v			09/04/24 21:34	49.6
1,1-Dichloroethene	2.5	U	2.5	1.3	ppb v/v			09/04/24 21:34	49.6
Ethanol	250	U	250	130	ppb v/v			09/04/24 21:34	49.6
Acetone	250	U	250	79	ppb v/v			09/04/24 21:34	49.6
Isopropyl alcohol	250	U	250	79	ppb v/v			09/04/24 21:34	49.6
Carbon disulfide	**16**	**J**	25	6.4	ppb v/v			09/04/24 21:34	49.6
3-Chloropropene	25	U	25	6.0	ppb v/v			09/04/24 21:34	49.6
Methylene Chloride	25	U	25	8.9	ppb v/v			09/04/24 21:34	49.6
tert-Butyl alcohol	250	U	250	60	ppb v/v			09/04/24 21:34	49.6
Methyl tert-butyl ether	9.9	U	9.9	1.8	ppb v/v			09/04/24 21:34	49.6
trans-1,2-Dichloroethene	9.9	U	9.9	1.1	ppb v/v			09/04/24 21:34	49.6
n-Hexane	25	U	25	5.5	ppb v/v			09/04/24 21:34	49.6
1,1-Dichloroethane	9.9	U	9.9	1.2	ppb v/v			09/04/24 21:34	49.6
Methyl Ethyl Ketone (2-Butanone)	25	U	25	24	ppb v/v			09/04/24 21:34	49.6
cis-1,2-Dichloroethene	2.5	U	2.5	1.0	ppb v/v			09/04/24 21:34	49.6
Chloroform	9.9	U	9.9	2.0	ppb v/v			09/04/24 21:34	49.6
Tetrahydrofuran	250	U	250	64	ppb v/v			09/04/24 21:34	49.6
1,1,1-Trichloroethane	**2.3**	**J**	9.9	2.2	ppb v/v			09/04/24 21:34	49.6
Cyclohexane	9.9	U	9.9	2.9	ppb v/v			09/04/24 21:34	49.6
Carbon tetrachloride	1.7	U	1.7	1.1	ppb v/v			09/04/24 21:34	49.6
2,2,4-Trimethylpentane	9.9	U	9.9	1.9	ppb v/v			09/04/24 21:34	49.6
Benzene	9.9	U	9.9	2.2	ppb v/v			09/04/24 21:34	49.6
1,2-Dichloroethane	9.9	U	9.9	4.6	ppb v/v			09/04/24 21:34	49.6
n-Heptane	9.9	U	9.9	2.7	ppb v/v			09/04/24 21:34	49.6
Trichloroethene	**23**		1.8	1.2	ppb v/v			09/04/24 21:34	49.6
Methyl methacrylate	25	U	25	6.9	ppb v/v			09/04/24 21:34	49.6
1,2-Dichloropropane	9.9	U	9.9	4.7	ppb v/v			09/04/24 21:34	49.6
1,4-Dioxane	250	U	250	4.1	ppb v/v			09/04/24 21:34	49.6
Bromodichloromethane	9.9	U	9.9	2.5	ppb v/v			09/04/24 21:34	49.6
cis-1,3-Dichloropropene	9.9	U	9.9	2.2	ppb v/v			09/04/24 21:34	49.6
4-Methyl-2-pentanone (Methyl isobutyl ketone)	25	U	25	6.4	ppb v/v			09/04/24 21:34	49.6
Toluene	9.9	U	9.9	3.1	ppb v/v			09/04/24 21:34	49.6
trans-1,3-Dichloropropene	9.9	U	9.9	2.7	ppb v/v			09/04/24 21:34	49.6
1,1,2-Trichloroethane	9.9	U	9.9	3.7	ppb v/v			09/04/24 21:34	49.6
Tetrachloroethene	**3600**	**E**	9.9	1.0	ppb v/v			09/04/24 21:34	49.6
Methyl Butyl Ketone (2-Hexanone)	25	U	25	7.4	ppb v/v			09/04/24 21:34	49.6
Dibromochloromethane	9.9	U	9.9	3.1	ppb v/v			09/04/24 21:34	49.6
1,2-Dibromoethane	9.9	U	9.9	2.1	ppb v/v			09/04/24 21:34	49.6
Chlorobenzene	9.9	U	9.9	2.2	ppb v/v			09/04/24 21:34	49.6
Ethylbenzene	9.9	U	9.9	3.4	ppb v/v			09/04/24 21:34	49.6
m,p-Xylene	25	U	25	4.7	ppb v/v			09/04/24 21:34	49.6
o-Xylene	9.9	U	9.9	3.1	ppb v/v			09/04/24 21:34	49.6
Styrene	9.9	U	9.9	2.9	ppb v/v			09/04/24 21:34	49.6
Bromoform	9.9	U	9.9	6.0	ppb v/v			09/04/24 21:34	49.6

Client Sample ID: SSV083024CZ02
Lab Sample ID: 200-74969-2
Date Collected: 08/30/24 07:29
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cumene	9.9	U	9.9	2.0	ppb v/v			09/04/24 21:34	49.6
1,1,2,2-Tetrachloroethane	9.9	U	9.9	2.1	ppb v/v			09/04/24 21:34	49.6
n-Propylbenzene	9.9	U	9.9	2.3	ppb v/v			09/04/24 21:34	49.6
4-Ethyltoluene	9.9	U	9.9	2.4	ppb v/v			09/04/24 21:34	49.6
1,3,5-Trimethylbenzene	9.9	U	9.9	2.3	ppb v/v			09/04/24 21:34	49.6
2-Chlorotoluene	9.9	U	9.9	2.3	ppb v/v			09/04/24 21:34	49.6
tert-Butylbenzene	9.9	U	9.9	2.3	ppb v/v			09/04/24 21:34	49.6
1,2,4-Trimethylbenzene	9.9	U	9.9	4.0	ppb v/v			09/04/24 21:34	49.6
sec-Butylbenzene	9.9	U	9.9	2.2	ppb v/v			09/04/24 21:34	49.6
4-Isopropyltoluene	9.9	U	9.9	3.0	ppb v/v			09/04/24 21:34	49.6
1,3-Dichlorobenzene	9.9	U	9.9	3.7	ppb v/v			09/04/24 21:34	49.6
1,4-Dichlorobenzene	9.9	U	9.9	4.4	ppb v/v			09/04/24 21:34	49.6
Benzyl chloride	9.9	U	9.9	4.4	ppb v/v			09/04/24 21:34	49.6
n-Butylbenzene	9.9	U	9.9	5.5	ppb v/v			09/04/24 21:34	49.6
1,2-Dichlorobenzene	9.9	U	9.9	3.3	ppb v/v			09/04/24 21:34	49.6
1,2,4-Trichlorobenzene	25	U	25	16	ppb v/v			09/04/24 21:34	49.6
Hexachlorobutadiene	9.9	U	9.9	5.5	ppb v/v			09/04/24 21:34	49.6
Naphthalene	25	U	25	15	ppb v/v			09/04/24 21:34	49.6

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	630	U	630	140	ug/m3			09/04/24 22:27	253
Chlorodifluoromethane	450	U	450	110	ug/m3			09/04/24 22:27	253
1,2-Dichlorotetrafluoroethane	350	U	350	85	ug/m3			09/04/24 22:27	253
Chloromethane	260	U	260	78	ug/m3			09/04/24 22:27	253
n-Butane	300	U	300	120	ug/m3			09/04/24 22:27	253
Vinyl chloride	51	U	51	14	ug/m3			09/04/24 22:27	253
1,3-Butadiene	110	U	110	22	ug/m3			09/04/24 22:27	253
Bromomethane	200	U	200	70	ug/m3			09/04/24 22:27	253
Chloroethane	330	U	330	120	ug/m3			09/04/24 22:27	253
Bromoethene(Vinyl Bromide)	220	U	220	55	ug/m3			09/04/24 22:27	253
Trichlorofluoromethane	280	U	280	71	ug/m3			09/04/24 22:27	253
1,1,2-Trichlorotrifluoroethane	390	U	390	100	ug/m3			09/04/24 22:27	253
1,1-Dichloroethene	51	U	51	26	ug/m3			09/04/24 22:27	253
Ethanol	2400	U	2400	1200	ug/m3			09/04/24 22:27	253
Acetone	3000	U	3000	960	ug/m3			09/04/24 22:27	253
Isopropyl alcohol	3100	U	3100	1000	ug/m3			09/04/24 22:27	253
Carbon disulfide	390	U	390	100	ug/m3			09/04/24 22:27	253
3-Chloropropene	400	U	400	95	ug/m3			09/04/24 22:27	253
Methylene Chloride	440	U	440	160	ug/m3			09/04/24 22:27	253
tert-Butyl alcohol	3800	U	3800	920	ug/m3			09/04/24 22:27	253
Methyl tert-butyl ether	180	U	180	33	ug/m3			09/04/24 22:27	253
trans-1,2-Dichloroethene	200	U	200	23	ug/m3			09/04/24 22:27	253
n-Hexane	450	U	450	98	ug/m3			09/04/24 22:27	253
1,1-Dichloroethane	200	U	200	26	ug/m3			09/04/24 22:27	253
Methyl Ethyl Ketone (2-Butanone)	370	U	370	370	ug/m3			09/04/24 22:27	253
cis-1,2-Dichloroethene	51	U	51	21	ug/m3			09/04/24 22:27	253
Chloroform	250	U	250	51	ug/m3			09/04/24 22:27	253
Tetrahydrofuran	3700	U	3700	970	ug/m3			09/04/24 22:27	253

Client Sample ID: SSV083024CZ02
Date Collected: 08/30/24 07:29
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-2
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	280	U	280	61	ug/m3			09/04/24 22:27	253
Cyclohexane	170	U	170	51	ug/m3			09/04/24 22:27	253
Carbon tetrachloride	56	U	56	35	ug/m3			09/04/24 22:27	253
2,2,4-Trimethylpentane	240	U	240	45	ug/m3			09/04/24 22:27	253
Benzene	160	U	160	36	ug/m3			09/04/24 22:27	253
1,2-Dichloroethane	200	U	200	95	ug/m3			09/04/24 22:27	253
n-Heptane	210	U	210	57	ug/m3			09/04/24 22:27	253
Trichloroethene	**140**	**D**	51	34	ug/m3			09/04/24 22:27	253
Methyl methacrylate	520	U	520	150	ug/m3			09/04/24 22:27	253
1,2-Dichloropropane	230	U	230	110	ug/m3			09/04/24 22:27	253
1,4-Dioxane	4600	U	4600	75	ug/m3			09/04/24 22:27	253
Bromodichloromethane	340	U	340	85	ug/m3			09/04/24 22:27	253
cis-1,3-Dichloropropene	230	U	230	52	ug/m3			09/04/24 22:27	253
4-Methyl-2-pentanone (Methyl isobutyl ketone)	520	U	520	130	ug/m3			09/04/24 22:27	253
Toluene	190	U	190	59	ug/m3			09/04/24 22:27	253
trans-1,3-Dichloropropene	230	U	230	62	ug/m3			09/04/24 22:27	253
1,1,2-Trichloroethane	280	U	280	100	ug/m3			09/04/24 22:27	253
Tetrachloroethene	**27000**	**D**	340	36	ug/m3			09/04/24 22:27	253
Methyl Butyl Ketone (2-Hexanone)	520	U	520	160	ug/m3			09/04/24 22:27	253
Dibromochloromethane	430	U	430	140	ug/m3			09/04/24 22:27	253
1,2-Dibromoethane	390	U	390	82	ug/m3			09/04/24 22:27	253
Chlorobenzene	230	U	230	51	ug/m3			09/04/24 22:27	253
Ethylbenzene	220	U	220	76	ug/m3			09/04/24 22:27	253
m,p-Xylene	550	U	550	100	ug/m3			09/04/24 22:27	253
o-Xylene	220	U	220	69	ug/m3			09/04/24 22:27	253
Styrene	220	U	220	64	ug/m3			09/04/24 22:27	253
Bromoform	520	U	520	310	ug/m3			09/04/24 22:27	253
Cumene	250	U	250	51	ug/m3			09/04/24 22:27	253
1,1,2,2-Tetrachloroethane	350	U	350	75	ug/m3			09/04/24 22:27	253
n-Propylbenzene	250	U	250	58	ug/m3			09/04/24 22:27	253
4-Ethyltoluene	250	U	250	61	ug/m3			09/04/24 22:27	253
1,3,5-Trimethylbenzene	250	U	250	58	ug/m3			09/04/24 22:27	253
2-Chlorotoluene	260	U	260	60	ug/m3			09/04/24 22:27	253
tert-Butylbenzene	280	U	280	65	ug/m3			09/04/24 22:27	253
1,2,4-Trimethylbenzene	250	U	250	100	ug/m3			09/04/24 22:27	253
sec-Butylbenzene	280	U	280	62	ug/m3			09/04/24 22:27	253
4-Isopropyltoluene	280	U	280	85	ug/m3			09/04/24 22:27	253
1,3-Dichlorobenzene	300	U	300	110	ug/m3			09/04/24 22:27	253
1,4-Dichlorobenzene	300	U	300	140	ug/m3			09/04/24 22:27	253
Benzyl chloride	260	U	260	120	ug/m3			09/04/24 22:27	253
n-Butylbenzene	280	U	280	150	ug/m3			09/04/24 22:27	253
1,2-Dichlorobenzene	300	U	300	100	ug/m3			09/04/24 22:27	253
1,2,4-Trichlorobenzene	940	U	940	620	ug/m3			09/04/24 22:27	253
Hexachlorobutadiene	540	U	540	300	ug/m3			09/04/24 22:27	253
Naphthalene	660	U	660	400	ug/m3			09/04/24 22:27	253

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	130	U	130	28	ppb v/v			09/04/24 22:27	253

Client Sample ID: SSV083024CZ02

Date Collected: 08/30/24 07:29
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-2

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorodifluoromethane	130	U	130	30	ppb v/v			09/04/24 22:27	253
1,2-Dichlorotetrafluoroethane	51	U	51	12	ppb v/v			09/04/24 22:27	253
Chloromethane	130	U	130	38	ppb v/v			09/04/24 22:27	253
n-Butane	130	U	130	51	ppb v/v			09/04/24 22:27	253
Vinyl chloride	20	U	20	5.3	ppb v/v			09/04/24 22:27	253
1,3-Butadiene	51	U	51	9.9	ppb v/v			09/04/24 22:27	253
Bromomethane	51	U	51	18	ppb v/v			09/04/24 22:27	253
Chloroethane	130	U	130	46	ppb v/v			09/04/24 22:27	253
Bromoethene(Vinyl Bromide)	51	U	51	13	ppb v/v			09/04/24 22:27	253
Trichlorofluoromethane	51	U	51	13	ppb v/v			09/04/24 22:27	253
1,1,2-Trichlorotrifluoroethane	51	U	51	13	ppb v/v			09/04/24 22:27	253
1,1-Dichloroethene	13	U	13	6.6	ppb v/v			09/04/24 22:27	253
Ethanol	1300	U	1300	660	ppb v/v			09/04/24 22:27	253
Acetone	1300	U	1300	400	ppb v/v			09/04/24 22:27	253
Isopropyl alcohol	1300	U	1300	400	ppb v/v			09/04/24 22:27	253
Carbon disulfide	130	U	130	33	ppb v/v			09/04/24 22:27	253
3-Chloropropene	130	U	130	30	ppb v/v			09/04/24 22:27	253
Methylene Chloride	130	U	130	46	ppb v/v			09/04/24 22:27	253
tert-Butyl alcohol	1300	U	1300	300	ppb v/v			09/04/24 22:27	253
Methyl tert-butyl ether	51	U	51	9.1	ppb v/v			09/04/24 22:27	253
trans-1,2-Dichloroethene	51	U	51	5.8	ppb v/v			09/04/24 22:27	253
n-Hexane	130	U	130	28	ppb v/v			09/04/24 22:27	253
1,1-Dichloroethane	51	U	51	6.3	ppb v/v			09/04/24 22:27	253
Methyl Ethyl Ketone (2-Butanone)	130	U	130	120	ppb v/v			09/04/24 22:27	253
cis-1,2-Dichloroethene	13	U	13	5.3	ppb v/v			09/04/24 22:27	253
Chloroform	51	U	51	10	ppb v/v			09/04/24 22:27	253
Tetrahydrofuran	1300	U	1300	330	ppb v/v			09/04/24 22:27	253
1,1,1-Trichloroethane	51	U	51	11	ppb v/v			09/04/24 22:27	253
Cyclohexane	51	U	51	15	ppb v/v			09/04/24 22:27	253
Carbon tetrachloride	8.8	U	8.8	5.6	ppb v/v			09/04/24 22:27	253
2,2,4-Trimethylpentane	51	U	51	9.6	ppb v/v			09/04/24 22:27	253
Benzene	51	U	51	11	ppb v/v			09/04/24 22:27	253
1,2-Dichloroethane	51	U	51	24	ppb v/v			09/04/24 22:27	253
n-Heptane	51	U	51	14	ppb v/v			09/04/24 22:27	253
Trichloroethene	**27**	**D**	9.4	6.3	ppb v/v			09/04/24 22:27	253
Methyl methacrylate	130	U	130	35	ppb v/v			09/04/24 22:27	253
1,2-Dichloropropane	51	U	51	24	ppb v/v			09/04/24 22:27	253
1,4-Dioxane	1300	U	1300	21	ppb v/v			09/04/24 22:27	253
Bromodichloromethane	51	U	51	13	ppb v/v			09/04/24 22:27	253
cis-1,3-Dichloropropene	51	U	51	11	ppb v/v			09/04/24 22:27	253
4-Methyl-2-pentanone (Methyl isobutyl ketone)	130	U	130	33	ppb v/v			09/04/24 22:27	253
Toluene	51	U	51	16	ppb v/v			09/04/24 22:27	253
trans-1,3-Dichloropropene	51	U	51	14	ppb v/v			09/04/24 22:27	253
1,1,2-Trichloroethane	51	U	51	19	ppb v/v			09/04/24 22:27	253
Tetrachloroethene	**4000**	**D**	51	5.3	ppb v/v			09/04/24 22:27	253
Methyl Butyl Ketone (2-Hexanone)	130	U	130	38	ppb v/v			09/04/24 22:27	253
Dibromochloromethane	51	U	51	16	ppb v/v			09/04/24 22:27	253
1,2-Dibromoethane	51	U	51	11	ppb v/v			09/04/24 22:27	253

Client Sample ID: SSV083024CZ02

Lab Sample ID: 200-74969-2

Date Collected: 08/30/24 07:29
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	51	U	51	11	ppb v/v			09/04/24 22:27	253
Ethylbenzene	51	U	51	17	ppb v/v			09/04/24 22:27	253
m,p-Xylene	130	U	130	24	ppb v/v			09/04/24 22:27	253
o-Xylene	51	U	51	16	ppb v/v			09/04/24 22:27	253
Styrene	51	U	51	15	ppb v/v			09/04/24 22:27	253
Bromoform	51	U	51	30	ppb v/v			09/04/24 22:27	253
Cumene	51	U	51	10	ppb v/v			09/04/24 22:27	253
1,1,2,2-Tetrachloroethane	51	U	51	11	ppb v/v			09/04/24 22:27	253
n-Propylbenzene	51	U	51	12	ppb v/v			09/04/24 22:27	253
4-Ethyltoluene	51	U	51	12	ppb v/v			09/04/24 22:27	253
1,3,5-Trimethylbenzene	51	U	51	12	ppb v/v			09/04/24 22:27	253
2-Chlorotoluene	51	U	51	12	ppb v/v			09/04/24 22:27	253
tert-Butylbenzene	51	U	51	12	ppb v/v			09/04/24 22:27	253
1,2,4-Trimethylbenzene	51	U	51	20	ppb v/v			09/04/24 22:27	253
sec-Butylbenzene	51	U	51	11	ppb v/v			09/04/24 22:27	253
4-Isopropyltoluene	51	U	51	15	ppb v/v			09/04/24 22:27	253
1,3-Dichlorobenzene	51	U	51	19	ppb v/v			09/04/24 22:27	253
1,4-Dichlorobenzene	51	U	51	23	ppb v/v			09/04/24 22:27	253
Benzyl chloride	51	U	51	22	ppb v/v			09/04/24 22:27	253
n-Butylbenzene	51	U	51	28	ppb v/v			09/04/24 22:27	253
1,2-Dichlorobenzene	51	U	51	17	ppb v/v			09/04/24 22:27	253
1,2,4-Trichlorobenzene	130	U	130	83	ppb v/v			09/04/24 22:27	253
Hexachlorobutadiene	51	U	51	28	ppb v/v			09/04/24 22:27	253
Naphthalene	130	U	130	76	ppb v/v			09/04/24 22:27	253

Method: ASTM D1946 - Fixed Gases (Helium)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Helium	0.025	U	0.025	0.0082	% v/v			09/06/24 20:17	1

Client Sample ID: SSV083024CZ03

Lab Sample ID: 200-74969-3

Date Collected: 08/30/24 07:33
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	49	U	49	11	ug/m3			09/04/24 23:20	19.9
Chlorodifluoromethane	35	U	35	8.4	ug/m3			09/04/24 23:20	19.9
1,2-Dichlorotetrafluoroethane	28	U	28	6.7	ug/m3			09/04/24 23:20	19.9
Chloromethane	21	U	21	6.2	ug/m3			09/04/24 23:20	19.9
n-Butane	24	U	24	9.5	ug/m3			09/04/24 23:20	19.9
Vinyl chloride	4.0	U	4.0	1.1	ug/m3			09/04/24 23:20	19.9
1,3-Butadiene	8.8	U	8.8	1.7	ug/m3			09/04/24 23:20	19.9
Bromomethane	15	U	15	5.5	ug/m3			09/04/24 23:20	19.9
Chloroethane	26	U	26	9.5	ug/m3			09/04/24 23:20	19.9
Bromoethene(Vinyl Bromide)	17	U	17	4.4	ug/m3			09/04/24 23:20	19.9
Trichlorofluoromethane	22	U	22	5.6	ug/m3			09/04/24 23:20	19.9
1,1,2-Trichlorotrifluoroethane	31	U	31	8.1	ug/m3			09/04/24 23:20	19.9
1,1-Dichloroethene	4.0	U	4.0	2.1	ug/m3			09/04/24 23:20	19.9

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: SSV083024CZ03
Date Collected: 08/30/24 07:33
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-3
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	190	U	190	97	ug/m3			09/04/24 23:20	19.9
Acetone	240	U	240	76	ug/m3			09/04/24 23:20	19.9
Isopropyl alcohol	240	U	240	78	ug/m3			09/04/24 23:20	19.9
Carbon disulfide	31	U	31	8.1	ug/m3			09/04/24 23:20	19.9
3-Chloropropene	31	U	31	7.5	ug/m3			09/04/24 23:20	19.9
Methylene Chloride	35	U	35	12	ug/m3			09/04/24 23:20	19.9
tert-Butyl alcohol	300	U	300	72	ug/m3			09/04/24 23:20	19.9
Methyl tert-butyl ether	14	U	14	2.6	ug/m3			09/04/24 23:20	19.9
trans-1,2-Dichloroethene	16	U	16	1.8	ug/m3			09/04/24 23:20	19.9
n-Hexane	35	U	35	7.7	ug/m3			09/04/24 23:20	19.9
1,1-Dichloroethane	16	U	16	2.0	ug/m3			09/04/24 23:20	19.9
Methyl Ethyl Ketone (2-Butanone)	29	U	29	29	ug/m3			09/04/24 23:20	19.9
cis-1,2-Dichloroethene	4.0	U	4.0	1.7	ug/m3			09/04/24 23:20	19.9
Chloroform	19	U	19	4.0	ug/m3			09/04/24 23:20	19.9
Tetrahydrofuran	290	U	290	76	ug/m3			09/04/24 23:20	19.9
1,1,1-Trichloroethane	22	U	22	4.8	ug/m3			09/04/24 23:20	19.9
Cyclohexane	14	U	14	4.0	ug/m3			09/04/24 23:20	19.9
Carbon tetrachloride	4.4	U	4.4	2.8	ug/m3			09/04/24 23:20	19.9
2,2,4-Trimethylpentane	19	U	19	3.5	ug/m3			09/04/24 23:20	19.9
Benzene	13	U	13	2.8	ug/m3			09/04/24 23:20	19.9
1,2-Dichloroethane	16	U	16	7.5	ug/m3			09/04/24 23:20	19.9
n-Heptane	16	U	16	4.5	ug/m3			09/04/24 23:20	19.9
Trichloroethene	**29**		4.0	2.7	ug/m3			09/04/24 23:20	19.9
Methyl methacrylate	41	U	41	11	ug/m3			09/04/24 23:20	19.9
1,2-Dichloropropane	18	U	18	8.6	ug/m3			09/04/24 23:20	19.9
1,4-Dioxane	360	U	360	5.9	ug/m3			09/04/24 23:20	19.9
Bromodichloromethane	27	U	27	6.7	ug/m3			09/04/24 23:20	19.9
cis-1,3-Dichloropropene	18	U	18	4.1	ug/m3			09/04/24 23:20	19.9
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41	U	41	11	ug/m3			09/04/24 23:20	19.9
Toluene	15	U	15	4.6	ug/m3			09/04/24 23:20	19.9
trans-1,3-Dichloropropene	18	U	18	4.9	ug/m3			09/04/24 23:20	19.9
1,1,2-Trichloroethane	22	U	22	8.0	ug/m3			09/04/24 23:20	19.9
Tetrachloroethene	**8300**	**E**	27	2.8	ug/m3			09/04/24 23:20	19.9
Methyl Butyl Ketone (2-Hexanone)	41	U	41	12	ug/m3			09/04/24 23:20	19.9
Dibromochloromethane	34	U	34	11	ug/m3			09/04/24 23:20	19.9
1,2-Dibromoethane	31	U	31	6.4	ug/m3			09/04/24 23:20	19.9
Chlorobenzene	18	U	18	4.0	ug/m3			09/04/24 23:20	19.9
Ethylbenzene	17	U	17	6.0	ug/m3			09/04/24 23:20	19.9
m,p-Xylene	43	U	43	8.2	ug/m3			09/04/24 23:20	19.9
o-Xylene	17	U	17	5.4	ug/m3			09/04/24 23:20	19.9
Styrene	17	U	17	5.0	ug/m3			09/04/24 23:20	19.9
Bromoform	41	U	41	25	ug/m3			09/04/24 23:20	19.9
Cumene	20	U	20	4.0	ug/m3			09/04/24 23:20	19.9
1,1,2,2-Tetrachloroethane	27	U	27	5.9	ug/m3			09/04/24 23:20	19.9
n-Propylbenzene	20	U	20	4.6	ug/m3			09/04/24 23:20	19.9
4-Ethyltoluene	20	U	20	4.8	ug/m3			09/04/24 23:20	19.9
1,3,5-Trimethylbenzene	20	U	20	4.6	ug/m3			09/04/24 23:20	19.9
2-Chlorotoluene	21	U	21	4.7	ug/m3			09/04/24 23:20	19.9

Client Sample ID: SSV083024CZ03
Date Collected: 08/30/24 07:33
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-3
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	22	U	22	5.1	ug/m3			09/04/24 23:20	19.9
1,2,4-Trimethylbenzene	20	U	20	7.8	ug/m3			09/04/24 23:20	19.9
sec-Butylbenzene	22	U	22	4.9	ug/m3			09/04/24 23:20	19.9
4-Isopropyltoluene	22	U	22	6.7	ug/m3			09/04/24 23:20	19.9
1,3-Dichlorobenzene	24	U	24	8.9	ug/m3			09/04/24 23:20	19.9
1,4-Dichlorobenzene	24	U	24	11	ug/m3			09/04/24 23:20	19.9
Benzyl chloride	21	U	21	9.1	ug/m3			09/04/24 23:20	19.9
n-Butylbenzene	22	U	22	12	ug/m3			09/04/24 23:20	19.9
1,2-Dichlorobenzene	24	U	24	7.9	ug/m3			09/04/24 23:20	19.9
1,2,4-Trichlorobenzene	74	U	74	49	ug/m3			09/04/24 23:20	19.9
Hexachlorobutadiene	42	U	42	23	ug/m3			09/04/24 23:20	19.9
Naphthalene	52	U	52	31	ug/m3			09/04/24 23:20	19.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	10	U	10	2.2	ppb v/v			09/04/24 23:20	19.9
Chlorodifluoromethane	10	U	10	2.4	ppb v/v			09/04/24 23:20	19.9
1,2-Dichlorotetrafluoroethane	4.0	U	4.0	0.96	ppb v/v			09/04/24 23:20	19.9
Chloromethane	10	U	10	3.0	ppb v/v			09/04/24 23:20	19.9
n-Butane	10	U	10	4.0	ppb v/v			09/04/24 23:20	19.9
Vinyl chloride	1.6	U	1.6	0.42	ppb v/v			09/04/24 23:20	19.9
1,3-Butadiene	4.0	U	4.0	0.78	ppb v/v			09/04/24 23:20	19.9
Bromomethane	4.0	U	4.0	1.4	ppb v/v			09/04/24 23:20	19.9
Chloroethane	10	U	10	3.6	ppb v/v			09/04/24 23:20	19.9
Bromoethene(Vinyl Bromide)	4.0	U	4.0	1.0	ppb v/v			09/04/24 23:20	19.9
Trichlorofluoromethane	4.0	U	4.0	1.0	ppb v/v			09/04/24 23:20	19.9
1,1,2-Trichlorotrifluoroethane	4.0	U	4.0	1.1	ppb v/v			09/04/24 23:20	19.9
1,1-Dichloroethene	1.0	U	1.0	0.52	ppb v/v			09/04/24 23:20	19.9
Ethanol	100	U	100	52	ppb v/v			09/04/24 23:20	19.9
Acetone	100	U	100	32	ppb v/v			09/04/24 23:20	19.9
Isopropyl alcohol	100	U	100	32	ppb v/v			09/04/24 23:20	19.9
Carbon disulfide	10	U	10	2.6	ppb v/v			09/04/24 23:20	19.9
3-Chloropropene	10	U	10	2.4	ppb v/v			09/04/24 23:20	19.9
Methylene Chloride	10	U	10	3.6	ppb v/v			09/04/24 23:20	19.9
tert-Butyl alcohol	100	U	100	24	ppb v/v			09/04/24 23:20	19.9
Methyl tert-butyl ether	4.0	U	4.0	0.72	ppb v/v			09/04/24 23:20	19.9
trans-1,2-Dichloroethene	4.0	U	4.0	0.46	ppb v/v			09/04/24 23:20	19.9
n-Hexane	10	U	10	2.2	ppb v/v			09/04/24 23:20	19.9
1,1-Dichloroethane	4.0	U	4.0	0.50	ppb v/v			09/04/24 23:20	19.9
Methyl Ethyl Ketone (2-Butanone)	10	U	10	9.8	ppb v/v			09/04/24 23:20	19.9
cis-1,2-Dichloroethene	1.0	U	1.0	0.42	ppb v/v			09/04/24 23:20	19.9
Chloroform	4.0	U	4.0	0.82	ppb v/v			09/04/24 23:20	19.9
Tetrahydrofuran	100	U	100	26	ppb v/v			09/04/24 23:20	19.9
1,1,1-Trichloroethane	4.0	U	4.0	0.88	ppb v/v			09/04/24 23:20	19.9
Cyclohexane	4.0	U	4.0	1.2	ppb v/v			09/04/24 23:20	19.9
Carbon tetrachloride	0.70	U	0.70	0.44	ppb v/v			09/04/24 23:20	19.9
2,2,4-Trimethylpentane	4.0	U	4.0	0.76	ppb v/v			09/04/24 23:20	19.9
Benzene	4.0	U	4.0	0.88	ppb v/v			09/04/24 23:20	19.9
1,2-Dichloroethane	4.0	U	4.0	1.9	ppb v/v			09/04/24 23:20	19.9
n-Heptane	4.0	U	4.0	1.1	ppb v/v			09/04/24 23:20	19.9

Client Sample ID: SSV083024CZ03
Lab Sample ID: 200-74969-3
Date Collected: 08/30/24 07:33
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**5.5**		0.74	0.50	ppb v/v			09/04/24 23:20	19.9
Methyl methacrylate	10	U	10	2.8	ppb v/v			09/04/24 23:20	19.9
1,2-Dichloropropane	4.0	U	4.0	1.9	ppb v/v			09/04/24 23:20	19.9
1,4-Dioxane	100	U	100	1.6	ppb v/v			09/04/24 23:20	19.9
Bromodichloromethane	4.0	U	4.0	1.0	ppb v/v			09/04/24 23:20	19.9
cis-1,3-Dichloropropene	4.0	U	4.0	0.90	ppb v/v			09/04/24 23:20	19.9
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	U	10	2.6	ppb v/v			09/04/24 23:20	19.9
Toluene	4.0	U	4.0	1.2	ppb v/v			09/04/24 23:20	19.9
trans-1,3-Dichloropropene	4.0	U	4.0	1.1	ppb v/v			09/04/24 23:20	19.9
1,1,2-Trichloroethane	4.0	U	4.0	1.5	ppb v/v			09/04/24 23:20	19.9
Tetrachloroethene	**1200**	**E**	4.0	0.42	ppb v/v			09/04/24 23:20	19.9
Methyl Butyl Ketone (2-Hexanone)	10	U	10	3.0	ppb v/v			09/04/24 23:20	19.9
Dibromochloromethane	4.0	U	4.0	1.3	ppb v/v			09/04/24 23:20	19.9
1,2-Dibromoethane	4.0	U	4.0	0.84	ppb v/v			09/04/24 23:20	19.9
Chlorobenzene	4.0	U	4.0	0.88	ppb v/v			09/04/24 23:20	19.9
Ethylbenzene	4.0	U	4.0	1.4	ppb v/v			09/04/24 23:20	19.9
m,p-Xylene	10	U	10	1.9	ppb v/v			09/04/24 23:20	19.9
o-Xylene	4.0	U	4.0	1.3	ppb v/v			09/04/24 23:20	19.9
Styrene	4.0	U	4.0	1.2	ppb v/v			09/04/24 23:20	19.9
Bromoform	4.0	U	4.0	2.4	ppb v/v			09/04/24 23:20	19.9
Cumene	4.0	U	4.0	0.82	ppb v/v			09/04/24 23:20	19.9
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.86	ppb v/v			09/04/24 23:20	19.9
n-Propylbenzene	4.0	U	4.0	0.94	ppb v/v			09/04/24 23:20	19.9
4-Ethyltoluene	4.0	U	4.0	0.98	ppb v/v			09/04/24 23:20	19.9
1,3,5-Trimethylbenzene	4.0	U	4.0	0.94	ppb v/v			09/04/24 23:20	19.9
2-Chlorotoluene	4.0	U	4.0	0.92	ppb v/v			09/04/24 23:20	19.9
tert-Butylbenzene	4.0	U	4.0	0.94	ppb v/v			09/04/24 23:20	19.9
1,2,4-Trimethylbenzene	4.0	U	4.0	1.6	ppb v/v			09/04/24 23:20	19.9
sec-Butylbenzene	4.0	U	4.0	0.90	ppb v/v			09/04/24 23:20	19.9
4-Isopropyltoluene	4.0	U	4.0	1.2	ppb v/v			09/04/24 23:20	19.9
1,3-Dichlorobenzene	4.0	U	4.0	1.5	ppb v/v			09/04/24 23:20	19.9
1,4-Dichlorobenzene	4.0	U	4.0	1.8	ppb v/v			09/04/24 23:20	19.9
Benzyl chloride	4.0	U	4.0	1.8	ppb v/v			09/04/24 23:20	19.9
n-Butylbenzene	4.0	U	4.0	2.2	ppb v/v			09/04/24 23:20	19.9
1,2-Dichlorobenzene	4.0	U	4.0	1.3	ppb v/v			09/04/24 23:20	19.9
1,2,4-Trichlorobenzene	10	U	10	6.6	ppb v/v			09/04/24 23:20	19.9
Hexachlorobutadiene	4.0	U	4.0	2.2	ppb v/v			09/04/24 23:20	19.9
Naphthalene	10	U	10	6.0	ppb v/v			09/04/24 23:20	19.9

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	250	U	250	55	ug/m3			09/05/24 00:13	101
Chlorodifluoromethane	180	U	180	43	ug/m3			09/05/24 00:13	101
1,2-Dichlorotetrafluoroethane	140	U	140	34	ug/m3			09/05/24 00:13	101
Chloromethane	100	U	100	31	ug/m3			09/05/24 00:13	101
n-Butane	120	U	120	48	ug/m3			09/05/24 00:13	101
Vinyl chloride	20	U	20	5.4	ug/m3			09/05/24 00:13	101
1,3-Butadiene	45	U	45	8.7	ug/m3			09/05/24 00:13	101

Client Sample ID: SSV083024CZ03
Lab Sample ID: 200-74969-3
Date Collected: 08/30/24 07:33
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	78	U	78	28	ug/m3			09/05/24 00:13	101
Chloroethane	130	U	130	48	ug/m3			09/05/24 00:13	101
Bromoethene(Vinyl Bromide)	88	U	88	22	ug/m3			09/05/24 00:13	101
Trichlorofluoromethane	110	U	110	28	ug/m3			09/05/24 00:13	101
1,1,2-Trichlorotrifluoroethane	150	U	150	41	ug/m3			09/05/24 00:13	101
1,1-Dichloroethene	20	U	20	10	ug/m3			09/05/24 00:13	101
Ethanol	950	U	950	490	ug/m3			09/05/24 00:13	101
Acetone	1200	U	1200	380	ug/m3			09/05/24 00:13	101
Isopropyl alcohol	1200	U	1200	400	ug/m3			09/05/24 00:13	101
Carbon disulfide	160	U	160	41	ug/m3			09/05/24 00:13	101
3-Chloropropene	160	U	160	38	ug/m3			09/05/24 00:13	101
Methylene Chloride	180	U	180	63	ug/m3			09/05/24 00:13	101
tert-Butyl alcohol	1500	U	1500	370	ug/m3			09/05/24 00:13	101
Methyl tert-butyl ether	73	U	73	13	ug/m3			09/05/24 00:13	101
trans-1,2-Dichloroethene	80	U	80	9.2	ug/m3			09/05/24 00:13	101
n-Hexane	180	U	180	39	ug/m3			09/05/24 00:13	101
1,1-Dichloroethane	82	U	82	10	ug/m3			09/05/24 00:13	101
Methyl Ethyl Ketone (2-Butanone)	150	U	150	150	ug/m3			09/05/24 00:13	101
cis-1,2-Dichloroethene	20	U	20	8.4	ug/m3			09/05/24 00:13	101
Chloroform	99	U	99	20	ug/m3			09/05/24 00:13	101
Tetrahydrofuran	1500	U	1500	390	ug/m3			09/05/24 00:13	101
1,1,1-Trichloroethane	110	U	110	24	ug/m3			09/05/24 00:13	101
Cyclohexane	70	U	70	20	ug/m3			09/05/24 00:13	101
Carbon tetrachloride	22	U	22	14	ug/m3			09/05/24 00:13	101
2,2,4-Trimethylpentane	94	U	94	18	ug/m3			09/05/24 00:13	101
Benzene	65	U	65	14	ug/m3			09/05/24 00:13	101
1,2-Dichloroethane	82	U	82	38	ug/m3			09/05/24 00:13	101
n-Heptane	83	U	83	23	ug/m3			09/05/24 00:13	101
Trichloroethene	**25**	**D**	20	14	ug/m3			09/05/24 00:13	101
Methyl methacrylate	210	U	210	58	ug/m3			09/05/24 00:13	101
1,2-Dichloropropane	93	U	93	44	ug/m3			09/05/24 00:13	101
1,4-Dioxane	1800	U	1800	30	ug/m3			09/05/24 00:13	101
Bromodichloromethane	140	U	140	34	ug/m3			09/05/24 00:13	101
cis-1,3-Dichloropropene	92	U	92	21	ug/m3			09/05/24 00:13	101
4-Methyl-2-pentanone (Methyl isobutyl ketone)	210	U	210	54	ug/m3			09/05/24 00:13	101
Toluene	76	U	76	24	ug/m3			09/05/24 00:13	101
trans-1,3-Dichloropropene	92	U	92	25	ug/m3			09/05/24 00:13	101
1,1,2-Trichloroethane	110	U	110	41	ug/m3			09/05/24 00:13	101
Tetrachloroethene	**7100**	**D**	140	14	ug/m3			09/05/24 00:13	101
Methyl Butyl Ketone (2-Hexanone)	210	U	210	62	ug/m3			09/05/24 00:13	101
Dibromochloromethane	170	U	170	54	ug/m3			09/05/24 00:13	101
1,2-Dibromoethane	160	U	160	33	ug/m3			09/05/24 00:13	101
Chlorobenzene	93	U	93	20	ug/m3			09/05/24 00:13	101
Ethylbenzene	88	U	88	30	ug/m3			09/05/24 00:13	101
m,p-Xylene	220	U	220	42	ug/m3			09/05/24 00:13	101
o-Xylene	88	U	88	28	ug/m3			09/05/24 00:13	101
Styrene	86	U	86	25	ug/m3			09/05/24 00:13	101
Bromoform	210	U	210	130	ug/m3			09/05/24 00:13	101

Client Sample ID: SSV083024CZ03
Date Collected: 08/30/24 07:33
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-3
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cumene	99	U	99	20	ug/m3			09/05/24 00:13	101
1,1,2,2-Tetrachloroethane	140	U	140	30	ug/m3			09/05/24 00:13	101
n-Propylbenzene	99	U	99	23	ug/m3			09/05/24 00:13	101
4-Ethyltoluene	99	U	99	24	ug/m3			09/05/24 00:13	101
1,3,5-Trimethylbenzene	99	U	99	23	ug/m3			09/05/24 00:13	101
2-Chlorotoluene	100	U	100	24	ug/m3			09/05/24 00:13	101
tert-Butylbenzene	110	U	110	26	ug/m3			09/05/24 00:13	101
1,2,4-Trimethylbenzene	99	U	99	40	ug/m3			09/05/24 00:13	101
sec-Butylbenzene	110	U	110	25	ug/m3			09/05/24 00:13	101
4-Isopropyltoluene	110	U	110	34	ug/m3			09/05/24 00:13	101
1,3-Dichlorobenzene	120	U	120	45	ug/m3			09/05/24 00:13	101
1,4-Dichlorobenzene	120	U	120	54	ug/m3			09/05/24 00:13	101
Benzyl chloride	100	U	100	46	ug/m3			09/05/24 00:13	101
n-Butylbenzene	110	U	110	61	ug/m3			09/05/24 00:13	101
1,2-Dichlorobenzene	120	U	120	40	ug/m3			09/05/24 00:13	101
1,2,4-Trichlorobenzene	370	U	370	250	ug/m3			09/05/24 00:13	101
Hexachlorobutadiene	220	U	220	120	ug/m3			09/05/24 00:13	101
Naphthalene	260	U	260	160	ug/m3			09/05/24 00:13	101

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	51	U	51	11	ppb v/v			09/05/24 00:13	101
Chlorodifluoromethane	51	U	51	12	ppb v/v			09/05/24 00:13	101
1,2-Dichlorotetrafluoroethane	20	U	20	4.8	ppb v/v			09/05/24 00:13	101
Chloromethane	51	U	51	15	ppb v/v			09/05/24 00:13	101
n-Butane	51	U	51	20	ppb v/v			09/05/24 00:13	101
Vinyl chloride	7.9	U	7.9	2.1	ppb v/v			09/05/24 00:13	101
1,3-Butadiene	20	U	20	3.9	ppb v/v			09/05/24 00:13	101
Bromomethane	20	U	20	7.2	ppb v/v			09/05/24 00:13	101
Chloroethane	51	U	51	18	ppb v/v			09/05/24 00:13	101
Bromoethene(Vinyl Bromide)	20	U	20	5.1	ppb v/v			09/05/24 00:13	101
Trichlorofluoromethane	20	U	20	5.1	ppb v/v			09/05/24 00:13	101
1,1,2-Trichlorotrifluoroethane	20	U	20	5.4	ppb v/v			09/05/24 00:13	101
1,1-Dichloroethene	5.1	U	5.1	2.6	ppb v/v			09/05/24 00:13	101
Ethanol	510	U	510	260	ppb v/v			09/05/24 00:13	101
Acetone	510	U	510	160	ppb v/v			09/05/24 00:13	101
Isopropyl alcohol	510	U	510	160	ppb v/v			09/05/24 00:13	101
Carbon disulfide	51	U	51	13	ppb v/v			09/05/24 00:13	101
3-Chloropropene	51	U	51	12	ppb v/v			09/05/24 00:13	101
Methylene Chloride	51	U	51	18	ppb v/v			09/05/24 00:13	101
tert-Butyl alcohol	510	U	510	120	ppb v/v			09/05/24 00:13	101
Methyl tert-butyl ether	20	U	20	3.6	ppb v/v			09/05/24 00:13	101
trans-1,2-Dichloroethene	20	U	20	2.3	ppb v/v			09/05/24 00:13	101
n-Hexane	51	U	51	11	ppb v/v			09/05/24 00:13	101
1,1-Dichloroethane	20	U	20	2.5	ppb v/v			09/05/24 00:13	101
Methyl Ethyl Ketone (2-Butanone)	51	U	51	49	ppb v/v			09/05/24 00:13	101
cis-1,2-Dichloroethene	5.1	U	5.1	2.1	ppb v/v			09/05/24 00:13	101
Chloroform	20	U	20	4.1	ppb v/v			09/05/24 00:13	101
Tetrahydrofuran	510	U	510	130	ppb v/v			09/05/24 00:13	101
1,1,1-Trichloroethane	20	U	20	4.4	ppb v/v			09/05/24 00:13	101

Client Sample ID: SSV083024CZ03
Date Collected: 08/30/24 07:33
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-3
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	20	U	20	5.9	ppb v/v			09/05/24 00:13	101
Carbon tetrachloride	3.5	U	3.5	2.2	ppb v/v			09/05/24 00:13	101
2,2,4-Trimethylpentane	20	U	20	3.8	ppb v/v			09/05/24 00:13	101
Benzene	20	U	20	4.4	ppb v/v			09/05/24 00:13	101
1,2-Dichloroethane	20	U	20	9.4	ppb v/v			09/05/24 00:13	101
n-Heptane	20	U	20	5.6	ppb v/v			09/05/24 00:13	101
Trichloroethene	**4.7**	**D**	3.8	2.5	ppb v/v			09/05/24 00:13	101
Methyl methacrylate	51	U	51	14	ppb v/v			09/05/24 00:13	101
1,2-Dichloropropane	20	U	20	9.5	ppb v/v			09/05/24 00:13	101
1,4-Dioxane	510	U	510	8.3	ppb v/v			09/05/24 00:13	101
Bromodichloromethane	20	U	20	5.1	ppb v/v			09/05/24 00:13	101
cis-1,3-Dichloropropene	20	U	20	4.5	ppb v/v			09/05/24 00:13	101
4-Methyl-2-pentanone (Methyl isobutyl ketone)	51	U	51	13	ppb v/v			09/05/24 00:13	101
Toluene	20	U	20	6.3	ppb v/v			09/05/24 00:13	101
trans-1,3-Dichloropropene	20	U	20	5.5	ppb v/v			09/05/24 00:13	101
1,1,2-Trichloroethane	20	U	20	7.5	ppb v/v			09/05/24 00:13	101
Tetrachloroethene	**1000**	**D**	20	2.1	ppb v/v			09/05/24 00:13	101
Methyl Butyl Ketone (2-Hexanone)	51	U	51	15	ppb v/v			09/05/24 00:13	101
Dibromochloromethane	20	U	20	6.4	ppb v/v			09/05/24 00:13	101
1,2-Dibromoethane	20	U	20	4.2	ppb v/v			09/05/24 00:13	101
Chlorobenzene	20	U	20	4.4	ppb v/v			09/05/24 00:13	101
Ethylbenzene	20	U	20	7.0	ppb v/v			09/05/24 00:13	101
m,p-Xylene	51	U	51	9.6	ppb v/v			09/05/24 00:13	101
o-Xylene	20	U	20	6.4	ppb v/v			09/05/24 00:13	101
Styrene	20	U	20	6.0	ppb v/v			09/05/24 00:13	101
Bromoform	20	U	20	12	ppb v/v			09/05/24 00:13	101
Cumene	20	U	20	4.1	ppb v/v			09/05/24 00:13	101
1,1,2,2-Tetrachloroethane	20	U	20	4.3	ppb v/v			09/05/24 00:13	101
n-Propylbenzene	20	U	20	4.7	ppb v/v			09/05/24 00:13	101
4-Ethyltoluene	20	U	20	4.9	ppb v/v			09/05/24 00:13	101
1,3,5-Trimethylbenzene	20	U	20	4.7	ppb v/v			09/05/24 00:13	101
2-Chlorotoluene	20	U	20	4.6	ppb v/v			09/05/24 00:13	101
tert-Butylbenzene	20	U	20	4.7	ppb v/v			09/05/24 00:13	101
1,2,4-Trimethylbenzene	20	U	20	8.1	ppb v/v			09/05/24 00:13	101
sec-Butylbenzene	20	U	20	4.5	ppb v/v			09/05/24 00:13	101
4-Isopropyltoluene	20	U	20	6.2	ppb v/v			09/05/24 00:13	101
1,3-Dichlorobenzene	20	U	20	7.5	ppb v/v			09/05/24 00:13	101
1,4-Dichlorobenzene	20	U	20	9.0	ppb v/v			09/05/24 00:13	101
Benzyl chloride	20	U	20	8.9	ppb v/v			09/05/24 00:13	101
n-Butylbenzene	20	U	20	11	ppb v/v			09/05/24 00:13	101
1,2-Dichlorobenzene	20	U	20	6.7	ppb v/v			09/05/24 00:13	101
1,2,4-Trichlorobenzene	51	U	51	33	ppb v/v			09/05/24 00:13	101
Hexachlorobutadiene	20	U	20	11	ppb v/v			09/05/24 00:13	101
Naphthalene	51	U	51	30	ppb v/v			09/05/24 00:13	101

Method: ASTM D1946 - Fixed Gases (Helium)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Helium	0.025	U	0.025	0.0082	% v/v			09/06/24 20:39	1

Client Sample ID: IA083024CZ01

Lab Sample ID: 200-74969-4

Date Collected: 08/30/24 14:20
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**1.9**	**J**	2.5	0.54	ug/m3			09/05/24 01:11	1
Chlorodifluoromethane	**2.2**		1.8	0.42	ug/m3			09/05/24 01:11	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/05/24 01:11	1
Chloromethane	**0.96**	**J**	1.0	0.31	ug/m3			09/05/24 01:11	1
n-Butane	**3.7**		1.2	0.48	ug/m3			09/05/24 01:11	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/05/24 01:11	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/05/24 01:11	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/05/24 01:11	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/05/24 01:11	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/05/24 01:11	1
Trichlorofluoromethane	**0.97**	**J**	1.1	0.28	ug/m3			09/05/24 01:11	1
1,1,2-Trichlorotrifluoroethane	**0.42**	**J**	1.5	0.41	ug/m3			09/05/24 01:11	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/05/24 01:11	1
Ethanol	**17**		9.4	4.9	ug/m3			09/05/24 01:11	1
Acetone	**23**		12	3.8	ug/m3			09/05/24 01:11	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			09/05/24 01:11	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			09/05/24 01:11	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/05/24 01:11	1
Methylene Chloride	**0.92**	**J**	1.7	0.63	ug/m3			09/05/24 01:11	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			09/05/24 01:11	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/05/24 01:11	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/05/24 01:11	1
n-Hexane	**0.46**	**J**	1.8	0.39	ug/m3			09/05/24 01:11	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/05/24 01:11	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/05/24 01:11	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/05/24 01:11	1
Chloroform	0.98	U	0.98	0.20	ug/m3			09/05/24 01:11	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/05/24 01:11	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/05/24 01:11	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			09/05/24 01:11	1
Carbon tetrachloride	**0.33**		0.22	0.14	ug/m3			09/05/24 01:11	1
2,2,4-Trimethylpentane	**0.39**	**J**	0.93	0.18	ug/m3			09/05/24 01:11	1
Benzene	**0.38**	**J**	0.64	0.14	ug/m3			09/05/24 01:11	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/05/24 01:11	1
n-Heptane	**0.46**	**J**	0.82	0.23	ug/m3			09/05/24 01:11	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/05/24 01:11	1
Methyl methacrylate	**27**		2.0	0.57	ug/m3			09/05/24 01:11	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/05/24 01:11	1
1,4-Dioxane	18	U	18	0.30	ug/m3			09/05/24 01:11	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/05/24 01:11	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/05/24 01:11	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/05/24 01:11	1
Toluene	**17**		0.75	0.23	ug/m3			09/05/24 01:11	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/05/24 01:11	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/05/24 01:11	1
Tetrachloroethene	**2.4**		1.4	0.14	ug/m3			09/05/24 01:11	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/05/24 01:11	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/05/24 01:11	1

Client Sample ID: IA083024CZ01

Lab Sample ID: 200-74969-4

Date Collected: 08/30/24 14:20
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/05/24 01:11	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/05/24 01:11	1
Ethylbenzene	**0.46**	**J**	0.87	0.30	ug/m3			09/05/24 01:11	1
m,p-Xylene	**1.0**	**J**	2.2	0.41	ug/m3			09/05/24 01:11	1
o-Xylene	**0.35**	**J**	0.87	0.27	ug/m3			09/05/24 01:11	1
Styrene	0.85	U	0.85	0.25	ug/m3			09/05/24 01:11	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/05/24 01:11	1
Cumene	0.98	U	0.98	0.20	ug/m3			09/05/24 01:11	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/05/24 01:11	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			09/05/24 01:11	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			09/05/24 01:11	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			09/05/24 01:11	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/05/24 01:11	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/05/24 01:11	1
1,2,4-Trimethylbenzene	**0.39**	**J**	0.98	0.39	ug/m3			09/05/24 01:11	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/05/24 01:11	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			09/05/24 01:11	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/05/24 01:11	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/05/24 01:11	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/05/24 01:11	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/05/24 01:11	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/05/24 01:11	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/05/24 01:11	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/05/24 01:11	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/05/24 01:11	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**0.39**	**J**	0.50	0.11	ppb v/v			09/05/24 01:11	1
Chlorodifluoromethane	**0.63**		0.50	0.12	ppb v/v			09/05/24 01:11	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/05/24 01:11	1
Chloromethane	**0.46**	**J**	0.50	0.15	ppb v/v			09/05/24 01:11	1
n-Butane	**1.5**		0.50	0.20	ppb v/v			09/05/24 01:11	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/05/24 01:11	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/05/24 01:11	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/05/24 01:11	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/05/24 01:11	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/05/24 01:11	1
Trichlorofluoromethane	**0.17**	**J**	0.20	0.050	ppb v/v			09/05/24 01:11	1
1,1,2-Trichlorotrifluoroethane	**0.055**	**J**	0.20	0.053	ppb v/v			09/05/24 01:11	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/05/24 01:11	1
Ethanol	**8.8**		5.0	2.6	ppb v/v			09/05/24 01:11	1
Acetone	**9.6**		5.0	1.6	ppb v/v			09/05/24 01:11	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			09/05/24 01:11	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			09/05/24 01:11	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/05/24 01:11	1
Methylene Chloride	**0.27**	**J**	0.50	0.18	ppb v/v			09/05/24 01:11	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			09/05/24 01:11	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/05/24 01:11	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/05/24 01:11	1

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: IA083024CZ01
Date Collected: 08/30/24 14:20
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-4
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	**0.13**	**J**	0.50	0.11	ppb v/v			09/05/24 01:11	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/05/24 01:11	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/05/24 01:11	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/05/24 01:11	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			09/05/24 01:11	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/05/24 01:11	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/05/24 01:11	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			09/05/24 01:11	1
Carbon tetrachloride	**0.053**		0.035	0.022	ppb v/v			09/05/24 01:11	1
2,2,4-Trimethylpentane	**0.083**	**J**	0.20	0.038	ppb v/v			09/05/24 01:11	1
Benzene	**0.12**	**J**	0.20	0.044	ppb v/v			09/05/24 01:11	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/05/24 01:11	1
n-Heptane	**0.11**	**J**	0.20	0.055	ppb v/v			09/05/24 01:11	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/05/24 01:11	1
Methyl methacrylate	**6.6**		0.50	0.14	ppb v/v			09/05/24 01:11	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/05/24 01:11	1
1,4-Dioxane	5.0	U	5.0	0.082	ppb v/v			09/05/24 01:11	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/05/24 01:11	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/05/24 01:11	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/05/24 01:11	1
Toluene	**4.6**		0.20	0.062	ppb v/v			09/05/24 01:11	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/05/24 01:11	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/05/24 01:11	1
Tetrachloroethene	**0.35**		0.20	0.021	ppb v/v			09/05/24 01:11	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/05/24 01:11	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/05/24 01:11	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/05/24 01:11	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/05/24 01:11	1
Ethylbenzene	**0.11**	**J**	0.20	0.069	ppb v/v			09/05/24 01:11	1
m,p-Xylene	**0.24**	**J**	0.50	0.095	ppb v/v			09/05/24 01:11	1
o-Xylene	**0.081**	**J**	0.20	0.063	ppb v/v			09/05/24 01:11	1
Styrene	0.20	U	0.20	0.059	ppb v/v			09/05/24 01:11	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/05/24 01:11	1
Cumene	0.20	U	0.20	0.041	ppb v/v			09/05/24 01:11	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/05/24 01:11	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 01:11	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			09/05/24 01:11	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 01:11	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/05/24 01:11	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 01:11	1
1,2,4-Trimethylbenzene	**0.080**	**J**	0.20	0.080	ppb v/v			09/05/24 01:11	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/05/24 01:11	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			09/05/24 01:11	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/05/24 01:11	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/05/24 01:11	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/05/24 01:11	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/05/24 01:11	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/05/24 01:11	1

Client Sample ID: IA083024CZ01 Lab Sample ID: 200-74969-4

Date Collected: 08/30/24 14:20 **Matrix: Air**
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/05/24 01:11	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/05/24 01:11	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/05/24 01:11	1

Client Sample ID: IA083024CZ02 Lab Sample ID: 200-74969-5

Date Collected: 08/30/24 14:28 **Matrix: Air**
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**2.1**	**J**	2.5	0.54	ug/m3			09/05/24 02:08	1
Chlorodifluoromethane	**2.2**		1.8	0.42	ug/m3			09/05/24 02:08	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/05/24 02:08	1
Chloromethane	**1.1**		1.0	0.31	ug/m3			09/05/24 02:08	1
n-Butane	**3.0**		1.2	0.48	ug/m3			09/05/24 02:08	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/05/24 02:08	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/05/24 02:08	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/05/24 02:08	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/05/24 02:08	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/05/24 02:08	1
Trichlorofluoromethane	**1.1**		1.1	0.28	ug/m3			09/05/24 02:08	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			09/05/24 02:08	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/05/24 02:08	1
Ethanol	**57**		9.4	4.9	ug/m3			09/05/24 02:08	1
Acetone	**44**		12	3.8	ug/m3			09/05/24 02:08	1
Isopropyl alcohol	**5.2**	**J**	12	3.9	ug/m3			09/05/24 02:08	1
Carbon disulfide	**1.3**	**J**	1.6	0.40	ug/m3			09/05/24 02:08	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/05/24 02:08	1
Methylene Chloride	**0.99**	**J**	1.7	0.63	ug/m3			09/05/24 02:08	1
tert-Butyl alcohol	**9.2**	**J**	15	3.6	ug/m3			09/05/24 02:08	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/05/24 02:08	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/05/24 02:08	1
n-Hexane	**1.0**	**J**	1.8	0.39	ug/m3			09/05/24 02:08	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/05/24 02:08	1
Methyl Ethyl Ketone (2-Butanone)	**9.6**		1.5	1.4	ug/m3			09/05/24 02:08	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/05/24 02:08	1
Chloroform	0.98	U	0.98	0.20	ug/m3			09/05/24 02:08	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/05/24 02:08	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/05/24 02:08	1
Cyclohexane	**0.83**		0.69	0.20	ug/m3			09/05/24 02:08	1
Carbon tetrachloride	**0.34**		0.22	0.14	ug/m3			09/05/24 02:08	1
2,2,4-Trimethylpentane	**0.48**	**J**	0.93	0.18	ug/m3			09/05/24 02:08	1
Benzene	**0.51**	**J**	0.64	0.14	ug/m3			09/05/24 02:08	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/05/24 02:08	1
n-Heptane	**1.4**		0.82	0.23	ug/m3			09/05/24 02:08	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/05/24 02:08	1
Methyl methacrylate	**97**		2.0	0.57	ug/m3			09/05/24 02:08	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/05/24 02:08	1

Client Sample ID: IA083024CZ02

Lab Sample ID: 200-74969-5

Date Collected: 08/30/24 14:28
Matrix: Air
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**0.38**	**J**	18	0.30	ug/m3			09/05/24 02:08	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/05/24 02:08	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/05/24 02:08	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/05/24 02:08	1
Toluene	**15**		0.75	0.23	ug/m3			09/05/24 02:08	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/05/24 02:08	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/05/24 02:08	1
Tetrachloroethene	**1.3**	**J**	1.4	0.14	ug/m3			09/05/24 02:08	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/05/24 02:08	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/05/24 02:08	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/05/24 02:08	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/05/24 02:08	1
Ethylbenzene	**1.9**		0.87	0.30	ug/m3			09/05/24 02:08	1
m,p-Xylene	**5.4**		2.2	0.41	ug/m3			09/05/24 02:08	1
o-Xylene	**1.8**		0.87	0.27	ug/m3			09/05/24 02:08	1
Styrene	**4.1**		0.85	0.25	ug/m3			09/05/24 02:08	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/05/24 02:08	1
Cumene	**0.97**	**J**	0.98	0.20	ug/m3			09/05/24 02:08	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/05/24 02:08	1
n-Propylbenzene	**0.70**	**J**	0.98	0.23	ug/m3			09/05/24 02:08	1
4-Ethyltoluene	**0.95**	**J**	0.98	0.24	ug/m3			09/05/24 02:08	1
1,3,5-Trimethylbenzene	**0.88**	**J**	0.98	0.23	ug/m3			09/05/24 02:08	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/05/24 02:08	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/05/24 02:08	1
1,2,4-Trimethylbenzene	**2.7**		0.98	0.39	ug/m3			09/05/24 02:08	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/05/24 02:08	1
4-Isopropyltoluene	**0.94**	**J**	1.1	0.33	ug/m3			09/05/24 02:08	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/05/24 02:08	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/05/24 02:08	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/05/24 02:08	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/05/24 02:08	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/05/24 02:08	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/05/24 02:08	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/05/24 02:08	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/05/24 02:08	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**0.42**	**J**	0.50	0.11	ppb v/v			09/05/24 02:08	1
Chlorodifluoromethane	**0.62**		0.50	0.12	ppb v/v			09/05/24 02:08	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/05/24 02:08	1
Chloromethane	**0.53**		0.50	0.15	ppb v/v			09/05/24 02:08	1
n-Butane	**1.3**		0.50	0.20	ppb v/v			09/05/24 02:08	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/05/24 02:08	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/05/24 02:08	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/05/24 02:08	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/05/24 02:08	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/05/24 02:08	1
Trichlorofluoromethane	**0.19**		0.20	0.050	ppb v/v			09/05/24 02:08	1

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: IA083024CZ02
Date Collected: 08/30/24 14:28
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-5
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			09/05/24 02:08	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/05/24 02:08	1
Ethanol	**30**		5.0	2.6	ppb v/v			09/05/24 02:08	1
Acetone	**19**		5.0	1.6	ppb v/v			09/05/24 02:08	1
Isopropyl alcohol	**2.1**	**J**	5.0	1.6	ppb v/v			09/05/24 02:08	1
Carbon disulfide	**0.42**	**J**	0.50	0.13	ppb v/v			09/05/24 02:08	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/05/24 02:08	1
Methylene Chloride	**0.29**	**J**	0.50	0.18	ppb v/v			09/05/24 02:08	1
tert-Butyl alcohol	**3.0**	**J**	5.0	1.2	ppb v/v			09/05/24 02:08	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/05/24 02:08	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/05/24 02:08	1
n-Hexane	**0.29**	**J**	0.50	0.11	ppb v/v			09/05/24 02:08	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/05/24 02:08	1
Methyl Ethyl Ketone (2-Butanone)	**3.3**		0.50	0.49	ppb v/v			09/05/24 02:08	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/05/24 02:08	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			09/05/24 02:08	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/05/24 02:08	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/05/24 02:08	1
Cyclohexane	**0.24**		0.20	0.058	ppb v/v			09/05/24 02:08	1
Carbon tetrachloride	**0.054**		0.035	0.022	ppb v/v			09/05/24 02:08	1
2,2,4-Trimethylpentane	**0.10**	**J**	0.20	0.038	ppb v/v			09/05/24 02:08	1
Benzene	**0.16**	**J**	0.20	0.044	ppb v/v			09/05/24 02:08	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/05/24 02:08	1
n-Heptane	**0.35**		0.20	0.055	ppb v/v			09/05/24 02:08	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/05/24 02:08	1
Methyl methacrylate	**24**		0.50	0.14	ppb v/v			09/05/24 02:08	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/05/24 02:08	1
1,4-Dioxane	**0.11**	**J**	5.0	0.082	ppb v/v			09/05/24 02:08	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/05/24 02:08	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/05/24 02:08	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/05/24 02:08	1
Toluene	**4.0**		0.20	0.062	ppb v/v			09/05/24 02:08	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/05/24 02:08	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/05/24 02:08	1
Tetrachloroethene	**0.19**	**J**	0.20	0.021	ppb v/v			09/05/24 02:08	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/05/24 02:08	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/05/24 02:08	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/05/24 02:08	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/05/24 02:08	1
Ethylbenzene	**0.45**		0.20	0.069	ppb v/v			09/05/24 02:08	1
m,p-Xylene	**1.2**		0.50	0.095	ppb v/v			09/05/24 02:08	1
o-Xylene	**0.42**		0.20	0.063	ppb v/v			09/05/24 02:08	1
Styrene	**0.96**		0.20	0.059	ppb v/v			09/05/24 02:08	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/05/24 02:08	1
Cumene	**0.20**	**J**	0.20	0.041	ppb v/v			09/05/24 02:08	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/05/24 02:08	1
n-Propylbenzene	**0.14**	**J**	0.20	0.047	ppb v/v			09/05/24 02:08	1
4-Ethyltoluene	**0.19**	**J**	0.20	0.049	ppb v/v			09/05/24 02:08	1

Client Sample ID: IA083024CZ02

Lab Sample ID: 200-74969-5
Matrix: Air
Date Collected: 08/30/24 14:28
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	**0.18**	**J**	0.20	0.047	ppb v/v			09/05/24 02:08	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/05/24 02:08	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 02:08	1
1,2,4-Trimethylbenzene	**0.54**		0.20	0.080	ppb v/v			09/05/24 02:08	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/05/24 02:08	1
4-Isopropyltoluene	**0.17**	**J**	0.20	0.061	ppb v/v			09/05/24 02:08	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/05/24 02:08	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/05/24 02:08	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/05/24 02:08	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/05/24 02:08	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/05/24 02:08	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/05/24 02:08	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/05/24 02:08	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/05/24 02:08	1

Client Sample ID: IA083024CZ03

Lab Sample ID: 200-74969-6
Matrix: Air
Date Collected: 08/30/24 14:22
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**2.1**	**J**	2.5	0.54	ug/m3			09/04/24 23:53	1
Chlorodifluoromethane	**3.2**		1.8	0.42	ug/m3			09/04/24 23:53	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/04/24 23:53	1
Chloromethane	**2.1**		1.0	0.31	ug/m3			09/04/24 23:53	1
n-Butane	**1.4**		1.2	0.48	ug/m3			09/04/24 23:53	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/04/24 23:53	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/04/24 23:53	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/04/24 23:53	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/04/24 23:53	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/04/24 23:53	1
Trichlorofluoromethane	**1.1**		1.1	0.28	ug/m3			09/04/24 23:53	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			09/04/24 23:53	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/04/24 23:53	1
Ethanol	**6.8**	**J**	9.4	4.9	ug/m3			09/04/24 23:53	1
Acetone	**24**		12	3.8	ug/m3			09/04/24 23:53	1
Isopropyl alcohol	**4.3**	**J**	12	3.9	ug/m3			09/04/24 23:53	1
Carbon disulfide	**0.42**	**J**	1.6	0.40	ug/m3			09/04/24 23:53	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/04/24 23:53	1
Methylene Chloride	**0.81**	**J**	1.7	0.63	ug/m3			09/04/24 23:53	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			09/04/24 23:53	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/04/24 23:53	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/04/24 23:53	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			09/04/24 23:53	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/04/24 23:53	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/04/24 23:53	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/04/24 23:53	1
Chloroform	**0.26**	**J**	0.98	0.20	ug/m3			09/04/24 23:53	1

Client Sample ID: IA083024CZ03

Date Collected: 08/30/24 14:22
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-6

Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/04/24 23:53	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/04/24 23:53	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			09/04/24 23:53	1
Carbon tetrachloride	**0.38**		0.22	0.14	ug/m3			09/04/24 23:53	1
2,2,4-Trimethylpentane	**0.34**	**J**	0.93	0.18	ug/m3			09/04/24 23:53	1
Benzene	**0.36**	**J**	0.64	0.14	ug/m3			09/04/24 23:53	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/04/24 23:53	1
n-Heptane	**0.39**	**J**	0.82	0.23	ug/m3			09/04/24 23:53	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/04/24 23:53	1
Methyl methacrylate	**18**		2.0	0.57	ug/m3			09/04/24 23:53	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/04/24 23:53	1
1,4-Dioxane	18	U	18	0.30	ug/m3			09/04/24 23:53	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/04/24 23:53	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/04/24 23:53	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/04/24 23:53	1
Toluene	**3.8**		0.75	0.23	ug/m3			09/04/24 23:53	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/04/24 23:53	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/04/24 23:53	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			09/04/24 23:53	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/04/24 23:53	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/04/24 23:53	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/04/24 23:53	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/04/24 23:53	1
Ethylbenzene	**0.60**	**J**	0.87	0.30	ug/m3			09/04/24 23:53	1
m,p-Xylene	**0.92**	**J**	2.2	0.41	ug/m3			09/04/24 23:53	1
o-Xylene	**0.29**	**J**	0.87	0.27	ug/m3			09/04/24 23:53	1
Styrene	**1.2**		0.85	0.25	ug/m3			09/04/24 23:53	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/04/24 23:53	1
Cumene	0.98	U	0.98	0.20	ug/m3			09/04/24 23:53	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/04/24 23:53	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 23:53	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			09/04/24 23:53	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 23:53	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/04/24 23:53	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/04/24 23:53	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			09/04/24 23:53	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/04/24 23:53	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			09/04/24 23:53	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/04/24 23:53	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/04/24 23:53	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/04/24 23:53	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/04/24 23:53	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/04/24 23:53	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/04/24 23:53	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/04/24 23:53	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/04/24 23:53	1

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: IA083024CZ03
Date Collected: 08/30/24 14:22
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-6
Matrix: Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**0.42**	**J**	0.50	0.11	ppb v/v			09/04/24 23:53	1
Chlorodifluoromethane	**0.91**		0.50	0.12	ppb v/v			09/04/24 23:53	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/04/24 23:53	1
Chloromethane	**1.0**		0.50	0.15	ppb v/v			09/04/24 23:53	1
n-Butane	**0.61**		0.50	0.20	ppb v/v			09/04/24 23:53	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/04/24 23:53	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/04/24 23:53	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/04/24 23:53	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/04/24 23:53	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/04/24 23:53	1
Trichlorofluoromethane	**0.20**		0.20	0.050	ppb v/v			09/04/24 23:53	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			09/04/24 23:53	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/04/24 23:53	1
Ethanol	**3.6**	**J**	5.0	2.6	ppb v/v			09/04/24 23:53	1
Acetone	**9.9**		5.0	1.6	ppb v/v			09/04/24 23:53	1
Isopropyl alcohol	**1.7**	**J**	5.0	1.6	ppb v/v			09/04/24 23:53	1
Carbon disulfide	**0.14**	**J**	0.50	0.13	ppb v/v			09/04/24 23:53	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/04/24 23:53	1
Methylene Chloride	**0.23**	**J**	0.50	0.18	ppb v/v			09/04/24 23:53	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			09/04/24 23:53	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/04/24 23:53	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/04/24 23:53	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			09/04/24 23:53	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/04/24 23:53	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/04/24 23:53	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/04/24 23:53	1
Chloroform	**0.054**	**J**	0.20	0.041	ppb v/v			09/04/24 23:53	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/04/24 23:53	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/04/24 23:53	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			09/04/24 23:53	1
Carbon tetrachloride	**0.061**		0.035	0.022	ppb v/v			09/04/24 23:53	1
2,2,4-Trimethylpentane	**0.072**	**J**	0.20	0.038	ppb v/v			09/04/24 23:53	1
Benzene	**0.11**	**J**	0.20	0.044	ppb v/v			09/04/24 23:53	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/04/24 23:53	1
n-Heptane	**0.094**	**J**	0.20	0.055	ppb v/v			09/04/24 23:53	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/04/24 23:53	1
Methyl methacrylate	**4.3**		0.50	0.14	ppb v/v			09/04/24 23:53	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/04/24 23:53	1
1,4-Dioxane	5.0	U	5.0	0.082	ppb v/v			09/04/24 23:53	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 23:53	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/04/24 23:53	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/04/24 23:53	1
Toluene	**1.0**		0.20	0.062	ppb v/v			09/04/24 23:53	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/04/24 23:53	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/04/24 23:53	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			09/04/24 23:53	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/04/24 23:53	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/04/24 23:53	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/04/24 23:53	1

Client Sample ID: IA083024CZ03

Lab Sample ID: 200-74969-6
Matrix: Air
Date Collected: 08/30/24 14:22
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 23:53	1
Ethylbenzene	**0.14**	**J**	0.20	0.069	ppb v/v			09/04/24 23:53	1
m,p-Xylene	**0.21**	**J**	0.50	0.095	ppb v/v			09/04/24 23:53	1
o-Xylene	**0.067**	**J**	0.20	0.063	ppb v/v			09/04/24 23:53	1
Styrene	**0.28**		0.20	0.059	ppb v/v			09/04/24 23:53	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/04/24 23:53	1
Cumene	0.20	U	0.20	0.041	ppb v/v			09/04/24 23:53	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/04/24 23:53	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 23:53	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			09/04/24 23:53	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 23:53	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/04/24 23:53	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 23:53	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			09/04/24 23:53	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/04/24 23:53	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			09/04/24 23:53	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/04/24 23:53	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/04/24 23:53	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/04/24 23:53	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/04/24 23:53	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/04/24 23:53	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/04/24 23:53	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/04/24 23:53	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/04/24 23:53	1

Client Sample ID: OA083024CZ01

Lab Sample ID: 200-74969-7
Matrix: Air
Date Collected: 08/30/24 14:24
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**2.1**	**J**	2.5	0.54	ug/m3			09/05/24 00:53	1
Chlorodifluoromethane	**2.9**		1.8	0.42	ug/m3			09/05/24 00:53	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/05/24 00:53	1
Chloromethane	**1.3**		1.0	0.31	ug/m3			09/05/24 00:53	1
n-Butane	**0.63**	**J**	1.2	0.48	ug/m3			09/05/24 00:53	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/05/24 00:53	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/05/24 00:53	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/05/24 00:53	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/05/24 00:53	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/05/24 00:53	1
Trichlorofluoromethane	**1.1**		1.1	0.28	ug/m3			09/05/24 00:53	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			09/05/24 00:53	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/05/24 00:53	1
Ethanol	9.4	U	9.4	4.9	ug/m3			09/05/24 00:53	1
Acetone	**12**		12	3.8	ug/m3			09/05/24 00:53	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			09/05/24 00:53	1
Carbon disulfide	**1.5**	**J**	1.6	0.40	ug/m3			09/05/24 00:53	1

Client Sample ID: OA083024CZ01
Date Collected: 08/30/24 14:24
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-7
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/05/24 00:53	1
Methylene Chloride	**0.85**	**J**	1.7	0.63	ug/m3			09/05/24 00:53	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			09/05/24 00:53	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/05/24 00:53	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/05/24 00:53	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			09/05/24 00:53	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/05/24 00:53	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/05/24 00:53	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/05/24 00:53	1
Chloroform	0.98	U	0.98	0.20	ug/m3			09/05/24 00:53	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/05/24 00:53	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/05/24 00:53	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			09/05/24 00:53	1
Carbon tetrachloride	**0.33**		0.22	0.14	ug/m3			09/05/24 00:53	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			09/05/24 00:53	1
Benzene	**0.28**	**J**	0.64	0.14	ug/m3			09/05/24 00:53	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/05/24 00:53	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			09/05/24 00:53	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/05/24 00:53	1
Methyl methacrylate	**1.0**	**J**	2.0	0.57	ug/m3			09/05/24 00:53	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/05/24 00:53	1
1,4-Dioxane	18	U	18	0.30	ug/m3			09/05/24 00:53	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/05/24 00:53	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/05/24 00:53	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/05/24 00:53	1
Toluene	**0.73**	**J**	0.75	0.23	ug/m3			09/05/24 00:53	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/05/24 00:53	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/05/24 00:53	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			09/05/24 00:53	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/05/24 00:53	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/05/24 00:53	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/05/24 00:53	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/05/24 00:53	1
Ethylbenzene	**0.33**	**J**	0.87	0.30	ug/m3			09/05/24 00:53	1
m,p-Xylene	**0.93**	**J**	2.2	0.41	ug/m3			09/05/24 00:53	1
o-Xylene	**0.31**	**J**	0.87	0.27	ug/m3			09/05/24 00:53	1
Styrene	**0.79**	**J**	0.85	0.25	ug/m3			09/05/24 00:53	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/05/24 00:53	1
Cumene	0.98	U	0.98	0.20	ug/m3			09/05/24 00:53	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/05/24 00:53	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			09/05/24 00:53	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			09/05/24 00:53	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			09/05/24 00:53	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/05/24 00:53	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/05/24 00:53	1
1,2,4-Trimethylbenzene	**0.53**	**J**	0.98	0.39	ug/m3			09/05/24 00:53	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/05/24 00:53	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			09/05/24 00:53	1

Client Sample ID: OA083024CZ01
Date Collected: 08/30/24 14:24
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-7
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/05/24 00:53	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/05/24 00:53	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/05/24 00:53	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/05/24 00:53	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/05/24 00:53	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/05/24 00:53	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/05/24 00:53	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/05/24 00:53	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	**0.42**	**J**	0.50	0.11	ppb v/v			09/05/24 00:53	1
Chlorodifluoromethane	**0.81**		0.50	0.12	ppb v/v			09/05/24 00:53	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/05/24 00:53	1
Chloromethane	**0.63**		0.50	0.15	ppb v/v			09/05/24 00:53	1
n-Butane	**0.27**	**J**	0.50	0.20	ppb v/v			09/05/24 00:53	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/05/24 00:53	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/05/24 00:53	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/05/24 00:53	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/05/24 00:53	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/05/24 00:53	1
Trichlorofluoromethane	**0.20**		0.20	0.050	ppb v/v			09/05/24 00:53	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			09/05/24 00:53	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/05/24 00:53	1
Ethanol	5.0	U	5.0	2.6	ppb v/v			09/05/24 00:53	1
Acetone	**4.9**		5.0	1.6	ppb v/v			09/05/24 00:53	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			09/05/24 00:53	1
Carbon disulfide	**0.47**	**J**	0.50	0.13	ppb v/v			09/05/24 00:53	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/05/24 00:53	1
Methylene Chloride	**0.24**	**J**	0.50	0.18	ppb v/v			09/05/24 00:53	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			09/05/24 00:53	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/05/24 00:53	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/05/24 00:53	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			09/05/24 00:53	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/05/24 00:53	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/05/24 00:53	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/05/24 00:53	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			09/05/24 00:53	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/05/24 00:53	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/05/24 00:53	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			09/05/24 00:53	1
Carbon tetrachloride	**0.052**		0.035	0.022	ppb v/v			09/05/24 00:53	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			09/05/24 00:53	1
Benzene	**0.088**	**J**	0.20	0.044	ppb v/v			09/05/24 00:53	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/05/24 00:53	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			09/05/24 00:53	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/05/24 00:53	1
Methyl methacrylate	**0.25**	**J**	0.50	0.14	ppb v/v			09/05/24 00:53	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/05/24 00:53	1
1,4-Dioxane	5.0	U	5.0	0.082	ppb v/v			09/05/24 00:53	1

Client Sample ID: OA083024CZ01
Date Collected: 08/30/24 14:24
Date Received: 08/31/24 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 200-74969-7
Matrix: Air

Method: EPA TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/05/24 00:53	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/05/24 00:53	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/05/24 00:53	1
Toluene	**0.19**	**J**	0.20	0.062	ppb v/v			09/05/24 00:53	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/05/24 00:53	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/05/24 00:53	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			09/05/24 00:53	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/05/24 00:53	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/05/24 00:53	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/05/24 00:53	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/05/24 00:53	1
Ethylbenzene	**0.076**	**J**	0.20	0.069	ppb v/v			09/05/24 00:53	1
m,p-Xylene	**0.21**	**J**	0.50	0.095	ppb v/v			09/05/24 00:53	1
o-Xylene	**0.072**	**J**	0.20	0.063	ppb v/v			09/05/24 00:53	1
Styrene	**0.18**	**J**	0.20	0.059	ppb v/v			09/05/24 00:53	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/05/24 00:53	1
Cumene	0.20	U	0.20	0.041	ppb v/v			09/05/24 00:53	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/05/24 00:53	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 00:53	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			09/05/24 00:53	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 00:53	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/05/24 00:53	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/05/24 00:53	1
1,2,4-Trimethylbenzene	**0.11**	**J**	0.20	0.080	ppb v/v			09/05/24 00:53	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/05/24 00:53	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			09/05/24 00:53	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/05/24 00:53	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/05/24 00:53	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/05/24 00:53	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/05/24 00:53	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/05/24 00:53	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/05/24 00:53	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/05/24 00:53	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/05/24 00:53	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-208272/4
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			09/04/24 10:18	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			09/04/24 10:18	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/04/24 10:18	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			09/04/24 10:18	1
n-Butane	1.2	U	1.2	0.48	ug/m3			09/04/24 10:18	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/04/24 10:18	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/04/24 10:18	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/04/24 10:18	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/04/24 10:18	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/04/24 10:18	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			09/04/24 10:18	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			09/04/24 10:18	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/04/24 10:18	1
Ethanol	9.4	U	9.4	4.9	ug/m3			09/04/24 10:18	1
Acetone	12	U	12	3.8	ug/m3			09/04/24 10:18	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			09/04/24 10:18	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			09/04/24 10:18	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/04/24 10:18	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			09/04/24 10:18	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			09/04/24 10:18	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/04/24 10:18	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/04/24 10:18	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			09/04/24 10:18	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/04/24 10:18	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/04/24 10:18	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/04/24 10:18	1
Chloroform	0.98	U	0.98	0.20	ug/m3			09/04/24 10:18	1
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/04/24 10:18	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/04/24 10:18	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			09/04/24 10:18	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			09/04/24 10:18	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			09/04/24 10:18	1
Benzene	0.64	U	0.64	0.14	ug/m3			09/04/24 10:18	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/04/24 10:18	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			09/04/24 10:18	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/04/24 10:18	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			09/04/24 10:18	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/04/24 10:18	1
1,4-Dioxane	18	U	18	0.30	ug/m3			09/04/24 10:18	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/04/24 10:18	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/04/24 10:18	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/04/24 10:18	1
Toluene	0.75	U	0.75	0.23	ug/m3			09/04/24 10:18	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/04/24 10:18	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/04/24 10:18	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			09/04/24 10:18	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/04/24 10:18	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/04/24 10:18	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-208272/4
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/04/24 10:18	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/04/24 10:18	1
Ethylbenzene	0.87	U	0.87	0.30	ug/m3			09/04/24 10:18	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			09/04/24 10:18	1
o-Xylene	0.87	U	0.87	0.27	ug/m3			09/04/24 10:18	1
Styrene	0.85	U	0.85	0.25	ug/m3			09/04/24 10:18	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/04/24 10:18	1
Cumene	0.98	U	0.98	0.20	ug/m3			09/04/24 10:18	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/04/24 10:18	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 10:18	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			09/04/24 10:18	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 10:18	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/04/24 10:18	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/04/24 10:18	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			09/04/24 10:18	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/04/24 10:18	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			09/04/24 10:18	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/04/24 10:18	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/04/24 10:18	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/04/24 10:18	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/04/24 10:18	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/04/24 10:18	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/04/24 10:18	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/04/24 10:18	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/04/24 10:18	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			09/04/24 10:18	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			09/04/24 10:18	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/04/24 10:18	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			09/04/24 10:18	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			09/04/24 10:18	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/04/24 10:18	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/04/24 10:18	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/04/24 10:18	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/04/24 10:18	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/04/24 10:18	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 10:18	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			09/04/24 10:18	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/04/24 10:18	1
Ethanol	5.0	U	5.0	2.6	ppb v/v			09/04/24 10:18	1
Acetone	5.0	U	5.0	1.6	ppb v/v			09/04/24 10:18	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			09/04/24 10:18	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			09/04/24 10:18	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/04/24 10:18	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			09/04/24 10:18	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			09/04/24 10:18	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/04/24 10:18	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/04/24 10:18	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-208272/4
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	0.50	U	0.50	0.11	ppb v/v			09/04/24 10:18	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/04/24 10:18	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/04/24 10:18	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/04/24 10:18	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			09/04/24 10:18	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/04/24 10:18	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/04/24 10:18	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			09/04/24 10:18	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			09/04/24 10:18	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			09/04/24 10:18	1
Benzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 10:18	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/04/24 10:18	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			09/04/24 10:18	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/04/24 10:18	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			09/04/24 10:18	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/04/24 10:18	1
1,4-Dioxane	5.0	U	5.0	0.082	ppb v/v			09/04/24 10:18	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 10:18	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/04/24 10:18	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/04/24 10:18	1
Toluene	0.20	U	0.20	0.062	ppb v/v			09/04/24 10:18	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/04/24 10:18	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/04/24 10:18	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			09/04/24 10:18	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/04/24 10:18	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/04/24 10:18	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/04/24 10:18	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 10:18	1
Ethylbenzene	0.20	U	0.20	0.069	ppb v/v			09/04/24 10:18	1
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			09/04/24 10:18	1
o-Xylene	0.20	U	0.20	0.063	ppb v/v			09/04/24 10:18	1
Styrene	0.20	U	0.20	0.059	ppb v/v			09/04/24 10:18	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/04/24 10:18	1
Cumene	0.20	U	0.20	0.041	ppb v/v			09/04/24 10:18	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/04/24 10:18	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 10:18	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			09/04/24 10:18	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 10:18	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/04/24 10:18	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 10:18	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			09/04/24 10:18	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/04/24 10:18	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			09/04/24 10:18	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/04/24 10:18	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/04/24 10:18	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/04/24 10:18	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/04/24 10:18	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/04/24 10:18	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-208272/4
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/04/24 10:18	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/04/24 10:18	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/04/24 10:18	1

Lab Sample ID: LCS 200-208272/3
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	49.4	52.9		ug/m3		107	61 - 142
Chlorodifluoromethane	35.4	43.0		ug/m3		122	60 - 147
1,2-Dichlorotetrafluoroethane	69.9	74.4		ug/m3		106	71 - 141
Chloromethane	20.6	26.0		ug/m3		126	56 - 141
n-Butane	23.8	27.6		ug/m3		116	53 - 151
Vinyl chloride	25.6	26.4		ug/m3		103	61 - 135
1,3-Butadiene	22.1	22.6		ug/m3		102	58 - 139
Bromomethane	38.8	38.0		ug/m3		98	72 - 124
Chloroethane	26.4	28.3		ug/m3		107	68 - 130
Bromoethene(Vinyl Bromide)	43.7	42.0		ug/m3		96	75 - 125
Trichlorofluoromethane	56.2	56.1		ug/m3		100	70 - 129
1,1,2-Trichlorotrifluoroethane	76.6	73.7		ug/m3		96	70 - 121
1,1-Dichloroethene	39.6	36.2		ug/m3		91	68 - 120
Ethanol	28.3	33.8		ug/m3		120	50 - 150
Acetone	23.7	27.7		ug/m3		117	54 - 154
Isopropyl alcohol	24.6	31.8		ug/m3		130	53 - 142
Carbon disulfide	31.1	30.3		ug/m3		97	71 - 138
3-Chloropropene	31.3	34.2		ug/m3		109	50 - 150
Methylene Chloride	34.7	36.9		ug/m3		106	59 - 137
tert-Butyl alcohol	30.3	32.1		ug/m3		106	66 - 132
Methyl tert-butyl ether	36.0	37.4		ug/m3		104	70 - 127
trans-1,2-Dichloroethene	39.6	38.5		ug/m3		97	69 - 137
n-Hexane	35.2	36.0		ug/m3		102	63 - 138
1,1-Dichloroethane	40.5	39.3		ug/m3		97	66 - 130
Methyl Ethyl Ketone (2-Butanone)	29.5	29.4		ug/m3		100	72 - 124
cis-1,2-Dichloroethene	39.6	36.9		ug/m3		93	72 - 121
Chloroform	48.8	48.3		ug/m3		99	73 - 124
Tetrahydrofuran	29.5	32.4		ug/m3		110	60 - 149
1,1,1-Trichloroethane	54.6	54.2		ug/m3		99	72 - 127
Cyclohexane	34.4	33.5		ug/m3		97	76 - 124
Carbon tetrachloride	62.9	60.6		ug/m3		96	71 - 133
2,2,4-Trimethylpentane	46.7	48.0		ug/m3		103	68 - 131
Benzene	31.9	30.9		ug/m3		97	73 - 119
1,2-Dichloroethane	40.5	41.1		ug/m3		102	68 - 135
n-Heptane	41.0	43.8		ug/m3		107	60 - 142
Trichloroethene	53.7	49.1		ug/m3		91	73 - 122
Methyl methacrylate	40.9	41.5		ug/m3		101	73 - 129
1,2-Dichloropropane	46.2	46.1		ug/m3		100	69 - 128
1,4-Dioxane	36.0	32.7		ug/m3		91	66 - 129

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208272/3
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	67.0	67.6		ug/m3		101	75 - 127
cis-1,3-Dichloropropene	45.4	46.5		ug/m3		103	74 - 125
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	42.3		ug/m3		103	58 - 144
Toluene	37.7	37.3		ug/m3		99	75 - 122
trans-1,3-Dichloropropene	45.4	47.7		ug/m3		105	74 - 128
1,1,2-Trichloroethane	54.6	53.0		ug/m3		97	75 - 126
Tetrachloroethene	67.8	62.5		ug/m3		92	70 - 125
Methyl Butyl Ketone (2-Hexanone)	41.0	41.3		ug/m3		101	57 - 143
Dibromochloromethane	85.2	86.8		ug/m3		102	73 - 125
1,2-Dibromoethane	76.8	75.6		ug/m3		98	78 - 122
Chlorobenzene	46.0	45.3		ug/m3		98	76 - 119
Ethylbenzene	43.4	44.2		ug/m3		102	74 - 122
m,p-Xylene	86.8	90.1		ug/m3		104	76 - 121
o-Xylene	43.4	45.0		ug/m3		104	73 - 123
Styrene	42.6	46.0		ug/m3		108	74 - 125
Bromoform	103	111		ug/m3		108	53 - 149
Cumene	49.1	51.9		ug/m3		106	73 - 123
1,1,2,2-Tetrachloroethane	68.6	70.2		ug/m3		102	74 - 126
n-Propylbenzene	49.1	52.2		ug/m3		106	73 - 127
4-Ethyltoluene	49.2	52.5		ug/m3		107	75 - 129
1,3,5-Trimethylbenzene	49.2	52.0		ug/m3		106	72 - 126
2-Chlorotoluene	51.8	53.9		ug/m3		104	74 - 126
tert-Butylbenzene	54.9	58.6		ug/m3		107	71 - 125
1,2,4-Trimethylbenzene	49.2	53.2		ug/m3		108	71 - 129
sec-Butylbenzene	54.9	59.4		ug/m3		108	70 - 128
4-Isopropyltoluene	54.9	60.9		ug/m3		111	68 - 130
1,3-Dichlorobenzene	60.1	66.4		ug/m3		110	69 - 131
1,4-Dichlorobenzene	60.1	67.5		ug/m3		112	67 - 132
Benzyl chloride	51.8	62.5		ug/m3		121	60 - 136
n-Butylbenzene	54.9	63.5		ug/m3		116	65 - 137
1,2-Dichlorobenzene	60.1	66.4		ug/m3		111	68 - 129
1,2,4-Trichlorobenzene	74.2	95.5		ug/m3		129	50 - 150
Hexachlorobutadiene	107	125		ug/m3		117	58 - 130
Naphthalene	52.4	75.5		ug/m3		144	50 - 150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	10	10.7		ppb v/v		107	61 - 142
Chlorodifluoromethane	10	12.2		ppb v/v		122	60 - 147
1,2-Dichlorotetrafluoroethane	10	10.6		ppb v/v		106	71 - 141
Chloromethane	10	12.6		ppb v/v		126	56 - 141
n-Butane	10	11.6		ppb v/v		116	53 - 151
Vinyl chloride	10	10.3		ppb v/v		103	61 - 135
1,3-Butadiene	10	10.2		ppb v/v		102	58 - 139
Bromomethane	10	9.77		ppb v/v		98	72 - 124
Chloroethane	10	10.7		ppb v/v		107	68 - 130
Bromoethene(Vinyl Bromide)	10	9.59		ppb v/v		96	75 - 125
Trichlorofluoromethane	10	9.98		ppb v/v		100	70 - 129

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208272/3
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichlorotrifluoroethane	10	9.62		ppb v/v		96	70 - 121
1,1-Dichloroethene	10	9.13		ppb v/v		91	68 - 120
Ethanol	15	17.9		ppb v/v		120	50 - 150
Acetone	10	11.7		ppb v/v		117	54 - 154
Isopropyl alcohol	10	13.0		ppb v/v		130	53 - 142
Carbon disulfide	10	9.73		ppb v/v		97	71 - 138
3-Chloropropene	10	10.9		ppb v/v		109	50 - 150
Methylene Chloride	10	10.6		ppb v/v		106	59 - 137
tert-Butyl alcohol	10	10.6		ppb v/v		106	66 - 132
Methyl tert-butyl ether	10	10.4		ppb v/v		104	70 - 127
trans-1,2-Dichloroethene	10	9.71		ppb v/v		97	69 - 137
n-Hexane	10	10.2		ppb v/v		102	63 - 138
1,1-Dichloroethane	10	9.70		ppb v/v		97	66 - 130
Methyl Ethyl Ketone (2-Butanone)	10	9.96		ppb v/v		100	72 - 124
cis-1,2-Dichloroethene	10	9.31		ppb v/v		93	72 - 121
Chloroform	10	9.89		ppb v/v		99	73 - 124
Tetrahydrofuran	10	11.0		ppb v/v		110	60 - 149
1,1,1-Trichloroethane	10	9.93		ppb v/v		99	72 - 127
Cyclohexane	10	9.73		ppb v/v		97	76 - 124
Carbon tetrachloride	10	9.64		ppb v/v		96	71 - 133
2,2,4-Trimethylpentane	10	10.3		ppb v/v		103	68 - 131
Benzene	10	9.67		ppb v/v		97	73 - 119
1,2-Dichloroethane	10	10.2		ppb v/v		102	68 - 135
n-Heptane	10	10.7		ppb v/v		107	60 - 142
Trichloroethene	10	9.14		ppb v/v		91	73 - 122
Methyl methacrylate	10	10.1		ppb v/v		101	73 - 129
1,2-Dichloropropane	10	9.98		ppb v/v		100	69 - 128
1,4-Dioxane	10	9.08		ppb v/v		91	66 - 129
Bromodichloromethane	10	10.1		ppb v/v		101	75 - 127
cis-1,3-Dichloropropene	10	10.3		ppb v/v		103	74 - 125
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.3		ppb v/v		103	58 - 144
Toluene	10	9.90		ppb v/v		99	75 - 122
trans-1,3-Dichloropropene	10	10.5		ppb v/v		105	74 - 128
1,1,2-Trichloroethane	10	9.72		ppb v/v		97	75 - 126
Tetrachloroethene	10	9.21		ppb v/v		92	70 - 125
Methyl Butyl Ketone (2-Hexanone)	10	10.1		ppb v/v		101	57 - 143
Dibromochloromethane	10	10.2		ppb v/v		102	73 - 125
1,2-Dibromoethane	10	9.84		ppb v/v		98	78 - 122
Chlorobenzene	10	9.84		ppb v/v		98	76 - 119
Ethylbenzene	10	10.2		ppb v/v		102	74 - 122
m,p-Xylene	20	20.8		ppb v/v		104	76 - 121
o-Xylene	10	10.4		ppb v/v		104	73 - 123
Styrene	10	10.8		ppb v/v		108	74 - 125
Bromoform	10	10.8		ppb v/v		108	53 - 149
Cumene	10	10.6		ppb v/v		106	73 - 123
1,1,2,2-Tetrachloroethane	10	10.2		ppb v/v		102	74 - 126

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208272/3
Matrix: Air
Analysis Batch: 208272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
n-Propylbenzene	10	10.6		ppb v/v		106	73 - 127
4-Ethyltoluene	10	10.7		ppb v/v		107	75 - 129
1,3,5-Trimethylbenzene	10	10.6		ppb v/v		106	72 - 126
2-Chlorotoluene	10	10.4		ppb v/v		104	74 - 126
tert-Butylbenzene	10	10.7		ppb v/v		107	71 - 125
1,2,4-Trimethylbenzene	10	10.8		ppb v/v		108	71 - 129
sec-Butylbenzene	10	10.8		ppb v/v		108	70 - 128
4-Isopropyltoluene	10	11.1		ppb v/v		111	68 - 130
1,3-Dichlorobenzene	10	11.0		ppb v/v		110	69 - 131
1,4-Dichlorobenzene	10	11.2		ppb v/v		112	67 - 132
Benzyl chloride	10	12.1		ppb v/v		121	60 - 136
n-Butylbenzene	10	11.6		ppb v/v		116	65 - 137
1,2-Dichlorobenzene	10	11.0		ppb v/v		111	68 - 129
1,2,4-Trichlorobenzene	10	12.9		ppb v/v		129	50 - 150
Hexachlorobutadiene	10	11.7		ppb v/v		117	58 - 130
Naphthalene	10	14.4		ppb v/v		144	50 - 150

Lab Sample ID: MB 200-208280/6
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5	0.54	ug/m3			09/04/24 15:04	1
Chlorodifluoromethane	1.8	U	1.8	0.42	ug/m3			09/04/24 15:04	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.34	ug/m3			09/04/24 15:04	1
Chloromethane	1.0	U	1.0	0.31	ug/m3			09/04/24 15:04	1
n-Butane	1.2	U	1.2	0.48	ug/m3			09/04/24 15:04	1
Vinyl chloride	0.20	U	0.20	0.054	ug/m3			09/04/24 15:04	1
1,3-Butadiene	0.44	U	0.44	0.086	ug/m3			09/04/24 15:04	1
Bromomethane	0.78	U	0.78	0.28	ug/m3			09/04/24 15:04	1
Chloroethane	1.3	U	1.3	0.47	ug/m3			09/04/24 15:04	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.22	ug/m3			09/04/24 15:04	1
Trichlorofluoromethane	1.1	U	1.1	0.28	ug/m3			09/04/24 15:04	1
1,1,2-Trichlorotrifluoroethane	1.5	U	1.5	0.41	ug/m3			09/04/24 15:04	1
1,1-Dichloroethene	0.20	U	0.20	0.10	ug/m3			09/04/24 15:04	1
Ethanol	9.4	U	9.4	4.9	ug/m3			09/04/24 15:04	1
Acetone	12	U	12	3.8	ug/m3			09/04/24 15:04	1
Isopropyl alcohol	12	U	12	3.9	ug/m3			09/04/24 15:04	1
Carbon disulfide	1.6	U	1.6	0.40	ug/m3			09/04/24 15:04	1
3-Chloropropene	1.6	U	1.6	0.38	ug/m3			09/04/24 15:04	1
Methylene Chloride	1.7	U	1.7	0.63	ug/m3			09/04/24 15:04	1
tert-Butyl alcohol	15	U	15	3.6	ug/m3			09/04/24 15:04	1
Methyl tert-butyl ether	0.72	U	0.72	0.13	ug/m3			09/04/24 15:04	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.091	ug/m3			09/04/24 15:04	1
n-Hexane	1.8	U	1.8	0.39	ug/m3			09/04/24 15:04	1
1,1-Dichloroethane	0.81	U	0.81	0.10	ug/m3			09/04/24 15:04	1
Methyl Ethyl Ketone (2-Butanone)	1.5	U	1.5	1.4	ug/m3			09/04/24 15:04	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.083	ug/m3			09/04/24 15:04	1
Chloroform	0.98	U	0.98	0.20	ug/m3			09/04/24 15:04	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-208280/6
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	15	U	15	3.8	ug/m3			09/04/24 15:04	1
1,1,1-Trichloroethane	1.1	U	1.1	0.24	ug/m3			09/04/24 15:04	1
Cyclohexane	0.69	U	0.69	0.20	ug/m3			09/04/24 15:04	1
Carbon tetrachloride	0.22	U	0.22	0.14	ug/m3			09/04/24 15:04	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.18	ug/m3			09/04/24 15:04	1
Benzene	0.64	U	0.64	0.14	ug/m3			09/04/24 15:04	1
1,2-Dichloroethane	0.81	U	0.81	0.38	ug/m3			09/04/24 15:04	1
n-Heptane	0.82	U	0.82	0.23	ug/m3			09/04/24 15:04	1
Trichloroethene	0.20	U	0.20	0.13	ug/m3			09/04/24 15:04	1
Methyl methacrylate	2.0	U	2.0	0.57	ug/m3			09/04/24 15:04	1
1,2-Dichloropropane	0.92	U	0.92	0.43	ug/m3			09/04/24 15:04	1
1,4-Dioxane	18	U	18	0.30	ug/m3			09/04/24 15:04	1
Bromodichloromethane	1.3	U	1.3	0.34	ug/m3			09/04/24 15:04	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.20	ug/m3			09/04/24 15:04	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	2.0	U	2.0	0.53	ug/m3			09/04/24 15:04	1
Toluene	0.75	U	0.75	0.23	ug/m3			09/04/24 15:04	1
trans-1,3-Dichloropropene	0.91	U	0.91	0.25	ug/m3			09/04/24 15:04	1
1,1,2-Trichloroethane	1.1	U	1.1	0.40	ug/m3			09/04/24 15:04	1
Tetrachloroethene	1.4	U	1.4	0.14	ug/m3			09/04/24 15:04	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	0.61	ug/m3			09/04/24 15:04	1
Dibromochloromethane	1.7	U	1.7	0.54	ug/m3			09/04/24 15:04	1
1,2-Dibromoethane	1.5	U	1.5	0.32	ug/m3			09/04/24 15:04	1
Chlorobenzene	0.92	U	0.92	0.20	ug/m3			09/04/24 15:04	1
Ethylbenzene	0.87	U	0.87	0.30	ug/m3			09/04/24 15:04	1
m,p-Xylene	2.2	U	2.2	0.41	ug/m3			09/04/24 15:04	1
o-Xylene	0.87	U	0.87	0.27	ug/m3			09/04/24 15:04	1
Styrene	0.85	U	0.85	0.25	ug/m3			09/04/24 15:04	1
Bromoform	2.1	U	2.1	1.2	ug/m3			09/04/24 15:04	1
Cumene	0.98	U	0.98	0.20	ug/m3			09/04/24 15:04	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	0.30	ug/m3			09/04/24 15:04	1
n-Propylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 15:04	1
4-Ethyltoluene	0.98	U	0.98	0.24	ug/m3			09/04/24 15:04	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.23	ug/m3			09/04/24 15:04	1
2-Chlorotoluene	1.0	U	1.0	0.24	ug/m3			09/04/24 15:04	1
tert-Butylbenzene	1.1	U	1.1	0.26	ug/m3			09/04/24 15:04	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			09/04/24 15:04	1
sec-Butylbenzene	1.1	U	1.1	0.25	ug/m3			09/04/24 15:04	1
4-Isopropyltoluene	1.1	U	1.1	0.33	ug/m3			09/04/24 15:04	1
1,3-Dichlorobenzene	1.2	U	1.2	0.44	ug/m3			09/04/24 15:04	1
1,4-Dichlorobenzene	1.2	U	1.2	0.54	ug/m3			09/04/24 15:04	1
Benzyl chloride	1.0	U	1.0	0.46	ug/m3			09/04/24 15:04	1
n-Butylbenzene	1.1	U	1.1	0.60	ug/m3			09/04/24 15:04	1
1,2-Dichlorobenzene	1.2	U	1.2	0.40	ug/m3			09/04/24 15:04	1
1,2,4-Trichlorobenzene	3.7	U	3.7	2.4	ug/m3			09/04/24 15:04	1
Hexachlorobutadiene	2.1	U	2.1	1.2	ug/m3			09/04/24 15:04	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			09/04/24 15:04	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50	0.11	ppb v/v			09/04/24 15:04	1
Chlorodifluoromethane	0.50	U	0.50	0.12	ppb v/v			09/04/24 15:04	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.048	ppb v/v			09/04/24 15:04	1
Chloromethane	0.50	U	0.50	0.15	ppb v/v			09/04/24 15:04	1
n-Butane	0.50	U	0.50	0.20	ppb v/v			09/04/24 15:04	1
Vinyl chloride	0.078	U	0.078	0.021	ppb v/v			09/04/24 15:04	1
1,3-Butadiene	0.20	U	0.20	0.039	ppb v/v			09/04/24 15:04	1
Bromomethane	0.20	U	0.20	0.071	ppb v/v			09/04/24 15:04	1
Chloroethane	0.50	U	0.50	0.18	ppb v/v			09/04/24 15:04	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.050	ppb v/v			09/04/24 15:04	1
Trichlorofluoromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 15:04	1
1,1,2-Trichlorotrifluoroethane	0.20	U	0.20	0.053	ppb v/v			09/04/24 15:04	1
1,1-Dichloroethene	0.050	U	0.050	0.026	ppb v/v			09/04/24 15:04	1
Ethanol	5.0	U	5.0	2.6	ppb v/v			09/04/24 15:04	1
Acetone	5.0	U	5.0	1.6	ppb v/v			09/04/24 15:04	1
Isopropyl alcohol	5.0	U	5.0	1.6	ppb v/v			09/04/24 15:04	1
Carbon disulfide	0.50	U	0.50	0.13	ppb v/v			09/04/24 15:04	1
3-Chloropropene	0.50	U	0.50	0.12	ppb v/v			09/04/24 15:04	1
Methylene Chloride	0.50	U	0.50	0.18	ppb v/v			09/04/24 15:04	1
tert-Butyl alcohol	5.0	U	5.0	1.2	ppb v/v			09/04/24 15:04	1
Methyl tert-butyl ether	0.20	U	0.20	0.036	ppb v/v			09/04/24 15:04	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.023	ppb v/v			09/04/24 15:04	1
n-Hexane	0.50	U	0.50	0.11	ppb v/v			09/04/24 15:04	1
1,1-Dichloroethane	0.20	U	0.20	0.025	ppb v/v			09/04/24 15:04	1
Methyl Ethyl Ketone (2-Butanone)	0.50	U	0.50	0.49	ppb v/v			09/04/24 15:04	1
cis-1,2-Dichloroethene	0.050	U	0.050	0.021	ppb v/v			09/04/24 15:04	1
Chloroform	0.20	U	0.20	0.041	ppb v/v			09/04/24 15:04	1
Tetrahydrofuran	5.0	U	5.0	1.3	ppb v/v			09/04/24 15:04	1
1,1,1-Trichloroethane	0.20	U	0.20	0.044	ppb v/v			09/04/24 15:04	1
Cyclohexane	0.20	U	0.20	0.058	ppb v/v			09/04/24 15:04	1
Carbon tetrachloride	0.035	U	0.035	0.022	ppb v/v			09/04/24 15:04	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.038	ppb v/v			09/04/24 15:04	1
Benzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 15:04	1
1,2-Dichloroethane	0.20	U	0.20	0.093	ppb v/v			09/04/24 15:04	1
n-Heptane	0.20	U	0.20	0.055	ppb v/v			09/04/24 15:04	1
Trichloroethene	0.037	U	0.037	0.025	ppb v/v			09/04/24 15:04	1
Methyl methacrylate	0.50	U	0.50	0.14	ppb v/v			09/04/24 15:04	1
1,2-Dichloropropane	0.20	U	0.20	0.094	ppb v/v			09/04/24 15:04	1
1,4-Dioxane	5.0	U	5.0	0.082	ppb v/v			09/04/24 15:04	1
Bromodichloromethane	0.20	U	0.20	0.050	ppb v/v			09/04/24 15:04	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.045	ppb v/v			09/04/24 15:04	1
4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.50	U	0.50	0.13	ppb v/v			09/04/24 15:04	1
Toluene	0.20	U	0.20	0.062	ppb v/v			09/04/24 15:04	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.054	ppb v/v			09/04/24 15:04	1
1,1,2-Trichloroethane	0.20	U	0.20	0.074	ppb v/v			09/04/24 15:04	1
Tetrachloroethene	0.20	U	0.20	0.021	ppb v/v			09/04/24 15:04	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.15	ppb v/v			09/04/24 15:04	1
Dibromochloromethane	0.20	U	0.20	0.063	ppb v/v			09/04/24 15:04	1
1,2-Dibromoethane	0.20	U	0.20	0.042	ppb v/v			09/04/24 15:04	1
Chlorobenzene	0.20	U	0.20	0.044	ppb v/v			09/04/24 15:04	1
Ethylbenzene	0.20	U	0.20	0.069	ppb v/v			09/04/24 15:04	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-208280/6
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	0.50	U	0.50	0.095	ppb v/v			09/04/24 15:04	1
o-Xylene	0.20	U	0.20	0.063	ppb v/v			09/04/24 15:04	1
Styrene	0.20	U	0.20	0.059	ppb v/v			09/04/24 15:04	1
Bromoform	0.20	U	0.20	0.12	ppb v/v			09/04/24 15:04	1
Cumene	0.20	U	0.20	0.041	ppb v/v			09/04/24 15:04	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.043	ppb v/v			09/04/24 15:04	1
n-Propylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 15:04	1
4-Ethyltoluene	0.20	U	0.20	0.049	ppb v/v			09/04/24 15:04	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 15:04	1
2-Chlorotoluene	0.20	U	0.20	0.046	ppb v/v			09/04/24 15:04	1
tert-Butylbenzene	0.20	U	0.20	0.047	ppb v/v			09/04/24 15:04	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			09/04/24 15:04	1
sec-Butylbenzene	0.20	U	0.20	0.045	ppb v/v			09/04/24 15:04	1
4-Isopropyltoluene	0.20	U	0.20	0.061	ppb v/v			09/04/24 15:04	1
1,3-Dichlorobenzene	0.20	U	0.20	0.074	ppb v/v			09/04/24 15:04	1
1,4-Dichlorobenzene	0.20	U	0.20	0.089	ppb v/v			09/04/24 15:04	1
Benzyl chloride	0.20	U	0.20	0.088	ppb v/v			09/04/24 15:04	1
n-Butylbenzene	0.20	U	0.20	0.11	ppb v/v			09/04/24 15:04	1
1,2-Dichlorobenzene	0.20	U	0.20	0.066	ppb v/v			09/04/24 15:04	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.33	ppb v/v			09/04/24 15:04	1
Hexachlorobutadiene	0.20	U	0.20	0.11	ppb v/v			09/04/24 15:04	1
Naphthalene	0.50	U	0.50	0.30	ppb v/v			09/04/24 15:04	1

Lab Sample ID: LCS 200-208280/3
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	49.4	52.6		ug/m3		106	61 - 142
Chlorodifluoromethane	35.4	38.0		ug/m3		107	60 - 147
1,2-Dichlorotetrafluoroethane	69.9	71.6		ug/m3		102	71 - 141
Chloromethane	20.6	22.3		ug/m3		108	56 - 141
n-Butane	23.8	26.0		ug/m3		110	53 - 151
Vinyl chloride	25.6	26.3		ug/m3		103	61 - 135
1,3-Butadiene	22.1	22.3		ug/m3		101	58 - 139
Bromomethane	38.8	39.8		ug/m3		103	72 - 124
Chloroethane	26.4	28.6		ug/m3		108	68 - 130
Bromoethene(Vinyl Bromide)	43.7	44.6		ug/m3		102	75 - 125
Trichlorofluoromethane	56.2	56.3		ug/m3		100	70 - 129
1,1,2-Trichlorotrifluoroethane	76.6	77.6		ug/m3		101	70 - 121
1,1-Dichloroethene	39.6	39.4		ug/m3		99	68 - 120
Ethanol	28.3	32.5		ug/m3		115	50 - 150
Acetone	23.7	25.8		ug/m3		109	54 - 154
Isopropyl alcohol	24.6	30.2		ug/m3		123	53 - 142
Carbon disulfide	31.1	33.1		ug/m3		106	71 - 138
3-Chloropropene	31.3	30.3		ug/m3		97	50 - 150
Methylene Chloride	34.7	36.2		ug/m3		104	59 - 137
tert-Butyl alcohol	30.3	32.0		ug/m3		106	66 - 132
Methyl tert-butyl ether	36.0	37.3		ug/m3		103	70 - 127

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208280/3
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,2-Dichloroethene	39.6	41.4		ug/m3		105	69 - 137
n-Hexane	35.2	36.8		ug/m3		104	63 - 138
1,1-Dichloroethane	40.5	41.6		ug/m3		103	66 - 130
Methyl Ethyl Ketone (2-Butanone)	29.5	31.3		ug/m3		106	72 - 124
cis-1,2-Dichloroethene	39.6	39.6		ug/m3		100	72 - 121
Chloroform	48.8	49.9		ug/m3		102	73 - 124
Tetrahydrofuran	29.5	31.0		ug/m3		105	60 - 149
1,1,1-Trichloroethane	54.6	54.5		ug/m3		100	72 - 127
Cyclohexane	34.4	35.2		ug/m3		102	76 - 124
Carbon tetrachloride	62.9	63.9		ug/m3		102	71 - 133
2,2,4-Trimethylpentane	46.7	48.6		ug/m3		104	68 - 131
Benzene	31.9	32.5		ug/m3		102	73 - 119
1,2-Dichloroethane	40.5	41.1		ug/m3		102	68 - 135
n-Heptane	41.0	42.6		ug/m3		104	60 - 142
Trichloroethene	53.7	53.9		ug/m3		100	73 - 122
Methyl methacrylate	40.9	43.8		ug/m3		107	73 - 129
1,2-Dichloropropane	46.2	48.2		ug/m3		104	69 - 128
1,4-Dioxane	36.0	35.5		ug/m3		99	66 - 129
Bromodichloromethane	67.0	69.3		ug/m3		103	75 - 127
cis-1,3-Dichloropropene	45.4	48.0		ug/m3		106	74 - 125
4-Methyl-2-pentanone (Methyl isobutyl ketone)	41.0	43.4		ug/m3		106	58 - 144
Toluene	37.7	38.6		ug/m3		102	75 - 122
trans-1,3-Dichloropropene	45.4	49.0		ug/m3		108	74 - 128
1,1,2-Trichloroethane	54.6	57.1		ug/m3		105	75 - 126
Tetrachloroethene	67.8	65.7		ug/m3		97	70 - 125
Methyl Butyl Ketone (2-Hexanone)	41.0	42.8		ug/m3		104	57 - 143
Dibromochloromethane	85.2	89.8		ug/m3		105	73 - 125
1,2-Dibromoethane	76.8	79.5		ug/m3		103	78 - 122
Chlorobenzene	46.0	46.2		ug/m3		100	76 - 119
Ethylbenzene	43.4	44.9		ug/m3		103	74 - 122
m,p-Xylene	86.8	88.6		ug/m3		102	76 - 121
o-Xylene	43.4	44.2		ug/m3		102	73 - 123
Styrene	42.6	44.6		ug/m3		105	74 - 125
Bromoform	103	113		ug/m3		110	53 - 149
Cumene	49.1	50.7		ug/m3		103	73 - 123
1,1,2,2-Tetrachloroethane	68.6	72.2		ug/m3		105	74 - 126
n-Propylbenzene	49.1	51.2		ug/m3		104	73 - 127
4-Ethyltoluene	49.2	51.3		ug/m3		104	75 - 129
1,3,5-Trimethylbenzene	49.2	50.4		ug/m3		103	72 - 126
2-Chlorotoluene	51.8	52.9		ug/m3		102	74 - 126
tert-Butylbenzene	54.9	55.8		ug/m3		102	71 - 125
1,2,4-Trimethylbenzene	49.2	50.9		ug/m3		104	71 - 129
sec-Butylbenzene	54.9	56.9		ug/m3		104	70 - 128
4-Isopropyltoluene	54.9	56.6		ug/m3		103	68 - 130
1,3-Dichlorobenzene	60.1	60.9		ug/m3		101	69 - 131
1,4-Dichlorobenzene	60.1	61.0		ug/m3		102	67 - 132

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208280/3
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzyl chloride	51.8	57.8		ug/m3		112	60 - 136
n-Butylbenzene	54.9	58.2		ug/m3		106	65 - 137
1,2-Dichlorobenzene	60.1	60.6		ug/m3		101	68 - 129
1,2,4-Trichlorobenzene	74.2	88.3		ug/m3		119	50 - 150
Hexachlorobutadiene	107	111		ug/m3		104	58 - 130
Naphthalene	52.4	66.4		ug/m3		127	50 - 150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	10	10.6		ppb v/v		106	61 - 142
Chlorodifluoromethane	10	10.7		ppb v/v		107	60 - 147
1,2-Dichlorotetrafluoroethane	10	10.2		ppb v/v		102	71 - 141
Chloromethane	10	10.8		ppb v/v		108	56 - 141
n-Butane	10	10.9		ppb v/v		110	53 - 151
Vinyl chloride	10	10.3		ppb v/v		103	61 - 135
1,3-Butadiene	10	10.1		ppb v/v		101	58 - 139
Bromomethane	10	10.2		ppb v/v		103	72 - 124
Chloroethane	10	10.8		ppb v/v		108	68 - 130
Bromoethene(Vinyl Bromide)	10	10.2		ppb v/v		102	75 - 125
Trichlorofluoromethane	10	10.0		ppb v/v		100	70 - 129
1,1,2-Trichlorotrifluoroethane	10	10.1		ppb v/v		101	70 - 121
1,1-Dichloroethene	10	9.94		ppb v/v		99	68 - 120
Ethanol	15	17.2		ppb v/v		115	50 - 150
Acetone	10	10.9		ppb v/v		109	54 - 154
Isopropyl alcohol	10	12.3		ppb v/v		123	53 - 142
Carbon disulfide	10	10.6		ppb v/v		106	71 - 138
3-Chloropropene	10	9.67		ppb v/v		97	50 - 150
Methylene Chloride	10	10.4		ppb v/v		104	59 - 137
tert-Butyl alcohol	10	10.6		ppb v/v		106	66 - 132
Methyl tert-butyl ether	10	10.3		ppb v/v		103	70 - 127
trans-1,2-Dichloroethene	10	10.5		ppb v/v		105	69 - 137
n-Hexane	10	10.4		ppb v/v		104	63 - 138
1,1-Dichloroethane	10	10.3		ppb v/v		103	66 - 130
Methyl Ethyl Ketone (2-Butanone)	10	10.6		ppb v/v		106	72 - 124
cis-1,2-Dichloroethene	10	9.98		ppb v/v		100	72 - 121
Chloroform	10	10.2		ppb v/v		102	73 - 124
Tetrahydrofuran	10	10.5		ppb v/v		105	60 - 149
1,1,1-Trichloroethane	10	9.99		ppb v/v		100	72 - 127
Cyclohexane	10	10.2		ppb v/v		102	76 - 124
Carbon tetrachloride	10	10.2		ppb v/v		102	71 - 133
2,2,4-Trimethylpentane	10	10.4		ppb v/v		104	68 - 131
Benzene	10	10.2		ppb v/v		102	73 - 119
1,2-Dichloroethane	10	10.2		ppb v/v		102	68 - 135
n-Heptane	10	10.4		ppb v/v		104	60 - 142
Trichloroethene	10	10.0		ppb v/v		100	73 - 122
Methyl methacrylate	10	10.7		ppb v/v		107	73 - 129
1,2-Dichloropropane	10	10.4		ppb v/v		104	69 - 128
1,4-Dioxane	10	9.86		ppb v/v		99	66 - 129
Bromodichloromethane	10	10.3		ppb v/v		103	75 - 127

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-208280/3
Matrix: Air
Analysis Batch: 208280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,3-Dichloropropene	10	10.6		ppb v/v		106	74 - 125
4-Methyl-2-pentanone (Methyl isobutyl ketone)	10	10.6		ppb v/v		106	58 - 144
Toluene	10	10.2		ppb v/v		102	75 - 122
trans-1,3-Dichloropropene	10	10.8		ppb v/v		108	74 - 128
1,1,2-Trichloroethane	10	10.5		ppb v/v		105	75 - 126
Tetrachloroethene	10	9.69		ppb v/v		97	70 - 125
Methyl Butyl Ketone (2-Hexanone)	10	10.4		ppb v/v		104	57 - 143
Dibromochloromethane	10	10.5		ppb v/v		105	73 - 125
1,2-Dibromoethane	10	10.3		ppb v/v		103	78 - 122
Chlorobenzene	10	10.0		ppb v/v		100	76 - 119
Ethylbenzene	10	10.3		ppb v/v		103	74 - 122
m,p-Xylene	20	20.4		ppb v/v		102	76 - 121
o-Xylene	10	10.2		ppb v/v		102	73 - 123
Styrene	10	10.5		ppb v/v		105	74 - 125
Bromoform	10	11.0		ppb v/v		110	53 - 149
Cumene	10	10.3		ppb v/v		103	73 - 123
1,1,2,2-Tetrachloroethane	10	10.5		ppb v/v		105	74 - 126
n-Propylbenzene	10	10.4		ppb v/v		104	73 - 127
4-Ethyltoluene	10	10.4		ppb v/v		104	75 - 129
1,3,5-Trimethylbenzene	10	10.2		ppb v/v		103	72 - 126
2-Chlorotoluene	10	10.2		ppb v/v		102	74 - 126
tert-Butylbenzene	10	10.2		ppb v/v		102	71 - 125
1,2,4-Trimethylbenzene	10	10.4		ppb v/v		104	71 - 129
sec-Butylbenzene	10	10.4		ppb v/v		104	70 - 128
4-Isopropyltoluene	10	10.3		ppb v/v		103	68 - 130
1,3-Dichlorobenzene	10	10.1		ppb v/v		101	69 - 131
1,4-Dichlorobenzene	10	10.2		ppb v/v		102	67 - 132
Benzyl chloride	10	11.2		ppb v/v		112	60 - 136
n-Butylbenzene	10	10.6		ppb v/v		106	65 - 137
1,2-Dichlorobenzene	10	10.1		ppb v/v		101	68 - 129
1,2,4-Trichlorobenzene	10	11.9		ppb v/v		119	50 - 150
Hexachlorobutadiene	10	10.4		ppb v/v		104	58 - 130
Naphthalene	10	12.7		ppb v/v		127	50 - 150

Method: D1946 - Fixed Gases (Helium)

Lab Sample ID: MB 570-478094/4
Matrix: Air
Analysis Batch: 478094

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Helium	0.025	U	0.025	0.0082	% v/v			09/06/24 14:31	1

Method: D1946 - Fixed Gases (Helium) (Continued)

Lab Sample ID: LCS 570-478094/2
Matrix: Air
Analysis Batch: 478094

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Helium			1.01	0.888		% v/v		88	80 - 120		

Lab Sample ID: LCSD 570-478094/3
Matrix: Air
Analysis Batch: 478094

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Helium			1.01	0.894		% v/v		88	80 - 120	1	20

Air - GC/MS VOA

Analysis Batch: 208272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-74969-6	IA083024CZ03	Total/NA	Air	TO-15	
200-74969-7	OA083024CZ01	Total/NA	Air	TO-15	
MB 200-208272/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-208272/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 208280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-74969-1	SSV083024CZ01	Total/NA	Air	TO-15	
200-74969-2	SSV083024CZ02	Total/NA	Air	TO-15	
200-74969-2 - DL	SSV083024CZ02	Total/NA	Air	TO-15	
200-74969-3	SSV083024CZ03	Total/NA	Air	TO-15	
200-74969-3 - DL	SSV083024CZ03	Total/NA	Air	TO-15	
200-74969-4	IA083024CZ01	Total/NA	Air	TO-15	
200-74969-5	IA083024CZ02	Total/NA	Air	TO-15	
MB 200-208280/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-208280/3	Lab Control Sample	Total/NA	Air	TO-15	

Air - GC VOA

Analysis Batch: 478094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-74969-1	SSV083024CZ01	Total/NA	Air	D1946	
200-74969-2	SSV083024CZ02	Total/NA	Air	D1946	
200-74969-3	SSV083024CZ03	Total/NA	Air	D1946	
MB 570-478094/4	Method Blank	Total/NA	Air	D1946	
LCS 570-478094/2	Lab Control Sample	Total/NA	Air	D1946	
LCSD 570-478094/3	Lab Control Sample Dup	Total/NA	Air	D1946	

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: SSV083024CZ01
Lab Sample ID: 200-74969-1
Date Collected: 08/30/24 07:19
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	208280	K1P	EET BUR	09/04/24 20:43
Total/NA	Analysis	D1946		1	478094	F5GP	EET CAL 4	09/06/24 19:54

Client Sample ID: SSV083024CZ02
Lab Sample ID: 200-74969-2
Date Collected: 08/30/24 07:29
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		49.6	208280	K1P	EET BUR	09/04/24 21:34
Total/NA	Analysis	TO-15	DL	253	208280	K1P	EET BUR	09/04/24 22:27
Total/NA	Analysis	D1946		1	478094	F5GP	EET CAL 4	09/06/24 20:17

Client Sample ID: SSV083024CZ03
Lab Sample ID: 200-74969-3
Date Collected: 08/30/24 07:33
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		19.9	208280	K1P	EET BUR	09/04/24 23:20
Total/NA	Analysis	TO-15	DL	101	208280	K1P	EET BUR	09/05/24 00:13
Total/NA	Analysis	D1946		1	478094	F5GP	EET CAL 4	09/06/24 20:39

Client Sample ID: IA083024CZ01
Lab Sample ID: 200-74969-4
Date Collected: 08/30/24 14:20
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	208280	K1P	EET BUR	09/05/24 01:11

Client Sample ID: IA083024CZ02
Lab Sample ID: 200-74969-5
Date Collected: 08/30/24 14:28
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	208280	K1P	EET BUR	09/05/24 02:08

Client Sample ID: IA083024CZ03
Lab Sample ID: 200-74969-6
Date Collected: 08/30/24 14:22
Matrix: Air
Date Received: 08/31/24 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	208272	K1P	EET BUR	09/04/24 23:53

Lab Chronicle

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Client Sample ID: OA083024CZ01

Date Collected: 08/30/24 14:24
Date Received: 08/31/24 10:00

Lab Sample ID: 200-74969-7

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	208272	K1P	EET BUR	09/05/24 00:53

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Laboratory: Eurofins Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10391	03-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	4-Ethyltoluene
TO-15		Air	4-Isopropyltoluene
TO-15		Air	Chlorodifluoromethane
TO-15		Air	Ethanol
TO-15		Air	Methyl Butyl Ketone (2-Hexanone)
TO-15		Air	n-Butane
TO-15		Air	n-Butylbenzene
TO-15		Air	n-Propylbenzene
TO-15		Air	sec-Butylbenzene
TO-15		Air	tert-Butylbenzene
TO-15		Air	Tetrahydrofuran

Laboratory: Eurofins Calscience

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0830	11-16-24
Arkansas DEQ	State	88-0161	07-02-25
California	Los Angeles County Sanitation Districts	9257304	08-01-24 *
California	State	3082	07-31-26
Kansas	NELAP	E-10420	07-31-25
Nevada	State	CA00111	09-12-24
Oregon	NELAP	4175	02-02-25
USDA	US Federal Programs	P330-22-00059	06-08-26
Washington	State	C916-18	10-11-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	EET BUR
D1946	Fixed Gases (Helium)	ASTM	EET CAL 4

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

Laboratory References:

EET BUR = Eurofins Burlington, 530 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Sample Summary

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job ID: 200-74969-1
SDG: 200-74969-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-74969-1	SSV083024CZ01	Air	08/30/24 07:19	08/31/24 10:00	Air Canister (6-Liter) #3526
200-74969-2	SSV083024CZ02	Air	08/30/24 07:29	08/31/24 10:00	Air Canister (6-Liter) #5628
200-74969-3	SSV083024CZ03	Air	08/30/24 07:33	08/31/24 10:00	Air Canister (6-Liter) #34001293
200-74969-4	IA083024CZ01	Air	08/30/24 14:20	08/31/24 10:00	Air Canister (6-Liter) #3197
200-74969-5	IA083024CZ02	Air	08/30/24 14:28	08/31/24 10:00	Air Canister (6-Liter) #4779
200-74969-6	IA083024CZ03	Air	08/30/24 14:22	08/31/24 10:00	Air Canister (6-Liter) #3036
200-74969-7	OA083024CZ01	Air	08/30/24 14:24	08/31/24 10:00	Air Canister (6-Liter) #5460

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403-6809
phone 802 660.1990 fax 802.660.1919

Canister Samples Chain of Custody Record

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples

eurofins | Environment Testing America

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact Information	
Company Name:	GHD Services Inc.
Address:	2055 Niagra Falls Blvd Suite 3
City/State/Zip	Niagra Falls / NY / 14304
Phone:	519-884 (Tel)
FAX:	
Project Name	Enterprise Plaza - OU-1
Site/Location	1 Enterprise Plaza, Hicksville, NY
P O #	

Client Project Manager: Michelle Kukta
Phone: 519-884 (Tel)
Email: michelle.kukta@ghd.com
Site Contact: Michelle Kukta
Tel/Fax:
Analysis Turnaround Time
Standard (Specific) ______
Rush (Specify) ______

Samples Collected By: Chris Zwerer / Kennedy Thomas-Cancellere

COC No: ___1___ of ___1___ COCs
TALS Project #:
For Lab Use Only:
Walk-in Client:
Lab Sampling
Job / SDG No
(See below for Add'l Items)

Sample Identification	Sample Start Date	Time Start	Sample End Date	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-14/(15) Standard / Low Level)	TO-15 SIM	EPA 3C	EPA 25C	ASTM D-1946	EPA 15/16	Other (Please specify in notes section)	Sample Type	Indoor Air/Ambient Air	Sub-Slab	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas	Other (Please specify in notes section)	Sample Specific Notes:
SSV083024CZ01	8/30/24	6:56	8/30/24	7:19	-30	-2	6727	3576	X						X			X					helium
SSV083024CZ02	↓	6:57	↓	7:24	-30	-6	7779	5628	X						X			X					helium
SSV083024CZ03	↓	6:59	↓	7:33	-30	-4	6984	34001293	X						X			X					helium
IA083024CZ01	↓	6:18	↓	14:20	-30	-8	3856	3197	X								X						
IA083024CZ02	↓	6:33	↓	14:28	-30	-10	3114	4779	X								X						
IA083024CZ03	↓	6:28	↓	14:22	-30	-9	3222	3036	X								X						
OA083024CZ01	↓	6:29	↓	14:24	-30	-8	5185	5460	X								X						

Temperature (Fahrenheit)		
Start	Interior	Ambient
Stop		

Pressure (inches of Hg)		
Start	Interior	Ambient
Stop		

200-74969 Chain of Custody

Special Instructions/QC Requirements & Comments:

Samples Shipped by: [signature]	Date / Time: 8/30/24 3:30pm	Samples Received by: [signature] EA Bur 8/31/24	1000
Samples Relinquished by:	Date / Time:	Received by:	
Relinquished by:	Date / Time:	Received by:	
Lab Use Only: Shipper Name:	Opened by:	Condition:	

Form No. CA-C-WI-003, Rev. 2.28, dated 1/8/2021

eurofins | Environment Testing TestAmerica

Part # 159469-434 MTW EXP 04/25

ORIGIN ID:BTVA (516) 729-3293
CHRISTOPHER ZWEIER
GHD SERVICES INC.
323 MERRICK AVE.

NORTH MERRICK, NY 11566
UNITED STATES US

SHIP DATE: 23AUG24
ACTWGT: 10.00 LB MAN
CAD: 000890364/CAFE3808

TO SAMPLE MANAGEMENT
EUROFINS TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1058
REF: S200-34702

RMA:

FedEx Express

J241023112201uv

FedEx
TRK# 0221 4026 3217 9517

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 BTVA

05403
VT-US
BTV

5286721 30Aug2024 BPAA 581G6/A12D/C0B8

eurofins | Environment Testing TestAmerica

Part # 159469-434 MTW EXP 04/25

ORIGIN ID:BTVA (516) 729-3293
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30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403
(802) 923-1058
REF: S200-34702

RMA:

FedEx Express

J241023112204uv

FedEx
TRK# 0221 4026 3217 9506

SATURDAY 12:00P
PRIORITY OVERNIGHT

X0 BTVA

05403
VT-US
BTV

eurofins | Environment Testing TestAmerica

200-74969 Waybill

ORIGIN ID:BTVA (802) 660-1990
SAMPLE RECEIVING
TEST AMERICA
530 COMMUNITY DRIVE
SUITE 11
BURLINGTON, VT 05401
UNITED STATES US

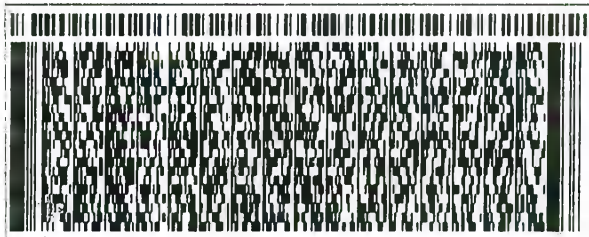
SHIP DATE: 05SEP24
ACTWGT: 25.00 LB MAN
CAD: 000890364/CAFE3854
DIMS: 20x20x14 IN

BILL SENDER

TO SHIPPING/RECEIVING
EUROFINS ENVIRONMENT TESTING SOUTHW
2841 DOW AVENUE, SUITE 100

TUSTIN CA 92780
(714) 895-5494
PO: YES

REF: S200-34768



FedEx Express

FRI - 06 SEP 5:00P
STANDARD OVERNIGHT

TRK# 0201 4125 0068 6581

NW DTHA

92780
CA-US SNA

Eurofins Burlington
530 Community Drive Suite 11
South Burlington, VT 05403
Phone: 802-660-1990 Fax: 802-660-1919

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Nye, Elizabeth A	Carrier Tracking No(s):	COC No: 200-56317.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Elizabeth.Nye@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): NELAP - New York		Job #: 200-74969-1
Address: 2841 Dow Avenue, Suite 100, ,	Due Date Requested: 9/13/2024			Preservation Codes: -
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: Hooker Chemical/Ruco Polymer Superfund Site	Project #: 20009774			
Site:	SSOW#:			Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D1946_He/Air_Summa_Can Helium Only	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
SSV083024CZ01 (200-74969-1)	8/30/24	07:19 Eastern	G	Air			X	1	
SSV083024CZ02 (200-74969-2)	8/30/24	07:29 Eastern	G	Air			X	1	
SSV083024CZ03 (200-74969-3)	8/30/24	07:33 Eastern	G	Air			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/5/24 1700	ETABurl	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 09/06/2024 1000	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Burlington
530 Community Drive Suite 11
South Burlington, VT 05403
Phone: 802-660-1990 Fax: 802-660-1919

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Nye, Elizabeth A	Carrier Tracking No(s):	COC No: 200-56317.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Elizabeth.Nye@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Southwest,		Accreditations Required (See note): NELAP - New York		Job #: 200-74969-1
Address: 2841 Dow Avenue, Suite 100,	Due Date Requested: 9/13/2024			Preservation Codes:
City: Tustin	TAT Requested (days):			
State, Zip: CA, 92780				
Phone: 714-895-5494(Tel)	PO #:			
Email:	WO #:			
Project Name: Hooker Chemical/Ruco Polymer Superfund Site	Project #: 20009774			
Site:	SSOW#:			Other:

Analysis Requested

200-74969 Chain of Custody

Loc: 200
74969

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D1946_He/Air_Summa_Can Helium Only	Total Number of cont	Special Instructions/Note:
			Preservation Code:						
SSV083024CZ01 (200-74969-1)	8/30/24	07:19 Eastern	G	Air			X	1	
SSV083024CZ02 (200-74969-2)	8/30/24	07:29 Eastern	G	Air			X	1	
SSV083024CZ03 (200-74969-3)	8/30/24	07:33 Eastern	G	Air			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 4	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	9/5/24 1700	ETA BUR	FedEx		
Relinquished by: FedEx	Date/Time:	Company	Received by:	Date/Time: 09/06/2024 1000	Company EC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 200-74969-1
SDG Number: 200-74969-1

Login Number: 74969
List Number: 1
Creator: Lavigne, Scott M

List Source: Eurofins Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	2415375, 5374
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 200-74969-1
SDG Number: 200-74969-1

Login Number: 74969
List Number: 2
Creator: Cruise, Noel

List Source: Eurofins Calscience
List Creation: 09/06/24 01:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certification Type:
Top Rack	10	1/25/1900	7/27/2024	1515	24	24	SML	6 liter	batch

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	Temp:
1	3565	Ø	Ø	Ø	-29.9	GA01	7/29/24	1119	C	24.0	GA01	8/21/24	1610	KB	23.0
2	8452	"	"	Ø	"	GA01	"	"	"	"	GA01	"	"	"	"
3	2515	Ø	Ø	Ø	-30.1	GA01	8/26/24	1356	KB	24.0	GA01	8/26/24	1356	KB	24.0
4	5460	Ø	Ø	Ø	-29.9	GA01	7/29/24	1119	SL	24.0	GA01	8/21/24	1610	KB	23.0
5	5628			Ø		GA01					GA01				
6	5614			Ø		GA01					GA01				
7	2647			Ø		GA01					GA01				
8	3526			Ø		GA01					GA01				
9	4779		"	Ø		GA01					GA01				
~~10~~	~~3280~~					GA01					GA01				
11	3370		Ø	Ø		GA01					GA01				
12	3036	"	"	Ø	→	GA01	"	"	"	"	GA01	→	→	→	→

NSVI

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Reviewe
2515	8/15/24	61451	K.P.I		XXXXXXX				8/16/24	DBS

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

Form ID: FAI023:12
Revision Date: 12/18/2018

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Start Date/Time		System Start Temp(s):		Technician	Can Size	Certification Type:
Top Rack	10	400	8/2/2024	1320	26	26	SML	6 liter	batch

Port	Can ID	Initial[1] (psia)	Final (psia)	Diff.[3]	Final ("Hg)	Initial Reading Gauge:	Date:	Time:	Tech:	Temp:	Final Reading Gauge:	Date:	Time:	Tech:	Temp:
1	34000200	0	0	0	-30.0	GA01	8/4/24	1050	KS	25.0	GA01	8/21/24	1325	KS	23.0
2	4332		12	.12		GA01					GA01				
3	3197			0		GA01					GA01				
4	34001293			0		GA01					GA01				
5	5707			0		GA01					GA01				
6	344ggg37			0		GA01					GA01				
7	7843			0		GA01					GA01				
8	3257	0	0	0	-30.1	GA01	8/20/24	~~10~~ 1355	KS	24.0	GA01	8/21/24	1355	KS	24.0
9	34000450	0	0	0	-30.0	GA01	8/4/24	1050	KS	25.0	GA01	8/21/24	1325	KS	23.0
10	34000074			0		GA01					GA01				
11	3265			0		GA01					GA01				
12	2521			0		GA01					GA01				

[1] Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the ~~batch~~.

[3] Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** **Date:**

Clean Canister Certification Analysis & Authorization of Release to Inventory

Test Method: ☒ TO15 Routine ☐ TO15 LL

Can ID	Date	Sequence	Analyst	Inventory Level 1	2	3	4	Secondary Review Limited	Review Date	Reviewer
3257	8/16/24	61467	KPJ		XXXXXX				8/16/24	MB

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Dup Tees/Vac gauges (enter IDs if included):

Comments:

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 200-74539-1

SDG No.:

Client Sample ID: 2515 Lab Sample ID: 200-74539-3

Matrix: Air Lab File ID: 61451_020.D

Analysis Method: TO-15 Date Collected: 07/27/2024 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 08/03/2024 00:55

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 207101 Units: ppb v/v

Preparation Batch No.: Instrument ID: CHAM.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.040	U	0.040	0.014
100-42-5	Styrene	0.040	U	0.040	0.012
10061-01-5	1,3-Dichloropropene, cis-	0.040	U	0.040	0.0090
10061-02-6	1,3-Dichloropropene, trans-	0.040	U	0.040	0.011
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.018
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.0084
106-99-0	1,3-Butadiene	0.040	U	0.040	0.0078
107-05-1	Allyl chloride	0.10	U	0.10	0.024
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.019
108-10-1	Methyl isobutyl ketone (MIBK)	0.10	U	0.10	0.026
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.0094
108-88-3	Toluene	0.040	U	0.040	0.012
108-90-7	Chlorobenzene	0.040	U	0.040	0.0088
109-99-9	Tetrahydrofuran	1.0	U	1.0	0.26
110-54-3	Hexane	0.10	U	0.10	0.022
110-82-7	Cyclohexane	0.040	U	0.040	0.012
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.066
123-91-1	1,4-Dioxane	0.040	U	0.040	0.016
124-48-1	Dibromochloromethane	0.040	U	0.040	0.013
127-18-4	Tetrachloroethene	0.040	U	0.040	0.0042
142-82-5	n-Heptane	0.040	U	0.040	0.011
156-59-2	1,2-Dichloroethene, cis-	0.028	U	0.028	0.0042
156-60-5	1,2-Dichloroethene, trans-	0.040	U	0.040	0.0046
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.0072
179601-23-1	m,p-Xylene	0.10	U	0.10	0.019
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.0076
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.015
56-23-5	Carbon tetrachloride	0.028	U	0.028	0.0044
593-60-2	Vinyl bromide	0.040	U	0.040	0.010
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.0098
64-17-5	Ethanol	1.0	U	1.0	0.52
67-63-0	Isopropanol	1.0	U	1.0	0.32

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 200-74539-1

SDG No.:

Client Sample ID: 2515 Lab Sample ID: 200-74539-3

Matrix: Air Lab File ID: 61451_020.D

Analysis Method: TO-15 Date Collected: 07/27/2024 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 08/03/2024 00:55

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 207101 Units: ppb v/v

Preparation Batch No.: Instrument ID: CHAM.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
67-64-1	Acetone	1.0	U	1.0	0.32
67-66-3	Chloroform	0.040	U	0.040	0.0082
71-43-2	Benzene	0.040	U	0.040	0.0088
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.0088
74-83-9	Bromomethane	0.040	U	0.040	0.014
74-87-3	Chloromethane	0.10	U	0.10	0.030
75-00-3	Chloroethane	0.10	U	0.10	0.036
75-01-4	Vinyl chloride	0.028	U	0.028	0.0042
75-09-2	Methylene Chloride	0.10	U	0.10	0.036
75-15-0	Carbon disulfide	0.10	U	0.10	0.026
75-25-2	Bromoform	0.040	U	0.040	0.024
75-27-4	Bromodichloromethane	0.040	U	0.040	0.010
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.0050
75-35-4	1,1-Dichloroethene	0.028	U	0.028	0.0052
75-65-0	tert-Butyl alcohol	1.0	U	1.0	0.24
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.010
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.022
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.040	U	0.040	0.011
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.0096
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.019
78-93-3	Methyl ethyl ketone (MEK)	0.10	U	0.10	0.098
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.015
79-01-6	Trichloroethene	0.028	U	0.028	0.0050
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.0086
80-62-6	Methyl methacrylate	0.10	U	0.10	0.028
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.022
91-20-3	Naphthalene	0.10	U	0.10	0.060
95-47-6	Xylene, o-	0.040	U	0.040	0.013
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.0092
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.013
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.016
591-78-6	2-Hexanone	0.10	U	0.10	0.030

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 200-74539-1

SDG No.:

Client Sample ID: 2515 Lab Sample ID: 200-74539-3

Matrix: Air Lab File ID: 61451_020.D

Analysis Method: TO-15 Date Collected: 07/27/2024 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 08/03/2024 00:55

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 207101 Units: ppb v/v

Preparation Batch No.: Instrument ID: CHAM.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
115-07-1	Propene	1.0	U	1.0	0.24
75-45-6	Chlorodifluoromethane	0.10	U	0.10	0.024
106-97-8	Butane	0.10	U	0.10	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	0.24
141-78-6	Ethyl acetate	1.0	U	1.0	0.32
98-82-8	Isopropylbenzene	0.040	U	0.040	0.0082
103-65-1	N-Propylbenzene	0.040	U	0.040	0.0094
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.0094
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.0090
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.012
100-44-7	Benzyl chloride	0.040	U	0.040	0.018
104-51-8	n-Butylbenzene	0.040	U	0.040	0.022

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHAM.i\20240802-61451.b\61451_020.D
Lims ID: 200-74539-A-3
Client ID: 2515
Sample Type: Client
Inject. Date: 03-Aug-2024 00:55:33 ALS Bottle#: 0 Worklist Smp#: 20
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0061451-020
Operator ID: vtp Instrument ID: CHAM.i

Method: \\chromfs\Burlington\ChromData\CHAM.i\20240802-61451.b\TO15_TO3_Master_Method_AM1.m
Limit Group: AI_TO15_ICAL
Last Update: 04-Aug-2024 21:41:44 Calib Date: 18-Jun-2024 22:56:27
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHAM.i\20240618-60827.b\60827_013.D

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1609

First Level Reviewer: YWL8 Date: 04-Aug-2024 21:42:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		4.315				ND	7
2 Dichlorodifluoromethane	85		4.412				ND	
3 Chlorodifluoromethane	51		4.465				ND	
4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.786				ND	
5 Chloromethane	50		4.915				ND	7
7 Butane	43		5.214				ND	7
6 Vinyl chloride	62		5.214				ND	
8 Butadiene	54		5.332				ND	
9 Bromomethane	94		6.081				ND	
10 Chloroethane	64		6.359				ND	
13 Vinyl bromide	106		6.792				ND	
14 Trichlorofluoromethane	101		6.953				ND	
16 Ethanol	45		7.354				ND	
20 1,1-Dichloroethene	96		8.034				ND	
21 1,1,2-Trichloro-1,2,2-trifluoroe	101		8.071				ND	
22 Acetone	43		8.130				ND	7
23 Isopropyl alcohol	45		8.435				ND	7
24 Carbon disulfide	76		8.440				ND	7
26 3-Chloro-1-propene	41		8.745				ND	
27 Methylene Chloride	49		8.986				ND	7
28 2-Methyl-2-propanol	59		9.216				ND	
30 trans-1,2-Dichloroethene	61		9.483				ND	
31 Methyl tert-butyl ether	73		9.483				ND	
32 Hexane	57		9.992				ND	
33 1,1-Dichloroethane	63		10.270				ND	
34 Vinyl acetate	43		10.275				ND	
36 2-Butanone (MEK)	72		11.259				ND	
37 cis-1,2-Dichloroethene	96		11.281				ND	
38 Ethyl acetate	88		11.329				ND	
* 39 Chlorobromomethane	128	11.698	11.698	0.000	96	224731	10.0	
40 Tetrahydrofuran	42		11.730				ND	
41 Chloroform	83		11.880				ND	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
42	1,1,1-Trichloroethane	97		12.174				ND	
43	Cyclohexane	84		12.303				ND	
44	Carbon tetrachloride	117		12.447				ND	
45	Benzene	78		12.806				ND	7
46	1,2-Dichloroethane	62		12.891				ND	
47	Isooctane	57		13.009				ND	
48	n-Heptane	43		13.319				ND	7
* 49	1,4-Difluorobenzene	114	13.549	13.549	0.000	96	1040711	10.0	
51	Trichloroethene	95		13.983				ND	
53	1,2-Dichloropropane	63		14.448				ND	
54	Methyl methacrylate	69		14.534				ND	
55	1,4-Dioxane	88		14.576				ND	
58	Dichlorobromomethane	83		14.924				ND	
59	cis-1,3-Dichloropropene	75		15.727				ND	
61	4-Methyl-2-pentanone (MIBK)	43		15.994				ND	
62	Toluene	92		16.358				ND	
66	trans-1,3-Dichloropropene	75		16.786				ND	
67	1,1,2-Trichloroethane	83		17.166				ND	
68	Tetrachloroethene	166		17.348				ND	
69	2-Hexanone	43		17.578				ND	
70	Chlorodibromomethane	129		17.904				ND	
71	Ethylene Dibromide	107		18.139				ND	
* 73	Chlorobenzene-d5	117	19.049	19.049	0.000	89	877690	10.0	
74	Chlorobenzene	112		19.108				ND	
75	Ethylbenzene	91		19.295				ND	7
76	m-Xylene & p-Xylene	106		19.557				ND	
78	o-Xylene	106		20.327				ND	
79	Styrene	104		20.359				ND	
81	Bromoform	173		20.702				ND	
82	Isopropylbenzene	105		20.996				ND	
83	1,1,2,2-Tetrachloroethane	83		21.515				ND	7
85	N-Propylbenzene	91		21.692				ND	
86	2-Chlorotoluene	91		21.841				ND	
87	4-Ethyltoluene	105		21.884				ND	
88	1,3,5-Trimethylbenzene	105		21.975				ND	
91	tert-Butylbenzene	119		22.451				ND	
92	1,2,4-Trimethylbenzene	105		22.537				ND	
93	sec-Butylbenzene	105		22.772				ND	
94	1,3-Dichlorobenzene	146		22.949				ND	
95	4-Isopropyltoluene	119		22.981				ND	
96	1,4-Dichlorobenzene	146		23.088				ND	
97	Benzyl chloride	91		23.243				ND	
98	n-Butylbenzene	91		23.548				ND	
99	1,2-Dichlorobenzene	146		23.591				ND	
102	1,2,4-Trichlorobenzene	180		26.094				ND	
103	Hexachlorobutadiene	225		26.335				ND	
104	Naphthalene	128		26.592				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

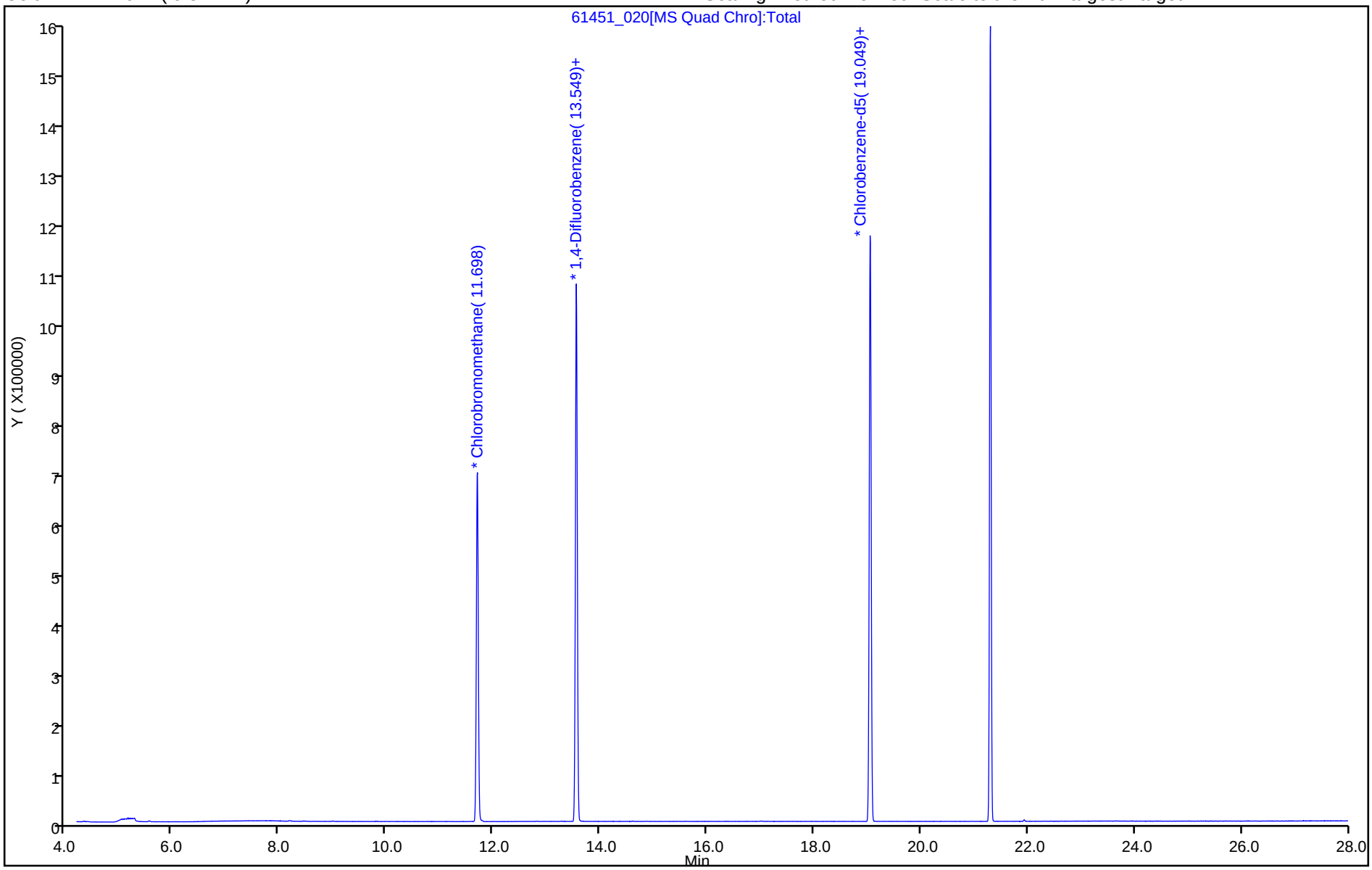
ATTO15AMISs_00003 Amount Added: 20.00 Units: mL Run Reagent

Report Date: 04-Aug-2024 21:42:24 Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Burlington

Data File:	\\chromfs\Burlington\ChromData\CHAM.i\20240802-61451.b\61451_020.D				
Injection Date:	03-Aug-2024 00:55:33	Instrument ID:	CHAM.i	Operator ID:	vtp
Lims ID:	200-74539-A-3	Lab Sample ID:	200-74539-3	Worklist Smp#:	20
Client ID:	2515				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	0
Method:	TO15_TO3_Master_Method_AM1	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



9/24/2024

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 200-74611-1

SDG No.:

Client Sample ID: 3257 Lab Sample ID: 200-74611-8

Matrix: Air Lab File ID: 61467-08.d

Analysis Method: TO-15 Date Collected: 08/02/2024 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 08/05/2024 12:56

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 207148 Units: ppb v/v

Preparation Batch No.: Instrument ID: CHW.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.028	U	0.028	0.028
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene(Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.028	U	0.028	0.028
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.10	U	0.10	0.10
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.028	U	0.028	0.028
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington | Job No.: 200-74611-1

SDG No.:

Client Sample ID: 3257 | Lab Sample ID: 200-74611-8

Matrix: Air | Lab File ID: 61467-08.d

Analysis Method: TO-15 | Date Collected: 08/02/2024 00:00

Sample wt/vol: 1000(mL) | Date Analyzed: 08/05/2024 12:56

Soil Aliquot Vol: | Dilution Factor: 0.2

Soil Extract Vol.: | GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: | Heated Purge: (Y/N) pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 207148 | Units: ppb v/v

Preparation Batch No.: | Instrument ID: CHW.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.028	U	0.028	0.028
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.028	U	0.028	0.028
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Burlington Job No.: 200-74611-1

SDG No.:

Client Sample ID: 3257 Lab Sample ID: 200-74611-8

Matrix: Air Lab File ID: 61467-08.d

Analysis Method: TO-15 Date Collected: 08/02/2024 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 08/05/2024 12:56

Soil Aliquot Vol: Dilution Factor: 0.2

Soil Extract Vol.: GC Column: RTX-624 ID: 0.32(mm)

Purge Volume: Heated Purge: (Y/N) pH:

% Moisture: % Solids: Level: (low/med) Low

Analysis Batch No.: 207148 Units: ppb v/v

Preparation Batch No.: Instrument ID: CHW.i

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20240805-61467.b\61467-08.d
Lims ID: 200-74611-A-8
Client ID: 3257
Sample Type: Client
Inject. Date: 05-Aug-2024 12:56:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0061467-008
Operator ID: vtp Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20240805-61467.b\TO15_TO3_MasterMethod_W.m
Limit Group: AI_TO15_ICAL
Last Update: 06-Aug-2024 09:32:38 Calib Date: 19-Apr-2024 03:38:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20240418-59993.b\59993-14.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1646

First Level Reviewer: YWL8 Date: 06-Aug-2024 09:32:38

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.088				ND	
	2 Dichlorodifluoromethane	85		4.168				ND	
	3 Chlorodifluoromethane	51		4.211				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.495				ND	
	5 Chloromethane	50		4.612				ND	
	6 Vinyl chloride	62		4.907				ND	
	7 Butane	43		4.907				ND	
	8 Butadiene	54		5.019				ND	
	9 Bromomethane	94		5.746				ND	
	10 Chloroethane	64		6.030				ND	
	13 Vinyl bromide	106		6.490				ND	
	14 Trichlorofluoromethane	101		6.672				ND	
	16 Ethanol	45		7.068				ND	
	20 1,1-Dichloroethene	96		7.892				ND	
	21 1,1,2-Trichloro-1,2,2-trifluoroe	101		7.935				ND	
	22 Acetone	43		7.972				ND	
	23 Isopropyl alcohol	45		8.314				ND	
	24 Carbon disulfide	76	8.502	8.485	0.118	94	1901	0.0631	
	26 3-Chloro-1-propene	41		8.716				ND	
	27 Methylene Chloride	49	9.106	9.106	0.112	81	690	0.0581	7M
	28 2-Methyl-2-propanol	59		9.251				ND	
	30 trans-1,2-Dichloroethene	61		9.604				ND	
	31 Methyl tert-butyl ether	73		9.609				ND	
S	35 1,2-Dichloroethene, Total	61		10.200				ND	7
	32 Hexane	57		10.208				ND	
	33 1,1-Dichloroethane	63		10.502				ND	
	34 Vinyl acetate	43		10.508				ND	
	36 2-Butanone (MEK)	72		11.610				ND	
	37 cis-1,2-Dichloroethene	96		11.647				ND	
	38 Ethyl acetate	88		11.706				ND	
*	39 Chlorobromomethane	128	12.204	12.113	0.091	93	73844	10.0	
	40 Tetrahydrofuran	42		12.177				ND	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	41 Chloroform	83		12.305				ND	
	42 1,1,1-Trichloroethane	97		12.658				ND	
	43 Cyclohexane	84		12.819				ND	
	44 Carbon tetrachloride	117		12.974				ND	
	45 Benzene	78		13.348				ND	
	46 1,2-Dichloroethane	62		13.423				ND	
	47 Isooctane	57		13.584				ND	
	48 n-Heptane	43		13.915				ND	
*	49 1,4-Difluorobenzene	114	14.210	14.140	0.070	95	388138	10.0	
	51 Trichloroethene	95		14.616				ND	
	53 1,2-Dichloropropane	63		15.098				ND	
	54 Methyl methacrylate	69		15.178				ND	
	55 1,4-Dioxane	88		15.242				ND	
	57 Dibromomethane	174		15.274				ND	
	58 Dichlorobromomethane	83		15.590				ND	
	59 cis-1,3-Dichloropropene	75		16.435				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		16.703				ND	
	62 Toluene	92		17.120				ND	
	66 trans-1,3-Dichloropropene	75		17.532				ND	
	67 1,1,2-Trichloroethane	83		17.928				ND	
	68 Tetrachloroethene	166		18.158				ND	
	69 2-Hexanone	43		18.340				ND	
	70 Chlorodibromomethane	129		18.703				ND	
	71 Ethylene Dibromide	107		18.960				ND	
*	73 Chlorobenzene-d5	117	19.918	19.891	0.027	87	325281	10.0	
	74 Chlorobenzene	112		19.955				ND	
S	80 Xylenes, Total	106		20.100				ND	7
	75 Ethylbenzene	91		20.137				ND	7
	76 m-Xylene & p-Xylene	106		20.394				ND	
	78 o-Xylene	106		21.105				ND	
	79 Styrene	104		21.138				ND	
	81 Bromoform	173		21.459				ND	
	82 Isopropylbenzene	105		21.726				ND	
	83 1,1,2,2-Tetrachloroethane	83		22.191				ND	
	85 N-Propylbenzene	91		22.389				ND	
	86 2-Chlorotoluene	91		22.539				ND	
	87 4-Ethyltoluene	105		22.571				ND	
	88 1,3,5-Trimethylbenzene	105		22.652				ND	
	91 tert-Butylbenzene	119		23.117				ND	
	92 1,2,4-Trimethylbenzene	105		23.197				ND	
	93 sec-Butylbenzene	105		23.438				ND	
	94 1,3-Dichlorobenzene	146		23.631				ND	
	95 4-Isopropyltoluene	119		23.652				ND	
	96 1,4-Dichlorobenzene	146		23.775				ND	
	97 Benzyl chloride	91		23.925				ND	
	98 n-Butylbenzene	91		24.251				ND	
	99 1,2-Dichlorobenzene	146		24.315				ND	
	102 1,2,4-Trichlorobenzene	180		27.033				ND	
	103 Hexachlorobutadiene	225		27.306				ND	
	104 Naphthalene	128		27.589				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

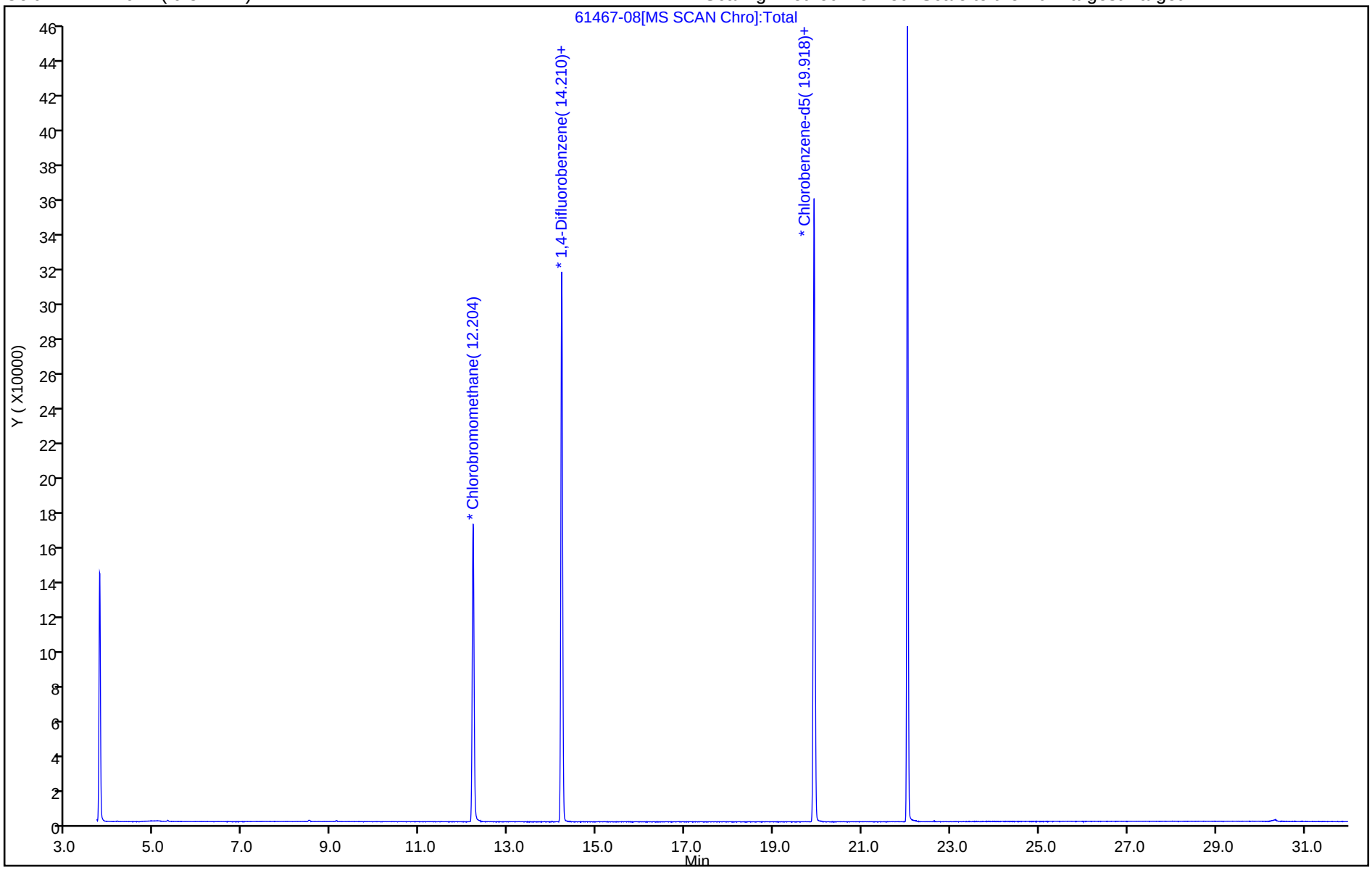
ATTO15WISs_00010 Amount Added: 20.00 Units: mL Run Reagent

Report Date: 06-Aug-2024 09:32:38 Chrom Revision: 2.3 16-Jul-2024 14:17:34

Eurofins Burlington

Data File:	\\chromfs\Burlington\ChromData\CHW.i\20240805-61467.b\61467-08.d				
Injection Date:	05-Aug-2024 12:56:30	Instrument ID:	CHW.i	Operator ID:	vtp
Lims ID:	200-74611-A-8	Lab Sample ID:	200-74611-8	Worklist Smp#:	8
Client ID:	3257				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	7
Method:	TO15_TO3_MasterMethod_W	Limit Group:	AI_TO15_ICAL		

Column: RTX-624 (0.32 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



Manual Integration/User Assign Peak Report

Eurofins Burlington

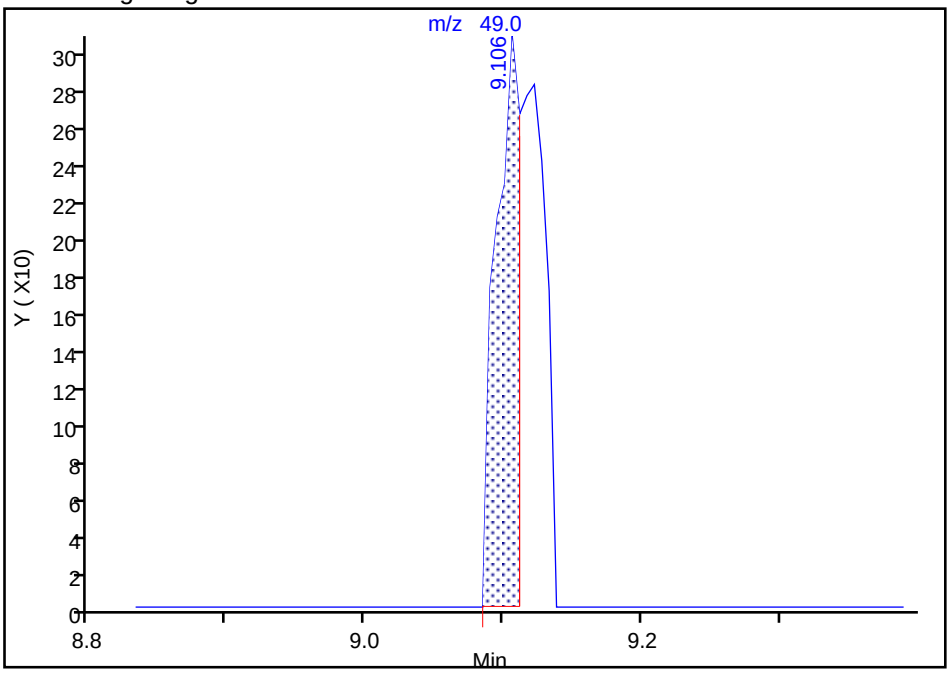
Data File:	\\chromfs\Burlington\ChromData\CHW.i\20240805-61467.b\61467-08.d				
Injection Date:	05-Aug-2024 12:56:30	Instrument ID:	CHW.i		
Lims ID:	200-74611-A-8	Lab Sample ID:	200-74611-8		
Client ID:	3257				
Operator ID:	vtp	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	200.000 mL	Dil. Factor:	0.2000		
Method:	TO15_TO3_MasterMethod_W	Limit Group:	AI_TO15_ICAL		
Column:	RTX-624 (0.32 mm)	Detector	MS SCAN		

27 Methylene Chloride, CAS: 75-09-2

Signal: 1

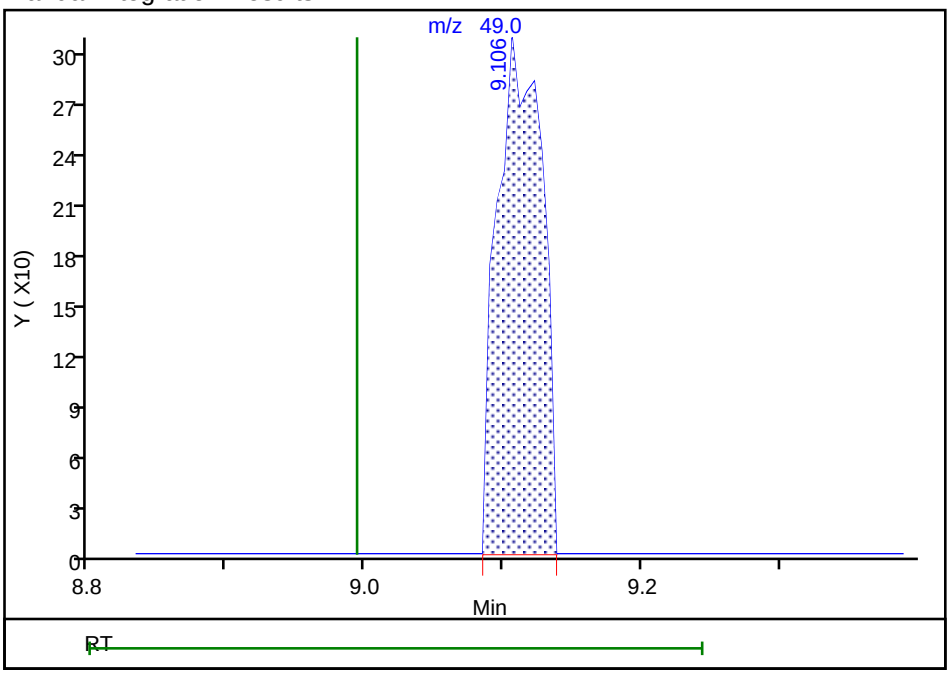
Processing Integration Results

RT: 9.11
Area: 379
Amount: 0.031911
Amount Units: ppb v/v



Manual Integration Results

RT: 9.11
Area: 690
Amount: 0.058097
Amount Units: ppb v/v



Reviewer: YWL8, 06-Aug-2024 09:31:22 07:00:00 (UTC)

Audit Action: Manually Integrated Audit Reason: Assign Peak

Summa Canister Dilution Worksheet

Client: GHD Services Inc.
Project/Site: Hooker Chemical/Ruco Polymer Superfund Site

Job No.: 200-74969-1
SDG No.: 200-74969-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Pressure Gauge ID	Date	Analyst Initals
200-74969-2	6	-5.8	0.81	4.84	5.4	1.37	8.20		1.70	1.70	G20	09/04/24 13:32	TPB
200-74969-2	6	0	1.00	6.00	41.5	3.82	22.94		3.82	6.48	G20	09/04/24 13:33	TPB
200-74969-2	6	0	1.00	6.00	16.8	2.14	12.86		2.14	13.90	G20	09/04/24 13:33	TPB
200-74969-3	6	-2.1	0.93	5.58	5.2	1.35	8.12		1.46	1.46	G20	09/04/24 13:33	TPB
200-74969-3	6	0	1.00	6.00	51.6	4.51	27.06		4.51	6.57	G20	09/04/24 13:33	TPB

Formulae:

Preadjusted Volume (L) = ((Preadjusted Pressure ("Hg) + 29.92 "Hg) * Vol L) / 29.92 "Hg
Adjusted Volume (L) = ((Adjusted Pressure (psig) + 14.7 psig)* Vol L) / 14.7 psig
Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury (“Hg)
14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

Attachment 3

Data Validation Memorandum

Data Validation Report

October 11, 2024

To	John Pentilchuk	**Contact No.**	716-205-1990
From	Michelle Kukta/cs/15	**Email**	Michelle.Kukta@ghd.com
Subject	Analytical Results and Full Validation OU-5 Soil Vapor and Air Sampling Glenn Springs Holdings, Inc. Hooker Chemical/Ruco Polymer Superfund Site Hicksville, New York August 2024	**Project No.**	11224973

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

1. Introduction

This document details a validation of analytical results for soil vapor and air samples collected in support of the OU-5 Soil Vapor and Air Sampling at the Hicksville, New York site during August 2024. Samples were submitted to Eurofins Burlington laboratory located in South Burlington, Vermont and Eurofins Calscience laboratory located in Tusti, California. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody form, calibration data, blank data, and recovery data from laboratory control samples (LCS). The assessment of analytical and in-house data included checks for data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled, “National Functional Guidelines for Organic Superfund Methods Data Review", United States Environmental Protection Agency (USEPA), 540-R-20-005, November 2020.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and analytical report were used to determine sample holding times. All samples were analyzed within the required holding times.

All sample canisters were received at the laboratory in good condition and within acceptable canister pressure range of -1 inch of mercury (Hg) to -10 inches of Hg, indicating samples were still under vacuum upon receipt. Sample IA083024CZ03 was received by the laboratory at an elevated residual vacuum level. The flow controller was within acceptable range and the laboratory determined there was no change to the sample analysis or reporting limit, therefore no qualification of the data results was deemed necessary.

3. Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration - Instrument Performance Check

Prior to volatile organic compounds (VOCs) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, the method requires the analysis of the specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the method before analysis is initiated. Analysis of the tuning compound must then be repeated every 24 hours throughout sample analysis to ensure the continued optimization of the instrument.

The tuning compound was analyzed at the required frequency throughout VOC analysis periods. All tuning criteria were met indicating that proper optimization of the instrumentation was achieved.

4. Initial Calibration

4.1 GC/MS

To quantify VOCs of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

i) All relative response factors (RRFs) must meet the criteria outlined in the analytical method

ii) The percent relative standard deviation (%RSD) values must not exceed 30.0 percent

The initial calibration data for VOCs were reviewed. All compounds met the criteria for sensitivity and linearity.

4.2 GC

In order to quantify helium by GC, calibration of the gas chromatograph over a specific concentration range must be performed. Initially, a calibration curve consisting of a minimum of five concentration levels is analyzed for all single component compounds of interest. Linearity of the calibration curve is acceptable if %RSD values are less than or equal to 20.0 percent.

Retention time windows are also calculated from the initial calibration analyses. These windows are then used to identify the compound of interest in subsequent analyses.

The initial calibration data for helium were reviewed. All retention time, peak resolution, and linearity criteria were satisfied as specified in the method.

5. Continuing Calibration - Organic Analyses

5.1 GC/MS

To ensure that instrument calibration for VOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 24 hours. Stability of the calibration curve and instrument sensitivity are evaluated against the following criteria:

i) All RRF values must meet the criteria outlined in the analytical method

ii) Percent difference (%D) values must not exceed 30.0 percent

Calibration standards were analyzed at the required frequency, and all results met the above method criteria for instrument sensitivity and stability.

5.2 GC

To ensure that the calibration of the instrument for helium by GC is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis. To evaluate the continued linearity of the calibration, %D values are calculated for the compound. As specified in the method, all %D values should not exceed 20.0 percent. To ensure that compound retention times do not vary over the analysis period, all retention times for continuing calibration compounds must fall within the established retention time windows.

The continuing calibration standards were analyzed at the required frequency. All %D values and compound retention times met the above criteria indicating acceptable instrument calibration throughout the analysis period.

6. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of one per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

7. Internal Standards (IS) Analyses

IS data were evaluated for all VOC sample analyses.

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

i) The retention time of the IS must not vary more than ±33 seconds from the associated calibration standard.

ii) IS area counts must not vary by more than ±40 percent from the associated calibration standard.

All organic IS recoveries and retention times met the above criteria.

8. Laboratory Control Sample Analyses

LCS or LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of one per analytical batch.

The LCS and LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs, where applicable, were within the laboratory control limits demonstrating acceptable analytical accuracy and precision.

9. Field QA/QC Samples

Field QA/QC samples were not submitted for this event.

10. Analyte Reporting

The laboratory reported detected results down to the sample-specific method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were qualified as estimated (J) in Table 2. Non-detect results were presented as non-detect at the RL in Table 2.

The laboratory reporting limits were confirmed to have met the New York State Department of Health (NYSDOH) air guidelines criteria for non-detect sample results.

11. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra were evaluated according to the identification criteria established by the method. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

12. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Regards,

Michelle Kukta
Data Management Team Leader - Chemistry and Data Validation

Table 1

Sample Collection and Analysis Summary
OU-5 Soil Vapor and Air Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

					Parameters	
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**VOCs**	**Helium**
IA083024CZ01	IA-3	Indoor Air	08/30/2024	14:20	X	
IA083024CZ02	IA-1	Indoor Air	08/30/2024	14:28	X	
IA083024CZ03	IA-2	Indoor Air	08/30/2024	14:22	X	
OA083024CZ01	OA-1	Ambient Air	08/30/2024	14:24	X	
SSV083024CZ01	SV-2	Soil Vapor	08/30/2024	07:19	X	X
SSV083024CZ02	SV-1	Soil Vapor	08/30/2024	07:29	X	X
SSV083024CZ03	SV-3	Soil Vapor	08/30/2024	07:33	X	X

Notes:

VOCs - Volatile Organic Compounds

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:		IA-1	IA-2	IA-3	OA-1
Sample Name:		IA083024CZ02	IA083024CZ03	IA083024CZ01	OA083024CZ01
Sample Date:		08/30/2024	08/30/2024	08/30/2024	08/30/2024
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1,2,2-Tetrachloroethane	µg/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,1,2-Trichloroethane	µg/m3	1.1 U	1.1 U	1.1 U	1.1 U
1,1-Dichloroethane	µg/m3	0.81 U	0.81 U	0.81 U	0.81 U
1,1-Dichloroethene	µg/m3	0.20 U	0.20 U	0.20 U	0.20 U
1,2,4-Trichlorobenzene	µg/m3	3.7 U	3.7 U	3.7 U	3.7 U
1,2,4-Trimethylbenzene	µg/m3	2.7	0.98 U	0.39 J	0.53 J
1,2-Dibromoethane (Ethylene dibromide)	µg/m3	1.5 U	1.5 U	1.5 U	1.5 U
1,2-Dichlorobenzene	µg/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,2-Dichloroethane	µg/m3	0.81 U	0.81 U	0.81 U	0.81 U
1,2-Dichloropropane	µg/m3	0.92 U	0.92 U	0.92 U	0.92 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/m3	1.4 U	1.4 U	1.4 U	1.4 U
1,3,5-Trimethylbenzene	µg/m3	0.88 J	0.98 U	0.98 U	0.98 U
1,3-Butadiene	µg/m3	0.44 U	0.44 U	0.44 U	0.44 U
1,3-Dichlorobenzene	µg/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	µg/m3	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dioxane	µg/m3	0.38 J	18 U	18 U	18 U
2,2,4-Trimethylpentane	µg/m3	0.48 J	0.34 J	0.39 J	0.93 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/m3	9.6	1.5 U	1.5 U	1.5 U
2-Chlorotoluene	µg/m3	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	µg/m3	2.0 U	2.0 U	2.0 U	2.0 U

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:		**IA-1**	**IA-2**	**IA-3**	**OA-1**
Sample Name:		**IA083024CZ02**	**IA083024CZ03**	**IA083024CZ01**	**OA083024CZ01**
Sample Date:		**08/30/2024**	**08/30/2024**	**08/30/2024**	**08/30/2024**
Parameters	**Unit**				
Volatile Organic Compounds					
2-Phenylbutane (sec-Butylbenzene)	µg/m3	1.1 U	1.1 U	1.1 U	1.1 U
4-Ethyl toluene	µg/m3	0.95 J	0.98 U	0.98 U	0.98 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/m3	2.0 U	2.0 U	2.0 U	2.0 U
Acetone	µg/m3	44	24	23	12
Allyl chloride	µg/m3	1.6 U	1.6 U	1.6 U	1.6 U
Benzene	µg/m3	0.51 J	0.36 J	0.38 J	0.28 J
Benzyl chloride	µg/m3	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/m3	1.3 U	1.3 U	1.3 U	1.3 U
Bromoform	µg/m3	2.1 U	2.1 U	2.1 U	2.1 U
Bromomethane (Methyl bromide)	µg/m3	0.78 U	0.78 U	0.78 U	0.78 U
Butane	µg/m3	3.0	1.4	3.7	0.63 J
Carbon disulfide	µg/m3	1.3 J	0.42 J	1.6 U	1.5 J
Carbon tetrachloride	µg/m3	0.34	0.38	0.33	0.33
Chlorobenzene	µg/m3	0.92 U	0.92 U	0.92 U	0.92 U
Chlorodifluoromethane	µg/m3	2.2	3.2	2.2	2.9
Chloroethane	µg/m3	1.3 U	1.3 U	1.3 U	1.3 U
Chloroform (Trichloromethane)	µg/m3	0.98 U	0.26 J	0.98 U	0.98 U
Chloromethane (Methyl chloride)	µg/m3	1.1	2.1	0.96 J	1.3
cis-1,2-Dichloroethene	µg/m3	0.20 U	0.20 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	µg/m3	0.91 U	0.91 U	0.91 U	0.91 U
Cyclohexane	µg/m3	0.83	0.69 U	0.69 U	0.69 U

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:		IA-1	IA-2	IA-3	OA-1
Sample Name:		IA083024CZ02	IA083024CZ03	IA083024CZ01	OA083024CZ01
Sample Date:		08/30/2024	08/30/2024	08/30/2024	08/30/2024
Parameters	**Unit**				
Volatile Organic Compounds					
Cymene (p-Isopropyltoluene)	µg/m3	0.94 J	1.1 U	1.1 U	1.1 U
Dibromochloromethane	µg/m3	1.7 U	1.7 U	1.7 U	1.7 U
Dichlorodifluoromethane (CFC-12)	µg/m3	2.1 J	2.1 J	1.9 J	2.1 J
Ethanol	µg/m3	57	6.8 J	17	9.4 U
Ethylbenzene	µg/m3	1.9	0.60 J	0.46 J	0.33 J
Hexachlorobutadiene	µg/m3	2.1 U	2.1 U	2.1 U	2.1 U
Hexane	µg/m3	1.0 J	1.8 U	0.46 J	1.8 U
Isopropyl alcohol	µg/m3	5.2 J	4.3 J	12 U	12 U
Isopropyl benzene	µg/m3	0.97 J	0.98 U	0.98 U	0.98 U
m&p-Xylenes	µg/m3	5.4	0.92 J	1.0 J	0.93 J
Methyl methacrylate	µg/m3	97	18	27	1.0 J
Methyl tert butyl ether (MTBE)	µg/m3	0.72 U	0.72 U	0.72 U	0.72 U
Methylene chloride	µg/m3	0.99 J	0.81 J	0.92 J	0.85 J
N-Butylbenzene	µg/m3	1.1 U	1.1 U	1.1 U	1.1 U
N-Heptane	µg/m3	1.4	0.39 J	0.46 J	0.82 U
N-Propylbenzene	µg/m3	0.70 J	0.98 U	0.98 U	0.98 U
Naphthalene	µg/m3	2.6 U	2.6 U	2.6 U	2.6 U
o-Xylene	µg/m3	1.8	0.29 J	0.35 J	0.31 J
Styrene	µg/m3	4.1	1.2	0.85 U	0.79 J
tert-Butyl alcohol	µg/m3	9.2 J	15 U	15 U	15 U
tert-Butylbenzene	µg/m3	1.1 U	1.1 U	1.1 U	1.1 U

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:		**IA-1**	**IA-2**	**IA-3**	**OA-1**
Sample Name:		**IA083024CZ02**	**IA083024CZ03**	**IA083024CZ01**	**OA083024CZ01**
Sample Date:		**08/30/2024**	**08/30/2024**	**08/30/2024**	**08/30/2024**
Parameters	**Unit**				
Volatile Organic Compounds					
Tetrachloroethene	µg/m3	1.3 J	1.4 U	2.4	1.4 U
Tetrahydrofuran	µg/m3	15 U	15 U	15 U	15 U
Toluene	µg/m3	15	3.8	17	0.73 J
trans-1,2-Dichloroethene	µg/m3	0.79 U	0.79 U	0.79 U	0.79 U
trans-1,3-Dichloropropene	µg/m3	0.91 U	0.91 U	0.91 U	0.91 U
Trichloroethene	µg/m3	0.20 U	0.20 U	0.20 U	0.20 U
Trichlorofluoromethane (CFC-11)	µg/m3	1.1	1.1	0.97 J	1.1
Trifluorotrichloroethane (CFC-113)	µg/m3	1.5 U	1.5 U	0.42 J	1.5 U
Vinyl bromide (Bromoethene)	µg/m3	0.87 U	0.87 U	0.87 U	0.87 U
Vinyl chloride	µg/m3	0.20 U	0.20 U	0.20 U	0.20 U
Helium	%v/v	--	--	--	--

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:	SV-1	SV-2	SV-3
Sample Name:	SSV083024CZ02	SSV083024CZ01	SSV083024CZ03
Sample Date:	08/30/2024	08/30/2024	08/30/2024
Parameters	**Unit**		
Volatile Organic Compounds			
1,1,1-Trichloroethane	µg/m3	13 J	7.0	22 U
1,1,2,2-Tetrachloroethane	µg/m3	68 U	1.4 U	27 U
1,1,2-Trichloroethane	µg/m3	54 U	1.1 U	22 U
1,1-Dichloroethane	µg/m3	40 U	0.81 U	16 U
1,1-Dichloroethene	µg/m3	9.9 U	0.20 U	4.0 U
1,2,4-Trichlorobenzene	µg/m3	180 U	3.7 U	74 U
1,2,4-Trimethylbenzene	µg/m3	49 U	1.0	20 U
1,2-Dibromoethane (Ethylene dibromide)	µg/m3	76 U	1.5 U	31 U
1,2-Dichlorobenzene	µg/m3	60 U	1.2 U	24 U
1,2-Dichloroethane	µg/m3	40 U	0.81 U	16 U
1,2-Dichloropropane	µg/m3	46 U	0.92 U	18 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/m3	69 U	1.4 U	28 U
1,3,5-Trimethylbenzene	µg/m3	49 U	0.34 J	20 U
1,3-Butadiene	µg/m3	22 U	0.44 U	8.8 U
1,3-Dichlorobenzene	µg/m3	60 U	1.2 U	24 U
1,4-Dichlorobenzene	µg/m3	60 U	1.2 U	24 U
1,4-Dioxane	µg/m3	890 U	0.35 J	360 U
2,2,4-Trimethylpentane	µg/m3	46 U	0.45 J	19 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/m3	73 U	1.5 U	29 U
2-Chlorotoluene	µg/m3	51 U	1.0 U	21 U
2-Hexanone	µg/m3	100 U	2.0 U	41 U

Table 2

Analytical Results Summary
OU-5 Soil Vaport and AIr Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Location ID:		**SV-1**	**SV-2**	**SV-3**
Sample Name:		**SSV083024CZ02**	**SSV083024CZ01**	**SSV083024CZ03**
Sample Date:		**08/30/2024**	**08/30/2024**	**08/30/2024**
Parameters	**Unit**			
Volatile Organic Compounds				
2-Phenylbutane (sec-Butylbenzene)	µg/m3	54 U	1.1 U	22 U
4-Ethyl toluene	µg/m3	49 U	0.26 J	20 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/m3	100 U	2.0 U	41 U
Acetone	µg/m3	590 U	34	240 U
Allyl chloride	µg/m3	78 U	1.6 U	31 U
Benzene	µg/m3	32 U	0.63 J	13 U
Benzyl chloride	µg/m3	51 U	1.0 U	21 U
Bromodichloromethane	µg/m3	66 U	1.3 U	27 U
Bromoform	µg/m3	100 U	2.1 U	41 U
Bromomethane (Methyl bromide)	µg/m3	39 U	0.78 U	15 U
Butane	µg/m3	59 U	2.2	24 U
Carbon disulfide	µg/m3	50 J	0.58 J	31 U
Carbon tetrachloride	µg/m3	11 U	0.67	4.4 U
Chlorobenzene	µg/m3	46 U	0.92 U	18 U
Chlorodifluoromethane	µg/m3	88 U	0.97 J	35 U
Chloroethane	µg/m3	65 U	1.3 U	26 U
Chloroform (Trichloromethane)	µg/m3	48 U	0.24 J	19 U
Chloromethane (Methyl chloride)	µg/m3	51 U	0.96 J	21 U
cis-1,2-Dichloroethene	µg/m3	9.9 U	0.20 U	4.0 U
cis-1,3-Dichloropropene	µg/m3	45 U	0.91 U	18 U
Cyclohexane	µg/m3	34 U	0.29 J	14 U

Table 2

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Sample Date:		**08/30/2024**	**08/30/2024**	**08/30/2024**
Parameters	**Unit**			
Volatile Organic Compounds				
Cymene (p-Isopropyltoluene)	µg/m3	54 U	0.90 J	22 U
Dibromochloromethane	µg/m3	85 U	1.7 U	34 U
Dichlorodifluoromethane (CFC-12)	µg/m3	120 U	2.7	49 U
Ethanol	µg/m3	470 U	17	190 U
Ethylbenzene	µg/m3	43 U	0.77 J	17 U
Hexachlorobutadiene	µg/m3	110 U	2.1 U	42 U
Hexane	µg/m3	87 U	0.67 J	35 U
Isopropyl alcohol	µg/m3	610 U	12 U	240 U
Isopropyl benzene	µg/m3	49 U	0.20 J	20 U
m&p-Xylenes	µg/m3	110 U	2.1 J	43 U
Methyl methacrylate	µg/m3	100 U	74	41 U
Methyl tert butyl ether (MTBE)	µg/m3	36 U	0.72 U	14 U
Methylene chloride	µg/m3	86 U	0.81 J	35 U
N-Butylbenzene	µg/m3	54 U	1.1 U	22 U
N-Heptane	µg/m3	41 U	1.0	16 U
N-Propylbenzene	µg/m3	49 U	0.23 J	20 U
Naphthalene	µg/m3	130 U	2.6 U	52 U
o-Xylene	µg/m3	43 U	0.79 J	17 U
Styrene	µg/m3	42 U	0.36 J	17 U
tert-Butyl alcohol	µg/m3	750 U	5.2 J	300 U
tert-Butylbenzene	µg/m3	54 U	1.1 U	22 U

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Sample Date:		**08/30/2024**	**08/30/2024**	**08/30/2024**
Parameters	**Unit**			
Volatile Organic Compounds				
Tetrachloroethene	µg/m3	27000	100	7100
Tetrahydrofuran	µg/m3	730 U	15 U	290 U
Toluene	µg/m3	37 U	18	15 U
trans-1,2-Dichloroethene	µg/m3	39 U	0.79 U	16 U
trans-1,3-Dichloropropene	µg/m3	45 U	0.91 U	18 U
Trichloroethene	µg/m3	130	18	29
Trichlorofluoromethane (CFC-11)	µg/m3	56 U	1.5	22 U
Trifluorotrichloroethane (CFC-113)	µg/m3	76 U	4.8	31 U
Vinyl bromide (Bromoethene)	µg/m3	43 U	0.87 U	17 U
Vinyl chloride	µg/m3	9.9 U	0.20 U	4.0 U
Helium	%v/v	0.025 U	0.063	0.025 U

Notes:

U - Not detected at the associated reporting limit
J - Estimated concentration
"--" - Not applicable

Table 3

Analytical Methods
OU-5 Soil Vapor and Air Sampling
Glenn Springs Holdings, Inc.
Hooker Chemical/Ruco Polymer Superfund Site
Hicksville, New York
August 2024

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	TO-15	Soil Vapor	30
		Air	30
Fixed Gases in Air - Helium	ASTM D1946	Soil Vapor	30

Method References:

EPA Method TO-15 - "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999

ASTM - Annual Book of ASTM Standards, American Society for Testing Materials, Section 5 and Section 11