Stantec Consulting Services Inc.
12080 Corporate Parkway, Suite 200 Mequon WI 53092

April 20, 2023
Project Number: 193708725

Attention: Mr. Alex Allie and Mr. Peter Allie
River North, LLC
100 Maritime Drive, Suite 3C
Manitowoc, WI 54220

Reference: Sub-Slab Vapor Sampling Results
River North, LLC Project Area
1000 River Point Drive Manitowoc, Wisconsin
BRRTS ID: 02-36-588366 (Open ERP)
Stantec Project No. 193708725

Dear Mr. Alex Allie and Mr. Peter Allie:

Stantec Consulting Services, Inc. (Stantec) completed sub-slab vapor sampling at the multi-family residential apartment building recently constructed at the River Point District in Manitowoc, Wisconsin (herein referred to as the "Property"). The location of the River Point District and the Property are outlined in grey and yellow, respectively, on **Figure 1**. The street address for the Property is 1000 River Point Drive. The open Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) case number associated with the Property is 02-36-588366.

BACKGROUND

Residual environmental impacts are present on the Property and likely associated with the placement of fill in the late 19th Century and the storage/handling/use of hazardous substances and/or petroleum by multiple prior owners/tenants, as summarized in the Stantec (2021a) Phase I Environmental Site Assessment (ESA). The most significant soil impacts at the Property are benzene, polycyclic aromatic hydrocarbons (PAHs), and heavy metals associated with black granular fill materials extending across the River Point District and onto the Property. Residual petroleum impacts (primarily benzene) were identified in groundwater on the Property (Stantec, 2021c) and are delineated on **Figure 2** as dashed pink and green lines relative to the recently constructed apartment building (outlined as a thick black line on **Figure 2**).

To reduce residual petroleum impacts, 781 tons of petroleum-impacted soil were excavated during construction and transported offsite for disposal at the Waste Management solid waste landfill located in Whitelaw, Wisconsin (Stantec, 2023). To further mitigate the potential for vapor intrusion into the apartment building, and as suggested in the Stantec (2021b) Remedial Action Plan and Material Management Plan (RAP/MMP), Stantec (2021c) designed a sub-slab depressurization system (SSDS) capable of mitigating the vapor intrusion risk to the building. The SSDS was installed as a passive system consisting of perforated PVC pipe bedded in gravel beneath the concrete slab and connected to vertical PVC risers which extend through the roof of the building. Construction documentation for the SSDS system will be submitted to the WDNR in a separate letter report.

Pursuant to the post-construction sampling plan outlined in the Stantec (2021b) RAP/MMP, Stantec collected sub-slab vapor samples following construction of the apartment building and consistent use of the HVAC system to confirm if active mitigation of the vapor intrusion pathway is necessary.

Reference: **Sub-Slab Vapor Sampling Results, River North, LLC Project Area; 1000 River Point Drive Manitowoc, Wisconsin**

METHODS

Photographic documentation of the Property and methods used in this study are provided in **Attachment A**.

Geophysical Survey. On March 9, 2023, Ground Penetrating Radar Services, Inc. scanned each proposed sample location using ground penetrating radar (GPR) to identify possible utilities (or other potential subsurface obstruction) within and below the concrete building slab. A concrete GPR antenna and an electromagnetic pipe and cable locator were used during the survey. The GPRS job summary report is provided as **Attachment B**.

Sub-Slab Vapor Point Installation. Following completion of the geophysical survey, Stantec installed six VaporPin® sampling kits through the concrete slab in the parking garage. The locations of the VaporPin® kits (SVP-1 through SVP-6) are illustrated on **Figure 2**. Each VaporPin® was fitted with a removable hose barb that allowed for sample collection.

Sub-Slab Vapor Sample Collection. Prior to sample collection, the connections, fittings, and other parts associated with the sampling equipment were checked to verify they were airtight. A sampling enclosure (shroud) was placed over the vapor probe and the shroud filled with a helium tracer gas during soil gas purging and sample collection. Each sub-slab vapor collection system was purged of three volumes to remove internal air from the tubing and probe. The purged air was tested for helium using a portable in-line field meter; the presence of helium would indicate entry (leakage) of ambient air into the sampling system. No leaks were detected. Collection of sub-slab vapor samples began within 30 minutes of purging, with the leak test enclosure still in place. Photographic documentation is provided in **Attachment A** and shroud testing results are provided in **Attachment C**.

Stantec collected a sub-slab vapor sample from each VaporPin® in a laboratory certified 1-Liter Summa™ canister paired with a laboratory-certified flow controller with built-in particulate filter that was calibrated to collect vapor samples at approximately 200 milliliters per minute (mL/min). The Summa™ canister's valve was closed and sampling ceased when a vacuum of between 3 to 5 inches of mercury remained inside the canister. Sample collection data for each sample point was recorded on the laboratory chain of custody (**Attachment D**).

Summa™ canisters were properly labeled and placed within secure packaging received from the laboratory. Stantec delivered the samples to Eurofins TestAmerica (University Park, Illinois) following chain-of-custody procedures. The vapor samples were analyzed for volatile organic compounds (VOCs) according to the United States Environmental Protection Agency (USEPA) method TO-15. Concentrations of detected VOCs in sub-slab vapor samples are compared to WDNR (2023) Vapor Risk Screening Levels (VRSLs) on Table 1. For detected constituents without a tabulated VRSL (constituents highlighted in light green on Table 1), compounds are compared to site-specific health-based standards calculated using the USEPA Vapor Intrusion Screening Levels Calculator per WDNR (2023) guidance. Calculations are provided in **Attachment E**.

RESULTS

Geophysical Survey The building slab is approximately 8-inches thick with fiberglass reinforcement. One unidentified utility crossed within the clearance area for SVP-1; therefore, this sample location was slightly adjusted.

Sub-Slab Vapor Quality. The concentrations of all detected VOC in sub-slab vapor are less than the most stringent health-based standards (**Table 1**). Please note, acetone and trichlorofluoromethane were detected in sub-slab vapor samples; however, standards cannot be calculated for these compounds due to a lack of inhalation toxicity data.

Reference: **Sub-Slab Vapor Sampling Results, River North, LLC Project Area; 1000 River Point Drive Manitowoc, Wisconsin**

FUTURE WORK

This first round of sub-slab vapor sampling suggests the vapor intrusion pathway may not be a significant risk at the Property. However, as outlined in the Stantec (2021b) RAP/MMP, Stantec recommends conducting a second round of sampling in June 2023 and a third round of sampling in September 2023.

We recommend submitting a copy of this letter to WDNR for agency records. We trust this information meets your needs and we look forward to working with you further as the project progresses.

Sincerely,
STANTEC CONSULTING SERVICES INC

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Enclosures:
Figures
Tables

Attachments:
A – Photographic Documentation
B – GPRS Job Summary Report
C – Sub-Slab Vapor Sample Testing and Collection Logs
D – Laboratory Report
E – VISL Calculations

LIMITATIONS

The conclusions in this letter are Stantec's professional opinion, as of the time of the letter, and concerning the scope described in the letter. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. This letter relates solely to the specific project for which Stantec was retained and the stated purpose for which the letter was prepared. This letter is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from River North, LLC and third parties in the preparation of this letter to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This letter is intended solely for use by River North, LLC in accordance with Stantec's contract with River North, LLC. While this letter may be provided to applicable authorities having jurisdiction and others for whom River North, LLC is responsible, Stantec does not warrant the services to any third party. This letter may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

REFERENCES

Stantec, 2021a. Phase I Environmental Site Assessment, 1000 River Point Drive; Manitowoc, Wisconsin, August 25, 2021.

Stantec, 2021b, Remedial Action Plan and Materials Management Plan, 1000 River Point Drive, Manitowoc, Wisconsin, August 31, 2021.

Stantec, 2021c, Supplemental Site Investigation at the River Point District; Manitowoc, Wisconsin, September 10, 2021.

Stantec, 2023, Construction Documentation Report – Removal of Petroleum Impacted Soil, River North, LLC Project Area, 1000 River Point Drive, Manitowoc, Wisconsin, April 20, 2023.

Wisconsin Department of Natural Resources, 2023, Guidance: Wisconsin Vapor Quick Look-Up Table, January 2023.

FIGURES

Figure No.
1

Title
Project Area and Regional Topography

Client/Project
Remedial Action Plan
1000 River Point Drive
City of Manitowoc

0 390 780
Feet

Legend

- River North LLC Project Area
- River Point District

N

Notes

1. Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
2. Historic Site features illustrated on this figure were digitized from multiple historic maps/sources, including City Assessor files, WDNR files, and Sanborn (R) Fire Insurance Maps. These features are provided for illustration purposes only; Stantec makes no warranty as to the accuracy of these features.
3. Orthophotograph: Manitowoc County, 2017

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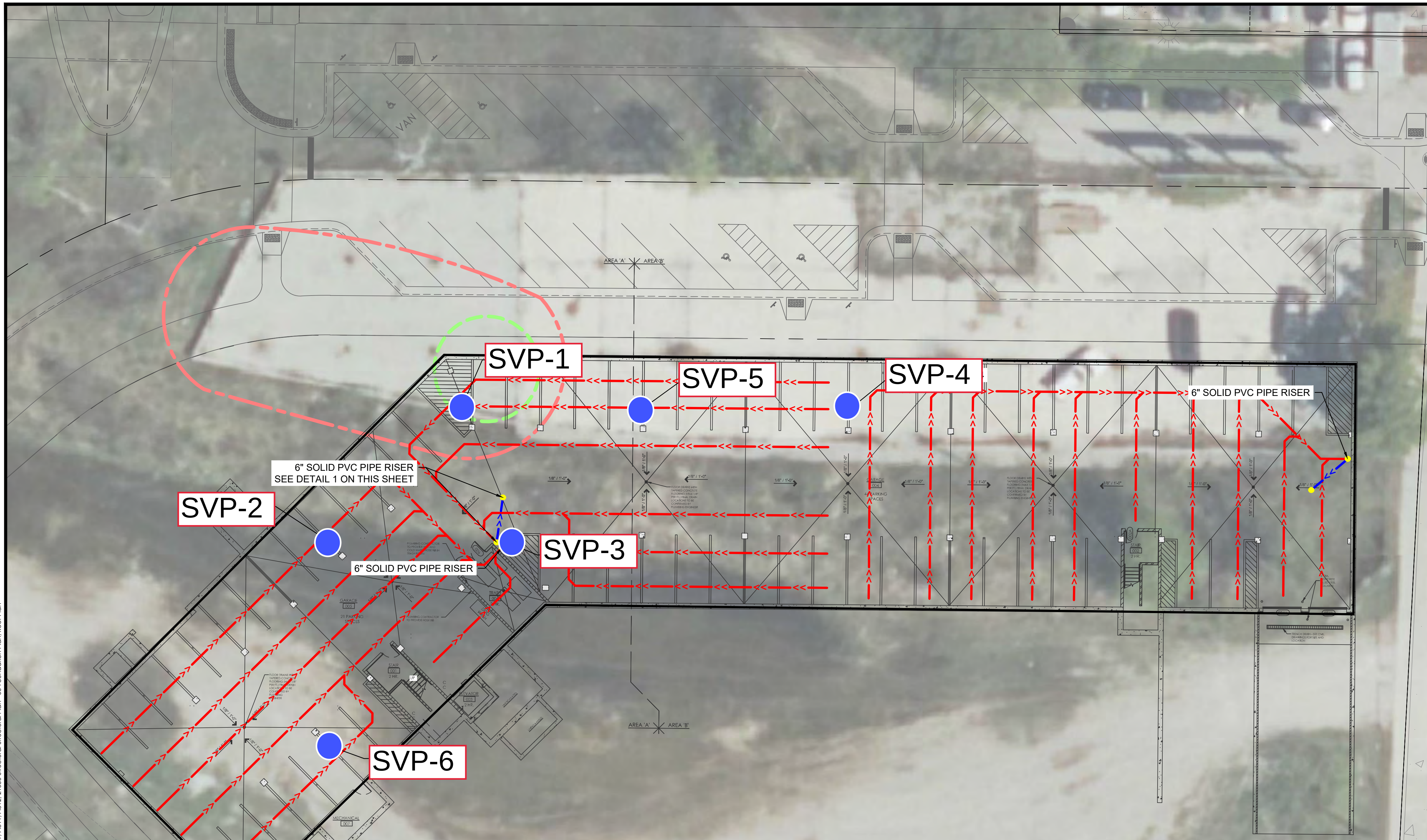
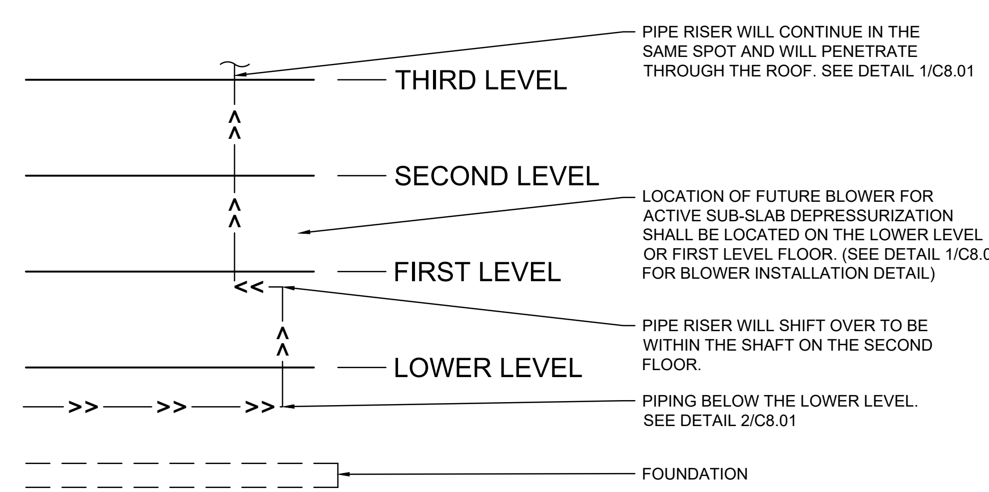


LEGEND

Symbol	Description
red dash-dot line	ESTIMATED EXTENT OF RESIDUAL GROUNDWATER CONTAMINATION EXCEEDING PETROLEUM VOCS PAL
green dashed line	ESTIMATED EXTENT OF RESIDUAL GROUNDWATER CONTAMINATION EXCEEDING BENZENE ES
black line	EXTENT OF SUB-SLAB DEPRESSURIZATION SYSTEM
blue >> line	6" SOLID PVC PIPE
red >> line	6" PERFORATED PVC PIPE
yellow dot	6" PVC PIPE RISER
blue dot	SUB SLAB SAMPLE PORT

NOTES:

1. CONTRACTOR SHALL COORDINATE WITH STRUCTURAL PLANS FOR LOCATIONS WHERE PVC PIPE PENETRATES THE FOUNDATION. SEE STRUCTURAL DRAWINGS FOR FOUNDATION DEPTHS AND DESIGN.
2. PIPE PENETRATIONS SHALL SEAL THE PIPE PENETRATIONS WITH A PLUG, SEALANT OR ENGINEER APPROVED EQUAL.



1 RISER PIPE SECTION SCHEMATIC
NOT TO SCALE

N

0 15' 30'

Stantec
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Mequon, WI 53092
www.stantec.com

SUB-SLAB VAPOR SAMPLING POINTS

RIVER NORTH APARTMENTS
PIERCE ENGINEERS, INC.
MANITOWOC, WISCONSIN

DATE OF ISSUANCE
April 5, 2023

NO	REVISION	DATE

SURVEY	—
DRAWN	JMV
DESIGNED	###
CHECKED	HAW
APPROVED	HAW
PROJ. NO.	193708490

SHEET NUMBER
Figure 2

Plot Date: 04/05/2023 - 2:01pm
Drawing name: \\Us0501-ppfss01\workgroup\1937\active\193708490\03_data\gis_cad\cad\dwg\sheets\193708490_SubSlab_Depressurization.dwg
Xrefs:, Border 1938, 193805824_XSXT, 193708490_XSNO, 193805824_XSPL, 193805824_XSNO_future, A307, A308, A310, A309, A311, A312, 21050-Structural-Structural Plan - 00-Foundation Plan, Roof Plan

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TABLE

Table 1
Detected Constituents in Sub-Slab Vapor
River North Apartment Building
1000 RIver Point Drive
Manitowoc, Wisconsin

Sample Point	Vacuum Testing of Sampling Fittings** (Pass/Fail)	Helium Shroud QA/QC Testing		Date Sampled	Date Analyzed	Sample Location	Sample Duration (minutes)	Detected Volatile Organic Compounds (micrograms per cubic meter)																								
		Helium Concentration Under Shroud	Helium Concentration in Sample					1,1,1-Trichloroethane ~	1,1,2-Trichloro-1,2,2-trifluoroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Acetone^	Benzene*~	Carbon disulfide	Carbon tetrachloride*~	Chloromethane~	Cyclohexane	Dichlorodifluoromethane~	Ethylbenzene*~	Hexane	Isopropyl alcohol	Isopropylbenzene	Methylene Chloride~	Tetrachloroethene~	Tetrahydrofuran	Toluene	Trichloroethene~	Trichlorofluoromethane^	m-Xylene & p-Xylene	o-Xylene	Xylenes, Total~
Sub-Slab Vapor Risk Screening Level (VRSL) (micrograms per cubic meter)						Residential (AF = 0.03)		170,000	170,000	2,100	2,100	170,000	100,000	NSL	120	24,000	160	3,100	210,000	3,500	370	24,000	7,000	14,000	21,000	1,400	70,000	170,000	70	NSL	3,500	3,500	3,500
						Small Commercial (AF = 0.03)		730,000	730,000	8,800	8,800	730,000	440,000	NSL	520	100,000	680	13,000	880,000	15,000	1,600	100,000	29,000	58,000	88,000	5,800	290,000	730,000	290	NSL	15,000	15,000	15,000
						Large Commercial/Industrial (AF = 0.01)		2,200,000	2,200,000	26,000	26,000	2,200,000	1,300,000	NSL	1,600	310,000	2,000	39,000	2,600,000	44,000	4,900	310,000	88,000	180,000	260,000	18,000	880,000	2,200,000	880	NSL	44,000	44,000	44,000
SVP-1	Pass	45%	0.00%	3/9/2023	3/30/2023	River North Apartment Complex	30	1.7	< 0.42	8.4	3.2	10	< 0.78	750 E	0.49 J	10	0.32 J	< 0.25	0.33 J	2.0 J	1.6	1.8 J	< 2.4	0.53 J	1.0 J	0.66 J	< 3.5	1.7	0.86 J	0.99 J	6.2	2.8	8.9
SVP-2	Pass	55%	0.00%	3/9/2023	3/30/2023	River North Apartment Complex	30	< 0.21	0.44 J	1.7	0.48 J	28	1.9 J	300 E	0.63	1.8	0.34 J	0.68 J	0.35 J	2.5	2.8	4.9	21	< 0.18	9.7	< 0.18	< 3.5	2.5	0.87 J	1.0 J	12	4.7	17
SVP-3	Pass	50%	0.00%	3/9/2023	3/30/2023	River North Apartment Complex	30	< 0.21	< 0.42	2.4	0.69 J	8.2	< 0.78	230 E	0.84	< 0.40	0.31 J	< 0.25	0.42 J	1.8 J	8.6	1.6 J	3.5 J	< 0.18	< 0.59	0.40 J	< 3.5	4.0	< 0.13	0.97 J	36	14	50
SVP-4	Pass	54%	0.03%	3/9/2023	3/30/2023	River North Apartment Complex	30	< 0.21	< 0.42	< 0.23	< 0.22	9.9	< 0.78	270 E	0.38 J	9.2	0.34 J	< 0.25	0.36 J	1.9 J	3.8	1.3 J	3.8 J	< 0.18	< 0.59	0.20 J	< 3.5	1.9	< 0.13	1.0 J	9.6	2.2	12
SVP-5	Pass	56%	0.00%	3/9/2023	3/30/2023	River North Apartment Complex	30	< 0.21	< 0.42	4.3	1.5	15	0.91 J	1700 E	0.72	< 0.40	0.32 J	< 0.25	0.78 J	2.0 J	3.7	3.2	< 2.4	0.29 J	< 0.59	0.40 J	< 3.5	2.8	0.15 J	1.2	16	5.9	23
SVP-6	Pass	31%	0.00%	3/9/2023	3/31/2023	River North Apartment Complex	30	< 0.21	0.42 J	26	12	30	2.8	850 E	4.2	0.72 J	0.33 J	0.65 J	1.4 J	1.8 J	56	3.8	7.3 J	2.1 J	< 0.59	1.2 J	6.3 J	11	< 0.13	1.1	230	83	310

Notes:
NSL No screening level assigned from USEPA Regional Screening Level (RSL) Table - November 2022.
VRSL Vapor risk screening level.
~ Vapor Risk Screening Levels from WDNR WI Vapor Quick Look-Up Table - Indoor Air Vapor Action Levels and Vapor Risk Screening Levels, January 2023.
Health-based quality levels calcuated from USEPA Vapor Intrusion Screening Levels (VISL) Calculator - April 2022.
* Carcinogenic constituent per USEPA Regional Screening Level (RSL) Table - November 2022.
^ No Inhalation Toxicity information is available on the compound; therefore, a health-based standard cannot be calcuated.
< Less than.
"E" Result exceeded calibration range.
"J" Estimated concentration is greater than the limit of detection, but less than the limit of quantification.
** A vacuum of greater than 5 inches of mercury was applied to the hoses and fittings used to collect each sample. A passing grade was given if no drop in vacuum was observed after at least 1 minute.

All screening levels were determined from the USEPA Regional Screening Level (RSL) Table - November 2022. If a constituent is carcinogenic, the target risk (and associated VAL and VRSL) is increased by one order of magnitude per the WDNR Publication RR-800.

WDNR Publication RR-800 - Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin, January 2023.

ATTACHMENT A
PHOTOGRAPHIC DOCUMENTATION

Stantec

Photographic Log

Client:	**River North, LLC**	**Project:**	**193708725**
Site Name:	**1000 River Point Drive**	**Site Location:**	**Manitowoc, Wisconsin**

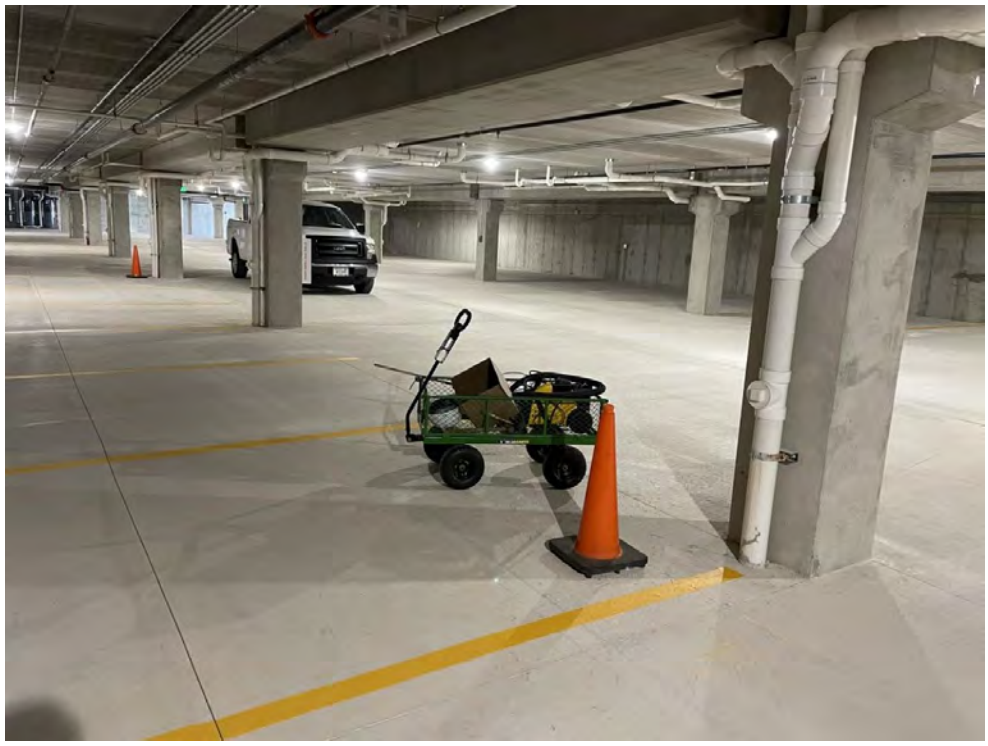
Photograph ID: 1

Photo Location:
1000 River Point Drive; Manitowoc, Wisconsin

Direction:

Survey Date:
3/9/2023

Comments:
Location of one of the sub-slab vapor points and sampling equipment within the parking garage on the Property.



Photograph ID: 2

Photo Location:
1000 River Point Drive; Manitowoc, Wisconsin

Direction:

Survey Date:
3/9/2023

Comments:
Photo of the area prior to installing a sub-slab vapor sampling point.

Client:	**River North, LLC**	**Project:**	**193708725**
Site Name:	**1000 River Point Drive**	**Site Location:**	**Manitowoc, Wisconsin**

Photograph ID: 3 **Photo Location:** 1000 River Point Drive; Manitowoc, Wisconsin **Direction:** **Survey Date:** 3/9/2023 **Comments:** Photo showing shut-in test before vapor sampling.	
Photograph ID: 4 **Photo Location:** 1000 River Point Drive; Manitowoc, Wisconsin **Direction:** **Survey Date:** 3/9/2023 **Comments:** Photo of SVP-4 summa canister while sampling.	

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Photographic Log

Client:	**River North, LLC**	**Project:**	**193708725**
Site Name:	**1000 River Point Drive**	**Site Location:**	**Manitowoc, Wisconsin**

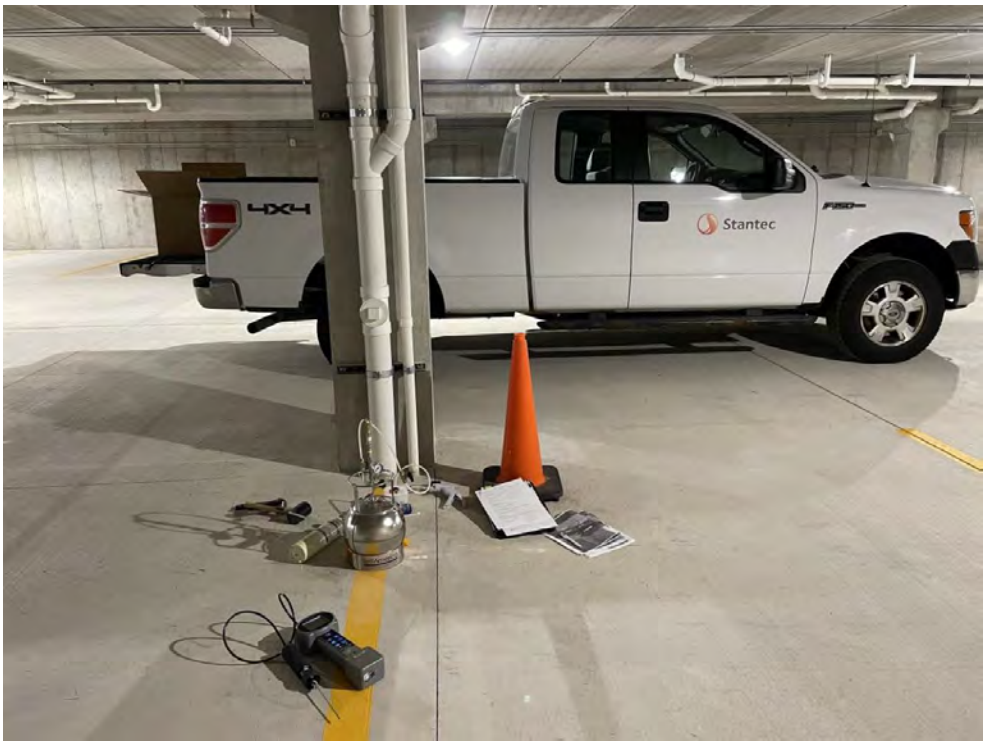
Photograph ID: 5

Photo Location:
1000 River Point Drive; Manitowoc, Wisconsin

Direction:

Survey Date:
3/9/2023

Comments:
Photo of SVP-4 summa canister while sampling.



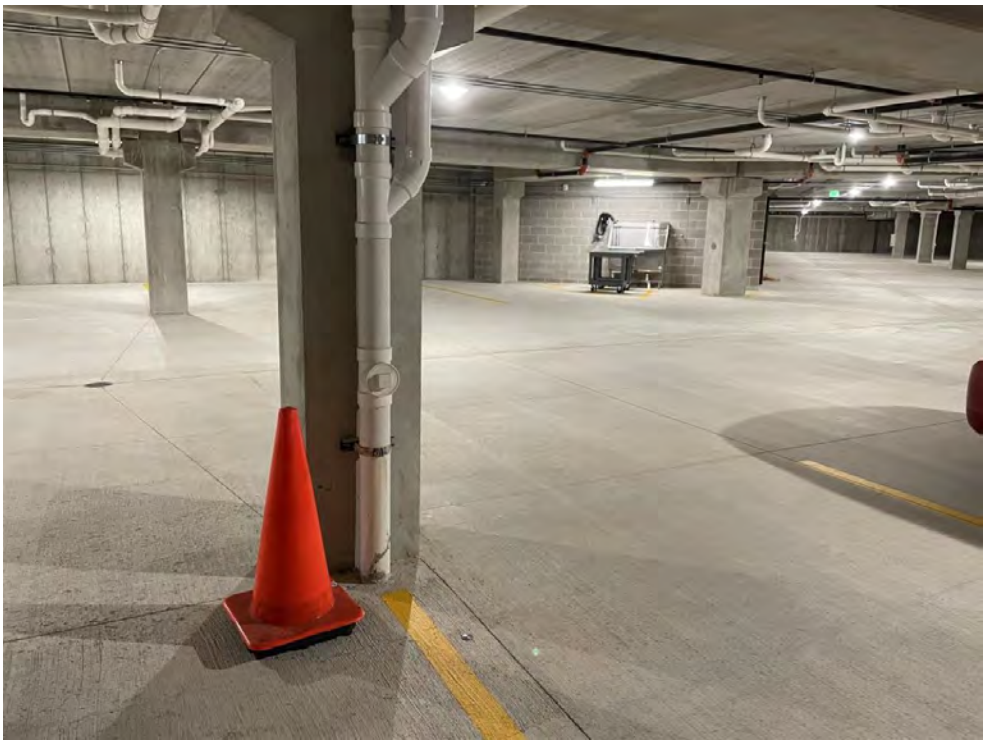
Photograph ID: 6

Photo Location:
1000 River Point Drive; Manitowoc, Wisconsin

Direction:

Survey Date:
3/9/2023

Comments:
Photo of SVP-4 after completing sub-slab vapor sampling.



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ATTACHMENT B
GPRS JOB SUMMARY REPORT

JOB SUMMARY

Service Completed Date: 03/09/2023

Customer: STANTEC CONSULTING SERVICES INC **Phone Number:**

Billing Address	City	State	Zip
12080 CORPORATE PKWY	MEQUON	WI	53092

Job Details

Jobsite Location	City	State	Zip
1000 River Point Drive	Manitowoc	WI	54220

Work Order Number 529999-35023 **Customer Service Phone Num**

Job Num 193708725 **PO Num**

Project Manager: Michael Brezinski **Email:** Michael.Brezinski@gprsinc.com

Thank you for using GPRS on your project. We appreciate the opportunity to work with you. If you have questions regarding the results of this scanning, please contact the lead GPRS technician on this project.

EQUIPMENT USED

The following equipment was used on this project:

- **Concrete GPR Antenna:** This GPR Antenna is handheld and rolls over the surface. The device displays scan data on a screen, and the operator marks detected objects on the surface in real-time. The antenna needs a reasonably smooth, unobstructed surface for scanning and cannot scan within 2"-4" of obstructions such as walls and metal tracks. Ideally, the client removes obstacles such as these before our work begins. The total effective scan depth can be as much as 18" or more with this antenna but can vary depending on the concrete conditions, composition, and other factors such as the spacing of the reinforcing. Depth accuracy depends on obtaining a precise depth calibration for the concrete. This device does not emit harmful radiation and can be safely operated while people are in close proximity. For more information, please visit: Link
- **EM Pipe Locator:** Electromagnetic Pipe and Cable Locator. Detects electromagnetic fields. Used to actively trace conductive pipes and tracer wires, or passively detect power and radio signals traveling along conductive pipes and utilities. For more information, please visit: Link

JOB SUMMARY

WORK PERFORMED

GPRS performed the following work on this project:

CORE DRILLING

- A total of 6 hole locations were scanned.
- The slab was found to be approximately 8 inches thick.
- The effective depth of GPR will vary throughout a site depending on a variety of conditions such as roofing material, moisture content, amount of reinforcing steel, etc. At this site, the maximum effective GPR depth was approximately 10 inches.

RESULTS AND NOTES

Client's Scope of Work	Scan 6 areas as specified by client on-site for proposed concrete drilling and vapor pin installation. Scan to locate possible utilities and reinforcement within or below slab, and determine slab thickness. All findings to be marked on surface as specified by client on site.
Additional Notes	Scanned 6 areas as specified by client on-site for concrete drilling, and vapor pin installation. Scanned to locate possible utilities and reinforcement within or below slab, and determine slab thickness. Utilized the concrete scanner antenna and EM pipe locator in passive mode to locate possible utilities within or below slab. The scan depth limit of the concrete scanner antenna was approximately 12”. The slab was approximately 8” with fiberglass fiber reinforcement. The scan areas are approximately 24”x24”. Scan area 1 located an unknown line traveling the the scan area. Marked path of travel in purple chalk, and noted approximate depth. Scan areas 2 through 6 no utilities were located within the scan areas. The scan boundaries are represented by orange chalk L brackets. Cannot scan with the concrete scanner antenna within 4” of obstructions such as but not limited to walls, columns, etc. Stay off all markings a minimum of 2” and all marked depths a minimum of 2”.
Marking Medium:	Other

JOB SUMMARY

Image 1

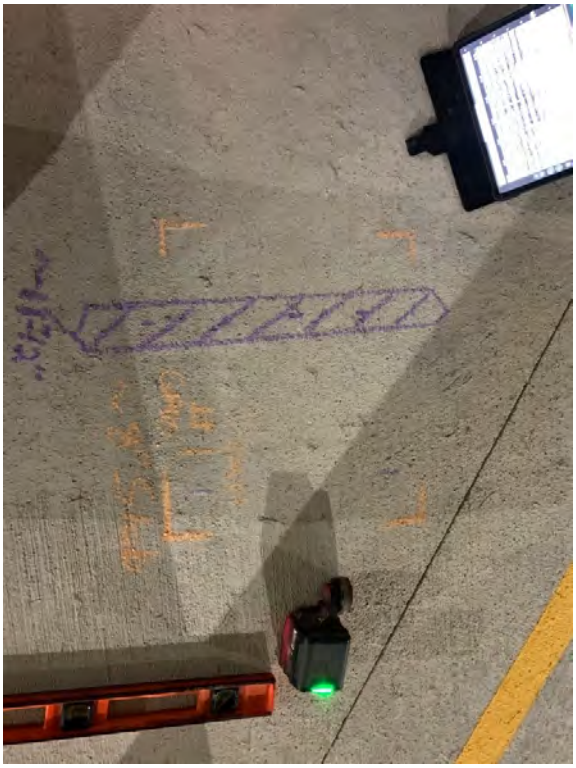

Image 2

Image 3

Image 4

JOB SUMMARY

CONTACT / SIGNATURE INFORMATION

TERMS & CONDITIONS

http://www.gprsinc.com/termsandconditions.html

SIGNATURE

CONTACT NAME

WHITNEY CULL 262-219-4740

GPRS

3D LASER SCANNING

BUILD AT THE SPEED OF INSIGHT

GPRS DELIVERS SINGULAR SOLUTIONS IN 3D TECHNOLOGY

GPRS Intelligently Visualizes The Built World™ above and below ground as the leading provider of accurate and creative 3D laser scanning solutions for the construction, architecture, and engineering industries.

3D laser scan technology is a cost-effective solution to your facility visualization needs. It can reduce and even eliminate costly errors to speed up your design, engineering, and construction process.

ABOVE AND BELOW GROUND DATA CAPTURE

The combination of laser scanning and ground penetrating radar allows you to visualize your facility effectively and accurately.

Our fully integrated service gives you accurate data to expedite design planning, extract 3D coordinates and measure distances, along with the ability to mark-up and share this with project teams. Receiving critical site information will lower project risks and increase project efficiency.

What can GPRS help you visualize?

- ✔ TRAINING
- ✔ EQUIPMENT
- ✔ METHODOLOGY

The use of proper training, multiple technologies and a field-tested methodology are the key to a successful utility locate. GPRS is a master of all three components through the utilization of the SIM Specification.

SIMSPEC.ORG

SERVICES

- UTILITY LOCATING
- VIDEO PIPE INSPECTION
- LEAK DETECTION
- MAPPING & MODELING
- CONCRETE IMAGING

1.866.914.4718

GPRSINC.COM

ATTACHMENT C
SUB-SLAB VAPOR SAMPLE TESTING AND COLLECTION LOGS

Soil Vapor Sample Testing and Collection

Sample Name: SVP-1 **Date:** 3/9/23 **Project Number:** 19370 8725

Valve Test (Pass/Fail): PASS Valve Test Re-Attempt (if needed): _____

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
0935 Valve 1, Time 0 (V1, 0 min):	7	_____ Valve 1, Time 0 (V1, 0 min):	_____
0936 Valve 1, Time 1 (V1, 1 min):	7	_____ Valve 1, Time 1 (V1, 1 min):	_____
0937 Valve 2, Time 0 (V2, 0 min):	7	_____ Valve 2, Time 0 (V2, 0 min):	_____
0938 Valve 2, Time 1 (V2, 1 min):	7	_____ Valve 2, Time 1 (V2, 1 min):	_____

Shroud Test (Pass/Fail): PASS

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
0938 Percent of helium (He) inside of shroud:	45%

Helium Test (Pass/Fail): PASS

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
0939 Helium inside sample port, Time 0 min:	0
0944 Helium inside sample port, Time 5 min:	0

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.47 Humidity (%): 76

Flow Controller ID: 6341 Canister ID: 4792 Lab-Can Pressure (in Hg): -29.7

Time	*Reading (~~PSI~~)*
0946 Collection Start (Time 0):	<-30.0 ("Hg)
1016 ~~0976~~ Collection End (Time 30):	-7.0 ("Hg)

Soil Vapor Sample Testing and Collection

Sample Name: SVP-2 **Date:** 3/9/23 **Project Number:** 193708725

Valve Test (Pass/Fail): Pass **Valve Test Re-Attempt (if needed):** _____

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
1306 Valve 1, Time 0 (V1, 0 min):	7	_____ Valve 1, Time 0 (V1, 0 min):	_____
1307 Valve 1, Time 1 (V1, 1 min):	7	_____ Valve 1, Time 1 (V1, 1 min):	_____
1307 Valve 2, Time 0 (V2, 0 min):	5	_____ Valve 2, Time 0 (V2, 0 min):	_____
1308 Valve 2, Time 1 (V2, 1 min):	5	_____ Valve 2, Time 1 (V2, 1 min):	_____

Shroud Test (Pass/Fail): Pass

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
1309 Percent of helium (He) inside of shroud:	55%

Helium Test (Pass/Fail): Pass

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
1311 Helium inside sample port, Time 0 min:	0
1316 Helium inside sample port, Time 5 min:	0

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.40 Humidity (%): 77

Flow Controller ID: 6505 Canister ID: 5697 Lab-Can Pressure (in Hg): -29.6

Time	*Reading (PSI)*
1317 Collection Start (Time 0):	-28.0
1347 Collection End (Time 30):	-11.0

Soil Vapor Sample Testing and Collection

Sample Name: SVP-3 **Date:** 3/9/23 **Project Number:** 193708725

Valve Test (Pass/Fail): Pass **Valve Test Re-Attempt (if needed):** _____

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
1216	Valve 1, Time 0 (V1, 0 min): 7	_____	Valve 1, Time 0 (V1, 0 min): _____
1217	Valve 1, Time 1 (V1, 1 min): 7	_____	Valve 1, Time 1 (V1, 1 min): _____
1217	Valve 2, Time 0 (V2, 0 min): 6	_____	Valve 2, Time 0 (V2, 0 min): _____
1218	Valve 2, Time 1 (V2, 1 min): 6	_____	Valve 2, Time 1 (V2, 1 min): _____

Shroud Test (Pass/Fail): Pass

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
1218	Percent of helium (He) inside of shroud: 50 %

Helium Test (Pass/Fail): _____

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
1219	Helium inside sample port, Time 0 min: 0
1224	Helium inside sample port, Time 5 min: 0

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.42 Humidity (%): 76

Flow Controller ID: 7330 Canister ID: 2674 Lab-Can Pressure (in Hg): -29.8

Time	*Reading (PSI)*
1225	Collection Start (Time 0): -29.8
1255	Collection End (Time 30): -6.0

Soil Vapor Sample Testing and Collection

Sample Name: SVP-4 **Date:** 3/9/23 **Project Number:** 193708725

Valve Test (Pass/Fail): (FAIL) → Valve Test Re-Attempt (if needed): PASS

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
1123	Valve 1, Time 0 (V1, 0 min): 6	____	Valve 1, Time 0 (V1, 0 min): ____
1124	Valve 1, Time 1 (V1, 1 min): 6	____	Valve 1, Time 1 (V1, 1 min): ____
1124	Valve 2, Time 0 (V2, 0 min): 6 (RETIGHTEN) →	1129	Valve 2, Time 0 (V2, 0 min): 5
1125	Valve 2, Time 1 (V2, 1 min): 4	1130	Valve 2, Time 1 (V2, 1 min): 5

Shroud Test (Pass/Fail): PASS

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
1130	Percent of helium (He) inside of shroud: 54 %

Helium Test (Pass/Fail): PASS

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
1131	Helium inside sample port, Time 0 min: 0
1136	Helium inside sample port, Time 5 min: 150 (<< 5%) ✓

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.45 Humidity (%): 76

Flow Controller ID: 4617 Canister ID: 5047 Lab-Can Pressure (in Hg): -29.7

↳ STARTRITE FLOW CONTROLLER

Time	*Reading (PSI)*
1139	Collection Start (Time 0): -30.0
1209	Collection End (Time 30): -4.0

Soil Vapor Sample Testing and Collection

Sample Name: SVP-5 **Date:** 3/9/23 **Project Number:** 193708725

Valve Test (Pass/Fail): Pass **Valve Test Re-Attempt (if needed):** _____

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
1025 Valve 1, Time 0 (V1, 0 min):	6	_____ Valve 1, Time 0 (V1, 0 min):	_____
1026 Valve 1, Time 1 (V1, 1 min):	6	_____ Valve 1, Time 1 (V1, 1 min):	_____
1026 Valve 2, Time 0 (V2, 0 min):	6	_____ Valve 2, Time 0 (V2, 0 min):	_____
1027 Valve 2, Time 1 (V2, 1 min):	6	_____ Valve 2, Time 1 (V1, 1 min):	_____

Shroud Test (Pass/Fail): ~~Fail~~ Pass

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
1027 Percent of helium (He) inside of shroud:	56 %

Helium Test (Pass/Fail): Pass

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
1029 Helium inside sample port, Time 0 min:	0
1034 Helium inside sample port, Time 5 min:	0

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.48 Humidity (%): 74

Flow Controller ID: 6528 Canister ID: 6256 Lab-Can Pressure (in Hg): -29.7

Time	*Reading (PSI)*
1035 Collection Start (Time 0):	-30.0
1105 Collection End (Time 30):	-8.0

Soil Vapor Sample Testing and Collection

Sample Name: SVP-6 **Date:** 3/9/23 **Project Number:** 193708725

Valve Test (Pass/Fail): Pass **Valve Test Re-Attempt (if needed):** _____

Pass criteria: No loss in pressure (4 -7 in Hg) over one minute

Time	*Reading (in Hg)*	*Time*	*Reading (in Hg)*
1403	Valve 1, Time 0 (V1, 0 min): 6	_____	Valve 1, Time 0 (V1, 0 min): _____
1404	Valve 1, Time 1 (V1, 1 min): 6	_____	Valve 1, Time 1 (V1, 1 min): _____
1404	Valve 2, Time 0 (V2, 0 min): 6	_____	Valve 2, Time 0 (V2, 0 min): _____
1405	Valve 2, Time 1 (V2, 1 min): 6	_____	Valve 2, Time 1 (V2, 1 min): _____

Shroud Test (Pass/Fail): Pass

Pass criteria: Introduce > 20 % helium to shroud

Time	*Reading (% He)*
1409	Percent of helium (He) inside of shroud: 31 %

Helium Test (Pass/Fail): Pass

Pass criteria: Helium concentration in sample is < 5% of shroud concentration. Also purges sample line.

Time	*Reading (ppm)*
1410	Helium inside sample port, Time 0 min: 0
1415	Helium inside sample port, Time 5 min: _____

Sample Collection:

Temperature (*F): 59 Barometric pressure (in Hg): 30.38 Humidity (%): 70%

Flow Controller ID: 7788 Canister ID: 5604 Lab-Can Pressure (in Hg): -29.8

Time	*Reading (PSI)*
1416	Collection Start (Time 0): -25.0
1442	Collection End (Time 26): -4.0

ATTACHMENT D
LABORATORY REPORT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Harris Byers
Stantec Consulting Corp.
12080 Corporate Parkway
Mequon, Wisconsin 53092

Generated 4/3/2023 9:39:31 AM

JOB DESCRIPTION

River North Vapor 193708725

JOB NUMBER

500-230646-1

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

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 Chicago Project Manager.

Authorization

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Authorized for release by
Sandie Fredrick, Project Manager II
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Table of Contents

Job ID: 500-230646-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-230646-1

Comments
No additional comments.

Receipt
The samples were received on 3/13/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice.

Air Toxics
During the canister pressure check performed upon receipt, it was observed that the following sample was received at an elevated residual vacuum level: SVP-2 (500-230646-2). The associated flow controller was evaluated upon receipt and was found to be wihin the acceptable flow range as compared to the original set flow rate

Method TO-15: The concentration(s) of Acetone in the following samples exceeded the calibration range of the instrument: SVP-1 (500-230646-1), SVP-2 (500-230646-2), SVP-3 (500-230646-3), SVP-4 (500-230646-4), SVP-5 (500-230646-5) & SVP-6 (500-230646-6). The client was contacted and the sample was analyzed with minimum dilution even though some analytes were outside of the calibration range.

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

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-1

Lab Sample ID: 500-230646-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.32		0.20	0.039	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.7		0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.66		0.20	0.044	ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	3.5		1.0	0.17	ppb v/v	1		TO-15	Total/NA
Acetone	320	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	0.15	J	0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	3.2		0.50	0.13	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.050	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.095	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.41	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.36		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	0.51	J	0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropylbenzene	0.11	J	0.80	0.037	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	0.29	J	0.50	0.17	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	1.4		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.64		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.097	J	0.20	0.027	ppb v/v	1		TO-15	Total/NA
Toluene	0.46		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.16	J	0.20	0.024	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.18	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	2.0		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.7		1.1	0.21	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	8.4		0.98	0.23	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	3.2		0.98	0.22	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	10		2.9	0.50	ug/m3	1		TO-15	Total/NA
Acetone	750	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	0.49	J	0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon disulfide	10		1.6	0.40	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.32	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.33	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.0	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	1.6		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	1.8	J	2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropylbenzene	0.53	J	3.9	0.18	ug/m3	1		TO-15	Total/NA
Methylene Chloride	1.0	J	1.7	0.59	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	6.2		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	2.8		0.87	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.66	J	1.4	0.18	ug/m3	1		TO-15	Total/NA
Toluene	1.7		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.86	J	1.1	0.13	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	0.99	J	1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	8.9		1.7	1.1	ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-2

Lab Sample ID: 500-230646-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.058	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	0.35		0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.097	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	9.6		1.0	0.17	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Client Sample ID: SVP-2 (Continued)

Lab Sample ID: 500-230646-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	0.48	J	0.50	0.19	ppb v/v	1		TO-15	Total/NA
Acetone	130	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	0.20		0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.59		0.50	0.13	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.054	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.33	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.10	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.51		0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.65		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	1.4		0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	8.6		5.0	0.98	ppb v/v	1		TO-15	Total/NA
Methylene Chloride	2.8		0.50	0.17	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	2.9		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	1.1		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Toluene	0.66		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.16	J	0.20	0.024	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.18	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	4.0		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.44	J	1.5	0.42	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.7		0.98	0.23	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.48	J	0.98	0.22	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	28		2.9	0.50	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	1.9	J	2.0	0.78	ug/m3	1		TO-15	Total/NA
Acetone	300	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	0.63		0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon disulfide	1.8		1.6	0.40	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.34	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Chloromethane	0.68	J	1.0	0.25	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.35	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.5		2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	2.8		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	4.9		2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	21		12	2.4	ug/m3	1		TO-15	Total/NA
Methylene Chloride	9.7		1.7	0.59	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	12		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	4.7		0.87	0.41	ug/m3	1		TO-15	Total/NA
Toluene	2.5		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.87	J	1.1	0.13	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.0	J	1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	17		1.7	1.1	ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-3

Lab Sample ID: 500-230646-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.48		0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.14	J	0.20	0.044	ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	2.8		1.0	0.17	ppb v/v	1		TO-15	Total/NA
Acetone	95	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	0.26		0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.050	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SVP-3 (Continued)

Lab Sample ID: 500-230646-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	0.12	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.36	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	2.0		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	0.44	J	0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	1.4	J	5.0	0.98	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	8.4		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	3.1		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.058	J	0.20	0.027	ppb v/v	1		TO-15	Total/NA
Toluene	1.1		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.17	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	12		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.4		0.98	0.23	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.69	J	0.98	0.22	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	8.2		2.9	0.50	ug/m3	1		TO-15	Total/NA
Acetone	230	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	0.84		0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.31	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.42	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.8	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	8.6		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	1.6	J	2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	3.5	J	12	2.4	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	36		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	14		0.87	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.40	J	1.4	0.18	ug/m3	1		TO-15	Total/NA
Toluene	4.0		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	0.97	J	1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	50		1.7	1.1	ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-4

Lab Sample ID: 500-230646-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.4		1.0	0.17	ppb v/v	1		TO-15	Total/NA
Acetone	110	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	0.12	J	0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	2.9		0.50	0.13	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.054	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.10	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.39	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.87		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	0.36	J	0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	1.5	J	5.0	0.98	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	2.2		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	0.52		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.029	J	0.20	0.027	ppb v/v	1		TO-15	Total/NA
Toluene	0.49		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.18	J	0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	2.7		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	9.9		2.9	0.50	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SVP-4 (Continued)

Lab Sample ID: 500-230646-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	270	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	0.38	J	0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon disulfide	9.2		1.6	0.40	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.34	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.36	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.9	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	3.8		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	1.3	J	2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	3.8	J	12	2.4	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	9.6		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	2.2		0.87	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.20	J	1.4	0.18	ug/m3	1		TO-15	Total/NA
Toluene	1.9		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.0	J	1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	12		1.7	1.1	ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-5

Lab Sample ID: 500-230646-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.87		0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.30		0.20	0.044	ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	5.0		1.0	0.17	ppb v/v	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	0.22	J	0.50	0.19	ppb v/v	1		TO-15	Total/NA
Acetone	720	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	0.22		0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.052	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.23	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.41	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	0.86		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	0.90		0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropylbenzene	0.059	J	0.80	0.037	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	3.8		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	1.4		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.059	J	0.20	0.027	ppb v/v	1		TO-15	Total/NA
Toluene	0.75		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.028	J	0.20	0.024	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.21		0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	5.2		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4.3		0.98	0.23	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	1.5		0.98	0.22	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	15		2.9	0.50	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	0.91	J	2.0	0.78	ug/m3	1		TO-15	Total/NA
Acetone	1700	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	0.72		0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.32	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Cyclohexane	0.78	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.0	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	3.7		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	3.2		2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropylbenzene	0.29	J	3.9	0.18	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SVP-5 (Continued)

Lab Sample ID: 500-230646-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	16		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	5.9		0.87	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.40	J	1.4	0.18	ug/m3	1		TO-15	Total/NA
Toluene	2.8		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichloroethene	0.15	J	1.1	0.13	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.2		1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	23		1.7	1.1	ug/m3	1		TO-15	Total/NA

Client Sample ID: SVP-6

Lab Sample ID: 500-230646-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.055	J	0.20	0.055	ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	5.2		0.20	0.047	ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	2.5		0.20	0.044	ppb v/v	1		TO-15	Total/NA
2-Butanone (MEK)	10		1.0	0.17	ppb v/v	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	0.68		0.50	0.19	ppb v/v	1		TO-15	Total/NA
Acetone	360	E	5.0	2.0	ppb v/v	1		TO-15	Total/NA
Benzene	1.3		0.20	0.074	ppb v/v	1		TO-15	Total/NA
Carbon disulfide	0.23	J	0.50	0.13	ppb v/v	1		TO-15	Total/NA
Carbon tetrachloride	0.052	J	0.20	0.032	ppb v/v	1		TO-15	Total/NA
Chloromethane	0.31	J	0.50	0.12	ppb v/v	1		TO-15	Total/NA
Cyclohexane	0.40	J	0.50	0.035	ppb v/v	1		TO-15	Total/NA
Dichlorodifluoromethane	0.37	J	0.50	0.11	ppb v/v	1		TO-15	Total/NA
Ethylbenzene	13		0.20	0.10	ppb v/v	1		TO-15	Total/NA
Hexane	1.1		0.80	0.23	ppb v/v	1		TO-15	Total/NA
Isopropyl alcohol	3.0	J	5.0	0.98	ppb v/v	1		TO-15	Total/NA
Isopropylbenzene	0.43	J	0.80	0.037	ppb v/v	1		TO-15	Total/NA
m-Xylene & p-Xylene	52		0.80	0.17	ppb v/v	1		TO-15	Total/NA
o-Xylene	19		0.20	0.094	ppb v/v	1		TO-15	Total/NA
Tetrachloroethene	0.18	J	0.20	0.027	ppb v/v	1		TO-15	Total/NA
Tetrahydrofuran	2.1	J	5.0	1.2	ppb v/v	1		TO-15	Total/NA
Toluene	3.0		0.20	0.093	ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.20		0.20	0.052	ppb v/v	1		TO-15	Total/NA
Xylenes, Total	71		0.40	0.26	ppb v/v	1		TO-15	Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.42	J	1.5	0.42	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	26		0.98	0.23	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	12		0.98	0.22	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	30		2.9	0.50	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	2.8		2.0	0.78	ug/m3	1		TO-15	Total/NA
Acetone	850	E	12	4.8	ug/m3	1		TO-15	Total/NA
Benzene	4.2		0.64	0.24	ug/m3	1		TO-15	Total/NA
Carbon disulfide	0.72	J	1.6	0.40	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.33	J	1.3	0.20	ug/m3	1		TO-15	Total/NA
Chloromethane	0.65	J	1.0	0.25	ug/m3	1		TO-15	Total/NA
Cyclohexane	1.4	J	1.7	0.12	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.8	J	2.5	0.54	ug/m3	1		TO-15	Total/NA
Ethylbenzene	56		0.87	0.43	ug/m3	1		TO-15	Total/NA
Hexane	3.8		2.8	0.81	ug/m3	1		TO-15	Total/NA
Isopropyl alcohol	7.3	J	12	2.4	ug/m3	1		TO-15	Total/NA
Isopropylbenzene	2.1	J	3.9	0.18	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: SVP-6 (Continued)

Lab Sample ID: 500-230646-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	230		3.5	0.74	ug/m3	1		TO-15	Total/NA
o-Xylene	83		0.87	0.41	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	1.2	J	1.4	0.18	ug/m3	1		TO-15	Total/NA
Tetrahydrofuran	6.3	J	15	3.5	ug/m3	1		TO-15	Total/NA
Toluene	11		0.75	0.35	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.1		1.1	0.29	ug/m3	1		TO-15	Total/NA
Xylenes, Total	310		1.7	1.1	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	EET BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-230646-1	SVP-1	Air	03/09/23 10:16	03/13/23 10:30	Air Canister (6-Liter) #4792
500-230646-2	SVP-2	Air	03/09/23 13:47	03/13/23 10:30	Air Canister (6-Liter) #5697
500-230646-3	SVP-3	Air	03/09/23 12:55	03/13/23 10:30	Air Canister (6-Liter) #2674
500-230646-4	SVP-4	Air	03/09/23 12:09	03/13/23 10:30	Air Canister (6-Liter) #5047
500-230646-5	SVP-5	Air	03/09/23 11:05	03/13/23 10:30	Air Canister (6-Liter) #6256
500-230646-6	SVP-6	Air	03/09/23 14:42	03/13/23 10:30	Air Canister (6-Liter) #5604

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-1
Date Collected: 03/09/23 10:16
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-1
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.32**		0.20	0.039	ppb v/v			03/30/23 13:38	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 13:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 13:38	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 13:38	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 13:38	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 13:38	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 13:38	1
1,2,4-Trimethylbenzene	**1.7**		0.20	0.047	ppb v/v			03/30/23 13:38	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 13:38	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 13:38	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 13:38	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 13:38	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 13:38	1
1,3,5-Trimethylbenzene	**0.66**		0.20	0.044	ppb v/v			03/30/23 13:38	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 13:38	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 13:38	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 13:38	1
2-Butanone (MEK)	**3.5**		1.0	0.17	ppb v/v			03/30/23 13:38	1
4-Methyl-2-pentanone (MIBK)	<0.19		0.50	0.19	ppb v/v			03/30/23 13:38	1
Acetone	**320**	**E**	5.0	2.0	ppb v/v			03/30/23 13:38	1
Benzene	**0.15**	**J**	0.20	0.074	ppb v/v			03/30/23 13:38	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 13:38	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 13:38	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 13:38	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 13:38	1
Carbon disulfide	**3.2**		0.50	0.13	ppb v/v			03/30/23 13:38	1
Carbon tetrachloride	**0.050**	**J**	0.20	0.032	ppb v/v			03/30/23 13:38	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 13:38	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 13:38	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 13:38	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/30/23 13:38	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 13:38	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 13:38	1
Cyclohexane	**0.095**	**J**	0.50	0.035	ppb v/v			03/30/23 13:38	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 13:38	1
Dichlorodifluoromethane	**0.41**	**J**	0.50	0.11	ppb v/v			03/30/23 13:38	1
Ethylbenzene	**0.36**		0.20	0.10	ppb v/v			03/30/23 13:38	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 13:38	1
Hexane	**0.51**	**J**	0.80	0.23	ppb v/v			03/30/23 13:38	1
Isopropyl alcohol	<0.98		5.0	0.98	ppb v/v			03/30/23 13:38	1
Isopropylbenzene	**0.11**	**J**	0.80	0.037	ppb v/v			03/30/23 13:38	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 13:38	1
Methylene Chloride	**0.29**	**J**	0.50	0.17	ppb v/v			03/30/23 13:38	1
m-Xylene & p-Xylene	**1.4**		0.80	0.17	ppb v/v			03/30/23 13:38	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 13:38	1
o-Xylene	**0.64**		0.20	0.094	ppb v/v			03/30/23 13:38	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 13:38	1
Tetrachloroethene	**0.097**	**J**	0.20	0.027	ppb v/v			03/30/23 13:38	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-1
Date Collected: 03/09/23 10:16
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-1
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	<1.2		5.0	1.2	ppb v/v			03/30/23 13:38	1
Toluene	**0.46**		0.20	0.093	ppb v/v			03/30/23 13:38	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 13:38	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 13:38	1
Trichloroethene	**0.16**	**J**	0.20	0.024	ppb v/v			03/30/23 13:38	1
Trichlorofluoromethane	**0.18**	**J**	0.20	0.052	ppb v/v			03/30/23 13:38	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 13:38	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 13:38	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 13:38	1
Xylenes, Total	**2.0**		0.40	0.26	ppb v/v			03/30/23 13:38	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.7**		1.1	0.21	ug/m3			03/30/23 13:38	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 13:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/30/23 13:38	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 13:38	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 13:38	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 13:38	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 13:38	1
1,2,4-Trimethylbenzene	**8.4**		0.98	0.23	ug/m3			03/30/23 13:38	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 13:38	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 13:38	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 13:38	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 13:38	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 13:38	1
1,3,5-Trimethylbenzene	**3.2**		0.98	0.22	ug/m3			03/30/23 13:38	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 13:38	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 13:38	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 13:38	1
2-Butanone (MEK)	**10**		2.9	0.50	ug/m3			03/30/23 13:38	1
4-Methyl-2-pentanone (MIBK)	<0.78		2.0	0.78	ug/m3			03/30/23 13:38	1
Acetone	**750**	**E**	12	4.8	ug/m3			03/30/23 13:38	1
Benzene	**0.49**	**J**	0.64	0.24	ug/m3			03/30/23 13:38	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 13:38	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 13:38	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 13:38	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 13:38	1
Carbon disulfide	**10**		1.6	0.40	ug/m3			03/30/23 13:38	1
Carbon tetrachloride	**0.32**	**J**	1.3	0.20	ug/m3			03/30/23 13:38	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 13:38	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 13:38	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 13:38	1
Chloromethane	<0.25		1.0	0.25	ug/m3			03/30/23 13:38	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 13:38	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 13:38	1
Cyclohexane	**0.33**	**J**	1.7	0.12	ug/m3			03/30/23 13:38	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 13:38	1
Dichlorodifluoromethane	**2.0**	**J**	2.5	0.54	ug/m3			03/30/23 13:38	1
Ethylbenzene	**1.6**		0.87	0.43	ug/m3			03/30/23 13:38	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-1
Date Collected: 03/09/23 10:16
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-1
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 13:38	1
Hexane	**1.8**	**J**	2.8	0.81	ug/m3			03/30/23 13:38	1
Isopropyl alcohol	<2.4		12	2.4	ug/m3			03/30/23 13:38	1
Isopropylbenzene	**0.53**	**J**	3.9	0.18	ug/m3			03/30/23 13:38	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 13:38	1
Methylene Chloride	**1.0**	**J**	1.7	0.59	ug/m3			03/30/23 13:38	1
m-Xylene & p-Xylene	**6.2**		3.5	0.74	ug/m3			03/30/23 13:38	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 13:38	1
o-Xylene	**2.8**		0.87	0.41	ug/m3			03/30/23 13:38	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 13:38	1
Tetrachloroethene	**0.66**	**J**	1.4	0.18	ug/m3			03/30/23 13:38	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 13:38	1
Toluene	**1.7**		0.75	0.35	ug/m3			03/30/23 13:38	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 13:38	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 13:38	1
Trichloroethene	**0.86**	**J**	1.1	0.13	ug/m3			03/30/23 13:38	1
Trichlorofluoromethane	**0.99**	**J**	1.1	0.29	ug/m3			03/30/23 13:38	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 13:38	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 13:38	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 13:38	1
Xylenes, Total	**8.9**		1.7	1.1	ug/m3			03/30/23 13:38	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-2
Date Collected: 03/09/23 13:47
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-2
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/30/23 14:30	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 14:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.058**	**J**	0.20	0.055	ppb v/v			03/30/23 14:30	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 14:30	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 14:30	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 14:30	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 14:30	1
1,2,4-Trimethylbenzene	**0.35**		0.20	0.047	ppb v/v			03/30/23 14:30	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 14:30	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 14:30	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 14:30	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 14:30	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 14:30	1
1,3,5-Trimethylbenzene	**0.097**	**J**	0.20	0.044	ppb v/v			03/30/23 14:30	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 14:30	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 14:30	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 14:30	1
2-Butanone (MEK)	**9.6**		1.0	0.17	ppb v/v			03/30/23 14:30	1
4-Methyl-2-pentanone (MIBK)	**0.48**	**J**	0.50	0.19	ppb v/v			03/30/23 14:30	1
Acetone	**130**	**E**	5.0	2.0	ppb v/v			03/30/23 14:30	1
Benzene	**0.20**		0.20	0.074	ppb v/v			03/30/23 14:30	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 14:30	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 14:30	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 14:30	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 14:30	1
Carbon disulfide	**0.59**		0.50	0.13	ppb v/v			03/30/23 14:30	1
Carbon tetrachloride	**0.054**	**J**	0.20	0.032	ppb v/v			03/30/23 14:30	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 14:30	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 14:30	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 14:30	1
Chloromethane	**0.33**	**J**	0.50	0.12	ppb v/v			03/30/23 14:30	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 14:30	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 14:30	1
Cyclohexane	**0.10**	**J**	0.50	0.035	ppb v/v			03/30/23 14:30	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 14:30	1
Dichlorodifluoromethane	**0.51**		0.50	0.11	ppb v/v			03/30/23 14:30	1
Ethylbenzene	**0.65**		0.20	0.10	ppb v/v			03/30/23 14:30	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 14:30	1
Hexane	**1.4**		0.80	0.23	ppb v/v			03/30/23 14:30	1
Isopropyl alcohol	**8.6**		5.0	0.98	ppb v/v			03/30/23 14:30	1
Isopropylbenzene	<0.037		0.80	0.037	ppb v/v			03/30/23 14:30	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 14:30	1
Methylene Chloride	**2.8**		0.50	0.17	ppb v/v			03/30/23 14:30	1
m-Xylene & p-Xylene	**2.9**		0.80	0.17	ppb v/v			03/30/23 14:30	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 14:30	1
o-Xylene	**1.1**		0.20	0.094	ppb v/v			03/30/23 14:30	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 14:30	1
Tetrachloroethene	<0.027		0.20	0.027	ppb v/v			03/30/23 14:30	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-2
Date Collected: 03/09/23 13:47
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-2
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/30/23 14:30	1
Toluene	**0.66**		0.20	0.093	ppb v/v			03/30/23 14:30	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 14:30	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 14:30	1
Trichloroethene	**0.16**	**J**	0.20	0.024	ppb v/v			03/30/23 14:30	1
Trichlorofluoromethane	**0.18**	**J**	0.20	0.052	ppb v/v			03/30/23 14:30	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 14:30	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 14:30	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 14:30	1
Xylenes, Total	**4.0**		0.40	0.26	ppb v/v			03/30/23 14:30	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/30/23 14:30	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 14:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.44**	**J**	1.5	0.42	ug/m3			03/30/23 14:30	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 14:30	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 14:30	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 14:30	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 14:30	1
1,2,4-Trimethylbenzene	**1.7**		0.98	0.23	ug/m3			03/30/23 14:30	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 14:30	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 14:30	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 14:30	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 14:30	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 14:30	1
1,3,5-Trimethylbenzene	**0.48**	**J**	0.98	0.22	ug/m3			03/30/23 14:30	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 14:30	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 14:30	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 14:30	1
2-Butanone (MEK)	**28**		2.9	0.50	ug/m3			03/30/23 14:30	1
4-Methyl-2-pentanone (MIBK)	**1.9**	**J**	2.0	0.78	ug/m3			03/30/23 14:30	1
Acetone	**300**	**E**	12	4.8	ug/m3			03/30/23 14:30	1
Benzene	**0.63**		0.64	0.24	ug/m3			03/30/23 14:30	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 14:30	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 14:30	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 14:30	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 14:30	1
Carbon disulfide	**1.8**		1.6	0.40	ug/m3			03/30/23 14:30	1
Carbon tetrachloride	**0.34**	**J**	1.3	0.20	ug/m3			03/30/23 14:30	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 14:30	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 14:30	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 14:30	1
Chloromethane	**0.68**	**J**	1.0	0.25	ug/m3			03/30/23 14:30	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 14:30	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 14:30	1
Cyclohexane	**0.35**	**J**	1.7	0.12	ug/m3			03/30/23 14:30	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 14:30	1
Dichlorodifluoromethane	**2.5**		2.5	0.54	ug/m3			03/30/23 14:30	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-2
Date Collected: 03/09/23 13:47
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-2
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**2.8**		0.87	0.43	ug/m3			03/30/23 14:30	1
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 14:30	1
Hexane	**4.9**		2.8	0.81	ug/m3			03/30/23 14:30	1
Isopropyl alcohol	**21**		12	2.4	ug/m3			03/30/23 14:30	1
Isopropylbenzene	<0.18		3.9	0.18	ug/m3			03/30/23 14:30	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 14:30	1
Methylene Chloride	**9.7**		1.7	0.59	ug/m3			03/30/23 14:30	1
m-Xylene & p-Xylene	**12**		3.5	0.74	ug/m3			03/30/23 14:30	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 14:30	1
o-Xylene	**4.7**		0.87	0.41	ug/m3			03/30/23 14:30	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 14:30	1
Tetrachloroethene	<0.18		1.4	0.18	ug/m3			03/30/23 14:30	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 14:30	1
Toluene	**2.5**		0.75	0.35	ug/m3			03/30/23 14:30	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 14:30	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 14:30	1
Trichloroethene	**0.87**	**J**	1.1	0.13	ug/m3			03/30/23 14:30	1
Trichlorofluoromethane	**1.0**	**J**	1.1	0.29	ug/m3			03/30/23 14:30	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 14:30	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 14:30	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 14:30	1
Xylenes, Total	**17**		1.7	1.1	ug/m3			03/30/23 14:30	1

Client Sample ID: SVP-3
Date Collected: 03/09/23 12:55
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-3
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/30/23 15:22	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 15:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 15:22	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 15:22	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 15:22	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 15:22	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 15:22	1
1,2,4-Trimethylbenzene	**0.48**		0.20	0.047	ppb v/v			03/30/23 15:22	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 15:22	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 15:22	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 15:22	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 15:22	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 15:22	1
1,3,5-Trimethylbenzene	**0.14**	**J**	0.20	0.044	ppb v/v			03/30/23 15:22	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 15:22	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 15:22	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 15:22	1
2-Butanone (MEK)	**2.8**		1.0	0.17	ppb v/v			03/30/23 15:22	1
4-Methyl-2-pentanone (MIBK)	<0.19		0.50	0.19	ppb v/v			03/30/23 15:22	1
Acetone	**95**	**E**	5.0	2.0	ppb v/v			03/30/23 15:22	1
Benzene	**0.26**		0.20	0.074	ppb v/v			03/30/23 15:22	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 15:22	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 15:22	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 15:22	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 15:22	1
Carbon disulfide	<0.13		0.50	0.13	ppb v/v			03/30/23 15:22	1
Carbon tetrachloride	**0.050**	**J**	0.20	0.032	ppb v/v			03/30/23 15:22	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 15:22	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 15:22	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 15:22	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/30/23 15:22	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 15:22	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 15:22	1
Cyclohexane	**0.12**	**J**	0.50	0.035	ppb v/v			03/30/23 15:22	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 15:22	1
Dichlorodifluoromethane	**0.36**	**J**	0.50	0.11	ppb v/v			03/30/23 15:22	1
Ethylbenzene	**2.0**		0.20	0.10	ppb v/v			03/30/23 15:22	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 15:22	1
Hexane	**0.44**	**J**	0.80	0.23	ppb v/v			03/30/23 15:22	1
Isopropyl alcohol	**1.4**	**J**	5.0	0.98	ppb v/v			03/30/23 15:22	1
Isopropylbenzene	<0.037		0.80	0.037	ppb v/v			03/30/23 15:22	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 15:22	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/30/23 15:22	1
m-Xylene & p-Xylene	**8.4**		0.80	0.17	ppb v/v			03/30/23 15:22	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 15:22	1
o-Xylene	**3.1**		0.20	0.094	ppb v/v			03/30/23 15:22	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 15:22	1
Tetrachloroethene	**0.058**	**J**	0.20	0.027	ppb v/v			03/30/23 15:22	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-3
Date Collected: 03/09/23 12:55
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-3
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/30/23 15:22	1
Toluene	**1.1**		0.20	0.093	ppb v/v			03/30/23 15:22	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 15:22	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 15:22	1
Trichloroethene	<0.024		0.20	0.024	ppb v/v			03/30/23 15:22	1
Trichlorofluoromethane	**0.17**	**J**	0.20	0.052	ppb v/v			03/30/23 15:22	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 15:22	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 15:22	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 15:22	1
Xylenes, Total	**12**		0.40	0.26	ppb v/v			03/30/23 15:22	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/30/23 15:22	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 15:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/30/23 15:22	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 15:22	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 15:22	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 15:22	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 15:22	1
1,2,4-Trimethylbenzene	**2.4**		0.98	0.23	ug/m3			03/30/23 15:22	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 15:22	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 15:22	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 15:22	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 15:22	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 15:22	1
1,3,5-Trimethylbenzene	**0.69**	**J**	0.98	0.22	ug/m3			03/30/23 15:22	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 15:22	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 15:22	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 15:22	1
2-Butanone (MEK)	**8.2**		2.9	0.50	ug/m3			03/30/23 15:22	1
4-Methyl-2-pentanone (MIBK)	<0.78		2.0	0.78	ug/m3			03/30/23 15:22	1
Acetone	**230**	**E**	12	4.8	ug/m3			03/30/23 15:22	1
Benzene	**0.84**		0.64	0.24	ug/m3			03/30/23 15:22	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 15:22	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 15:22	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 15:22	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 15:22	1
Carbon disulfide	<0.40		1.6	0.40	ug/m3			03/30/23 15:22	1
Carbon tetrachloride	**0.31**	**J**	1.3	0.20	ug/m3			03/30/23 15:22	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 15:22	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 15:22	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 15:22	1
Chloromethane	<0.25		1.0	0.25	ug/m3			03/30/23 15:22	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 15:22	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 15:22	1
Cyclohexane	**0.42**	**J**	1.7	0.12	ug/m3			03/30/23 15:22	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 15:22	1
Dichlorodifluoromethane	**1.8**	**J**	2.5	0.54	ug/m3			03/30/23 15:22	1
Ethylbenzene	**8.6**		0.87	0.43	ug/m3			03/30/23 15:22	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-3
Date Collected: 03/09/23 12:55
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-3
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 15:22	1
Hexane	**1.6**	**J**	2.8	0.81	ug/m3			03/30/23 15:22	1
Isopropyl alcohol	**3.5**	**J**	12	2.4	ug/m3			03/30/23 15:22	1
Isopropylbenzene	<0.18		3.9	0.18	ug/m3			03/30/23 15:22	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 15:22	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/30/23 15:22	1
m-Xylene & p-Xylene	**36**		3.5	0.74	ug/m3			03/30/23 15:22	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 15:22	1
o-Xylene	**14**		0.87	0.41	ug/m3			03/30/23 15:22	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 15:22	1
Tetrachloroethene	**0.40**	**J**	1.4	0.18	ug/m3			03/30/23 15:22	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 15:22	1
Toluene	**4.0**		0.75	0.35	ug/m3			03/30/23 15:22	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 15:22	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 15:22	1
Trichloroethene	<0.13		1.1	0.13	ug/m3			03/30/23 15:22	1
Trichlorofluoromethane	**0.97**	**J**	1.1	0.29	ug/m3			03/30/23 15:22	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 15:22	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 15:22	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 15:22	1
Xylenes, Total	**50**		1.7	1.1	ug/m3			03/30/23 15:22	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-4
Date Collected: 03/09/23 12:09
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-4
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/30/23 16:14	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 16:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 16:14	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 16:14	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 16:14	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 16:14	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 16:14	1
1,2,4-Trimethylbenzene	<0.047		0.20	0.047	ppb v/v			03/30/23 16:14	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 16:14	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 16:14	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 16:14	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 16:14	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 16:14	1
1,3,5-Trimethylbenzene	<0.044		0.20	0.044	ppb v/v			03/30/23 16:14	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 16:14	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 16:14	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 16:14	1
2-Butanone (MEK)	**3.4**		1.0	0.17	ppb v/v			03/30/23 16:14	1
4-Methyl-2-pentanone (MIBK)	<0.19		0.50	0.19	ppb v/v			03/30/23 16:14	1
Acetone	**110**	**E**	5.0	2.0	ppb v/v			03/30/23 16:14	1
Benzene	**0.12**	**J**	0.20	0.074	ppb v/v			03/30/23 16:14	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 16:14	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 16:14	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 16:14	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 16:14	1
Carbon disulfide	**2.9**		0.50	0.13	ppb v/v			03/30/23 16:14	1
Carbon tetrachloride	**0.054**	**J**	0.20	0.032	ppb v/v			03/30/23 16:14	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 16:14	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 16:14	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 16:14	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/30/23 16:14	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 16:14	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 16:14	1
Cyclohexane	**0.10**	**J**	0.50	0.035	ppb v/v			03/30/23 16:14	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 16:14	1
Dichlorodifluoromethane	**0.39**	**J**	0.50	0.11	ppb v/v			03/30/23 16:14	1
Ethylbenzene	**0.87**		0.20	0.10	ppb v/v			03/30/23 16:14	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 16:14	1
Hexane	**0.36**	**J**	0.80	0.23	ppb v/v			03/30/23 16:14	1
Isopropyl alcohol	**1.5**	**J**	5.0	0.98	ppb v/v			03/30/23 16:14	1
Isopropylbenzene	<0.037		0.80	0.037	ppb v/v			03/30/23 16:14	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 16:14	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/30/23 16:14	1
m-Xylene & p-Xylene	**2.2**		0.80	0.17	ppb v/v			03/30/23 16:14	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 16:14	1
o-Xylene	**0.52**		0.20	0.094	ppb v/v			03/30/23 16:14	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 16:14	1
Tetrachloroethene	**0.029**	**J**	0.20	0.027	ppb v/v			03/30/23 16:14	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-4
Date Collected: 03/09/23 12:09
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-4
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/30/23 16:14	1
Toluene	**0.49**		0.20	0.093	ppb v/v			03/30/23 16:14	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 16:14	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 16:14	1
Trichloroethene	<0.024		0.20	0.024	ppb v/v			03/30/23 16:14	1
Trichlorofluoromethane	**0.18**	**J**	0.20	0.052	ppb v/v			03/30/23 16:14	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 16:14	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 16:14	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 16:14	1
Xylenes, Total	**2.7**		0.40	0.26	ppb v/v			03/30/23 16:14	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/30/23 16:14	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 16:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/30/23 16:14	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 16:14	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 16:14	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 16:14	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 16:14	1
1,2,4-Trimethylbenzene	<0.23		0.98	0.23	ug/m3			03/30/23 16:14	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 16:14	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 16:14	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 16:14	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 16:14	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 16:14	1
1,3,5-Trimethylbenzene	<0.22		0.98	0.22	ug/m3			03/30/23 16:14	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 16:14	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 16:14	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 16:14	1
2-Butanone (MEK)	**9.9**		2.9	0.50	ug/m3			03/30/23 16:14	1
4-Methyl-2-pentanone (MIBK)	<0.78		2.0	0.78	ug/m3			03/30/23 16:14	1
Acetone	**270**	**E**	12	4.8	ug/m3			03/30/23 16:14	1
Benzene	**0.38**	**J**	0.64	0.24	ug/m3			03/30/23 16:14	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 16:14	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 16:14	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 16:14	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 16:14	1
Carbon disulfide	**9.2**		1.6	0.40	ug/m3			03/30/23 16:14	1
Carbon tetrachloride	**0.34**	**J**	1.3	0.20	ug/m3			03/30/23 16:14	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 16:14	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 16:14	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 16:14	1
Chloromethane	<0.25		1.0	0.25	ug/m3			03/30/23 16:14	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 16:14	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 16:14	1
Cyclohexane	**0.36**	**J**	1.7	0.12	ug/m3			03/30/23 16:14	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 16:14	1
Dichlorodifluoromethane	**1.9**	**J**	2.5	0.54	ug/m3			03/30/23 16:14	1
Ethylbenzene	**3.8**		0.87	0.43	ug/m3			03/30/23 16:14	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-4
Date Collected: 03/09/23 12:09
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-4
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 16:14	1
Hexane	**1.3**	**J**	2.8	0.81	ug/m3			03/30/23 16:14	1
Isopropyl alcohol	**3.8**	**J**	12	2.4	ug/m3			03/30/23 16:14	1
Isopropylbenzene	<0.18		3.9	0.18	ug/m3			03/30/23 16:14	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 16:14	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/30/23 16:14	1
m-Xylene & p-Xylene	**9.6**		3.5	0.74	ug/m3			03/30/23 16:14	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 16:14	1
o-Xylene	**2.2**		0.87	0.41	ug/m3			03/30/23 16:14	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 16:14	1
Tetrachloroethene	**0.20**	**J**	1.4	0.18	ug/m3			03/30/23 16:14	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 16:14	1
Toluene	**1.9**		0.75	0.35	ug/m3			03/30/23 16:14	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 16:14	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 16:14	1
Trichloroethene	<0.13		1.1	0.13	ug/m3			03/30/23 16:14	1
Trichlorofluoromethane	**1.0**	**J**	1.1	0.29	ug/m3			03/30/23 16:14	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 16:14	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 16:14	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 16:14	1
Xylenes, Total	**12**		1.7	1.1	ug/m3			03/30/23 16:14	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-5
Date Collected: 03/09/23 11:05
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-5
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/30/23 17:06	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 17:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 17:06	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 17:06	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 17:06	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 17:06	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 17:06	1
1,2,4-Trimethylbenzene	**0.87**		0.20	0.047	ppb v/v			03/30/23 17:06	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 17:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 17:06	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 17:06	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 17:06	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 17:06	1
1,3,5-Trimethylbenzene	**0.30**		0.20	0.044	ppb v/v			03/30/23 17:06	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 17:06	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 17:06	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 17:06	1
2-Butanone (MEK)	**5.0**		1.0	0.17	ppb v/v			03/30/23 17:06	1
4-Methyl-2-pentanone (MIBK)	**0.22**	**J**	0.50	0.19	ppb v/v			03/30/23 17:06	1
Acetone	**720**	**E**	5.0	2.0	ppb v/v			03/30/23 17:06	1
Benzene	**0.22**		0.20	0.074	ppb v/v			03/30/23 17:06	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 17:06	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 17:06	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 17:06	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 17:06	1
Carbon disulfide	<0.13		0.50	0.13	ppb v/v			03/30/23 17:06	1
Carbon tetrachloride	**0.052**	**J**	0.20	0.032	ppb v/v			03/30/23 17:06	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 17:06	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 17:06	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 17:06	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/30/23 17:06	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 17:06	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 17:06	1
Cyclohexane	**0.23**	**J**	0.50	0.035	ppb v/v			03/30/23 17:06	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 17:06	1
Dichlorodifluoromethane	**0.41**	**J**	0.50	0.11	ppb v/v			03/30/23 17:06	1
Ethylbenzene	**0.86**		0.20	0.10	ppb v/v			03/30/23 17:06	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 17:06	1
Hexane	**0.90**		0.80	0.23	ppb v/v			03/30/23 17:06	1
Isopropyl alcohol	<0.98		5.0	0.98	ppb v/v			03/30/23 17:06	1
Isopropylbenzene	**0.059**	**J**	0.80	0.037	ppb v/v			03/30/23 17:06	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 17:06	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/30/23 17:06	1
m-Xylene & p-Xylene	**3.8**		0.80	0.17	ppb v/v			03/30/23 17:06	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 17:06	1
o-Xylene	**1.4**		0.20	0.094	ppb v/v			03/30/23 17:06	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 17:06	1
Tetrachloroethene	**0.059**	**J**	0.20	0.027	ppb v/v			03/30/23 17:06	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-5
Date Collected: 03/09/23 11:05
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-5
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/30/23 17:06	1
Toluene	**0.75**		0.20	0.093	ppb v/v			03/30/23 17:06	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 17:06	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 17:06	1
Trichloroethene	**0.028**	**J**	0.20	0.024	ppb v/v			03/30/23 17:06	1
Trichlorofluoromethane	**0.21**		0.20	0.052	ppb v/v			03/30/23 17:06	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 17:06	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 17:06	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 17:06	1
Xylenes, Total	**5.2**		0.40	0.26	ppb v/v			03/30/23 17:06	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/30/23 17:06	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 17:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/30/23 17:06	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 17:06	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 17:06	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 17:06	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 17:06	1
1,2,4-Trimethylbenzene	**4.3**		0.98	0.23	ug/m3			03/30/23 17:06	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 17:06	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 17:06	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 17:06	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 17:06	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 17:06	1
1,3,5-Trimethylbenzene	**1.5**		0.98	0.22	ug/m3			03/30/23 17:06	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 17:06	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 17:06	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 17:06	1
2-Butanone (MEK)	**15**		2.9	0.50	ug/m3			03/30/23 17:06	1
4-Methyl-2-pentanone (MIBK)	**0.91**	**J**	2.0	0.78	ug/m3			03/30/23 17:06	1
Acetone	**1700**	**E**	12	4.8	ug/m3			03/30/23 17:06	1
Benzene	**0.72**		0.64	0.24	ug/m3			03/30/23 17:06	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 17:06	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 17:06	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 17:06	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 17:06	1
Carbon disulfide	<0.40		1.6	0.40	ug/m3			03/30/23 17:06	1
Carbon tetrachloride	**0.32**	**J**	1.3	0.20	ug/m3			03/30/23 17:06	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 17:06	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 17:06	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 17:06	1
Chloromethane	<0.25		1.0	0.25	ug/m3			03/30/23 17:06	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 17:06	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 17:06	1
Cyclohexane	**0.78**	**J**	1.7	0.12	ug/m3			03/30/23 17:06	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 17:06	1
Dichlorodifluoromethane	**2.0**	**J**	2.5	0.54	ug/m3			03/30/23 17:06	1
Ethylbenzene	**3.7**		0.87	0.43	ug/m3			03/30/23 17:06	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-5
Date Collected: 03/09/23 11:05
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-5
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 17:06	1
Hexane	**3.2**		2.8	0.81	ug/m3			03/30/23 17:06	1
Isopropyl alcohol	<2.4		12	2.4	ug/m3			03/30/23 17:06	1
Isopropylbenzene	**0.29**	**J**	3.9	0.18	ug/m3			03/30/23 17:06	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 17:06	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/30/23 17:06	1
m-Xylene & p-Xylene	**16**		3.5	0.74	ug/m3			03/30/23 17:06	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 17:06	1
o-Xylene	**5.9**		0.87	0.41	ug/m3			03/30/23 17:06	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 17:06	1
Tetrachloroethene	**0.40**	**J**	1.4	0.18	ug/m3			03/30/23 17:06	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 17:06	1
Toluene	**2.8**		0.75	0.35	ug/m3			03/30/23 17:06	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 17:06	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 17:06	1
Trichloroethene	**0.15**	**J**	1.1	0.13	ug/m3			03/30/23 17:06	1
Trichlorofluoromethane	**1.2**		1.1	0.29	ug/m3			03/30/23 17:06	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 17:06	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 17:06	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 17:06	1
Xylenes, Total	**23**		1.7	1.1	ug/m3			03/30/23 17:06	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-6

Lab Sample ID: 500-230646-6

Date Collected: 03/09/23 14:42
Matrix: Air
Date Received: 03/13/23 10:30
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
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/31/23 13:15	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/31/23 13:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.055**	**J**	0.20	0.055	ppb v/v			03/31/23 13:15	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/31/23 13:15	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/31/23 13:15	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/31/23 13:15	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/31/23 13:15	1
1,2,4-Trimethylbenzene	**5.2**		0.20	0.047	ppb v/v			03/31/23 13:15	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/31/23 13:15	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/31/23 13:15	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/31/23 13:15	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/31/23 13:15	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/31/23 13:15	1
1,3,5-Trimethylbenzene	**2.5**		0.20	0.044	ppb v/v			03/31/23 13:15	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/31/23 13:15	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/31/23 13:15	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/31/23 13:15	1
2-Butanone (MEK)	**10**		1.0	0.17	ppb v/v			03/31/23 13:15	1
4-Methyl-2-pentanone (MIBK)	**0.68**		0.50	0.19	ppb v/v			03/31/23 13:15	1
Acetone	**360**	**E**	5.0	2.0	ppb v/v			03/31/23 13:15	1
Benzene	**1.3**		0.20	0.074	ppb v/v			03/31/23 13:15	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/31/23 13:15	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/31/23 13:15	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/31/23 13:15	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/31/23 13:15	1
Carbon disulfide	**0.23**	**J**	0.50	0.13	ppb v/v			03/31/23 13:15	1
Carbon tetrachloride	**0.052**	**J**	0.20	0.032	ppb v/v			03/31/23 13:15	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/31/23 13:15	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/31/23 13:15	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/31/23 13:15	1
Chloromethane	**0.31**	**J**	0.50	0.12	ppb v/v			03/31/23 13:15	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/31/23 13:15	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/31/23 13:15	1
Cyclohexane	**0.40**	**J**	0.50	0.035	ppb v/v			03/31/23 13:15	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/31/23 13:15	1
Dichlorodifluoromethane	**0.37**	**J**	0.50	0.11	ppb v/v			03/31/23 13:15	1
Ethylbenzene	**13**		0.20	0.10	ppb v/v			03/31/23 13:15	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/31/23 13:15	1
Hexane	**1.1**		0.80	0.23	ppb v/v			03/31/23 13:15	1
Isopropyl alcohol	**3.0**	**J**	5.0	0.98	ppb v/v			03/31/23 13:15	1
Isopropylbenzene	**0.43**	**J**	0.80	0.037	ppb v/v			03/31/23 13:15	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/31/23 13:15	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/31/23 13:15	1
m-Xylene & p-Xylene	**52**		0.80	0.17	ppb v/v			03/31/23 13:15	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/31/23 13:15	1
o-Xylene	**19**		0.20	0.094	ppb v/v			03/31/23 13:15	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/31/23 13:15	1
Tetrachloroethene	**0.18**	**J**	0.20	0.027	ppb v/v			03/31/23 13:15	1

Client Sample ID: SVP-6
Date Collected: 03/09/23 14:42
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-6
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	**2.1**	**J**	5.0	1.2	ppb v/v			03/31/23 13:15	1
Toluene	**3.0**		0.20	0.093	ppb v/v			03/31/23 13:15	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/31/23 13:15	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/31/23 13:15	1
Trichloroethene	<0.024		0.20	0.024	ppb v/v			03/31/23 13:15	1
Trichlorofluoromethane	**0.20**		0.20	0.052	ppb v/v			03/31/23 13:15	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/31/23 13:15	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/31/23 13:15	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/31/23 13:15	1
Xylenes, Total	**71**		0.40	0.26	ppb v/v			03/31/23 13:15	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/31/23 13:15	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/31/23 13:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.42**	**J**	1.5	0.42	ug/m3			03/31/23 13:15	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/31/23 13:15	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/31/23 13:15	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/31/23 13:15	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/31/23 13:15	1
1,2,4-Trimethylbenzene	**26**		0.98	0.23	ug/m3			03/31/23 13:15	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/31/23 13:15	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/31/23 13:15	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/31/23 13:15	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/31/23 13:15	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/31/23 13:15	1
1,3,5-Trimethylbenzene	**12**		0.98	0.22	ug/m3			03/31/23 13:15	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/31/23 13:15	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/31/23 13:15	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/31/23 13:15	1
2-Butanone (MEK)	**30**		2.9	0.50	ug/m3			03/31/23 13:15	1
4-Methyl-2-pentanone (MIBK)	**2.8**		2.0	0.78	ug/m3			03/31/23 13:15	1
Acetone	**850**	**E**	12	4.8	ug/m3			03/31/23 13:15	1
Benzene	**4.2**		0.64	0.24	ug/m3			03/31/23 13:15	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/31/23 13:15	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/31/23 13:15	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/31/23 13:15	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/31/23 13:15	1
Carbon disulfide	**0.72**	**J**	1.6	0.40	ug/m3			03/31/23 13:15	1
Carbon tetrachloride	**0.33**	**J**	1.3	0.20	ug/m3			03/31/23 13:15	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/31/23 13:15	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/31/23 13:15	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/31/23 13:15	1
Chloromethane	**0.65**	**J**	1.0	0.25	ug/m3			03/31/23 13:15	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/31/23 13:15	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/31/23 13:15	1
Cyclohexane	**1.4**	**J**	1.7	0.12	ug/m3			03/31/23 13:15	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/31/23 13:15	1
Dichlorodifluoromethane	**1.8**	**J**	2.5	0.54	ug/m3			03/31/23 13:15	1

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-6
Date Collected: 03/09/23 14:42
Date Received: 03/13/23 10:30
Sample Container: Summa Canister 6L

Lab Sample ID: 500-230646-6
Matrix: Air

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**56**		0.87	0.43	ug/m3			03/31/23 13:15	1
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/31/23 13:15	1
Hexane	**3.8**		2.8	0.81	ug/m3			03/31/23 13:15	1
Isopropyl alcohol	**7.3**	**J**	12	2.4	ug/m3			03/31/23 13:15	1
Isopropylbenzene	**2.1**	**J**	3.9	0.18	ug/m3			03/31/23 13:15	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/31/23 13:15	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/31/23 13:15	1
m-Xylene & p-Xylene	**230**		3.5	0.74	ug/m3			03/31/23 13:15	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/31/23 13:15	1
o-Xylene	**83**		0.87	0.41	ug/m3			03/31/23 13:15	1
Styrene	<0.14		0.85	0.14	ug/m3			03/31/23 13:15	1
Tetrachloroethene	**1.2**	**J**	1.4	0.18	ug/m3			03/31/23 13:15	1
Tetrahydrofuran	**6.3**	**J**	15	3.5	ug/m3			03/31/23 13:15	1
Toluene	**11**		0.75	0.35	ug/m3			03/31/23 13:15	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/31/23 13:15	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/31/23 13:15	1
Trichloroethene	<0.13		1.1	0.13	ug/m3			03/31/23 13:15	1
Trichlorofluoromethane	**1.1**		1.1	0.29	ug/m3			03/31/23 13:15	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/31/23 13:15	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/31/23 13:15	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/31/23 13:15	1
Xylenes, Total	**310**		1.7	1.1	ug/m3			03/31/23 13:15	1

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
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.

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

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Air - GC/MS VOA

Analysis Batch: 189841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-230646-1	SVP-1	Total/NA	Air	TO-15	
500-230646-2	SVP-2	Total/NA	Air	TO-15	
500-230646-3	SVP-3	Total/NA	Air	TO-15	
500-230646-4	SVP-4	Total/NA	Air	TO-15	
500-230646-5	SVP-5	Total/NA	Air	TO-15	
MB 200-189841/5	Method Blank	Total/NA	Air	TO-15	
LCS 200-189841/4	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 189877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-230646-6	SVP-6	Total/NA	Air	TO-15	
MB 200-189877/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-189877/3	Lab Control Sample	Total/NA	Air	TO-15	

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

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

Lab Sample ID: MB 200-189841/5
Matrix: Air
Analysis Batch: 189841

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/30/23 10:52	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/30/23 10:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 10:52	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/30/23 10:52	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/30/23 10:52	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/30/23 10:52	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/30/23 10:52	1
1,2,4-Trimethylbenzene	<0.047		0.20	0.047	ppb v/v			03/30/23 10:52	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/30/23 10:52	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/30/23 10:52	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/30/23 10:52	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/30/23 10:52	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/30/23 10:52	1
1,3,5-Trimethylbenzene	<0.044		0.20	0.044	ppb v/v			03/30/23 10:52	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/30/23 10:52	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/30/23 10:52	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/30/23 10:52	1
2-Butanone (MEK)	<0.17		1.0	0.17	ppb v/v			03/30/23 10:52	1
4-Methyl-2-pentanone (MIBK)	<0.19		0.50	0.19	ppb v/v			03/30/23 10:52	1
Acetone	<2.0		5.0	2.0	ppb v/v			03/30/23 10:52	1
Benzene	<0.074		0.20	0.074	ppb v/v			03/30/23 10:52	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/30/23 10:52	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/30/23 10:52	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/30/23 10:52	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/30/23 10:52	1
Carbon disulfide	<0.13		0.50	0.13	ppb v/v			03/30/23 10:52	1
Carbon tetrachloride	<0.032		0.20	0.032	ppb v/v			03/30/23 10:52	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/30/23 10:52	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/30/23 10:52	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/30/23 10:52	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/30/23 10:52	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/30/23 10:52	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/30/23 10:52	1
Cyclohexane	<0.035		0.50	0.035	ppb v/v			03/30/23 10:52	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/30/23 10:52	1
Dichlorodifluoromethane	<0.11		0.50	0.11	ppb v/v			03/30/23 10:52	1
Ethylbenzene	<0.10		0.20	0.10	ppb v/v			03/30/23 10:52	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/30/23 10:52	1
Hexane	<0.23		0.80	0.23	ppb v/v			03/30/23 10:52	1
Isopropyl alcohol	<0.98		5.0	0.98	ppb v/v			03/30/23 10:52	1
Isopropylbenzene	<0.037		0.80	0.037	ppb v/v			03/30/23 10:52	1
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/30/23 10:52	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/30/23 10:52	1
m-Xylene & p-Xylene	<0.17		0.80	0.17	ppb v/v			03/30/23 10:52	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/30/23 10:52	1
o-Xylene	<0.094		0.20	0.094	ppb v/v			03/30/23 10:52	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/30/23 10:52	1
Tetrachloroethene	<0.027		0.20	0.027	ppb v/v			03/30/23 10:52	1

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

Lab Sample ID: MB 200-189841/5
Matrix: Air
Analysis Batch: 189841

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/30/23 10:52	1
Toluene	<0.093		0.20	0.093	ppb v/v			03/30/23 10:52	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/30/23 10:52	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/30/23 10:52	1
Trichloroethene	<0.024		0.20	0.024	ppb v/v			03/30/23 10:52	1
Trichlorofluoromethane	<0.052		0.20	0.052	ppb v/v			03/30/23 10:52	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/30/23 10:52	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/30/23 10:52	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/30/23 10:52	1
Xylenes, Total	<0.26		0.40	0.26	ppb v/v			03/30/23 10:52	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/30/23 10:52	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/30/23 10:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/30/23 10:52	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/30/23 10:52	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/30/23 10:52	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/30/23 10:52	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/30/23 10:52	1
1,2,4-Trimethylbenzene	<0.23		0.98	0.23	ug/m3			03/30/23 10:52	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/30/23 10:52	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/30/23 10:52	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/30/23 10:52	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/30/23 10:52	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/30/23 10:52	1
1,3,5-Trimethylbenzene	<0.22		0.98	0.22	ug/m3			03/30/23 10:52	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/30/23 10:52	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/30/23 10:52	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/30/23 10:52	1
2-Butanone (MEK)	<0.50		2.9	0.50	ug/m3			03/30/23 10:52	1
4-Methyl-2-pentanone (MIBK)	<0.78		2.0	0.78	ug/m3			03/30/23 10:52	1
Acetone	<4.8		12	4.8	ug/m3			03/30/23 10:52	1
Benzene	<0.24		0.64	0.24	ug/m3			03/30/23 10:52	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/30/23 10:52	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/30/23 10:52	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/30/23 10:52	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/30/23 10:52	1
Carbon disulfide	<0.40		1.6	0.40	ug/m3			03/30/23 10:52	1
Carbon tetrachloride	<0.20		1.3	0.20	ug/m3			03/30/23 10:52	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/30/23 10:52	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/30/23 10:52	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/30/23 10:52	1
Chloromethane	<0.25		1.0	0.25	ug/m3			03/30/23 10:52	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/30/23 10:52	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/30/23 10:52	1
Cyclohexane	<0.12		1.7	0.12	ug/m3			03/30/23 10:52	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/30/23 10:52	1
Dichlorodifluoromethane	<0.54		2.5	0.54	ug/m3			03/30/23 10:52	1
Ethylbenzene	<0.43		0.87	0.43	ug/m3			03/30/23 10:52	1

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

Lab Sample ID: MB 200-189841/5
Matrix: Air
Analysis Batch: 189841

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/30/23 10:52	1
Hexane	<0.81		2.8	0.81	ug/m3			03/30/23 10:52	1
Isopropyl alcohol	<2.4		12	2.4	ug/m3			03/30/23 10:52	1
Isopropylbenzene	<0.18		3.9	0.18	ug/m3			03/30/23 10:52	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/30/23 10:52	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/30/23 10:52	1
m-Xylene & p-Xylene	<0.74		3.5	0.74	ug/m3			03/30/23 10:52	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/30/23 10:52	1
o-Xylene	<0.41		0.87	0.41	ug/m3			03/30/23 10:52	1
Styrene	<0.14		0.85	0.14	ug/m3			03/30/23 10:52	1
Tetrachloroethene	<0.18		1.4	0.18	ug/m3			03/30/23 10:52	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/30/23 10:52	1
Toluene	<0.35		0.75	0.35	ug/m3			03/30/23 10:52	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/30/23 10:52	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/30/23 10:52	1
Trichloroethene	<0.13		1.1	0.13	ug/m3			03/30/23 10:52	1
Trichlorofluoromethane	<0.29		1.1	0.29	ug/m3			03/30/23 10:52	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/30/23 10:52	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/30/23 10:52	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/30/23 10:52	1
Xylenes, Total	<1.1		1.7	1.1	ug/m3			03/30/23 10:52	1

Lab Sample ID: LCS 200-189841/4
Matrix: Air
Analysis Batch: 189841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10.0	9.37		ppb v/v		94	72 - 127
1,1,2,2-Tetrachloroethane	10.0	9.44		ppb v/v		94	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.57		ppb v/v		96	70 - 121
1,1,2-Trichloroethane	10.0	9.43		ppb v/v		94	75 - 126
1,1-Dichloroethane	10.0	9.24		ppb v/v		92	66 - 130
1,1-Dichloroethene	10.0	9.28		ppb v/v		93	68 - 120
1,2,4-Trichlorobenzene	10.0	9.45		ppb v/v		94	50 - 150
1,2,4-Trimethylbenzene	10.0	9.32		ppb v/v		93	71 - 129
1,2-Dibromoethane	10.0	9.45		ppb v/v		94	78 - 122
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.0	9.79		ppb v/v		98	71 - 141
1,2-Dichlorobenzene	10.0	9.34		ppb v/v		93	68 - 129
1,2-Dichloroethane	10.0	9.49		ppb v/v		95	68 - 135
1,2-Dichloropropane	10.0	9.46		ppb v/v		95	69 - 128
1,3,5-Trimethylbenzene	10.0	9.44		ppb v/v		94	72 - 126
1,3-Dichlorobenzene	10.0	9.28		ppb v/v		93	69 - 131
1,4-Dichlorobenzene	10.0	9.30		ppb v/v		93	67 - 132
1,4-Dioxane	10.0	9.14		ppb v/v		91	66 - 129
2-Butanone (MEK)	10.0	9.71		ppb v/v		97	72 - 124
4-Methyl-2-pentanone (MIBK)	10.0	9.38		ppb v/v		94	58 - 144
Acetone	10.0	10.2		ppb v/v		102	54 - 154

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

Lab Sample ID: LCS 200-189841/4
Matrix: Air
Analysis Batch: 189841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10.0	8.34		ppb v/v		83	73 - 119
Benzyl chloride	10.0	9.27		ppb v/v		93	60 - 136
Dichlorobromomethane	10.0	9.65		ppb v/v		96	75 - 127
Bromoform	10.0	10.2		ppb v/v		102	53 - 149
Bromomethane	10.0	9.66		ppb v/v		97	72 - 124
Carbon disulfide	10.0	9.80		ppb v/v		98	71 - 138
Carbon tetrachloride	10.0	9.57		ppb v/v		96	71 - 133
Chlorobenzene	10.0	9.33		ppb v/v		93	76 - 119
Chloroethane	10.0	9.95		ppb v/v		100	68 - 130
Chloroform	10.0	9.40		ppb v/v		94	73 - 124
Chloromethane	10.0	10.1		ppb v/v		101	56 - 141
cis-1,2-Dichloroethene	10.0	9.50		ppb v/v		95	72 - 121
cis-1,3-Dichloropropene	10.0	9.51		ppb v/v		95	74 - 125
Cyclohexane	10.0	9.45		ppb v/v		94	76 - 124
Dibromochloromethane	10.0	9.81		ppb v/v		98	73 - 125
Dichlorodifluoromethane	10.0	10.1		ppb v/v		101	61 - 142
Ethylbenzene	10.0	9.36		ppb v/v		94	74 - 122
Hexachlorobutadiene	10.0	9.45		ppb v/v		95	58 - 130
Hexane	10.0	9.22		ppb v/v		92	63 - 138
Isopropyl alcohol	10.0	10.1		ppb v/v		101	53 - 142
Isopropylbenzene	10.0	9.42		ppb v/v		94	73 - 123
Methyl tert-butyl ether	10.0	9.42		ppb v/v		94	70 - 127
Methylene Chloride	10.0	9.63		ppb v/v		96	59 - 137
m-Xylene & p-Xylene	20.0	18.8		ppb v/v		94	76 - 121
Naphthalene	10.0	9.47		ppb v/v		95	50 - 150
o-Xylene	10.0	9.38		ppb v/v		94	73 - 123
Styrene	10.0	9.38		ppb v/v		94	74 - 125
Tetrachloroethene	10.0	9.09		ppb v/v		91	70 - 125
Tetrahydrofuran	10.0	9.90		ppb v/v		99	60 - 149
Toluene	10.0	9.23		ppb v/v		92	75 - 122
trans-1,2-Dichloroethene	10.0	9.24		ppb v/v		92	69 - 137
trans-1,3-Dichloropropene	10.0	9.56		ppb v/v		96	74 - 128
Trichloroethene	10.0	9.37		ppb v/v		94	73 - 122
Trichlorofluoromethane	10.0	9.53		ppb v/v		95	70 - 129
Vinyl acetate	10.0	9.56		ppb v/v		96	59 - 149
Vinyl bromide	10.0	9.61		ppb v/v		96	75 - 125
Vinyl chloride	10.0	9.38		ppb v/v		94	61 - 135
Xylenes, Total	30.0	28.2		ppb v/v		94	75 - 122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	55	51.1		ug/m3		94	72 - 127
1,1,2,2-Tetrachloroethane	69	64.8		ug/m3		94	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	77	73.3		ug/m3		96	70 - 121
1,1,2-Trichloroethane	55	51.4		ug/m3		94	75 - 126
1,1-Dichloroethane	40	37.4		ug/m3		92	66 - 130
1,1-Dichloroethene	40	36.8		ug/m3		93	68 - 120
1,2,4-Trichlorobenzene	74	70.1		ug/m3		94	50 - 150
1,2,4-Trimethylbenzene	49	45.8		ug/m3		93	71 - 129

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

Lab Sample ID: LCS 200-189841/4
Matrix: Air
Analysis Batch: 189841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane	77	72.6		ug/m3		94	78 - 122
1,2-Dichloro-1,1,2,2-tetrafluoroethane	70	68.4		ug/m3		98	71 - 141
1,2-Dichlorobenzene	60	56.1		ug/m3		93	68 - 129
1,2-Dichloroethane	40	38.4		ug/m3		95	68 - 135
1,2-Dichloropropane	46	43.7		ug/m3		95	69 - 128
1,3,5-Trimethylbenzene	49	46.4		ug/m3		94	72 - 126
1,3-Dichlorobenzene	60	55.8		ug/m3		93	69 - 131
1,4-Dichlorobenzene	60	55.9		ug/m3		93	67 - 132
1,4-Dioxane	36	33.0		ug/m3		91	66 - 129
2-Butanone (MEK)	29	28.6		ug/m3		97	72 - 124
4-Methyl-2-pentanone (MIBK)	41	38.4		ug/m3		94	58 - 144
Acetone	24	24.3		ug/m3		102	54 - 154
Benzene	32	26.6		ug/m3		83	73 - 119
Benzyl chloride	52	48.0		ug/m3		93	60 - 136
Dichlorobromomethane	67	64.6		ug/m3		96	75 - 127
Bromoform	100	105		ug/m3		102	53 - 149
Bromomethane	39	37.5		ug/m3		97	72 - 124
Carbon disulfide	31	30.5		ug/m3		98	71 - 138
Carbon tetrachloride	63	60.2		ug/m3		96	71 - 133
Chlorobenzene	46	43.0		ug/m3		93	76 - 119
Chloroethane	26	26.3		ug/m3		100	68 - 130
Chloroform	49	45.9		ug/m3		94	73 - 124
Chloromethane	21	20.8		ug/m3		101	56 - 141
cis-1,2-Dichloroethene	40	37.7		ug/m3		95	72 - 121
cis-1,3-Dichloropropene	45	43.2		ug/m3		95	74 - 125
Cyclohexane	34	32.5		ug/m3		94	76 - 124
Dibromochloromethane	85	83.6		ug/m3		98	73 - 125
Dichlorodifluoromethane	49	50.0		ug/m3		101	61 - 142
Ethylbenzene	43	40.6		ug/m3		94	74 - 122
Hexachlorobutadiene	110	101		ug/m3		95	58 - 130
Hexane	35	32.5		ug/m3		92	63 - 138
Isopropyl alcohol	25	24.9		ug/m3		101	53 - 142
Isopropylbenzene	49	46.3		ug/m3		94	73 - 123
Methyl tert-butyl ether	36	33.9		ug/m3		94	70 - 127
Methylene Chloride	35	33.4		ug/m3		96	59 - 137
m-Xylene & p-Xylene	87	81.7		ug/m3		94	76 - 121
Naphthalene	52	49.6		ug/m3		95	50 - 150
o-Xylene	43	40.8		ug/m3		94	73 - 123
Styrene	43	39.9		ug/m3		94	74 - 125
Tetrachloroethene	68	61.7		ug/m3		91	70 - 125
Tetrahydrofuran	29	29.2		ug/m3		99	60 - 149
Toluene	38	34.8		ug/m3		92	75 - 122
trans-1,2-Dichloroethene	40	36.6		ug/m3		92	69 - 137
trans-1,3-Dichloropropene	45	43.4		ug/m3		96	74 - 128
Trichloroethene	54	50.4		ug/m3		94	73 - 122
Trichlorofluoromethane	56	53.6		ug/m3		95	70 - 129
Vinyl acetate	35	33.7		ug/m3		96	59 - 149
Vinyl bromide	44	42.0		ug/m3		96	75 - 125

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

Lab Sample ID: LCS 200-189841/4
Matrix: Air
Analysis Batch: 189841

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	26	24.0		ug/m3		94	61 - 135
Xylenes, Total	130	122		ug/m3		94	75 - 122

Lab Sample ID: MB 200-189877/4
Matrix: Air
Analysis Batch: 189877

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.039		0.20	0.039	ppb v/v			03/31/23 09:48	1
1,1,2,2-Tetrachloroethane	<0.043		0.20	0.043	ppb v/v			03/31/23 09:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.055		0.20	0.055	ppb v/v			03/31/23 09:48	1
1,1,2-Trichloroethane	<0.034		0.20	0.034	ppb v/v			03/31/23 09:48	1
1,1-Dichloroethane	<0.029		0.20	0.029	ppb v/v			03/31/23 09:48	1
1,1-Dichloroethene	<0.029		0.20	0.029	ppb v/v			03/31/23 09:48	1
1,2,4-Trichlorobenzene	<0.19		2.0	0.19	ppb v/v			03/31/23 09:48	1
1,2,4-Trimethylbenzene	<0.047		0.20	0.047	ppb v/v			03/31/23 09:48	1
1,2-Dibromoethane	<0.046		0.20	0.046	ppb v/v			03/31/23 09:48	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.055		0.20	0.055	ppb v/v			03/31/23 09:48	1
1,2-Dichlorobenzene	<0.070		0.20	0.070	ppb v/v			03/31/23 09:48	1
1,2-Dichloroethane	<0.15		0.20	0.15	ppb v/v			03/31/23 09:48	1
1,2-Dichloropropane	<0.087		0.20	0.087	ppb v/v			03/31/23 09:48	1
1,3,5-Trimethylbenzene	<0.044		0.20	0.044	ppb v/v			03/31/23 09:48	1
1,3-Dichlorobenzene	<0.089		0.20	0.089	ppb v/v			03/31/23 09:48	1
1,4-Dichlorobenzene	<0.095		0.20	0.095	ppb v/v			03/31/23 09:48	1
1,4-Dioxane	<1.7		5.0	1.7	ppb v/v			03/31/23 09:48	1
2-Butanone (MEK)	<0.17		1.0	0.17	ppb v/v			03/31/23 09:48	1
4-Methyl-2-pentanone (MIBK)	<0.19		0.50	0.19	ppb v/v			03/31/23 09:48	1
Acetone	<2.0		5.0	2.0	ppb v/v			03/31/23 09:48	1
Benzene	<0.074		0.20	0.074	ppb v/v			03/31/23 09:48	1
Benzyl chloride	<0.074		0.80	0.074	ppb v/v			03/31/23 09:48	1
Dichlorobromomethane	<0.040		0.20	0.040	ppb v/v			03/31/23 09:48	1
Bromoform	<0.058		0.20	0.058	ppb v/v			03/31/23 09:48	1
Bromomethane	<0.052		0.20	0.052	ppb v/v			03/31/23 09:48	1
Carbon disulfide	<0.13		0.50	0.13	ppb v/v			03/31/23 09:48	1
Carbon tetrachloride	<0.032		0.20	0.032	ppb v/v			03/31/23 09:48	1
Chlorobenzene	<0.043		0.20	0.043	ppb v/v			03/31/23 09:48	1
Chloroethane	<0.25		0.80	0.25	ppb v/v			03/31/23 09:48	1
Chloroform	<0.046		0.20	0.046	ppb v/v			03/31/23 09:48	1
Chloromethane	<0.12		0.50	0.12	ppb v/v			03/31/23 09:48	1
cis-1,2-Dichloroethene	<0.033		0.20	0.033	ppb v/v			03/31/23 09:48	1
cis-1,3-Dichloropropene	<0.020		0.20	0.020	ppb v/v			03/31/23 09:48	1
Cyclohexane	<0.035		0.50	0.035	ppb v/v			03/31/23 09:48	1
Dibromochloromethane	<0.031		0.20	0.031	ppb v/v			03/31/23 09:48	1
Dichlorodifluoromethane	<0.11		0.50	0.11	ppb v/v			03/31/23 09:48	1
Ethylbenzene	<0.10		0.20	0.10	ppb v/v			03/31/23 09:48	1
Hexachlorobutadiene	<0.031		2.0	0.031	ppb v/v			03/31/23 09:48	1
Hexane	<0.23		0.80	0.23	ppb v/v			03/31/23 09:48	1
Isopropyl alcohol	<0.98		5.0	0.98	ppb v/v			03/31/23 09:48	1
Isopropylbenzene	<0.037		0.80	0.037	ppb v/v			03/31/23 09:48	1

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

Lab Sample ID: MB 200-189877/4
Matrix: Air
Analysis Batch: 189877

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	<0.080		1.0	0.080	ppb v/v			03/31/23 09:48	1
Methylene Chloride	<0.17		0.50	0.17	ppb v/v			03/31/23 09:48	1
m-Xylene & p-Xylene	<0.17		0.80	0.17	ppb v/v			03/31/23 09:48	1
Naphthalene	<0.17		0.50	0.17	ppb v/v			03/31/23 09:48	1
o-Xylene	<0.094		0.20	0.094	ppb v/v			03/31/23 09:48	1
Styrene	<0.032		0.20	0.032	ppb v/v			03/31/23 09:48	1
Tetrachloroethene	<0.027		0.20	0.027	ppb v/v			03/31/23 09:48	1
Tetrahydrofuran	<1.2		5.0	1.2	ppb v/v			03/31/23 09:48	1
Toluene	<0.093		0.20	0.093	ppb v/v			03/31/23 09:48	1
trans-1,2-Dichloroethene	<0.088		0.20	0.088	ppb v/v			03/31/23 09:48	1
trans-1,3-Dichloropropene	<0.089		0.20	0.089	ppb v/v			03/31/23 09:48	1
Trichloroethene	<0.024		0.20	0.024	ppb v/v			03/31/23 09:48	1
Trichlorofluoromethane	<0.052		0.20	0.052	ppb v/v			03/31/23 09:48	1
Vinyl acetate	<2.1		5.0	2.1	ppb v/v			03/31/23 09:48	1
Vinyl bromide	<0.085		0.20	0.085	ppb v/v			03/31/23 09:48	1
Vinyl chloride	<0.028		0.20	0.028	ppb v/v			03/31/23 09:48	1
Xylenes, Total	<0.26		0.40	0.26	ppb v/v			03/31/23 09:48	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.21		1.1	0.21	ug/m3			03/31/23 09:48	1
1,1,2,2-Tetrachloroethane	<0.30		1.4	0.30	ug/m3			03/31/23 09:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.42		1.5	0.42	ug/m3			03/31/23 09:48	1
1,1,2-Trichloroethane	<0.19		1.1	0.19	ug/m3			03/31/23 09:48	1
1,1-Dichloroethane	<0.12		0.81	0.12	ug/m3			03/31/23 09:48	1
1,1-Dichloroethene	<0.11		0.79	0.11	ug/m3			03/31/23 09:48	1
1,2,4-Trichlorobenzene	<1.4		15	1.4	ug/m3			03/31/23 09:48	1
1,2,4-Trimethylbenzene	<0.23		0.98	0.23	ug/m3			03/31/23 09:48	1
1,2-Dibromoethane	<0.35		1.5	0.35	ug/m3			03/31/23 09:48	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	<0.38		1.4	0.38	ug/m3			03/31/23 09:48	1
1,2-Dichlorobenzene	<0.42		1.2	0.42	ug/m3			03/31/23 09:48	1
1,2-Dichloroethane	<0.61		0.81	0.61	ug/m3			03/31/23 09:48	1
1,2-Dichloropropane	<0.40		0.92	0.40	ug/m3			03/31/23 09:48	1
1,3,5-Trimethylbenzene	<0.22		0.98	0.22	ug/m3			03/31/23 09:48	1
1,3-Dichlorobenzene	<0.54		1.2	0.54	ug/m3			03/31/23 09:48	1
1,4-Dichlorobenzene	<0.57		1.2	0.57	ug/m3			03/31/23 09:48	1
1,4-Dioxane	<6.1		18	6.1	ug/m3			03/31/23 09:48	1
2-Butanone (MEK)	<0.50		2.9	0.50	ug/m3			03/31/23 09:48	1
4-Methyl-2-pentanone (MIBK)	<0.78		2.0	0.78	ug/m3			03/31/23 09:48	1
Acetone	<4.8		12	4.8	ug/m3			03/31/23 09:48	1
Benzene	<0.24		0.64	0.24	ug/m3			03/31/23 09:48	1
Benzyl chloride	<0.38		4.1	0.38	ug/m3			03/31/23 09:48	1
Dichlorobromomethane	<0.27		1.3	0.27	ug/m3			03/31/23 09:48	1
Bromoform	<0.60		2.1	0.60	ug/m3			03/31/23 09:48	1
Bromomethane	<0.20		0.78	0.20	ug/m3			03/31/23 09:48	1
Carbon disulfide	<0.40		1.6	0.40	ug/m3			03/31/23 09:48	1
Carbon tetrachloride	<0.20		1.3	0.20	ug/m3			03/31/23 09:48	1
Chlorobenzene	<0.20		0.92	0.20	ug/m3			03/31/23 09:48	1
Chloroethane	<0.66		2.1	0.66	ug/m3			03/31/23 09:48	1
Chloroform	<0.22		0.98	0.22	ug/m3			03/31/23 09:48	1

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

Lab Sample ID: MB 200-189877/4
Matrix: Air
Analysis Batch: 189877

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	<0.25		1.0	0.25	ug/m3			03/31/23 09:48	1
cis-1,2-Dichloroethene	<0.13		0.79	0.13	ug/m3			03/31/23 09:48	1
cis-1,3-Dichloropropene	<0.091		0.91	0.091	ug/m3			03/31/23 09:48	1
Cyclohexane	<0.12		1.7	0.12	ug/m3			03/31/23 09:48	1
Dibromochloromethane	<0.26		1.7	0.26	ug/m3			03/31/23 09:48	1
Dichlorodifluoromethane	<0.54		2.5	0.54	ug/m3			03/31/23 09:48	1
Ethylbenzene	<0.43		0.87	0.43	ug/m3			03/31/23 09:48	1
Hexachlorobutadiene	<0.33		21	0.33	ug/m3			03/31/23 09:48	1
Hexane	<0.81		2.8	0.81	ug/m3			03/31/23 09:48	1
Isopropyl alcohol	<2.4		12	2.4	ug/m3			03/31/23 09:48	1
Isopropylbenzene	<0.18		3.9	0.18	ug/m3			03/31/23 09:48	1
Methyl tert-butyl ether	<0.29		3.6	0.29	ug/m3			03/31/23 09:48	1
Methylene Chloride	<0.59		1.7	0.59	ug/m3			03/31/23 09:48	1
m-Xylene & p-Xylene	<0.74		3.5	0.74	ug/m3			03/31/23 09:48	1
Naphthalene	<0.89		2.6	0.89	ug/m3			03/31/23 09:48	1
o-Xylene	<0.41		0.87	0.41	ug/m3			03/31/23 09:48	1
Styrene	<0.14		0.85	0.14	ug/m3			03/31/23 09:48	1
Tetrachloroethene	<0.18		1.4	0.18	ug/m3			03/31/23 09:48	1
Tetrahydrofuran	<3.5		15	3.5	ug/m3			03/31/23 09:48	1
Toluene	<0.35		0.75	0.35	ug/m3			03/31/23 09:48	1
trans-1,2-Dichloroethene	<0.35		0.79	0.35	ug/m3			03/31/23 09:48	1
trans-1,3-Dichloropropene	<0.40		0.91	0.40	ug/m3			03/31/23 09:48	1
Trichloroethene	<0.13		1.1	0.13	ug/m3			03/31/23 09:48	1
Trichlorofluoromethane	<0.29		1.1	0.29	ug/m3			03/31/23 09:48	1
Vinyl acetate	<7.4		18	7.4	ug/m3			03/31/23 09:48	1
Vinyl bromide	<0.37		0.87	0.37	ug/m3			03/31/23 09:48	1
Vinyl chloride	<0.072		0.51	0.072	ug/m3			03/31/23 09:48	1
Xylenes, Total	<1.1		1.7	1.1	ug/m3			03/31/23 09:48	1

Lab Sample ID: LCS 200-189877/3
Matrix: Air
Analysis Batch: 189877

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	10.0	9.13		ppb v/v		91	72 - 127
1,1,2,2-Tetrachloroethane	10.0	9.41		ppb v/v		94	74 - 126
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.48		ppb v/v		95	70 - 121
1,1,2-Trichloroethane	10.0	9.40		ppb v/v		94	75 - 126
1,1-Dichloroethane	10.0	9.22		ppb v/v		92	66 - 130
1,1-Dichloroethene	10.0	9.18		ppb v/v		92	68 - 120
1,2,4-Trichlorobenzene	10.0	9.07		ppb v/v		91	50 - 150
1,2,4-Trimethylbenzene	10.0	9.23		ppb v/v		92	71 - 129
1,2-Dibromoethane	10.0	9.43		ppb v/v		94	78 - 122
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.0	9.50		ppb v/v		95	71 - 141
1,2-Dichlorobenzene	10.0	9.16		ppb v/v		92	68 - 129
1,2-Dichloroethane	10.0	9.28		ppb v/v		93	68 - 135
1,2-Dichloropropane	10.0	9.53		ppb v/v		95	69 - 128

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

Lab Sample ID: LCS 200-189877/3
Matrix: Air
Analysis Batch: 189877

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	10.0	9.35		ppb v/v		93	72 - 126
1,3-Dichlorobenzene	10.0	9.14		ppb v/v		91	69 - 131
1,4-Dichlorobenzene	10.0	9.15		ppb v/v		92	67 - 132
1,4-Dioxane	10.0	9.09		ppb v/v		91	66 - 129
2-Butanone (MEK)	10.0	9.67		ppb v/v		97	72 - 124
4-Methyl-2-pentanone (MIBK)	10.0	9.33		ppb v/v		93	58 - 144
Acetone	10.0	10.1		ppb v/v		101	54 - 154
Benzene	10.0	8.33		ppb v/v		83	73 - 119
Benzyl chloride	10.0	9.11		ppb v/v		91	60 - 136
Dichlorobromomethane	10.0	9.41		ppb v/v		94	75 - 127
Bromoform	10.0	10.0		ppb v/v		100	53 - 149
Bromomethane	10.0	9.57		ppb v/v		96	72 - 124
Carbon disulfide	10.0	9.79		ppb v/v		98	71 - 138
Carbon tetrachloride	10.0	9.26		ppb v/v		93	71 - 133
Chlorobenzene	10.0	9.28		ppb v/v		93	76 - 119
Chloroethane	10.0	9.86		ppb v/v		99	68 - 130
Chloroform	10.0	9.25		ppb v/v		93	73 - 124
Chloromethane	10.0	9.67		ppb v/v		97	56 - 141
cis-1,2-Dichloroethene	10.0	9.38		ppb v/v		94	72 - 121
cis-1,3-Dichloropropene	10.0	9.43		ppb v/v		94	74 - 125
Cyclohexane	10.0	9.39		ppb v/v		94	76 - 124
Dibromochloromethane	10.0	9.64		ppb v/v		96	73 - 125
Dichlorodifluoromethane	10.0	9.76		ppb v/v		98	61 - 142
Ethylbenzene	10.0	9.33		ppb v/v		93	74 - 122
Hexachlorobutadiene	10.0	9.10		ppb v/v		91	58 - 130
Hexane	10.0	9.14		ppb v/v		91	63 - 138
Isopropyl alcohol	10.0	10.1		ppb v/v		101	53 - 142
Isopropylbenzene	10.0	9.35		ppb v/v		93	73 - 123
Methyl tert-butyl ether	10.0	9.29		ppb v/v		93	70 - 127
Methylene Chloride	10.0	9.55		ppb v/v		95	59 - 137
m-Xylene & p-Xylene	20.0	18.7		ppb v/v		93	76 - 121
Naphthalene	10.0	9.18		ppb v/v		92	50 - 150
o-Xylene	10.0	9.29		ppb v/v		93	73 - 123
Styrene	10.0	9.38		ppb v/v		94	74 - 125
Tetrachloroethene	10.0	9.00		ppb v/v		90	70 - 125
Tetrahydrofuran	10.0	9.89		ppb v/v		99	60 - 149
Toluene	10.0	9.23		ppb v/v		92	75 - 122
trans-1,2-Dichloroethene	10.0	9.15		ppb v/v		92	69 - 137
trans-1,3-Dichloropropene	10.0	9.47		ppb v/v		95	74 - 128
Trichloroethene	10.0	9.25		ppb v/v		92	73 - 122
Trichlorofluoromethane	10.0	9.27		ppb v/v		93	70 - 129
Vinyl acetate	10.0	9.29		ppb v/v		93	59 - 149
Vinyl bromide	10.0	9.47		ppb v/v		95	75 - 125
Vinyl chloride	10.0	7.69		ppb v/v		77	61 - 135
Xylenes, Total	30.0	28.0		ppb v/v		93	75 - 122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	55	49.8		ug/m3		91	72 - 127
1,1,2,2-Tetrachloroethane	69	64.6		ug/m3		94	74 - 126

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

Lab Sample ID: LCS 200-189877/3
Matrix: Air
Analysis Batch: 189877

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-Trichloro-1,2,2-trifluoroethane	77	72.6		ug/m3		95	70 - 121
1,1,2-Trichloroethane	55	51.3		ug/m3		94	75 - 126
1,1-Dichloroethane	40	37.3		ug/m3		92	66 - 130
1,1-Dichloroethene	40	36.4		ug/m3		92	68 - 120
1,2,4-Trichlorobenzene	74	67.3		ug/m3		91	50 - 150
1,2,4-Trimethylbenzene	49	45.4		ug/m3		92	71 - 129
1,2-Dibromoethane	77	72.5		ug/m3		94	78 - 122
1,2-Dichloro-1,1,2,2-tetrafluoroethane	70	66.4		ug/m3		95	71 - 141
1,2-Dichlorobenzene	60	55.1		ug/m3		92	68 - 129
1,2-Dichloroethane	40	37.6		ug/m3		93	68 - 135
1,2-Dichloropropane	46	44.1		ug/m3		95	69 - 128
1,3,5-Trimethylbenzene	49	45.9		ug/m3		93	72 - 126
1,3-Dichlorobenzene	60	54.9		ug/m3		91	69 - 131
1,4-Dichlorobenzene	60	55.0		ug/m3		92	67 - 132
1,4-Dioxane	36	32.8		ug/m3		91	66 - 129
2-Butanone (MEK)	29	28.5		ug/m3		97	72 - 124
4-Methyl-2-pentanone (MIBK)	41	38.2		ug/m3		93	58 - 144
Acetone	24	24.1		ug/m3		101	54 - 154
Benzene	32	26.6		ug/m3		83	73 - 119
Benzyl chloride	52	47.2		ug/m3		91	60 - 136
Dichlorobromomethane	67	63.0		ug/m3		94	75 - 127
Bromoform	100	104		ug/m3		100	53 - 149
Bromomethane	39	37.2		ug/m3		96	72 - 124
Carbon disulfide	31	30.5		ug/m3		98	71 - 138
Carbon tetrachloride	63	58.3		ug/m3		93	71 - 133
Chlorobenzene	46	42.7		ug/m3		93	76 - 119
Chloroethane	26	26.0		ug/m3		99	68 - 130
Chloroform	49	45.2		ug/m3		93	73 - 124
Chloromethane	21	20.0		ug/m3		97	56 - 141
cis-1,2-Dichloroethene	40	37.2		ug/m3		94	72 - 121
cis-1,3-Dichloropropene	45	42.8		ug/m3		94	74 - 125
Cyclohexane	34	32.3		ug/m3		94	76 - 124
Dibromochloromethane	85	82.1		ug/m3		96	73 - 125
Dichlorodifluoromethane	49	48.3		ug/m3		98	61 - 142
Ethylbenzene	43	40.5		ug/m3		93	74 - 122
Hexachlorobutadiene	110	97.1		ug/m3		91	58 - 130
Hexane	35	32.2		ug/m3		91	63 - 138
Isopropyl alcohol	25	24.8		ug/m3		101	53 - 142
Isopropylbenzene	49	45.9		ug/m3		93	73 - 123
Methyl tert-butyl ether	36	33.5		ug/m3		93	70 - 127
Methylene Chloride	35	33.2		ug/m3		95	59 - 137
m-Xylene & p-Xylene	87	81.1		ug/m3		93	76 - 121
Naphthalene	52	48.1		ug/m3		92	50 - 150
o-Xylene	43	40.3		ug/m3		93	73 - 123
Styrene	43	40.0		ug/m3		94	74 - 125
Tetrachloroethene	68	61.1		ug/m3		90	70 - 125
Tetrahydrofuran	29	29.2		ug/m3		99	60 - 149

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

Lab Sample ID: LCS 200-189877/3
Matrix: Air
Analysis Batch: 189877

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	38	34.8		ug/m3		92	75 - 122
trans-1,2-Dichloroethene	40	36.3		ug/m3		92	69 - 137
trans-1,3-Dichloropropene	45	43.0		ug/m3		95	74 - 128
Trichloroethene	54	49.7		ug/m3		92	73 - 122
Trichlorofluoromethane	56	52.1		ug/m3		93	70 - 129
Vinyl acetate	35	32.7		ug/m3		93	59 - 149
Vinyl bromide	44	41.4		ug/m3		95	75 - 125
Vinyl chloride	26	19.7		ug/m3		77	61 - 135
Xylenes, Total	130	122		ug/m3		93	75 - 122

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: River North Vapor 193708725

Job ID: 500-230646-1

Client Sample ID: SVP-1
Date Collected: 03/09/23 10:16
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189841	K1P	EET BUR	03/30/23 13:38

Client Sample ID: SVP-2
Date Collected: 03/09/23 13:47
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189841	K1P	EET BUR	03/30/23 14:30

Client Sample ID: SVP-3
Date Collected: 03/09/23 12:55
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189841	K1P	EET BUR	03/30/23 15:22

Client Sample ID: SVP-4
Date Collected: 03/09/23 12:09
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189841	K1P	EET BUR	03/30/23 16:14

Client Sample ID: SVP-5
Date Collected: 03/09/23 11:05
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-5
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189841	K1P	EET BUR	03/30/23 17:06

Client Sample ID: SVP-6
Date Collected: 03/09/23 14:42
Date Received: 03/13/23 10:30

Lab Sample ID: 500-230646-6
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	TO-15		1	189877	K1P	EET BUR	03/31/23 13:15

Laboratory References:

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

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 500-230646-1
Project/Site: River North Vapor 193708725

Laboratory: Eurofins Burlington

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	399133350	08-31-23

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	Client Project Manager: HARRIS BYERS	Samples Collected By: WHITNEY CULL	COC No: 1 of 1 COCs
Company Name: STANTEC	Phone: —		
Address: 12380 CORPORATE PKWY #200	Email: HARRIS.BYERS@STANTEC.COM		TALS Project #:
City/State/Zip: MEQUON, WI 53092			For Lab Use Only:
Phone: (262) 219-4740	Site Contact: WHITNEY CULL		Walk-in Client:
FAX: —	Tel/Fax (262) 219-4740		Lab Sampling:
Project Name: RIVER NORTH VAPOR	Analysis Turnaround Time		Job / SDG No.:
Site/Location: MANITOWOC, WI	Standard (Specific): 10-DAY		(See below for Add'l Items)
PO# 19370825	Rush (Specifiy):		

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:
SVP-1	3/9/23	0946	3/9/23	1016	<-30.0	-7.0	6341	4792	X														
SVP-2		1317		1347	-28.0	-11.0	6505	5697	X														
SVP-3		~~1225~~ 1225		1255	-29.8	-6.0	7330	2674	X														
SVP 4		1139		1209	-30.0	-4.0	4617	5047	X														
SVP-5		1035		1105	<-30.0	-8.0	6528	6256	X														
SVP-6		1416		1442	-25.0	4.0	7788	5604	X														*CHECK FLOW CONTROLLER DID NOT REST ON "0" WHEN AT REST *

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop	59	36

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop	30.3	30.3

500-230646 Chain of Custody

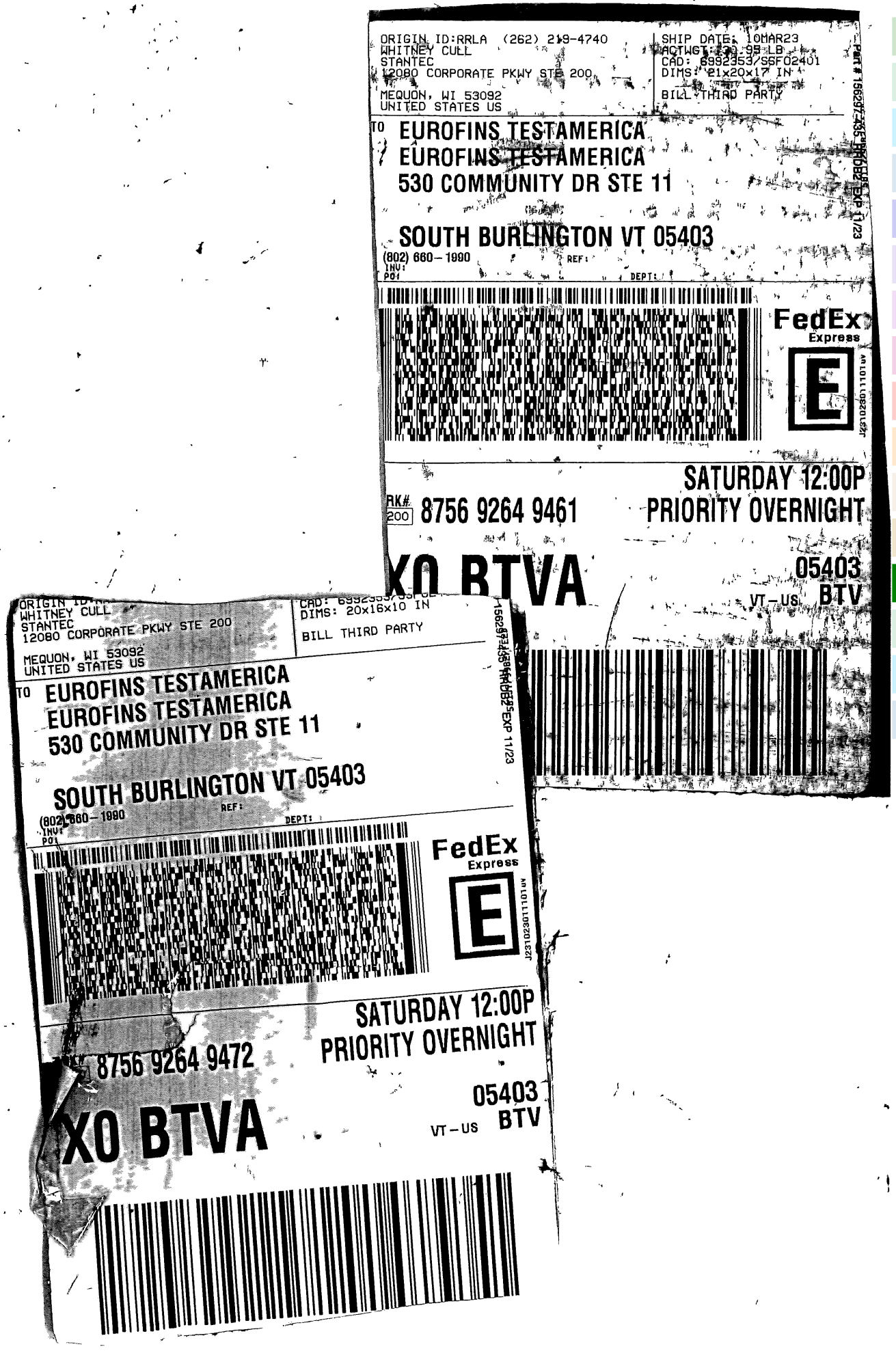
Special Instructions/QC Requirements & Comments: ALL SAMPLING IS "INTERIOR"

MSA # 40411

Samples Shipped by: WC Cull	Date / Time: 3/10/23 1700	Samples Received by:	3/13/23 10:30
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

4/3/2023


ORIGIN ID:RRLA (262) 219-4740
WHITNEY CULL
STANTEC
12080 CORPORATE PKWY STE 200
MEQUON, WI 53092
UNITED STATES US
SHIP DATE: 10MAR23
ACTWGT: 20.95 LB
CAD: 6992353/SSFO2401
DIMS: 21x20x17 IN
BILL THIRD PARTY
TO EUROFINS TESTAMERICA
EUROFINS TESTAMERICA
530 COMMUNITY DR STE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
REF:
INV:
PO:
DEPT:
FedEx
Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
8756 9264 9461
XO BTVA
05403
VT-US BTV
ORIGIN ID:
WHITNEY CULL
STANTEC
12080 CORPORATE PKWY STE 200
MEQUON, WI 53092
UNITED STATES US
DIMS: 20x16x10 IN
BILL THIRD PARTY
TO EUROFINS TESTAMERICA
EUROFINS TESTAMERICA
530 COMMUNITY DR STE 11
SOUTH BURLINGTON VT 05403
(802) 660-1990
REF:
INV:
PO:
DEPT:
FedEx
Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
8756 9264 9472
XO BTVA
05403
VT-US BTV

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-230646-1
SDG Number:

Login Number: 230646
List Number: 1
Creator: Khudaier, Zahraa

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	1998799, 798
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: Stantec Consulting Corp.

Job Number: 500-230646-1
SDG Number:

Login Number: 230646
List Number: 2
Creator: Khudaier, Zahraa

List Source: Eurofins Burlington
List Creation: 03/13/23 03:39 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	

Post-Sampling Air Canister Pressure Check Record

Login # (w/ Location Code)	Date	Time (Military)	Lab BP ("Hg)	Lab Temp (°C)	Pressure Gauge ID	Analyst
500-230646	03/13/23	15:48	29.5	22		ZK

Sampling Information and Return Equipment Check	Yes	N o	Comments
(1) Is a Field Test Data Sheet (FTDS) or similar sampling documentation present?	Yes		
(2) Is the flow controller ID used for each canister recorded?	Yes		
(3) MA MCP & NJ DKQP: Check return flow rate for flow controllers		N o	
(4) Is visible sign of damage to canister and/or flow controller (FC) present?		N o	
If damage observed, list equipment IDs and describe condition:			

Post-Sampling Return Pressure Check

Lab ID	Canister ID	Pressure[1] ("Hg)	Anomaly[2] (Y/N)	FC ID[3]	FC Check[4] Reference	FC Return (Y/N)	Can Cert Batch ID	Comments
200-230646-A-1	4792	-4.1	N	6341	95/32	Y	4329-54509	
200-230646-A-2	5697	-12.1	Y	6505	95/41	Y	8456-54450	
200-230646-A-3	2674	-4.4	N	7330	*	Y	2901-54431	
200-230646-A-4	5047	-3.0	N	4617	*	Y	4361-54510	
200-230646-A-5	6256	-2.3	N	6528	*	Y	4361-54510	
200-230646-A-6	5604	-7.6	N	7788	87/105	Y	2901-54431	

[1] Criteria: Return Pressure should be between -1 and -10 ("Hg) with the exception of grab samples or those using 100 or 200mL/minute flow controllers. These samples must be returned at no lower than -10"Hg, but have no specific criteria otherwise.

[2] If return pressure is not within criteria, initiate Non-Conformance Memo.

[3] Record the ID of the FC used for sampling if information is provided, otherwise leave blank.

[4] Record the Flow Controller Set Flow Rate Logbook ID and Page number in which the original FC Check was recorded

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	25	2/18/2023	1356	22	22	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	5155	.04	.04	0	29.8	G26	2/20/23	1001	←	22.0	G26	2/22/23	1319	←	22.0
2	4235	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
3	2901	.04	.04	0	29.9	G26	2/22/23	1257	←	22.0	G26	2/24/23	1300	←	22.0
4	5416	.04	.04	0	29.8	G26	2/20/23	1001	←	22.0	G26	2/22/23	1319	←	22.0
5	5700	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
6	5628	↓	.10	.06	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
7	5670	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
8	5604	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
9	5979	↓	.13	.09	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
10	4285	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
11	5152	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
12	2674	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓

[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	Revie
2901	2/22/23	54431	AB1		XXXXXXX				2/22/23	

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:
Bottom Rack	10	25	2/18/2023	1356	22	22	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	9227	.04	.04	0	29.6	G26	2/20/23	1001		22.0	G26	2/23/23	1122		22.0
2	2745	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
3	8456	.04	.04	0	29.9	G26	2/23/23	1700		22.0	G26	2/24/23	1300		22.0
4	9280	.04	.15	.11	29.6	G26	2/20/23	1001		22.0	G26	2/23/23	1122		22.0
5	5630		.04	0		G26					G26				
6	5697		.04	0		G26					G26				
7	3636		.04	0		G26					G26				
8	34000438		.14	.10		G26					G26				
9	5018		.04	0		G26					G26				
10	3411		.04	0		G26					G26				
11	4810		.04	0		G26					G26				
12	4823		.04	0		G26					G26				

[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:**

NS

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	Revie
8456	2/23/23	54460	KPj		XXXXXXX				2/23/23	JMB

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:

200-66907-A-3
8456
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled 2/18/2023 12.00 AM 200-1705795

Loc: 200
66907
#3 A
Air-Storag

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	25	2/24/2023	1516	22	22	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	5032	.04	.04	0	29.7	G26	2/25/23	1433	←	22.0	G26	3/1/23	1350	←	22.0
2	2952		.04	0		G26					G26				
3	2737		.04	0		G26					G26				
4	3462		.04	0		G26					G26				
5	2536		.04	0		G26					G26				
6	2899	↓	.17	.13	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓
7	4329	.04	.04	0	29.8	G26	3/1/23	1422	←	22.0	G26	3/3/23	1200	←	22.0
8	4281	.04	.04	0	29.7	G26	2/25/23	1433	←	22.0	G26	3/1/23	1350	←	22.0
9	4331		.12	.08		G26					G26				
10	34000790		.04	0		G26					G26				
11	4792		.04	0		G26					G26				
12	5162	↓	.04	0	↓	G26	↓	↓	↓	↓	G26	↓	↓	↓	↓

[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	Review
4329	2/26/23	54509	ABI		XXXXXXX				2/26/23	CC

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:

Page 53 of 79

4/3/2023

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

TestAmerica Burlington

200-66995-A-7
4329
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 2/24/2023 12:00 AM 200-1708059

Loc: 200
66995
#7 A
Air-Storag

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:
Oven 1/2	10	50	2/25/2023	1423	22	22	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	4163	.04	.27	.23	29.7	G26	2/27/23	1011	SML	22.0	G26	3/1/23	1239	"	22.0
2	5161	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
3	4323	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
4	3457	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
5	3421	"	.17	.13	"	G26	"	"	"	"	G26	"	"	"	"
6	5645	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
7	7701	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
8	4361	.04	.04	0	29.8	G26	3/1/23	1317	"	22.0	G26	3/3/23	1200	"	22.0
9	5047	.04	.04	0	29.7	G26	2/27/23	1011	SML	22.0	G26	3/1/23	1239	"	22.0
10	6256	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
11	3553	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"
12	5043	"	.04	0	"	G26	"	"	"	"	G26	"	"	"	"

[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:**

NS

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	Revie
4361	2/28/23	54516	ABJ		XXXXX				2/28/23	TMB

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.: 200-66906-1

SDG No.:

Client Sample ID: 2901 Lab Sample ID: 200-66906-3

Matrix: Air Lab File ID: 54431-007.d

Analysis Method: TO-15 Date Collected: 02/18/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/21/2023 12:44

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.: 188675 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.040	U	0.040	0.010
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	0.0084
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-	0.040	U	0.040	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	0.040	U	0.040	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
67-64-1	Acetone	1.0	U	1.0	0.32
67-66-3	Chloroform	0.040	U	0.040	0.0082

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

Lab Name: Eurofins Burlington Job No.: 200-66906-1

SDG No.:

Client Sample ID: 2901 Lab Sample ID: 200-66906-3

Matrix: Air Lab File ID: 54431-007.d

Analysis Method: TO-15 Date Collected: 02/18/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/21/2023 12:44

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.: 188675 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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	0.040	U	0.040	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	0.040	U	0.040	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	0.040	U	0.040	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	0.010
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

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230221-54431.b\54431-007.d
Lims ID: 200-66906-A-3
Client ID: 2901
Sample Type: Client
Inject. Date: 21-Feb-2023 12:44:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0054431-007
Misc. Info.: 66906-3
Operator ID: wrd Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20230221-54431.b\TO15_TO3_MasterMethod_W.m
Limit Group: AI_TO15_ICAL
Last Update: 22-Feb-2023 08:40:02 Calib Date: 01-Feb-2023 00:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20230131-54170.b\54170-013.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: bunmaa Date: 22-Feb-2023 08:40:02

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.083				ND	MU
	2 Dichlorodifluoromethane	85		4.174				ND	
	3 Chlorodifluoromethane	51		4.217				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.517				ND	
	5 Chloromethane	50		4.634				ND	7
	6 Vinyl chloride	62		4.929				ND	
	7 Butane	43		4.934				ND	
	8 Butadiene	54		5.041				ND	
	9 Bromomethane	94		5.742				ND	
	10 Chloroethane	64		6.009				ND	
	13 Vinyl bromide	106		6.421				ND	
	14 Trichlorofluoromethane	101		6.582				ND	
	16 Ethanol	45		6.951				ND	
	20 1,1-Dichloroethene	96		7.630				ND	
	21 1,1,2-Trichloro-1,2,2-trifluoroe	101		7.673				ND	
	22 Acetone	43		7.710				ND	
	23 Isopropyl alcohol	45		8.005				ND	
	24 Carbon disulfide	76	8.037	8.037	0.000	94	1754	0.0442	
	26 3-Chloro-1-propene	41		8.320				ND	
	27 Methylene Chloride	49		8.550				ND	MU
	28 2-Methyl-2-propanol	59		8.770				ND	
	30 trans-1,2-Dichloroethene	61		9.048				ND	
	31 Methyl tert-butyl ether	73		9.064				ND	
	32 Hexane	57		9.556				ND	
	33 1,1-Dichloroethane	63		9.802				ND	
	34 Vinyl acetate	43		9.818				ND	
S	35 1,2-Dichloroethene, Total	61		10.200				ND	7
	36 2-Butanone (MEK)	72		10.765				ND	
	37 cis-1,2-Dichloroethene	96		10.787				ND	
	38 Ethyl acetate	88		10.851				ND	
*	39 Chlorobromomethane	128	11.193	11.193	0.000	88	85182	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.247				ND	
	41 Chloroform	83		11.370				ND	
	42 1,1,1-Trichloroethane	97		11.675				ND	
	43 Cyclohexane	84		11.814				ND	
	44 Carbon tetrachloride	117		11.953				ND	
	45 Benzene	78		12.295				ND	
	46 1,2-Dichloroethane	62		12.370				ND	
	47 Isooctane	57		12.520				ND	
	48 n-Heptane	43		12.830				ND	
*	49 1,4-Difluorobenzene	114	13.033	13.033	0.000	94	453108	10.0	
	51 Trichloroethene	95		13.467				ND	
	53 1,2-Dichloropropane	63		13.916				ND	
	54 Methyl methacrylate	69		14.012				ND	
	55 1,4-Dioxane	88		14.055				ND	
	57 Dibromomethane	174		14.071				ND	
	58 Dichlorobromomethane	83		14.382				ND	
	59 cis-1,3-Dichloropropene	75		15.184				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.446				ND	
	62 Toluene	92		15.826				ND	
	66 trans-1,3-Dichloropropene	75		16.238				ND	
	67 1,1,2-Trichloroethane	83		16.612				ND	
	68 Tetrachloroethene	166		16.816				ND	
	69 2-Hexanone	43		17.030				ND	
	70 Chlorodibromomethane	129		17.351				ND	
	71 Ethylene Dibromide	107		17.586				ND	
*	73 Chlorobenzene-d5	117	18.501	18.501	0.000	87	363174	10.0	
	74 Chlorobenzene	112		18.560				ND	
	75 Ethylbenzene	91		18.752				ND	
	76 m-Xylene & p-Xylene	106		19.014				ND	
	78 o-Xylene	106		19.790				ND	
	79 Styrene	104		19.828				ND	
S	80 Xylenes, Total	106		20.100				ND	7
	81 Bromoform	173		20.181				ND	
	82 Isopropylbenzene	105		20.518				ND	
	83 1,1,2,2-Tetrachloroethane	83		21.047				ND	
	85 N-Propylbenzene	91		21.256				ND	
	86 2-Chlorotoluene	91		21.406				ND	
	87 4-Ethyltoluene	105		21.459				ND	
	88 1,3,5-Trimethylbenzene	105		21.561				ND	
	91 tert-Butylbenzene	119		22.048				ND	
	92 1,2,4-Trimethylbenzene	105		22.139				ND	
	93 sec-Butylbenzene	105		22.379				ND	
	94 1,3-Dichlorobenzene	146		22.551				ND	
	95 4-Isopropyltoluene	119		22.599				ND	
	96 1,4-Dichlorobenzene	146		22.695				ND	
	97 Benzyl chloride	91		22.845				ND	
	98 n-Butylbenzene	91		23.155				ND	
	99 1,2-Dichlorobenzene	146		23.182				ND	
	102 1,2,4-Trichlorobenzene	180		25.557				ND	
	103 Hexachlorobutadiene	225		25.798				ND	
	104 Naphthalene	128		26.017				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

ATTO15WISs_00010 Amount Added: 20.00 Units: mL Run Reagent

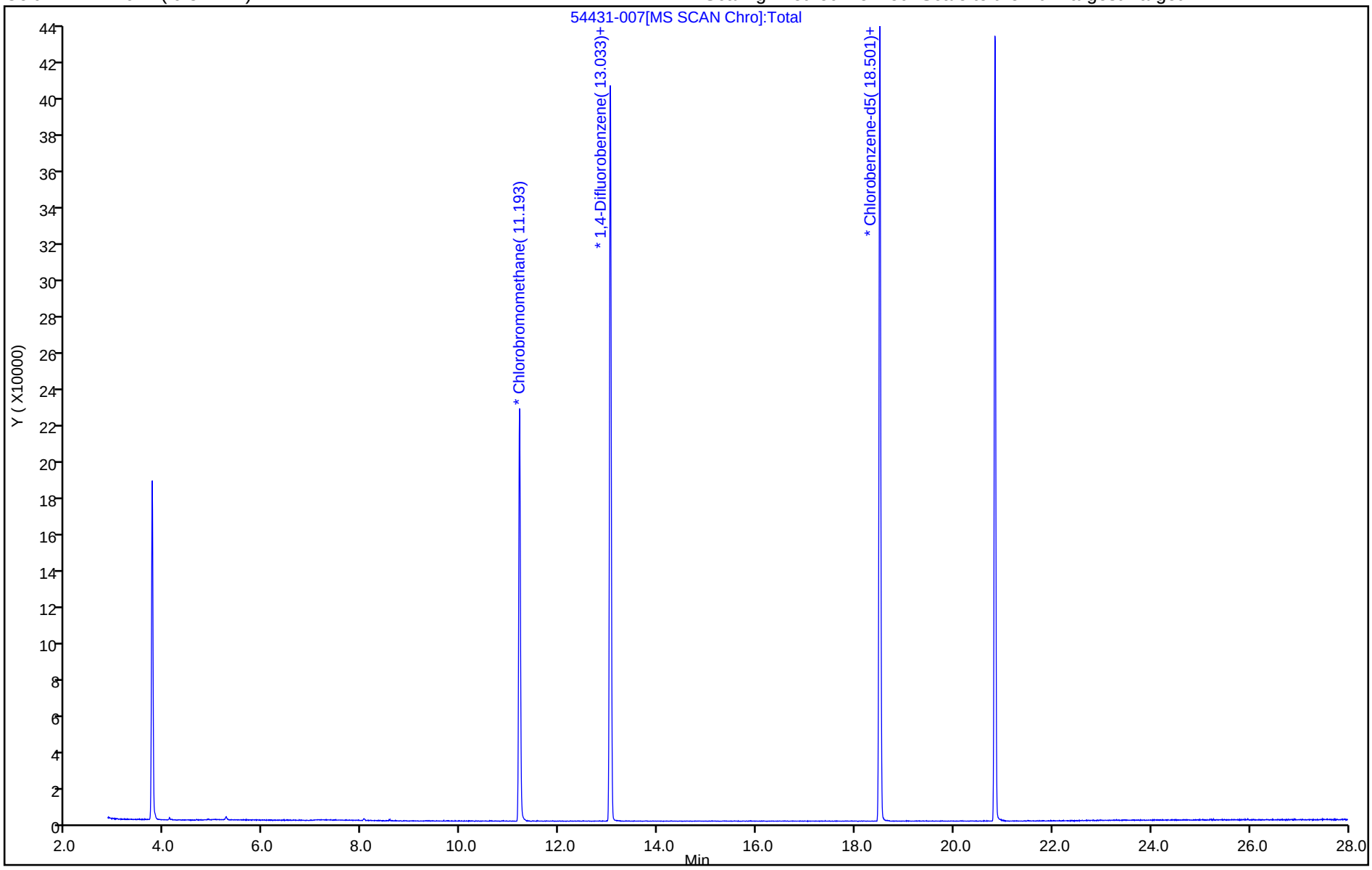
Report Date: 22-Feb-2023 08:40:03 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230221-54431.b\54431-007.d

Injection Date:	21-Feb-2023 12:44:30	Instrument ID:	CHW.i	Operator ID:	wrd
Lims ID:	200-66906-A-3	Lab Sample ID:	200-66906-3	Worklist Smp#:	7
Client ID:	2901				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	6
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



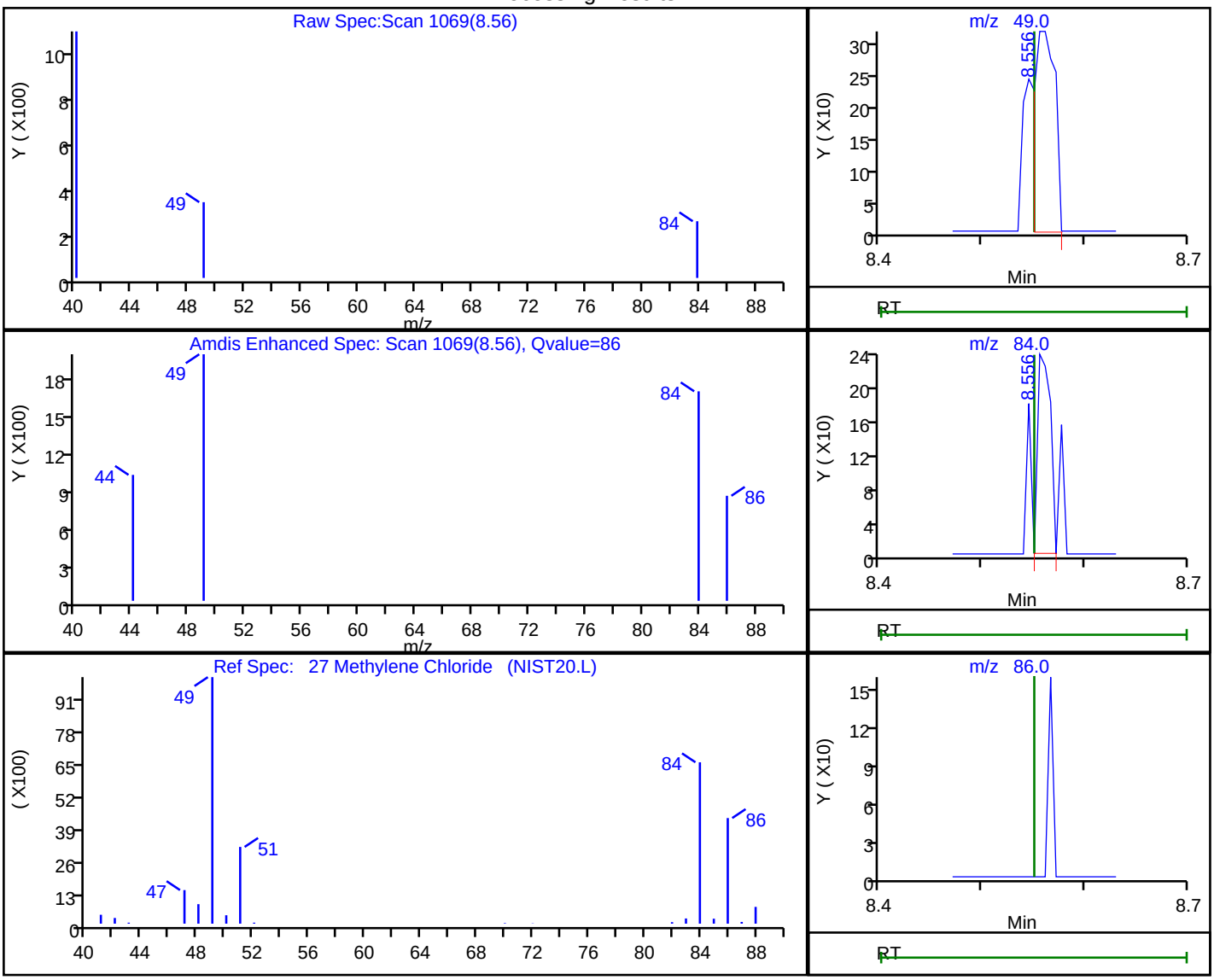
User Disabled Compound Report

Eurofins Burlington

Data File:	\\chromfs\Burlington\ChromData\CHW.i\20230221-54431.b\54431-007.d				
Injection Date:	21-Feb-2023 12:44:30	Instrument ID:	CHW.i		
Lims ID:	200-66906-A-3	Lab Sample ID:	200-66906-3		
Client ID:	2901				
Operator ID:	wrd	ALS Bottle#:	6	Worklist Smp#:	7
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

Processing Results



RT	Mass	Response	Amount
8.56	49.00	440	0.029547
8.56	84.00	204	
8.55	86.00	0	

Reviewer: bunmaa, 22-Feb-2023 08:38:58

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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

Lab Name: Eurofins Burlington Job No.: 200-66907-1

SDG No.:

Client Sample ID: 8456 Lab Sample ID: 200-66907-3

Matrix: Air Lab File ID: 54450-008.d

Analysis Method: TO-15 Date Collected: 02/18/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/22/2023 13:54

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.: 188720 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.040	U	0.040	0.010
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	0.0084
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-	0.040	U	0.040	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	0.040	U	0.040	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
67-64-1	Acetone	1.0	U	1.0	0.32
67-66-3	Chloroform	0.040	U	0.040	0.0082

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

Lab Name: Eurofins Burlington Job No.: 200-66907-1

SDG No.:

Client Sample ID: 8456 Lab Sample ID: 200-66907-3

Matrix: Air Lab File ID: 54450-008.d

Analysis Method: TO-15 Date Collected: 02/18/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/22/2023 13:54

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.: 188720 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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	0.040	U	0.040	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	0.040	U	0.040	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	0.040	U	0.040	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	0.010
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

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230222-54450.b\54450-008.d
Lims ID: 200-66907-A-3
Client ID: 8456
Sample Type: Client
Inject. Date: 22-Feb-2023 13:54:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0054450-008
Misc. Info.: 66907-3
Operator ID: wrd Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20230222-54450.b\TO15_TO3_MasterMethod_W.m
Limit Group: AI_TO15_ICAL
Last Update: 23-Feb-2023 07:37:03 Calib Date: 01-Feb-2023 00:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20230131-54170.b\54170-013.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1677

First Level Reviewer: puangmaleek Date: 23-Feb-2023 07:37:45

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.083				ND	7
	2 Dichlorodifluoromethane	85		4.174				ND	
	3 Chlorodifluoromethane	51		4.212				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.511				ND	
	5 Chloromethane	50		4.624				ND	7
	6 Vinyl chloride	62		4.923				ND	
	7 Butane	43		4.923				ND	
	8 Butadiene	54		5.035				ND	
	9 Bromomethane	94		5.731				ND	
	10 Chloroethane	64		5.993				ND	
	13 Vinyl bromide	106		6.405				ND	
	14 Trichlorofluoromethane	101		6.566				ND	
	16 Ethanol	45		6.935				ND	
	20 1,1-Dichloroethene	96		7.619				ND	
	21 1,1,2-Trichloro-1,2,2-trifluoroe	101		7.657				ND	
	22 Acetone	43		7.694				ND	
	23 Isopropyl alcohol	45		7.989				ND	
	24 Carbon disulfide	76	8.042	8.021	0.021	97	3112	0.0797	
	26 3-Chloro-1-propene	41		8.310				ND	
	27 Methylene Chloride	49		8.534				ND	7
	28 2-Methyl-2-propanol	59		8.759				ND	
	30 trans-1,2-Dichloroethene	61		9.037				ND	
	31 Methyl tert-butyl ether	73		9.053				ND	
	32 Hexane	57		9.540				ND	
	33 1,1-Dichloroethane	63		9.786				ND	
	34 Vinyl acetate	43		9.802				ND	
S	35 1,2-Dichloroethene, Total	61		10.200				ND	7
	36 2-Butanone (MEK)	72		10.749				ND	
	37 cis-1,2-Dichloroethene	96		10.770				ND	
	38 Ethyl acetate	88		10.835				ND	
*	39 Chlorobromomethane	128	11.198	11.182	0.016	89	83918	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.236				ND	
	41 Chloroform	83		11.359				ND	
	42 1,1,1-Trichloroethane	97		11.664				ND	
	43 Cyclohexane	84		11.803				ND	
	44 Carbon tetrachloride	117		11.942				ND	
	45 Benzene	78		12.284				ND	
	46 1,2-Dichloroethane	62		12.359				ND	
	47 Isooctane	57		12.509				ND	
	48 n-Heptane	43		12.819				ND	
*	49 1,4-Difluorobenzene	114	13.033	13.028	0.005	94	446065	10.0	
	51 Trichloroethene	95		13.456				ND	
	53 1,2-Dichloropropane	63		13.905				ND	
	54 Methyl methacrylate	69		14.007				ND	
	55 1,4-Dioxane	88		14.044				ND	
	57 Dibromomethane	174		14.066				ND	
	58 Dichlorobromomethane	83		14.376				ND	
	59 cis-1,3-Dichloropropene	75		15.179				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.446				ND	
	62 Toluene	92		15.821				ND	
	66 trans-1,3-Dichloropropene	75		16.232				ND	
	67 1,1,2-Trichloroethane	83		16.607				ND	
	68 Tetrachloroethene	166		16.810				ND	
	69 2-Hexanone	43		17.024				ND	
	70 Chlorodibromomethane	129		17.345				ND	
	71 Ethylene Dibromide	107		17.581				ND	
*	73 Chlorobenzene-d5	117	18.501	18.495	0.006	86	357608	10.0	
	74 Chlorobenzene	112		18.554				ND	
	75 Ethylbenzene	91		18.752				ND	
	76 m-Xylene & p-Xylene	106		19.014				ND	
	78 o-Xylene	106		19.785				ND	
	79 Styrene	104		19.822				ND	
S	80 Xylenes, Total	106		20.100				ND	7
	81 Bromoform	173		20.175				ND	
	82 Isopropylbenzene	105		20.512				ND	
	83 1,1,2,2-Tetrachloroethane	83		21.047				ND	
	85 N-Propylbenzene	91		21.256				ND	
	86 2-Chlorotoluene	91		21.400				ND	
	87 4-Ethyltoluene	105		21.459				ND	
	88 1,3,5-Trimethylbenzene	105		21.555				ND	
	91 tert-Butylbenzene	119		22.048				ND	
	92 1,2,4-Trimethylbenzene	105		22.139				ND	
	93 sec-Butylbenzene	105		22.379				ND	
	94 1,3-Dichlorobenzene	146		22.550				ND	7
	95 4-Isopropyltoluene	119		22.599				ND	
	96 1,4-Dichlorobenzene	146		22.695				ND	7
	97 Benzyl chloride	91		22.845				ND	7
	98 n-Butylbenzene	91		23.155				ND	
	99 1,2-Dichlorobenzene	146		23.176				ND	7
	102 1,2,4-Trichlorobenzene	180		25.552				ND	
	103 Hexachlorobutadiene	225		25.798				ND	
	104 Naphthalene	128		26.012				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

ATTO15WISs_00010 Amount Added: 20.00 Units: mL Run Reagent

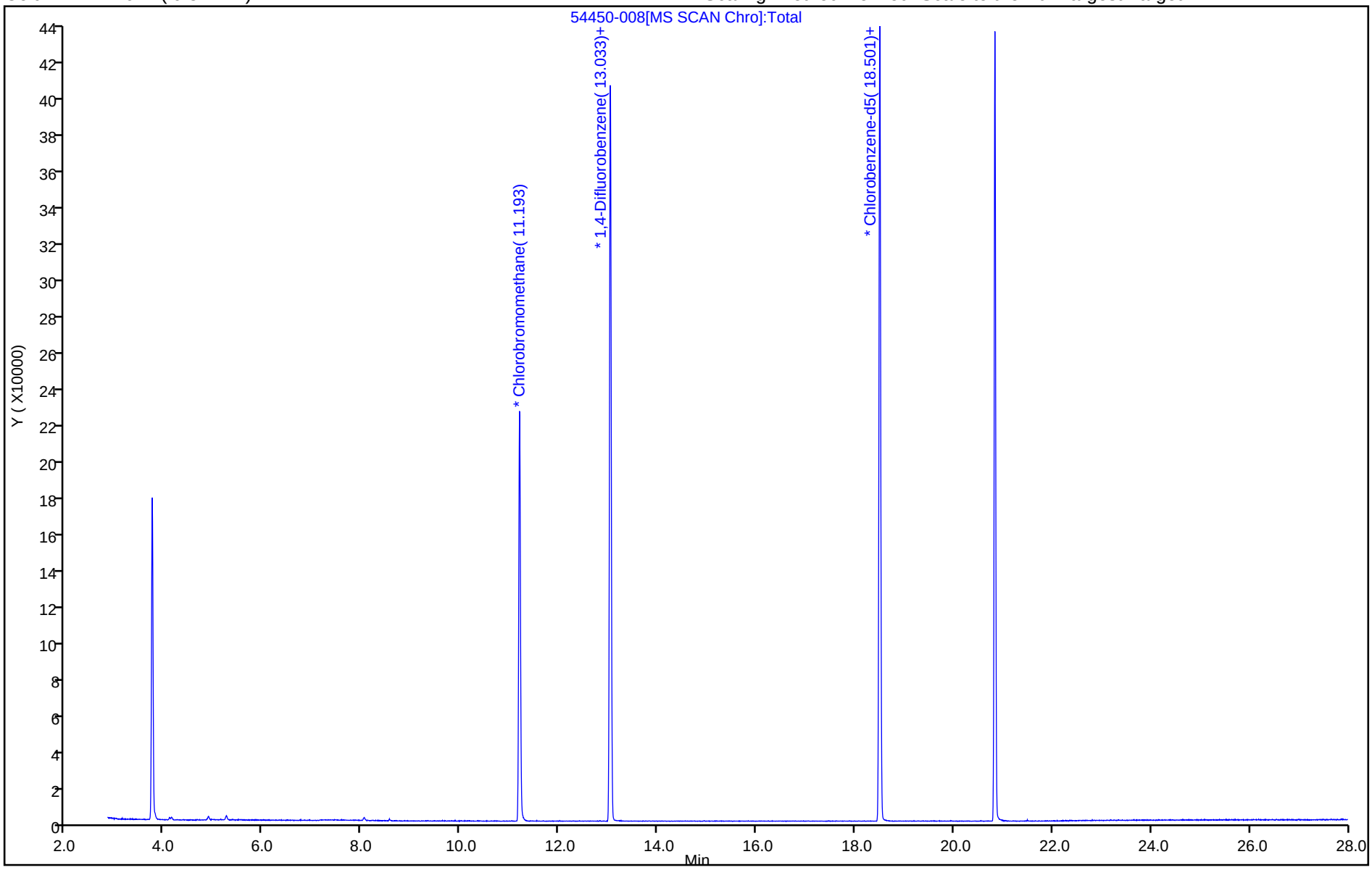
Report Date: 23-Feb-2023 07:37:45 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230222-54450.b\54450-008.d

Injection Date:	22-Feb-2023 13:54:30	Instrument ID:	CHW.i	Operator ID:	wrd
Lims ID:	200-66907-A-3	Lab Sample ID:	200-66907-3	Worklist Smp#:	8
Client ID:	8456				
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



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

Lab Name: Eurofins Burlington Job No.: 200-66995-1

SDG No.:

Client Sample ID: 4329 Lab Sample ID: 200-66995-7

Matrix: Air Lab File ID: 54509-006.d

Analysis Method: TO-15 Date Collected: 02/24/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/26/2023 15:30

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.: 188872 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.040	U	0.040	0.010
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	0.0084
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-	0.040	U	0.040	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	0.040	U	0.040	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
67-64-1	Acetone	1.0	U	1.0	0.32
67-66-3	Chloroform	0.040	U	0.040	0.0082

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

Lab Name: Eurofins Burlington Job No.: 200-66995-1

SDG No.:

Client Sample ID: 4329 Lab Sample ID: 200-66995-7

Matrix: Air Lab File ID: 54509-006.d

Analysis Method: TO-15 Date Collected: 02/24/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/26/2023 15:30

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.: 188872 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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	0.040	U	0.040	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	0.040	U	0.040	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	0.040	U	0.040	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	0.010
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

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230226-54509.b\54509-006.d
Lims ID: 200-66995-A-7
Client ID: 4329
Sample Type: Client
Inject. Date: 26-Feb-2023 15:30:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0054509-006
Misc. Info.: 66995-7
Operator ID: wrd Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20230226-54509.b\TO15_TO3_MasterMethod_W.m
Limit Group: AI_TO15_ICAL
Last Update: 27-Feb-2023 08:09:51 Calib Date: 01-Feb-2023 00:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20230131-54170.b\54170-013.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1616

First Level Reviewer: BKZ7 Date: 27-Feb-2023 08:10:25

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.078				ND	
	2 Dichlorodifluoromethane	85		4.163				ND	
	3 Chlorodifluoromethane	51		4.206				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.511				ND	
	5 Chloromethane	50		4.623				ND	
	6 Vinyl chloride	62		4.918				ND	
	7 Butane	43		4.923				ND	
	8 Butadiene	54		5.035				ND	
	9 Bromomethane	94		5.736				ND	
	10 Chloroethane	64		6.004				ND	
	13 Vinyl bromide	106		6.416				ND	
	14 Trichlorofluoromethane	101		6.576				ND	
	16 Ethanol	45		6.945				ND	
	20 1,1-Dichloroethene	96		7.625				ND	
	21 1,1,2-Trichloro-1,2,2-trifluoroe	101		7.667				ND	
	22 Acetone	43		7.705				ND	
	23 Isopropyl alcohol	45		7.999				ND	
	24 Carbon disulfide	76	8.042	8.039	0.011	94	704	0.0191	
	26 3-Chloro-1-propene	41		8.320				ND	
	27 Methylene Chloride	49		8.550				ND	7
	28 2-Methyl-2-propanol	59		8.764				ND	
	30 trans-1,2-Dichloroethene	61		9.048				ND	
	31 Methyl tert-butyl ether	73		9.058				ND	
	32 Hexane	57		9.551				ND	
	33 1,1-Dichloroethane	63		9.797				ND	
	34 Vinyl acetate	43		9.813				ND	
S	35 1,2-Dichloroethene, Total	61		10.200				ND	7
	36 2-Butanone (MEK)	72		10.760				ND	
	37 cis-1,2-Dichloroethene	96		10.781				ND	
	38 Ethyl acetate	88		10.851				ND	
*	39 Chlorobromomethane	128	11.193	11.188	0.005	86	79030	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.241				ND	
	41 Chloroform	83		11.369				ND	
	42 1,1,1-Trichloroethane	97		11.669				ND	
	43 Cyclohexane	84		11.813				ND	
	44 Carbon tetrachloride	117		11.953				ND	
	45 Benzene	78		12.295				ND	
	46 1,2-Dichloroethane	62		12.370				ND	
	47 Isooctane	57		12.514				ND	
	48 n-Heptane	43		12.825				ND	
*	49 1,4-Difluorobenzene	114	13.039	13.033	0.006	94	424382	10.0	
	51 Trichloroethene	95		13.461				ND	
	53 1,2-Dichloropropane	63		13.911				ND	
	54 Methyl methacrylate	69		14.012				ND	
	55 1,4-Dioxane	88		14.050				ND	
	57 Dibromomethane	174		14.071				ND	
	58 Dichlorobromomethane	83		14.381				ND	
	59 cis-1,3-Dichloropropene	75		15.184				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.446				ND	
	62 Toluene	92		15.820				ND	
	66 trans-1,3-Dichloropropene	75		16.238				ND	
	67 1,1,2-Trichloroethane	83		16.612				ND	
	68 Tetrachloroethene	166		16.810				ND	
	69 2-Hexanone	43		17.029				ND	
	70 Chlorodibromomethane	129		17.345				ND	
	71 Ethylene Dibromide	107		17.586				ND	
*	73 Chlorobenzene-d5	117	18.501	18.495	0.006	86	331016	10.0	
	74 Chlorobenzene	112		18.554				ND	
	75 Ethylbenzene	91		18.752				ND	
	76 m-Xylene & p-Xylene	106		19.020				ND	
	78 o-Xylene	106		19.785				ND	
	79 Styrene	104		19.822				ND	
S	80 Xylenes, Total	106		20.100				ND	7
	81 Bromoform	173		20.180				ND	
	82 Isopropylbenzene	105		20.512				ND	
	83 1,1,2,2-Tetrachloroethane	83		21.047				ND	
	85 N-Propylbenzene	91		21.256				ND	
	86 2-Chlorotoluene	91		21.400				ND	
	87 4-Ethyltoluene	105		21.459				ND	
	88 1,3,5-Trimethylbenzene	105		21.555				ND	
	91 tert-Butylbenzene	119		22.047				ND	
	92 1,2,4-Trimethylbenzene	105		22.138				ND	
	93 sec-Butylbenzene	105		22.379				ND	
	94 1,3-Dichlorobenzene	146		22.550				ND	7
	95 4-Isopropyltoluene	119		22.598				ND	
	96 1,4-Dichlorobenzene	146		22.695				ND	7
	97 Benzyl chloride	91		22.839				ND	
	98 n-Butylbenzene	91		23.155				ND	
	99 1,2-Dichlorobenzene	146		23.176				ND	7
	102 1,2,4-Trichlorobenzene	180		25.557				ND	
	103 Hexachlorobutadiene	225		25.798				ND	
	104 Naphthalene	128		26.012				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

ATTO15WISs_00010 Amount Added: 20.00 Units: mL Run Reagent

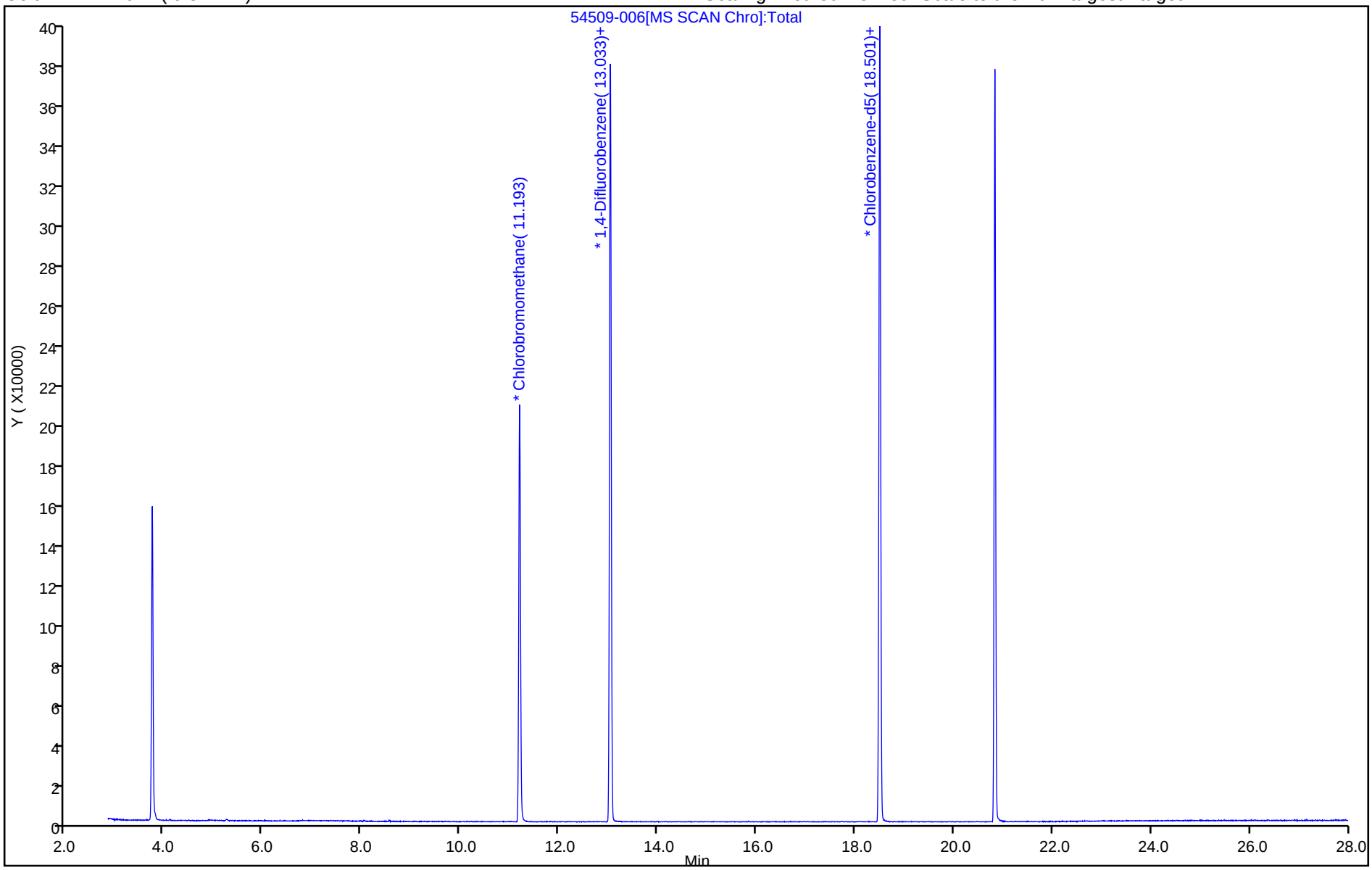
Report Date: 27-Feb-2023 08:10:25 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230226-54509.b\54509-006.d

Injection Date:	26-Feb-2023 15:30:30	Instrument ID:	CHW.i	Operator ID:	wrd
Lims ID:	200-66995-A-7	Lab Sample ID:	200-66995-7	Worklist Smp#:	6
Client ID:	4329				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	5
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



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

Lab Name: Eurofins Burlington Job No.: 200-67012-1

SDG No.:

Client Sample ID: 4361 Lab Sample ID: 200-67012-8

Matrix: Air Lab File ID: 54516-007.d

Analysis Method: TO-15 Date Collected: 02/25/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/27/2023 16:11

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.: 188890 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
100-41-4	Ethylbenzene	0.040	U	0.040	0.010
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	0.0084
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-	0.040	U	0.040	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	0.040	U	0.040	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
67-64-1	Acetone	1.0	U	1.0	0.32
67-66-3	Chloroform	0.040	U	0.040	0.0082

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

Lab Name: Eurofins Burlington Job No.: 200-67012-1

SDG No.:

Client Sample ID: 4361 Lab Sample ID: 200-67012-8

Matrix: Air Lab File ID: 54516-007.d

Analysis Method: TO-15 Date Collected: 02/25/2023 00:00

Sample wt/vol: 1000(mL) Date Analyzed: 02/27/2023 16:11

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.: 188890 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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	0.040	U	0.040	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	0.040	U	0.040	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	0.040	U	0.040	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	0.010
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

Eurofins Burlington
Target Compound Quantitation Report

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230227-54516.b\54516-007.d
Lims ID: 200-67012-A-8
Client ID: 4361
Sample Type: Client
Inject. Date: 27-Feb-2023 16:11:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 200.000 mL Dil. Factor: 0.2000
Sample Info: 200-0054516-007
Misc. Info.: 67012-8
Operator ID: wrd Instrument ID: CHW.i

Method: \\chromfs\Burlington\ChromData\CHW.i\20230227-54516.b\TO15_TO3_MasterMethod_W.m
Limit Group: AI_TO15_ICAL
Last Update: 28-Feb-2023 04:37:15 Calib Date: 01-Feb-2023 00:48:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Burlington\ChromData\CHW.i\20230131-54170.b\54170-013.d

Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
Process Host: CTX1656

First Level Reviewer: BKZ7 Date: 28-Feb-2023 07:09:11

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	1 Propene	41		4.083				ND	
	2 Dichlorodifluoromethane	85		4.174				ND	
	3 Chlorodifluoromethane	51		4.217				ND	
	4 1,2-Dichloro-1,1,2,2-tetrafluoro	85		4.517				ND	
	5 Chloromethane	50		4.634				ND	
	6 Vinyl chloride	62		4.923				ND	
	7 Butane	43		4.923				ND	
	8 Butadiene	54		5.036				ND	
	9 Bromomethane	94		5.736				ND	
	10 Chloroethane	64		6.004				ND	
	13 Vinyl bromide	106		6.421				ND	
	14 Trichlorofluoromethane	101		6.582				ND	
	16 Ethanol	45		6.951				ND	
	20 1,1-Dichloroethene	96		7.630				ND	
	21 1,1,2-Trichloro-1,2,2-trifluoroe	101		7.673				ND	
	22 Acetone	43		7.710				ND	
	23 Isopropyl alcohol	45		8.005				ND	
	24 Carbon disulfide	76	8.037	8.037	0.000	94	782	0.0222	
	26 3-Chloro-1-propene	41		8.320				ND	
	27 Methylene Chloride	49		8.550				ND	7
	28 2-Methyl-2-propanol	59		8.770				ND	
	30 trans-1,2-Dichloroethene	61		9.048				ND	
	31 Methyl tert-butyl ether	73		9.064				ND	
	32 Hexane	57		9.551				ND	
	33 1,1-Dichloroethane	63		9.802				ND	
	34 Vinyl acetate	43		9.813				ND	
S	35 1,2-Dichloroethene, Total	61		10.200				ND	7
	36 2-Butanone (MEK)	72		10.760				ND	
	37 cis-1,2-Dichloroethene	96		10.781				ND	
	38 Ethyl acetate	88		10.845				ND	
*	39 Chlorobromomethane	128	11.193	11.193	0.000	85	75832	10.0	

	Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
	40 Tetrahydrofuran	42		11.247				ND	
	41 Chloroform	83		11.370				ND	
	42 1,1,1-Trichloroethane	97		11.669				ND	
	43 Cyclohexane	84		11.814				ND	
	44 Carbon tetrachloride	117		11.953				ND	
	45 Benzene	78		12.290				ND	
	46 1,2-Dichloroethane	62		12.370				ND	
	47 Isooctane	57		12.514				ND	
	48 n-Heptane	43		12.830				ND	
*	49 1,4-Difluorobenzene	114	13.033	13.033	0.000	94	401727	10.0	
	51 Trichloroethene	95		13.461				ND	
	53 1,2-Dichloropropane	63		13.911				ND	
	54 Methyl methacrylate	69		14.012				ND	
	55 1,4-Dioxane	88		14.050				ND	
	57 Dibromomethane	174		14.071				ND	
	58 Dichlorobromomethane	83		14.382				ND	
	59 cis-1,3-Dichloropropene	75		15.184				ND	
	61 4-Methyl-2-pentanone (MIBK)	43		15.446				ND	
	62 Toluene	92		15.821				ND	
	66 trans-1,3-Dichloropropene	75		16.238				ND	
	67 1,1,2-Trichloroethane	83		16.612				ND	
	68 Tetrachloroethene	166		16.810				ND	7
	69 2-Hexanone	43		17.024				ND	
	70 Chlorodibromomethane	129		17.345				ND	
	71 Ethylene Dibromide	107		17.586				ND	
*	73 Chlorobenzene-d5	117	18.501	18.495	0.006	86	321595	10.0	
	74 Chlorobenzene	112		18.554				ND	
	75 Ethylbenzene	91		18.752				ND	
	76 m-Xylene & p-Xylene	106		19.014				ND	
	78 o-Xylene	106		19.785				ND	
	79 Styrene	104		19.822				ND	
S	80 Xylenes, Total	106		20.100				ND	7
	81 Bromoform	173		20.181				ND	
	82 Isopropylbenzene	105		20.512				ND	
	83 1,1,2,2-Tetrachloroethane	83		21.047				ND	
	85 N-Propylbenzene	91		21.256				ND	7
	86 2-Chlorotoluene	91		21.400				ND	7
	87 4-Ethyltoluene	105		21.459				ND	
	88 1,3,5-Trimethylbenzene	105		21.555				ND	
	91 tert-Butylbenzene	119		22.048				ND	
	92 1,2,4-Trimethylbenzene	105		22.139				ND	
	93 sec-Butylbenzene	105		22.379				ND	
	94 1,3-Dichlorobenzene	146		22.551				ND	7
	95 4-Isopropyltoluene	119		22.599				ND	
	96 1,4-Dichlorobenzene	146		22.695				ND	7
	97 Benzyl chloride	91		22.839				ND	
	98 n-Butylbenzene	91		23.155				ND	
	99 1,2-Dichlorobenzene	146		23.176				ND	7
	102 1,2,4-Trichlorobenzene	180		25.552				ND	
	103 Hexachlorobutadiene	225		25.798				ND	
	104 Naphthalene	128		26.012				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

ATTO15WISs_00010 Amount Added: 20.00 Units: mL Run Reagent

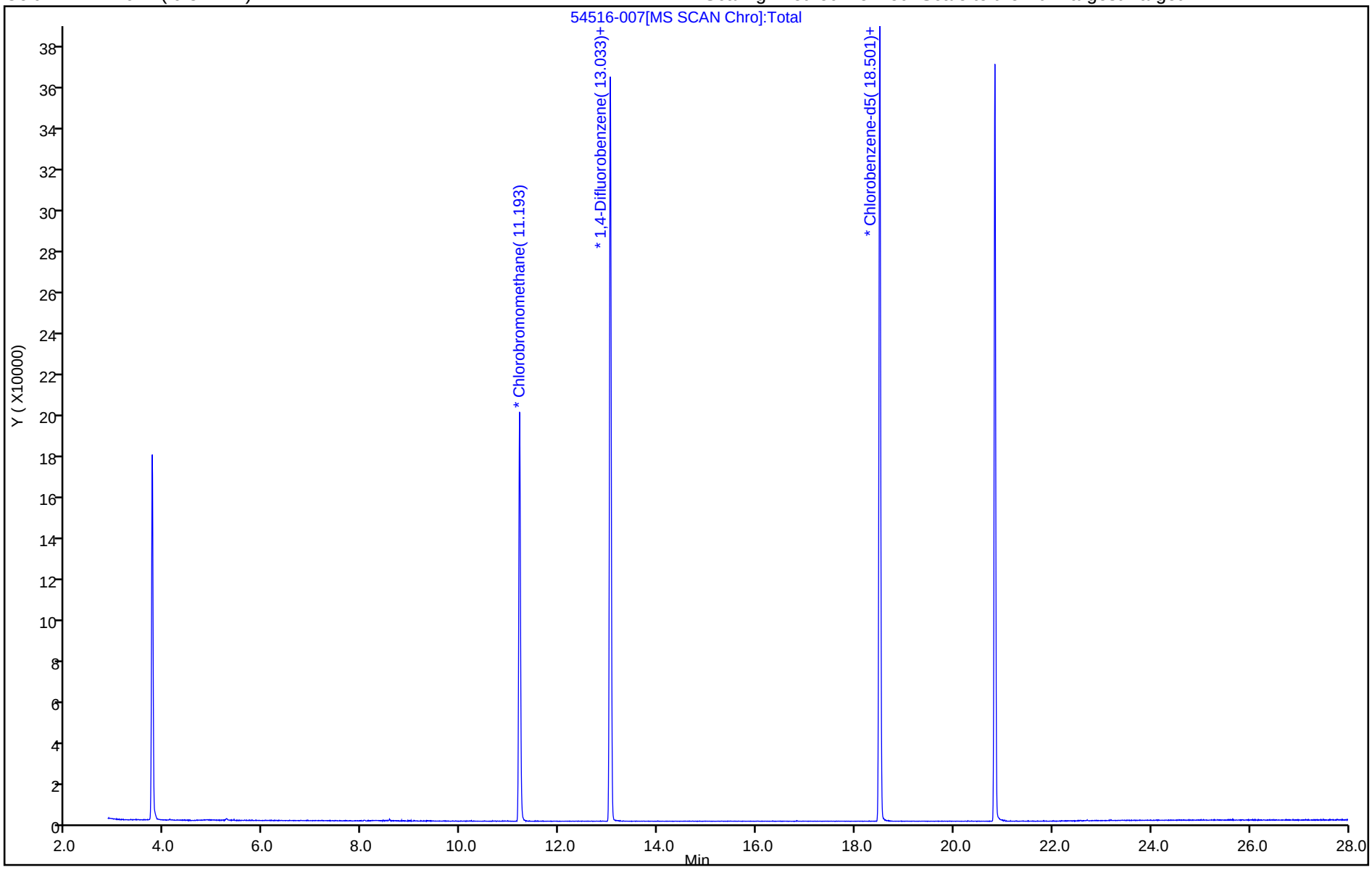
Report Date: 28-Feb-2023 07:09:11 Chrom Revision: 2.3 15-Feb-2023 20:44:50

Eurofins Burlington

Data File: \\chromfs\Burlington\ChromData\CHW.i\20230227-54516.b\54516-007.d

Injection Date:	27-Feb-2023 16:11:30	Instrument ID:	CHW.i	Operator ID:	wrd
Lims ID:	200-67012-A-8	Lab Sample ID:	200-67012-8	Worklist Smp#:	7
Client ID:	4361				
Purge Vol:	200.000 mL	Dil. Factor:	0.2000	ALS Bottle#:	6
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



ATTACHMENT E
VISL CALCULATIONS

Attachment E1 - Residential VISL Calculations

Variable	Value
Exposure Scenario	Resident
Temperature for Groundwater Vapor Concentration C	25
ED_{res} (exposure duration) years	26
TR (target risk) unitless	1E-05
THQ (target hazard quotient) unitless	1
LT (lifetime) years	70
EF_{res} (exposure frequency) days/year	350
ED_{0-2} (mutagenic exposure duration first phase) years	2
ED_{2-6} (mutagenic exposure duration second phase) years	4
ED_{6-16} (mutagenic exposure duration third phase) years	10
ED_{16-26} (mutagenic exposure duration fourth phase) years	10
EF_{0-2} (mutagenic exposure frequency first phase) days/year	350
EF_{2-6} (mutagenic exposure frequency second phase) days/year	350
EF_{6-16} (mutagenic exposure frequency third phase) days/year	350
EF_{16-26} (mutagenic exposure frequency fourth phase) days/year	350
ET_{res} (exposure time) hours/day	24
ET_{0-2} (mutagenic exposure time first phase) hours/day	24
ET_{2-6} (mutagenic exposure time second phase) hours/day	24
ET_{6-16} (mutagenic exposure time third phase) hours/day	24
ET_{16-26} (mutagenic exposure time fourth phase) hours/day	24
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03

Output generated 21APR2023:10:12:54

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-05 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-05 or THQ=1) C_{gw},Target ($\mu g/L$)
Carbon Disulfide	75-15-0	Yes	Yes	Yes	Yes	7.30E+02	NC	2.43E+04	1.24E+03
Cumene	98-82-8	Yes	Yes	Yes	Yes	4.17E+02	NC	1.39E+04	8.87E+02
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	6.26E+03	NC	2.09E+05	1.02E+03
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	7.30E+02	NC	2.43E+04	9.92E+00
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	2.09E+02	NC	6.95E+03	6.30E+05
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	5.21E+03	NC	1.74E+05	2.24E+06
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	Yes	Yes	3.13E+03	NC	1.04E+05	5.55E+05
Tetrahydrofuran	109-99-9	Yes	Yes	Yes	Yes	2.09E+03	NC	6.95E+04	7.24E+05
Toluene	108-88-3	Yes	Yes	Yes	Yes	5.21E+03	NC	1.74E+05	1.92E+04
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	Yes	Yes	5.21E+03	NC	1.74E+05	2.42E+02
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	6.26E+01	NC	2.09E+03	2.48E+02
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	6.26E+01	NC	2.09E+03	1.75E+02
Xylene, m-	108-38-3	Yes	Yes	Yes	Yes	1.04E+02	NC	3.48E+03	3.55E+02
Xylene, o-	95-47-6	Yes	Yes	Yes	Yes	1.04E+02	NC	3.48E+03	4.92E+02
Xylene, p-	106-42-3	Yes	Yes	Yes	Yes	1.04E+02	NC	3.48E+03	3.70E+02

Resident Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp}\ (25 °C)\ (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc}\ (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m³)$^{-1}$	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-05 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ (µg/m³)
--	1.47E+09	1.27E+09	25	1.30	CRC	-		7.00E-01	I	No	-	7.30E+02
--	2.91E+07	2.88E+07	25	0.90	CRC	-		4.00E-01	I	No	-	4.17E+02
--	4.38E+08	3.37E+08	25	1.30	CRC	-		6.00E+00	I	No	-	6.26E+03
--	7.01E+08	6.99E+08	25	1.10	CRC	-		7.00E-01	I	No	-	7.30E+02
--	1.47E+08	3.31E+08	25	2.00	CRC	-		2.00E-01	P	No	-	2.09E+02
--	3.51E+08	5.19E+08	25	1.40	CRC	-		5.00E+00	I	No	-	5.21E+03
--	1.07E+08	1.07E+08	25	1.20	CRC	-		3.00E+00	I	No	-	3.13E+03
--	6.29E+08	2.88E+09	25	2.00	CRC	-		2.00E+00	I	No	-	2.09E+03
No (1000)	1.41E+08	1.43E+08	25	1.10	CRC	-		5.00E+00	I	No	-	5.21E+03
--	3.65E+09	3.66E+09	25	-		-		5.00E+00	P	No	-	5.21E+03
--	1.36E+07	1.44E+07	25	0.90	CRC	-		6.00E-02	I	No	-	6.26E+01
--	1.60E+07	1.73E+07	25	1.00	CRC	-		6.00E-02	I	No	-	6.26E+01
--	4.73E+07	4.73E+07	25	1.10	CRC	-		1.00E-01	G	No	-	1.04E+02
--	3.77E+07	3.77E+07	25	0.90	CRC	-		1.00E-01	G	No	-	1.04E+02
--	5.05E+07	4.57E+07	25	1.10	CRC	-		1.00E-01	G	No	-	1.04E+02

Chemical Properties

Output generated 21APR2023:10:12:54

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)
Carbon Disulfide	75-15-0	Yes	Yes	76.139	PHYSPROP	3.59E+02	PHYSPROP	2.16E+03	PHYSPROP	-
Cumene	98-82-8	Yes	Yes	120.2	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP	-
Cyclohexane	110-82-7	Yes	Yes	84.163	PHYSPROP	9.69E+01	PHYSPROP	5.50E+01	PHYSPROP	-
Hexane, N-	110-54-3	Yes	Yes	86.178	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP	-
Isopropanol	67-63-0	Yes	Yes	60.097	PHYSPROP	4.54E+01	PHYSPROP	1.00E+06	PHYSPROP	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	72.108	PHYSPROP	9.06E+01	PHYSPROP	2.23E+05	PHYSPROP	-
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	100.16	PHYSPROP	1.99E+01	PHYSPROP	1.90E+04	PHYSPROP	-
Tetrahydrofuran	109-99-9	Yes	Yes	72.108	PHYSPROP	1.62E+02	PHYSPROP	1.00E+06	PHYSPROP	-
Toluene	108-88-3	Yes	Yes	92.142	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP	1000
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	187.38	PHYSPROP	3.63E+02	PHYSPROP	1.70E+02	PHYSPROP	-
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.2	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP	-
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.2	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP	-
Xylene, m-	108-38-3	Yes	Yes	106.17	PHYSPROP	8.29E+00	PHYSPROP	1.61E+02	PHYSPROP	-
Xylene, o-	95-47-6	Yes	Yes	106.17	PHYSPROP	6.61E+00	PHYSPROP	1.78E+02	PHYSPROP	-
Xylene, p-	106-42-3	Yes	Yes	106.17	PHYSPROP	8.84E+00	PHYSPROP	1.62E+02	PHYSPROP	-

Chemical Properties

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HLC (atm-m ^{3}/mole)	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C\ (K)	T_C\ Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$\ (cal/mol)	$\Delta H_{v,b}$\ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
1.44E-02	5.89E-01	PHYSPROP	5.89E-01	319.15	PHYSPROP	5.52E+02	CRC	6.39E+03	CRC	1.3	CRC
1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC	1.03E+04	TOXNET	0.9	CRC
1.50E-01	6.13E+00	PHYSPROP	6.13E+00	353.85	PHYSPROP	5.53E+02	CRC	7.16E+03	CRC	1.3	CRC
1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC	6.90E+03	CRC	1.1	CRC
8.10E-06	3.31E-04	PHYSPROP	3.31E-04	355.45	PHYSPROP	5.08E+02	CRC	9.52E+03	CRC	2	CRC
5.69E-05	2.33E-03	PHYSPROP	2.33E-03	352.65	PHYSPROP	5.37E+02	CRC	7.48E+03	CRC	1.4	CRC
1.38E-04	5.64E-03	EPI	5.64E-03	389.65	PHYSPROP	5.75E+02	CRC	8.24E+03	CRC	1.2	CRC
7.05E-05	2.88E-03	PHYSPROP	2.88E-03	338.15	PHYSPROP	5.40E+02	CRC	7.12E+03	CRC	2	CRC
6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC	7.93E+03	CRC	1.1	CRC
5.26E-01	2.15E+01	EPI	2.15E+01	320.85	PHYSPROP	4.87E+02	CRC	6.46E+03	CRC	-	
6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC	9.37E+03	TOXNET	0.9	CRC
8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC	9.32E+03	TOXNET	1	CRC
7.18E-03	2.94E-01	PHYSPROP	2.94E-01	412.25	PHYSPROP	6.17E+02	CRC	8.52E+03	CRC	1.1	CRC
5.18E-03	2.12E-01	PHYSPROP	2.12E-01	417.65	PHYSPROP	6.30E+02	CRC	8.66E+03	CRC	0.9	CRC
6.90E-03	2.82E-01	PHYSPROP	2.82E-01	411.38	PHYSPROP	6.16E+02	CRC	8.53E+03	CRC	1.1	CRC

Attachment E2 - Commercial VISL Calculations

Variable		Value
Exposure Scenario		Commercial
Temperature for Groundwater Vapor Concentration	C	25
THQ (target hazard quotient) unitless		1
TR (target risk) unitless		1E-05
AT_{w} (averaging time - composite worker)		365
EF_{w} (exposure frequency - composite worker) day/yr		250
ED_{w} (exposure duration - composite worker) yr		25
ET_{w} (exposure time - composite worker) hr		8
LT (lifetime) yr		70
AF_{gw} (Attenuation Factor Groundwater) unitless		0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless		0.03

Output generated 21APR2023:10:14:41

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-05 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-05 or THQ=1) C_{gw},Target ($\mu g/L$)
Carbon Disulfide	75-15-0	Yes	Yes	Yes	Yes	3.07E+03	NC	1.02E+05	5.21E+03
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+03	NC	5.84E+04	3.73E+03
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	2.63E+04	NC	8.76E+05	4.29E+03
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+03	NC	1.02E+05	4.17E+01
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	8.76E+02	NC	2.92E+04	2.65E+06
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	2.19E+04	NC	7.30E+05	9.41E+06
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	Yes	Yes	1.31E+04	NC	4.38E+05	2.33E+06
Tetrahydrofuran	109-99-9	Yes	Yes	Yes	Yes	8.76E+03	NC	2.92E+05	3.04E+06
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+04	NC	7.30E+05	8.07E+04
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	Yes	Yes	2.19E+04	NC	7.30E+05	1.02E+03
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+02	NC	8.76E+03	1.04E+03
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+02	NC	8.76E+03	7.33E+02
Xylene, m-	108-38-3	Yes	Yes	Yes	Yes	4.38E+02	NC	1.46E+04	1.49E+03
Xylene, o-	95-47-6	Yes	Yes	Yes	Yes	4.38E+02	NC	1.46E+04	2.07E+03
Xylene, p-	106-42-3	Yes	Yes	Yes	Yes	4.38E+02	NC	1.46E+04	1.55E+03

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp}\ (25 °C)\ (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc}\ (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m³)$^{-1}$	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-05 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ (µg/m³)
--	1.47E+09	1.27E+09	25	1.30	CRC	-		7.00E-01	I	No	-	3.07E+03
--	2.91E+07	2.88E+07	25	0.90	CRC	-		4.00E-01	I	No	-	1.75E+03
--	4.38E+08	3.37E+08	25	1.30	CRC	-		6.00E+00	I	No	-	2.63E+04
--	7.01E+08	6.99E+08	25	1.10	CRC	-		7.00E-01	I	No	-	3.07E+03
--	1.47E+08	3.31E+08	25	2.00	CRC	-		2.00E-01	P	No	-	8.76E+02
--	3.51E+08	5.19E+08	25	1.40	CRC	-		5.00E+00	I	No	-	2.19E+04
--	1.07E+08	1.07E+08	25	1.20	CRC	-		3.00E+00	I	No	-	1.31E+04
--	6.29E+08	2.88E+09	25	2.00	CRC	-		2.00E+00	I	No	-	8.76E+03
No (1000)	1.41E+08	1.43E+08	25	1.10	CRC	-		5.00E+00	I	No	-	2.19E+04
--	3.65E+09	3.66E+09	25	-		-		5.00E+00	P	No	-	2.19E+04
--	1.36E+07	1.44E+07	25	0.90	CRC	-		6.00E-02	I	No	-	2.63E+02
--	1.60E+07	1.73E+07	25	1.00	CRC	-		6.00E-02	I	No	-	2.63E+02
--	4.73E+07	4.73E+07	25	1.10	CRC	-		1.00E-01	G	No	-	4.38E+02
--	3.77E+07	3.77E+07	25	0.90	CRC	-		1.00E-01	G	No	-	4.38E+02
--	5.05E+07	4.57E+07	25	1.10	CRC	-		1.00E-01	G	No	-	4.38E+02

Chemical Properties

Output generated 21APR2023:10:14:41

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)
Carbon Disulfide	75-15-0	Yes	Yes	76.139	PHYSPROP	3.59E+02	PHYSPROP	2.16E+03	PHYSPROP	-
Cumene	98-82-8	Yes	Yes	120.2	PHYSPROP	4.50E+00	PHYSPROP	6.13E+01	PHYSPROP	-
Cyclohexane	110-82-7	Yes	Yes	84.163	PHYSPROP	9.69E+01	PHYSPROP	5.50E+01	PHYSPROP	-
Hexane, N-	110-54-3	Yes	Yes	86.178	PHYSPROP	1.51E+02	PHYSPROP	9.50E+00	PHYSPROP	-
Isopropanol	67-63-0	Yes	Yes	60.097	PHYSPROP	4.54E+01	PHYSPROP	1.00E+06	PHYSPROP	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	72.108	PHYSPROP	9.06E+01	PHYSPROP	2.23E+05	PHYSPROP	-
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	100.16	PHYSPROP	1.99E+01	PHYSPROP	1.90E+04	PHYSPROP	-
Tetrahydrofuran	109-99-9	Yes	Yes	72.108	PHYSPROP	1.62E+02	PHYSPROP	1.00E+06	PHYSPROP	-
Toluene	108-88-3	Yes	Yes	92.142	PHYSPROP	2.84E+01	PHYSPROP	5.26E+02	PHYSPROP	1000
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	187.38	PHYSPROP	3.63E+02	PHYSPROP	1.70E+02	PHYSPROP	-
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.2	PHYSPROP	2.10E+00	PHYSPROP	5.70E+01	PHYSPROP	-
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.2	PHYSPROP	2.48E+00	PHYSPROP	4.82E+01	PHYSPROP	-
Xylene, m-	108-38-3	Yes	Yes	106.17	PHYSPROP	8.29E+00	PHYSPROP	1.61E+02	PHYSPROP	-
Xylene, o-	95-47-6	Yes	Yes	106.17	PHYSPROP	6.61E+00	PHYSPROP	1.78E+02	PHYSPROP	-
Xylene, p-	106-42-3	Yes	Yes	106.17	PHYSPROP	8.84E+00	PHYSPROP	1.62E+02	PHYSPROP	-

Chemical Properties

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HLC (atm-m³/mole)	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C\ (K)	T_C\ Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$\ (cal/mol)	$\Delta H_{v,b}$\ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
1.44E-02	5.89E-01	PHYSPROP	5.89E-01	319.15	PHYSPROP	5.52E+02	CRC	6.39E+03	CRC	1.3	CRC
1.15E-02	4.70E-01	PHYSPROP	4.70E-01	425.55	PHYSPROP	6.31E+02	CRC	1.03E+04	TOXNET	0.9	CRC
1.50E-01	6.13E+00	PHYSPROP	6.13E+00	353.85	PHYSPROP	5.53E+02	CRC	7.16E+03	CRC	1.3	CRC
1.80E+00	7.36E+01	EPI	7.36E+01	341.85	PHYSPROP	5.08E+02	CRC	6.90E+03	CRC	1.1	CRC
8.10E-06	3.31E-04	PHYSPROP	3.31E-04	355.45	PHYSPROP	5.08E+02	CRC	9.52E+03	CRC	2	CRC
5.69E-05	2.33E-03	PHYSPROP	2.33E-03	352.65	PHYSPROP	5.37E+02	CRC	7.48E+03	CRC	1.4	CRC
1.38E-04	5.64E-03	EPI	5.64E-03	389.65	PHYSPROP	5.75E+02	CRC	8.24E+03	CRC	1.2	CRC
7.05E-05	2.88E-03	PHYSPROP	2.88E-03	338.15	PHYSPROP	5.40E+02	CRC	7.12E+03	CRC	2	CRC
6.64E-03	2.71E-01	PHYSPROP	2.71E-01	383.75	PHYSPROP	5.92E+02	CRC	7.93E+03	CRC	1.1	CRC
5.26E-01	2.15E+01	EPI	2.15E+01	320.85	PHYSPROP	4.87E+02	CRC	6.46E+03	CRC	-	
6.16E-03	2.52E-01	PHYSPROP	2.52E-01	442.45	PHYSPROP	6.49E+02	CRC	9.37E+03	TOXNET	0.9	CRC
8.77E-03	3.59E-01	PHYSPROP	3.59E-01	437.85	PHYSPROP	6.37E+02	CRC	9.32E+03	TOXNET	1	CRC
7.18E-03	2.94E-01	PHYSPROP	2.94E-01	412.25	PHYSPROP	6.17E+02	CRC	8.52E+03	CRC	1.1	CRC
5.18E-03	2.12E-01	PHYSPROP	2.12E-01	417.65	PHYSPROP	6.30E+02	CRC	8.66E+03	CRC	0.9	CRC
6.90E-03	2.82E-01	PHYSPROP	2.82E-01	411.38	PHYSPROP	6.16E+02	CRC	8.53E+03	CRC	1.1	CRC

Attachment E3 - Industrial VISL Calculations

Variable	Commercial Air Default Value	Site-Specific Value
AF_{gw} (Attenuation Factor Groundwater) unitless	0.001	0.001
AF_{ss} (Attenuation Factor Sub-Slab) unitless	0.03	0.01
AT_{w} (averaging time - composite worker)	365	365
ED_{w} (exposure duration - composite worker) yr	25	25
EF_{w} (exposure frequency - composite worker) day/yr	250	250
ET_{w} (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	1
LT (lifetime) yr	70	70
TR (target risk) unitless	1.0E-06	1.0E-05

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Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source? ($C_{vp} > C_{i,a}$,Target?)	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source? ($C_{hc} > C_{i,a}$,Target?)	Target Indoor Air Concentration (TCR=1E-05 or THQ=1) MIN($C_{ia,c}$,$C_{ia,nc}$) ($\mu g/m^3$)	Toxicity Basis	Target Sub-Slab and Near-source Soil Gas Concentration (TCR=1E-05 or THQ=1) C_{sg},Target ($\mu g/m^3$)	Target Groundwater Concentration (TCR=1E-05 or THQ=1) C_{gw},Target ($\mu g/L$)
Carbon Disulfide	75-15-0	Yes	Yes	Yes	Yes	3.07E+03	NC	3.07E+05	5.21E+03
Cumene	98-82-8	Yes	Yes	Yes	Yes	1.75E+03	NC	1.75E+05	3.73E+03
Cyclohexane	110-82-7	Yes	Yes	Yes	Yes	2.63E+04	NC	2.63E+06	4.29E+03
Hexane, N-	110-54-3	Yes	Yes	Yes	Yes	3.07E+03	NC	3.07E+05	4.17E+01
Isopropanol	67-63-0	Yes	Yes	Yes	Yes	8.76E+02	NC	8.76E+04	2.65E+06
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	Yes	Yes	2.19E+04	NC	2.19E+06	9.41E+06
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	Yes	Yes	1.31E+04	NC	1.31E+06	2.33E+06
Tetrahydrofuran	109-99-9	Yes	Yes	Yes	Yes	8.76E+03	NC	8.76E+05	3.04E+06
Toluene	108-88-3	Yes	Yes	Yes	Yes	2.19E+04	NC	2.19E+06	8.07E+04
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	Yes	Yes	2.19E+04	NC	2.19E+06	1.02E+03
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	Yes	Yes	2.63E+02	NC	2.63E+04	1.04E+03
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	Yes	Yes	2.63E+02	NC	2.63E+04	7.33E+02
Xylene, m-	108-38-3	Yes	Yes	Yes	Yes	4.38E+02	NC	4.38E+04	1.49E+03
Xylene, o-	95-47-6	Yes	Yes	Yes	Yes	4.38E+02	NC	4.38E+04	2.07E+03
Xylene, p-	106-42-3	Yes	Yes	Yes	Yes	4.38E+02	NC	4.38E+04	1.55E+03

Commercial Vapor Intrusion Screening Levels (VISL)

Key: I = IRIS; P = PPRTV; O = OPP; A = ATSDR; C = Cal EPA; X = PPRTV Screening Level; H = HEAST; D = DWSHA; W = TEF applied; E = RPF applied; U = user provided; G = see RSL User's Guide Section 5; CA = cancer; NC = noncancer.

Is Target Groundwater Concentration < MCL? (C_{gw} < MCL?)	Pure Phase Vapor Concentration C_{vp}\ (25 °C)\ (µg/m³)	Maximum Groundwater Vapor Concentration C_{hc}\ (µg/m³)	Temperature for Maximum Groundwater Vapor Concentration (°C)	Lower Explosive Limit LEL (% by volume)	LEL Ref	IUR (ug/m³)$^{-1}$	IUR Ref	RfC (mg/m³)	RfC Ref	Mutagenic Indicator	Carcinogenic VISL TCR=1E-05 $C_{ia,c}$ (µg/m³)	Noncarcinogenic VISL THQ=1 $C_{ia,nc}$ (µg/m³)
--	1.47E+09	1.27E+09	25	1.30	U	-		7.00E-01	U	No	-	3.07E+03
--	2.91E+07	2.88E+07	25	0.90	U	-		4.00E-01	U	No	-	1.75E+03
--	4.39E+08	3.37E+08	25	1.30	U	-		6.00E+00	U	No	-	2.63E+04
--	7.00E+08	6.99E+08	25	1.10	U	-		7.00E-01	U	No	-	3.07E+03
--	1.47E+08	3.31E+08	25	2.00	U	-		2.00E-01	U	No	-	8.76E+02
--	3.51E+08	5.19E+08	25	1.40	U	-		5.00E+00	U	No	-	2.19E+04
--	1.07E+08	1.07E+08	25	1.20	U	-		3.00E+00	U	No	-	1.31E+04
--	6.28E+08	2.88E+09	25	2.00	U	-		2.00E+00	U	No	-	8.76E+03
No (1000)	1.41E+08	1.43E+08	25	1.10	U	-		5.00E+00	U	No	-	2.19E+04
--	3.65E+09	3.66E+09	25	-		-		5.00E+00	U	No	-	2.19E+04
--	1.36E+07	1.44E+07	25	0.90	U	-		6.00E-02	U	No	-	2.63E+02
--	1.60E+07	1.73E+07	25	1.00	U	-		6.00E-02	U	No	-	2.63E+02
--	4.73E+07	4.73E+07	25	1.10	U	-		1.00E-01	U	No	-	4.38E+02
--	3.77E+07	3.77E+07	25	0.90	U	-		1.00E-01	U	No	-	4.38E+02
--	5.05E+07	4.57E+07	25	1.10	U	-		1.00E-01	U	No	-	4.38E+02

Chemical Properties

Chemical	CAS Number	Does the chemical meet the definition for volatility? (HLC>1E-5 or VP>1)	Does the chemical have inhalation toxicity data? (IUR and/or RfC)	MW	MW Ref	Vapor Pressure VP (mm Hg)	VP Ref	S (mg/L)	S Ref	MCL (ug/L)
Carbon Disulfide	75-15-0	Yes	Yes	76.14	U	3.59E+02	U	2.16E+03	U	-
Cumene	98-82-8	Yes	Yes	120.20	U	4.50E+00	U	6.13E+01	U	-
Cyclohexane	110-82-7	Yes	Yes	84.16	U	9.69E+01	U	5.50E+01	U	-
Hexane, N-	110-54-3	Yes	Yes	86.18	U	1.51E+02	U	9.50E+00	U	-
Isopropanol	67-63-0	Yes	Yes	60.10	U	4.54E+01	U	1.00E+06	U	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	Yes	Yes	72.11	U	9.06E+01	U	2.23E+05	U	-
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	Yes	Yes	100.16	U	1.99E+01	U	1.90E+04	U	-
Tetrahydrofuran	109-99-9	Yes	Yes	72.11	U	1.62E+02	U	1.00E+06	U	-
Toluene	108-88-3	Yes	Yes	92.14	U	2.84E+01	U	5.26E+02	U	1000
Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	Yes	Yes	187.38	U	3.62E+02	U	1.70E+02	U	-
Trimethylbenzene, 1,2,4-	95-63-6	Yes	Yes	120.20	U	2.10E+00	U	5.70E+01	U	-
Trimethylbenzene, 1,3,5-	108-67-8	Yes	Yes	120.20	U	2.48E+00	U	4.82E+01	U	-
Xylene, m-	108-38-3	Yes	Yes	106.17	U	8.29E+00	U	1.61E+02	U	-
Xylene, o-	95-47-6	Yes	Yes	106.17	U	6.61E+00	U	1.78E+02	U	-
Xylene, p-	106-42-3	Yes	Yes	106.17	U	8.84E+00	U	1.62E+02	U	-

Chemical Properties

HLC (atm-m³/mole)	Henry's Law Constant (unitless)	H` and HLC Ref	Henry's Law Constant Used in Calcs (unitless)	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_c\ (K)	T_c\ Ref	Enthalpy of vaporization at the normal boiling point $\Delta H_{v,b}$\ (cal/mol)	$\Delta H_{v,b}$\ Ref	Lower Explosive Limit LEL (% by volume)	LEL Ref
1.44E-02	5.89E-01	U	5.89E-01	319.15	U	5.52E+02	U	6390.00	U	1.30	U
1.15E-02	4.70E-01	U	4.70E-01	425.15	U	6.31E+02	U	10300.00	U	0.90	U
1.50E-01	6.13E+00	U	6.13E+00	353.85	U	5.53E+02	U	7160.00	U	1.30	U
1.80E+00	7.36E+01	U	7.36E+01	341.85	U	5.08E+02	U	6900.00	U	1.10	U
8.10E-06	3.31E-04	U	3.31E-04	355.45	U	5.08E+02	U	9520.00	U	2.00	U
5.69E-05	2.33E-03	U	2.33E-03	352.65	U	5.37E+02	U	7480.00	U	1.40	U
1.38E-04	5.64E-03	U	5.64E-03	389.15	U	5.75E+02	U	8240.00	U	1.20	U
7.05E-05	2.88E-03	U	2.88E-03	338.15	U	5.40E+02	U	7120.00	U	2.00	U
6.64E-03	2.71E-01	U	2.71E-01	384.15	U	5.92E+02	U	7930.00	U	1.10	U
5.26E-01	2.15E+01	U	2.15E+01	320.85	U	4.87E+02	U	6460.00	U	-	
6.16E-03	2.52E-01	U	2.52E-01	442.15	U	6.49E+02	U	9370.00	U	0.90	U
8.77E-03	3.59E-01	U	3.59E-01	438.15	U	6.37E+02	U	9320.00	U	1.00	U
7.18E-03	2.94E-01	U	2.94E-01	412.15	U	6.17E+02	U	8520.00	U	1.10	U
5.18E-03	2.12E-01	U	2.12E-01	417.15	U	6.30E+02	U	8660.00	U	0.90	U
6.90E-03	2.82E-01	U	2.82E-01	411.15	U	6.16E+02	U	8530.00	U	1.10	U