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Vapor Intrusion Monitoring Report

Former Frank Wear Cleaners
Yakima, Washington

1 April 2024

Prepared for

Washington State Department of Ecology
1250 W. Alder Street
Union Gap, WA 98903

KJ Project No. 1996002*16

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Section 1: Introduction and Objective

Kennedy/Jenks Consultants, Inc. (Kennedy Jenks), on behalf of the Washington State Department of Ecology (Ecology), has prepared this Vapor Intrusion Monitoring Report (Report) to present the results of the indoor air and sub-slab sampling conducted in December 2023 at 108 South Third Avenue, Yakima, Washington (Figure 1), adjacent to the former Frank Wear Cleaners site (site).

The objective of this project was to conduct vapor intrusion monitoring at the building adjacent to the site (at 108 South Third Avenue) to evaluate the effectiveness of the soil vapor extraction (SVE) system operating at the site. The vapor intrusion monitoring included collection of indoor air, ambient air, and sub-slab vapor point samples from approximately the same locations as previous samples collected at the site between 2011 and 2018, accounting for changes to the building configuration and use over time.

Section 2: Background

A dry cleaning facility operated on a portion of the site from the early 1940s to 2000, located at 106 South Third Avenue in Yakima, Washington. During many of those years, the dry cleaner used tetrachloroethene (PCE) as the dry cleaning solvent. As a result of the past dry cleaning operations, PCE has been detected in soil vapor, soil, and groundwater at and adjacent to the site. A building located adjacent to the former Frank Wear Cleaners building is currently operated as a childcare center (108 South Third Avenue).

In September and October 2011, a vapor intrusion study was performed at the childcare center to evaluate whether PCE or other volatile organic compounds (VOCs) might be migrating into the childcare center building that is occupied during the day by children or onsite staff. As part of the vapor intrusion study, indoor and ambient outdoor air samples, as well as sub-slab soil vapor samples were collected for chemical analyses. PCE was detected in indoor air samples collected at the childcare center at concentrations greater than the Model Toxics Control Act (MTCA) Method B indoor air cleanup level (CUL), prompting implementation of an interim remedial action (Kennedy Jenks 2011).

In 2012, an SVE system was constructed at the site with the primary objective of mitigating vapor intrusion of PCE and other chemicals of interest (COIs) by inducing a vacuum [i.e., sub-slab depressurization (SSD)] beneath the building concrete slab (Kennedy Jenks 2012a). Along with construction of the SVE system, five sub-slab monitoring points (SS-1 through SS-5) were installed inside the building (Figure 2). The sub-slab monitoring point SS-4 was decommissioned in 2015. Extracted soil vapor from the SVE system is treated using vapor-phase granular activated carbon (GAC) prior to atmospheric discharge, complying with the requirements from the Yakima Regional Clean Air Agency (YRCAA) (Kennedy Jenks 2012b).

Section 3: Sampling Activities

This section describes the field preparation, sample collection, and post-sampling activities. Field activities were performed in accordance with the approved Sampling and Analysis Plan (SAP) as described below.

3.1 Field Preparation Activities

Prior to initiating the field investigation, Kennedy Jenks completed the following field preparation activities.

- Kennedy Jenks prepared a Sampling and Analysis Plan/Quality Assurance Project Plan (SAP/QAPP). This SAP/QAPP describes sample collection, handling, and analysis procedures, including quality assurance and quality control (QA/QC) requirements. The SAP/QAPP also includes a discussion of the rationale and requirements (number of samples and analyses) for vapor intrusion monitoring activities (Kennedy Jenks 2023). The SAP/QAPP was approved by Ecology in October 2023.

- Kennedy Jenks prepared a site-specific health and safety plan (HASP) describing health and safety measures to be followed by Kennedy Jenks employees for the site visit and vapor intrusion monitoring activities.

- Site access and sampling schedule was coordinated with the Ecology and the building tenant.

3.2 Building Survey

A site walk and building survey were conducted in October 2023 by Kennedy Jenks. Accompanied by a representative of the tenant and the Ecology project site manager, the interior and exterior of the childcare center were inspected and observations were made about the building's construction and potential influences on indoor air quality. The building survey form is included in Appendix A.

The two-story building is slab-on-grade construction and is believed to have been erected around the 1920s according to the building owner. The floor is covered in vinyl wood paneling or carpet, except for the kitchen, restroom, and storage areas (Figure 2). Minor quantities of typical household products such as cleaners and paint were stored within the building, but other sources or materials that could potentially impact indoor air quality (e.g., sources of VOCs) were not observed.

3.3 Vapor Pin® Leak Check

During the first initial site visit in October 2023, a water dam leak test was performed at all four (4) existing Vapor Pins® (SS-1, SS-2, SS-3, and SS-5) used previously for sub-slab sampling. If any of the vapor pins did not pass the leak testing, the vapor pin was to be reinstalled to maintain the sample integrity at the existing sampling points.

Before starting the leak test, a cap was placed on vapor pins that no longer have caps (SS-1 through SS-3), and any dirt and debris present in the vapor pin hole was cleared out. Bottled water was added to the clean hole to immerse the base of the vapor pin, and the vapor pin was inspected for signs of leaks (i.e., observations of water loss or bubbles from the base of the vapor pin). All four existing vapor pins passed the leak check and did not need to be reinstalled.

3.4 Ambient Air Sample Collection

During the second mobilization in December 2023, two ambient air samples were collected during the same time interval that the indoor air samples were collected, for 24-hours on the evening of 8 December until the evening of 9 December 2023. Ambient air samples were started at least 10 minutes before the indoor air samples to account for the air exchange rate into the building. The prevailing wind direction was northwest at the time of sample collection. One ambient air sample was collected upwind from the childcare center in the NW corner of the outdoor play area, and a second ambient air sample was collected within the SVE enclosure (Figure 2). Intakes were placed approximately 5 feet above ground surface to capture the typical breathing zone airspace. Field sampling logs are provided in Appendix B.

3.5 Indoor Air Sample Collection

Prior to indoor air sampling activities in December 2023, the occupants of the childcare building were requested to suspend those types of activities that may impact indoor air such as use of sprays, solvents, paints, etc., 24-hours prior to sampling (if possible). Occupants were also requested to suspend outdoor activities such as painting, etc. 24-hours prior to sampling.

The building was sealed where possible (i.e., windows and doors shut) and mechanical fans were turned off prior to the sampling event to minimize the dilution of potential contamination and/or built-up contaminant concentrations, thereby achieving conditions typical of the “worst-case” scenario. The building was unoccupied during the 24-hour sampling period, and windows and doors remained shut as much as possible during this time.

During the second mobilization to the site, four indoor air samples were collected over approximately 24-hours on the evening of 8 December until the evening of 9 December 2023. Indoor air sample locations (Figure 2) were based on previous sampling locations, adjusted for changes in building layout and use. An effort was made to collect samples in the nap areas (North and South Play Areas) closer to the floor to emulate the children’s breathing zone during naptime (IA-NEC and IA-SEC), while other locations were set up with intake heights within the breathing zone (approximately 4-feet above ground level). A duplicate sample was also collected concurrently with the IA-NEC sample. Field sampling logs are provided in Appendix B.

3.6 Sub-slab Vapor Sample Collection

During the second mobilization to the site in December 2023, sub-slab vapor samples were collected from the four previously installed vapor pins. Sub-slab soil gas samples were collected immediately after the indoor air samples were collected. The sub-slab results are used to estimate how much of the measured indoor air concentrations may be due to vapor intrusion. This is particularly helpful as background indoor or outdoor sources (i.e., common cleaners,

paints, automobile exhaust) may also contribute to measured indoor air concentrations of VOCs.

Samples were collected in 1-liter stainless steel Summa canisters, each fitted with a flow regulator to collect the sample at a rate of 150 milliliters per minute (mL/min), and dedicated tubing. Kennedy Jenks conducted a shut-in test of each sampling train to confirm the connections were vapor tight. Based on the sample train, between 46 and 90 mL of sub-slab vapors were purged while the sample canister valve was closed, prior to sample collection. The rubber cap for vapor pin SS-2 was missing upon arrival on 8 December and was promptly replaced that evening. However, to offset any potential dilution from indoor air three times the normal volume was purged at this location. Due to the constant operation of the SVE system, it was expected that there was greater potential for indoor air to be drawn into the sub-slab than for the introduction of sub-slab vapors into the indoor air space. During sample collection, the sampling train was covered in a large plastic bag (shroud) with a concentration of helium (a leak check compound) of around 20%. A blind field duplicate sample was also collected at the SS-1 location, however a loose quick connect fitting was observed after sampling. Field sampling logs are provided in Appendix B.

Section 4: Results

This section presents a summary of the results of the soil vapor and indoor air sampling. Analytical results are summarized in Table 1 and compared to the MTCA Method B Indoor Air CULs and soil vapor screening levels calculated from the CULs with an attenuation factor of 0.03. The analytical laboratory reports are provided in Appendix C and data validation reports are provided in Appendix D.

4.1 Data Validation

Data validation was performed following receipt of the indoor and ambient air, and sub-slab vapor laboratory results. The field duplicate for indoor air, collected with IA-NEC, had a relative percent difference above the acceptance criteria (52.3%), but concentrations were less than five times the reporting limit and the difference between the samples results was less than the lowest reporting limit, so no action was taken. A field duplicate sample was attempted at SS-1 location. However, due to an issue with the sample train during sample collection, the duplicate sample canister did not collect a sufficient sample volume and was unable to be analyzed.

Chloroform was detected in laboratory method blank samples associated with the indoor and ambient air samples. The reported indoor and ambient air sample results for chloroform were less than twice the reporting limit, and therefore were qualified non-detect, “U”, at the reported result values. Flagged data are described in data validation reports (Appendix D) and indicated in Table 1.

Data validation findings with respect to quality assurance and quality control (QA/QC) data do not adversely affect the use of the analytical results, and the data are acceptable as delivered.

4.2 Indoor Air Results

Indoor air sample results are summarized in Table 1. Two compounds, 1,2-dichloroethane and benzene were reported at concentrations above applicable CULs (Figure 3). Concentrations of 1,2-dichloroethane ranged from 0.20 micrograms per meter cubed (µg/m^3) to 0.27 µg/m^3 and benzene ranged from 1.4 µg/m^3 to 1.5 µg/m^3. Other compounds detected above method reporting limits but below applicable CULs are ethylbenzene, PCE, toluene, trans-1,2-dichloroethene, and xylenes. Sample concentrations appear generally consistent throughout the building, and there does not appear to be a discernable difference in concentrations in samples collected at the different heights.

Ambient air sample results are also summarized in Table 1. Sample concentrations in indoor air were generally consistent with the ambient air samples, except for 1,2-dichloroethane that was detected at concentrations almost four times greater in indoor air compared to ambient air.

As discussed above, due to the detection of chloroform in associated method blanks, the laboratory-reported results for chloroform in indoor and ambient air samples were qualified as non-detect, U, at the reported result values with ranged from 0.14 U µg/m^3 in the two ambient air samples to 0.20 U µg/m^3 in the four indoor air samples. These non-detect results were above the CUL for chloroform.

4.3 Sub-slab Vapor Results

Sub-slab sample results are summarized in Table 1. Benzene was reported above its sub-slab soil vapor screening level of 11 µg/m^3 in the sample from SS-1 at a concentration of 17 µg/m^3 (Figure 3). This result is over 7 times greater than the next highest sample concentration measured at SS-3 (2.2 µg/m^3). Other compounds detected in the sub-slab vapor samples were chloroform, ethylbenzene, PCE, toluene, and xylenes. Concentrations of PCE were higher in the SS-1 and SS-3 samples (eastern part of the building) compared to the SS-2 and SS-5 samples (2.4 µg/m^3 and 5.5 µg/m^3 vs. 0.61 µg/m^3 and 0.74 µg/m^3).

Helium was not detected above the method reporting limit in any of the sub-slab vapor samples. This suggests there were no significant leaks in the sample train and vapor pin sample port during sample collection.

Section 5: Discussion and Conclusion

This section presents a summary discussion of the results of the soil vapor and indoor air sampling.

5.1 Comparison with Historical Results

Historical results tables are included in Appendix E, including the analytical data for indoor air and sub-slab vapor from 2018 and earlier for comparison with the 2023 data. Sub-slab points SS-2 and SS-3 were not sampled after installation of the SVE system, and so are not compared with the current data. Indoor air locations IA-NEC and NWC are compared with historical location M1 and indoor air location IA-SEC is compared with historical location M3 (Figure 2).

Indoor air sample results in 2023 are consistent with the previous indoor air sampling in 2018 and earlier. Detected concentrations are similar to or slightly lower than previous results. The MTCA Indoor Air CUL exceedances in 2023 samples for 1,2-dichloroethane and benzene are consistent with the historical data.

Chlorinated compounds that were not detected in sub-slab vapor in 2018 were also not detected in 2023. Methylene chloride and TCE were previously detected in 2018 at both SS-1 and SS-5 and were not detected at any location in 2023. Chloroform and PCE detections in 2023 were at lower concentrations than in 2018. However, increases in detected concentrations were observed at all locations for benzene, ethylbenzene, and xylenes. The concentrations of ethylbenzene and xylenes in all samples and benzene in the sample from SS-1 were historical maximums. The only exceedance of a sub-slab soil vapor screening level in 2023 samples was for benzene at SS-1, which had previously had a benzene exceedance in 2012.

5.2 1,2-Dichloroethane in Indoor Air

Indoor air concentrations were consistent with the ambient air concentrations, except for 1,2-dichloroethane, which was an order of magnitude higher in indoor air than ambient air. 1,2-Dichloroethane was not detected in sub-slab soil vapor samples. 1,2-Dichloroethane is used in the manufacture of polyvinyl chloride (PVC [ASTDR 2001]) and has been found to offgas from commercial products at levels that can be observed during indoor air sampling (Doucette, W.J. 2010).

5.3 Conclusion

Since the indoor air concentrations were consistent with the ambient air concentrations, except for 1,2-dichloroethane, which was not detected in sub-slab vapor samples, vapor intrusion from the subsurface is not a likely source for indoor air. Results from the 2023 indoor air and sub-slab soil vapor sampling are consistent with past results and indicate that the SVE system operation continues to be protective of the building air space.

References

Agency for Toxic Substances and Disease Registry. 2001. 1,2-Dichloroethane, CAS #107-06-2, Division of Toxicology ToxFAQs. September 2001.

Doucette, W.J., A.J. Hall, and K.A. Gorder. 2010. Emissions of 1,2-Dichloroethane from Holiday Decorations as a Source of Indoor Air Contamination. *Groundwater Monitoring & Remediation* 30 no. 1: 65-71.

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Kennedy Jenks. 2012a. *Soil Vapor Extraction (SVE) System Construction Report, Former Frank Wear Cleaners Site, Yakima, Washington*. 4 December 2012.

Kennedy Jenks. 2012b. *Final Soil Vapor Extraction System, Interim Action Plan, Former Frank Wear Cleaners Site, Yakima, Washington*. 13 March 2012.

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Tables

Table 1: Analytical Results

Location ID	Sample Height	Sample Date	Sample Type	1,2-Dichloroethane	Benzene	Chloroform	cis-1,2-Dichloroethene	Ethylbenzene	Methylene Chloride	Tetrachloroethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloroethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total	HELIUM
CasRN				107-06-2	71-43-2	67-66-3	156-59-2	100-41-4	75-09-2	127-18-4	108-88-3	156-60-5	79-01-6	75-01-4	XYLENES1	95-47-6	1330-20-7	7440-59-7
MTCA Method B Indoor Air Cleanup Level[a]				0.096	0.32	0.11	18	460	66	9.6	2300	18	0.33	0.28	46	46	46	
Subslab Soil Vapor Screening Level[b]				3.2	11	3.6	610	15,000	2,200	320	76,000	600	11	9.3	1,500	1,500	1,500	
				ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	%
Indoor and Ambient Air Samples																		
AA-NWC		12/09/2023	N	**0.066 J**	**1.4**	< 0.14 U	< 0.11	**0.53**	< 0.97	**0.10 J**	**4.1**	**0.062 J**	< 0.15	< 0.036	**2.1**	**0.76**	**2.9**	
AA-SVE		12/09/2023	N	**0.063 J**	**1.4**	< 0.14 U	< 0.11	**0.54**	< 0.96	**0.10 J**	**3.9**	**0.059 J**	**0.022 J**	< 0.035	**2.2**	**0.81**	**3.0**	
IA-NEC	1.5 ft	12/09/2023	N	**0.21**	**1.4**	< 0.20 U	< 0.12	**0.56**	< 1.0	**0.10 J**	**4.2**	**0.055 J**	< 0.16	< 0.039	**2.2**	**0.81**	**3.0**	
IA-NEC	1.5 ft	12/09/2023	FD	**0.21**	**1.4**	< 0.20 U	< 0.12	**0.55**	< 1.0	**0.10 J**	**4.2**	**0.094 J**	< 0.16	< 0.037	**2.2**	**0.80**	**3.0**	
IA-NWC	4 ft	12/09/2023	N	**0.20**	**1.4**	< 0.20 U	< 0.13	**0.54**	< 1.1	**0.10 J**	**4.1**	**0.059 J**	< 0.18	< 0.042	**2.2**	**0.80**	**3.0**	
IA-SEC	1.5 ft	12/09/2023	N	**0.27**	**1.4**	< 0.20 U	< 0.12	**0.56**	< 1.0	**0.10 J**	**4.2**	**0.14 J**	< 0.16	< 0.038	**2.2**	**0.89**	**3.1**	
IA-SWC	4 ft	12/09/2023	N	**0.26**	**1.5**	< 0.20 U	< 0.12	**0.56**	< 1.1	**0.10 J**	**4.3**	**0.053 J**	< 0.16	< 0.039	**2.3**	**0.84**	**3.1**	
Subslab Soil Vapor Samples																		
SS-1		12/09/2023	N	< 0.82	**17**	< 0.99	< 0.80	**7.6**	< 1.4	**2.4**	**14**	< 0.80	< 1.1	< 0.52	**22**	**12**	**34**	< 0.10
SS-2		12/09/2023	N	< 0.87	**1.5**	**0.38 J**	< 0.85	**6.3**	< 1.5	**0.61 J**	**11**	< 0.85	< 1.2	< 0.55	**28**	**15**	**43**	< 0.11
SS-3		12/09/2023	N	< 0.84	**2.2**	**0.49 J**	< 0.82	**7.3**	< 1.4	**5.5**	**15**	< 0.82	< 1.1	< 0.53	**31**	**16**	**47**	< 0.10
SS-5		12/09/2023	N	< 0.88	**1.6**	**0.46 J**	< 0.86	**5.6**	< 1.5	**0.74 J**	**9.9**	< 0.86	< 1.2	< 0.55	**25**	**15**	**40**	< 0.11

Notes and Abbreviations:

"<" indicates compound not detected at or above the indicated method detection limit
"U" indicates that the value has been qualified as undetected (at the detected concentration if above the method reporting limit) due to blank contamination.
"J" indicates an estimated concentration based on either being less than the laboratory reporting limit or data validation findings.
Bold indicates detected concentration
Blue shading indicates exceedance of the applicable screening level
Grey shading indicates the compound was not detected at or above the indicated method detection limit, but the method detection limit exceeds the applicable screening level
FD = duplicate sample
N = normal environmental sample
ug/m3 = micrograms per cubic meter.

(a) MTCA Method B Indoor Air Cleanup Level, published in Ecology's Cleanup Levels and Risk Calculations (CLARC) database, effective February 2024.
(b) Soil vapor screening level from CLARC database, or calculated by dividing the indoor air cleanup level by 0.03 attenuation factor per Ecology's *Guidance for Evaluating Vapor Intrusion in Washington State* , March 2022.

Figures

\\kic-local\kic-root\GIS\GIS_CloudProjects\WA DOE\Frank Wear\Events\20231204_VIRpt\VI_Rpt.aprx\ Fig01_SiteLocationMap Date: 1/25/2024 Printed by: MayaK

N

0 1,000 2,000

Scale: Feet

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Washington State Department of Ecology
Frank Wear Cleaners
Yakima, Washington

Site Location Map

K/J 1996002*16

Figure 1

\\kjc.local\KJC-Root\GIS\GIS_CloudProjects\WA DOE\Frank Wear\Events\20231204_VIRpt\VI_Rpt.aprx\VI_Rpt Date: 2/5/2024 Printed by: MayaK

Legend

Wall Type
- Fence
- Exterior
- Interior (full)
- Interior (half)

Sample Locations
- Ambient Air Sample
- Indoor Air Sample
- Sub-slab Vapor Sample
- Sub-slab Vapor, Destroyed
- Air Sample, Historical

Notes:

1. All locations approximate
2. Historical upstairs indoor air sample location BMS-U1 not shown.
3. Historical ambient air location AMB-UPWIND same as current AA-NWC location.

N

0 10 20

Scale: Feet

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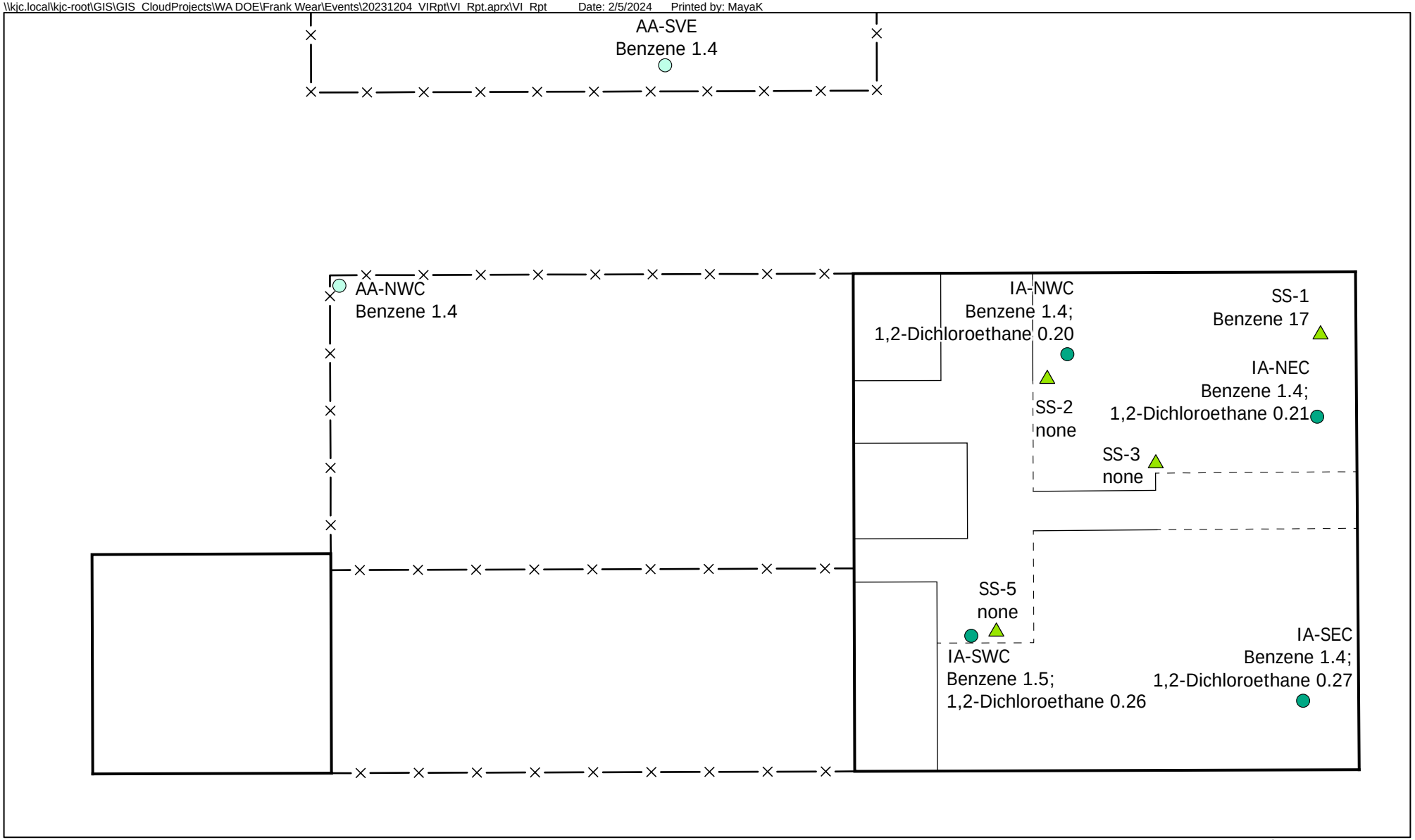
Frank Wear Cleaners
Yakima, Washington

Sample Location Map

K/J 1996002*16

Figure 2



Legend

Wall Type
- Fence
- Exterior
- Interior (full)
- Interior (half)

Sample Locations
- Ambient Air Sample
- Indoor Air Sample
- Sub-slab Vapor Sample

Notes:

1. All locations approximate
2. Concentrations in micrograms per cubic meter
3. Only exceedances of MTCA Method B Indoor Air Cleanup Levels and Sub-slab Soil Vapor Screening Levels shown.

N

0 10 20

Scale: Feet

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Washington State Department of Ecology
Frank Wear Cleaners
Yakima, Washington

Map of Screening Level Exceedances

K/J 1996002*16

Figure 3

Appendix A: Building Survey

Building Survey Form

Kennedy/Jenks Consultants

Project: Frank Wear Cleaners, Yakima, WA **Date/Time:** 12/1/2023

Preparer: Ella Gyerko **Project No.:** 1996002.16

OCCUPANT INFORMATION		**INTERVIEWED:** ☒ **YES** ☐ **NO**
Name/Company	Erick Mendoza, Terick's Early Learning Center	Phone 509-941-3774
Position/Title	Owner	Email tericksearlylearning@gmail.com
Mailing Address	108 South Third Avenue, Yakima, WA	
Describe the business and type of work: Childcare center		
Typical Operating Hours		

OWNER/LANDLORD INFORMATION (CHECK IF SAME AS OCCUPANT ☒)		**INTERVIEWED:** ☐ **YES** ☒ **NO**
Name/Company		Phone
Position/Title		Email
Mailing Address		

BUILDING INFORMATION

Type: ☐ Commercial (warehouse) ☐ Commercial (office) ☐ Industrial ☐ Strip Mall ☒ Other

Approximate Building Age (years) 1920s?	Number of Stories 2	Number of Elevators 0

Foundation Type: ☒ Slab-on-grade ☐ Crawl Space ☐ Basement

Describe condition of foundation:
Good

Is there an HVAC system? Yes

Are there other forms of ventilation (ceiling fans, roll-up doors, vents, etc.)?
No

Odors Noted? Household cleaner/bleach

FACTORS INFLUENCING INDOOR AIR QUALITY

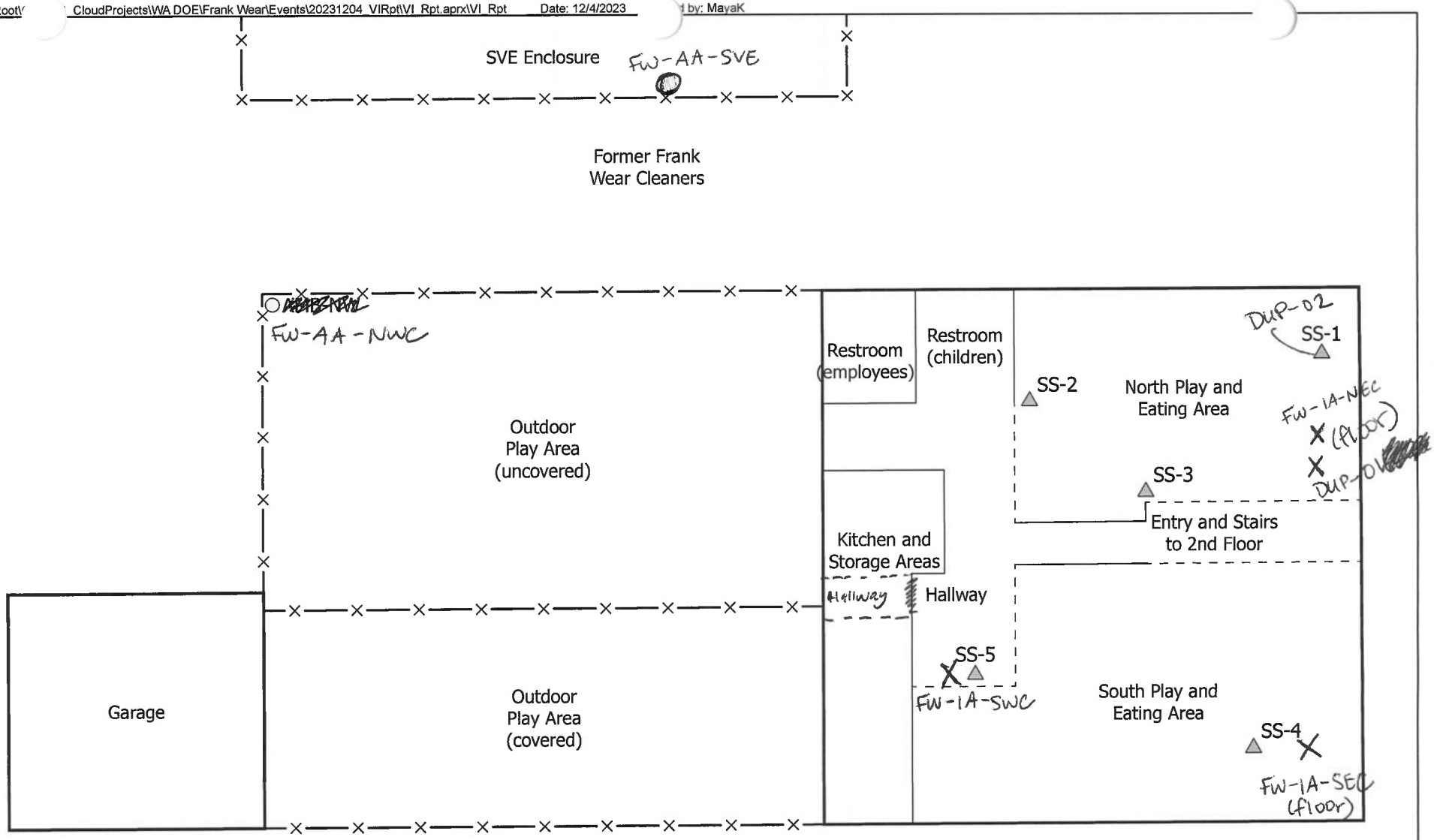
Are forklifts used inside the warehouse space?	☐ Yes	☒ No
Is there new carpet or furniture?	☐ Yes	☒ No
Do employees dry clean their clothes?	☐ Yes	☒ No
Has painting or staining been done within the last six months?	☐ Yes	☒ No
Has the building been recently remodeled?	☐ Yes	☒ No
Has the building ever had a fire?	☐ Yes	☒ No
Is there a maintenance area?	☐ Yes	☒ No

Is gas-powered equipment used?	☐ Yes	☒ No	
Is there a stationary emission source nearby (outdoors)?	☒ Yes	☐ No	SVE system
Are there mobile emission sources nearby (outdoors)?	☒ Yes	☐ No	
CHEMICAL INVENTORY			
Paints or paint thinners	☒ Yes	☐ No	In employee restroom
Gasoline storage cans	☐ Yes	☒ No	
Cleaning solvents	☐ Yes	☒ No	
Air fresheners	☒ Yes	☐ No	In employee restroom
Carpet/upholstery cleaners	☐ Yes	☒ No	
Bathroom cleaner	☒ Yes	☐ No	In employee restroom
Furniture/floor polish	☐ Yes	☒ No	
Fireplace	☐ Yes	☒ No	
Solvents, lacquers, glues	☐ Yes	☒ No	
Adhesives	☒ Yes	☐ No	Pipe cement, in employee restroom
Pressed wood products	☒ Yes	☐ No	Shelves
GENERAL COMMENTS			

FLOOR PLAN

See site figures.

Appendix B: Field Forms



Legend

Wall Type	Sample Type
* Fence	○ ambient
— Exterior	△ sub-slab
— Interior (full)	• <all other values>
- - Interior (half)	

X = indoor

Notes:

1. All locations approximate

N

0 10 20

Scale: Feet

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Washington State Department of Ecology
Frank Wear Cleaners
Yakima, Washington

Sample Location Map

K/J 1996002*16

Figure 2

Kennedy/Jenks Consultants

Subslab and Soil Vapor Survey Log Sheet

Project Name / Location: Frank Wear Cleaners Yakima, WA **Date:** 12/9/23

Client: **Field Representative(s):** **Arrival Time:** 1730

Samplers Name: Ella Gyerko **Departure Time:** 2330

Weather / Site Conditions: rain / snow

Sample ID	Installation Time	Canister/ Controller No.	Sample Collection Start Time	Sample Collection End Time	Probe Depth (ft)	Tubing Length (ft)	Purge Volume (mL)	Sample Volume (mL)	Flow Rate (mL/min)	Summa Vacuum Pressure (in Hg) Initial	Summa Vacuum Pressure (in Hg) Final	Tracer Gas Concentrations Initial Shroud Conc. (%)	Tracer Gas Concentrations Final Shroud Conc. (%)	Tracer Gas Concentrations Sample (%)	Shut-In Test <100" H_2O	Probe Vacuum Pressure <100" H_2O (downhole)
FW-SS-1(20231209)	IL 1915	2243/2335	2229	2235	sub slab	2.5	90			26	3	20	20			0
FW-SS-2(20231209)	IL 4230	2310/2240	2203	2208		2.5	135			25.5	5	20	19			0
FW-SS-3(20231209)	IL 2728	2242/2327	2131	2136		2.5	46			26.5	5	20	58			0
FW-SS-5(20231209)	IL 4468	2305/2311	2250	2257		2.5	46			27	5	20	21			0
* DUP-02(20231209)	IL 4224	2242/2335	2229	2235	▼	2.5	90			—	—					

* DUP-02 taken from SS-1 location

Probe Installation Materials

Filter:

Tubing:

Termination:

Probe Construction Specifications

Borehole Diam:

Subslab Sand Pack:

Soil Gas Sand Pack: Vapor Pins

PV's 1' 1/4-inch tubing = 5 ml 1' 1/8-inch tubing = 1 ml

Field Notes:

Ecology Former Frank Wear Site (Yakima, WA)
FIELD INDOOR AIR SAMPLING LOG

Project No.: 1996002.16

Date: 12/8/23 1900

Sampling Location ID: Frank Wear Cleaners

Sampling Personnel: Ella Gyerko

Weather conditions (Note approximate wind speed/direction, rain, and temperature): wind NW @ 3mph, humidity 61%, pressure 30.44 in, 37°F, clear skies, cold

Number of canisters placed in building: 4; plus 2 outside

Location of canister(s) within building: E. end of N. play area (floor), W. end of N. Play area, E. end of S. play area (floor), W. end of S. play area; NW corner of outdoor play area, SVE shed fenced area.

Location of duplicate sample(s), if taken: E. end of N. play area (floor)

Sample ID	Canister serial no.	Flow controller serial no.	Temp. at sample (°F)	LAB initial vacuum of canister (in.	FIELD Initial vacuum of canister	Sample start time 12/8	Sample end time 12/9	Final vacuum of canister (in. Hg)
FW-1A-NEC(20231209)(1.5)	6L0456	2332	65	29.46	29.5	1934	2046	8.5
FW-1A-NWC(20231209)(4)	6L 2795	2310	65	29.45	29.5	1936	2108	10
FW-1A-SWC(20231209)(4)	6L 3783	2221	65	29.47	28	1939	2034	7
FW-1A-SEC(20231209)(1.5)	6L 3900	2321	65	29.47	27.5	1938	1957	6.5

Comments (Odors present, smoking, windows/doors open during sampling, etc.): household cleaner odor

Ecology Former Frank Wear Site (Yakima, WA)
FIELD INDOOR AIR SAMPLING LOG

Project No.: 1996002.16

Date: 12/8/23

Sampling Location ID: _____

Sampling Personnel: _____

Weather conditions (Note approximate wind speed/direction, rain, and temperature): _____

_____

Number of canisters placed in building: _____

Location of canister(s) within building: _____

_____

Location of duplicate sample(s), if taken: _____

Sample ID	Canister serial no.	Flow controller serial no.	Temp. at (°F) sample	LAB initial vacuum of canister (in.	FIELD Initial vacuum of canister	Sample start time 12/8	Sample end time 12/9	Final vacuum of canister (in. Hg)
DUP-01(20231209)	6L2589	2242	65	29.47	29	1934	2046	7
FW-AA-NWC(20231209)	6L2330	2221	33	29.67	25	1855	1945	6
FW-AA-SVE(20231209)	6L2705	2240	33	29.43	28.5	1904	1950	6.5

Comments (Odors present, smoking, windows/doors open during sampling, etc.): _____

_____

_____

Analysis Request / Canister Chain of Custody

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Eurofins Environment Testing Northern California, LLC
180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

Workorder #:

Instructions

Client: Kennedy Jenks
Site Name: Frank Wear Cleaners
Project Manager: Maya Key
Sampler: Ella Gyerko

Project Name:
Project #:
PO#: 19960D2.16

Turnaround Time (Specify Below)
Standard X Rush _____ (Surcharges will apply, per availability)
Samples received after 3PM PST are considered to be received on the following workday.
Requested Date (mm/dd/yy):
OR Number of Days:

Lab ID	Field Sample Identification (Location)	Canister Barcode #	Flow Controller Barcode #	Start Sampling Information		Stop Sampling Information		Requested Analyses				Canister Vacuum/Pressure			
				Date	Time	Date	Time	TO-15 SIM				Initial (in "Hg)	Final (in "Hg)	Lab Use Only: Receipt (in "Hg)	Lab Use Only: Final (in psi) Gas: N2 / He
	FW-1A-NEC (20231209)	6L 0456	2332	12/8/23	1931	12/9/23	2046	X				29.5	8.5		
	FW-1A-NWC (20231209)	6L 2795	2310	"	1936	"	2108	"				29.5	10		
	FW-1A-SWC (20231209)	6L 3783	2271	"	1939	"	2034	"				28	7		
	FW-1A-SEC (20231209)	6L 3900	2321	"	1938	"	1953	"				27.5	6.5		
	DUP-01 (20231209)	6L 2589	2242	"	1934	"	2046	"				29	7		
	FW-AA-NWC (20231209)	6L 2330	2221	"	1855	"	1945	"				25	6		
	FW-AA-SVE (20231209)	6L 2705	2240	"	1904	"	1950	"				28.5	6.5		

Special Instructions/Notes:
provide EQEDD with Kennedy Jenks' ref vals

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Ella Gyerko (KJ)	12/11/23	1500	FedEx	12/11/23	1500
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name:	Custody Seals Intact? Yes No None	Condition:

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

Analysis Request / Canister Chain of Custody

eurofins | Air Toxics

Eurofins Environment Testing Northern California, LLC
180 Blue Ravine Rd. Suite B, Folsom, CA 95630
Phone (800) 985-5955; Fax (916) 351-8279

Workorder #:

Instructions

Client: Kennedy Jenks
Site Name: Frank Wee Cleaners
Project Manager: Maya Key
Sampler: Ella Gerken

Project Name:
Project #:
PO#: 19960002.16

Turnaround Time (Specify Below)
Standard X Rush (Surcharges will apply, per availability)
Samples received after 3PM PST are considered to be received on the following workday.
Requested Date (mm/dd/yy):
OR Number of Days:

Lab ID	Field Sample Identification (Location)	Canister Barcode #	Flow Controller Barcode #	Start Sampling Information		Stop Sampling Information		Requested Analyses				Canister Vacuum/Pressure			
				Date	Time	Date	Time	TO-15	Helium			Initial (in "Hg)	Final (in "Hg)	Lab Use Only: Receipt (in "Hg)	Lab Use Only: Final (in psi) Gas: N2 / He
	FW-SS-1 (20231209)	IL 1915	2213/2306	12/9/23	2229	12/9/23	2235	X	X			26	3		
	FW-SS-2 (20231209)	IL 4330	2310/2240		2203		2208					25.5	5		
	FW-SS-3 (20231209)	IL 2728	2242/2227		2131		2136					26.5	5		
	FW-SS-5 (20231209)	IL 4468	2306/2311		2250		2257					27	5		
	DUP-02 (20231209)	IL 4224	2242/2243		2229		2235					26	3		

Special Instructions/Notes:
provide EQEDD with Kennedy Jenks' ref vals

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Ella Gerken	12/11/23	1500	FedEx		
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only

Shipper Name:	Custody Seals Intact? Yes No None	Condition:

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

Appendix C: Laboratory Analytical Reports

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12/28/2023
Ms. Maya Key
Kennedy Jenks Consultants
10850 Gold Center Drive
Suite 350
Rancho Cordova CA 95670

Project Name:
Project #:
Workorder #: 2312322A

Dear Ms. Maya Key

The following report includes the data for the above referenced project for sample(s) received on 12/12/2023 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2312322A

Work Order Summary

CLIENT:	Ms. Maya Key Kennedy Jenks Consultants 10850 Gold Center Drive Suite 350 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable (Federal Way) Kennedy Jenks Consultants 32001 32nd Avenue South Suite 100 Federal Way, WA 98001
PHONE:	916-858-2700	**P.O. #**	1996002.16
FAX:	916-858-2754	**PROJECT #**	
DATE RECEIVED:	12/12/2023	**CONTACT:**	Monica Tran
DATE COMPLETED:	12/28/2023		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	FW-IA-NEC (20231209)(1.5)	Modified TO-15	7.8 "Hg	1.9 psi
01B	FW-IA-NEC (20231209)(1.5)	Modified TO-15	7.8 "Hg	1.9 psi
02A	FW-IA-NWC (20231209)(4)	Modified TO-15	9.2 "Hg	1.9 psi
02B	FW-IA-NWC (20231209)(4)	Modified TO-15	9.2 "Hg	1.9 psi
03A	FW-IA-SWC (20231209)(4)	Modified TO-15	8 "Hg	1.9 psi
03B	FW-IA-SWC (20231209)(4)	Modified TO-15	8 "Hg	1.9 psi
04A	FW-IA-SEC (20231209)(1.5)	Modified TO-15	7.6 "Hg	1.9 psi
04B	FW-IA-SEC (20231209)(1.5)	Modified TO-15	7.6 "Hg	1.9 psi
05A	DUP-01 (20231209)	Modified TO-15	6.7 "Hg	1.9 psi
05B	DUP-01 (20231209)	Modified TO-15	6.7 "Hg	1.9 psi
06A	FW-AA-NWC (20231209)	Modified TO-15	5.7 "Hg	1.9 psi
06B	FW-AA-NWC (20231209)	Modified TO-15	5.7 "Hg	1.9 psi
07A	FW-AA-SVE (20231209)	Modified TO-15	5.5 "Hg	1.9 psi
07B	FW-AA-SVE (20231209)	Modified TO-15	5.5 "Hg	1.9 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
08C	Lab Blank	Modified TO-15	NA	NA
08D	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
09C	CCV	Modified TO-15	NA	NA
09D	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA

Continued on next page

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WORK ORDER #: 2312322A

Work Order Summary

CLIENT:	Ms. Maya Key Kennedy Jenks Consultants 10850 Gold Center Drive Suite 350 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable (Federal Way) Kennedy Jenks Consultants 32001 32nd Avenue South Suite 100 Federal Way, WA 98001
PHONE:	916-858-2700	**P.O. #**	1996002.16
FAX:	916-858-2754	**PROJECT #**	
DATE RECEIVED:	12/12/2023	**CONTACT:**	Monica Tran
DATE COMPLETED:	12/28/2023		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA
10BB	LCSD	Modified TO-15	NA	NA
10C	LCS	Modified TO-15	NA	NA
10CC	LCSD	Modified TO-15	NA	NA
10D	LCS	Modified TO-15	NA	NA
10DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 12/28/23

Technical Director

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

LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
Kennedy Jenks Consultants
Workorder# 2312322A

Seven 6 Liter Summa Canister (100% SIM Ambient) samples were received on December 12, 2023. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	***TO-15***	***ATL Modifications***
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	For Full Scan: 30% RSD with 4 compounds allowed out to < 40% RSD For SIM: Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	For Full Scan: </= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers For SIM: Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for samples FW-IA-NEC (20231209)(1.5), FW-IA-NWC (20231209)(4), FW-IA-SWC (20231209)(4) and FW-IA-SEC (20231209)(1.5) did not match the entries on the sample tags with regard to sample identification. Therefore the information on the sample tags was used to process and report the samples.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations

that are below the level at which the canister was certified may be false positives.

Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

CN - See case narrative explanation

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Client ID:	FW-IA-NEC (20231209)(1.5)		
Lab ID:	2312322A-01A	**Date/Time Analyzed:**	12/23/23 06:19 PM
Date/Time Collected:	12/9/23 08:46 PM	**Dilution Factor:**	1.52
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122314

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.95	1.6	1.0	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	99

Client ID:	FW-IA-NEC (20231209)(1.5)		
Lab ID:	2312322A-01B	**Date/Time Analyzed:**	12/23/23 06:19 PM
Date/Time Collected:	12/9/23 08:46 PM	**Dilution Factor:**	1.52
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122314sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.012	0.049	0.12	0.21
Benzene	71-43-2	0.020	0.039	0.24	1.4
Chloroform	67-66-3	0.0090	0.059	0.15	0.20
cis-1,2-Dichloroethene	156-59-2	0.0086	0.048	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0066	0.053	0.13	0.56
m,p-Xylene	108-38-3	0.014	0.053	0.26	2.2
o-Xylene	95-47-6	0.019	0.053	0.13	0.81
Tetrachloroethene	127-18-4	0.014	0.082	0.21	0.10 J
Toluene	108-88-3	0.013	0.046	0.29	4.2
Total Xylenes	9999-9999-015	NA	D	0.40	3.0
trans-1,2-Dichloroethene	156-60-5	0.0098	0.048	0.60	0.055 J
Trichloroethene	79-01-6	0.018	0.065	0.16	Not Detected
Vinyl Chloride	75-01-4	0.0058	0.031	0.039	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	117
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	100

Client ID:	FW-IA-NWC (20231209)(4)		
Lab ID:	2312322A-02A	**Date/Time Analyzed:**	12/23/23 06:57 PM
Date/Time Collected:	12/9/23 09:08 PM	**Dilution Factor:**	1.63
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122315

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	1.0	1.7	1.1	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	99

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Client ID:	FW-IA-NWC (20231209)(4)		
Lab ID:	2312322A-02B	**Date/Time Analyzed:**	12/23/23 06:57 PM
Date/Time Collected:	12/9/23 09:08 PM	**Dilution Factor:**	1.63
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122315sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.013	0.053	0.13	0.20
Benzene	71-43-2	0.021	0.042	0.26	1.4
Chloroform	67-66-3	0.0097	0.064	0.16	0.20
cis-1,2-Dichloroethene	156-59-2	0.0092	0.052	0.13	Not Detected
Ethyl Benzene	100-41-4	0.0071	0.057	0.14	0.54
m,p-Xylene	108-38-3	0.015	0.057	0.28	2.2
o-Xylene	95-47-6	0.021	0.057	0.14	0.80
Tetrachloroethene	127-18-4	0.015	0.088	0.22	0.10 J
Toluene	108-88-3	0.014	0.049	0.31	4.1
Total Xylenes	9999-9999-015	NA	D	0.42	3.0
trans-1,2-Dichloroethene	156-60-5	0.010	0.052	0.65	0.059 J
Trichloroethene	79-01-6	0.019	0.070	0.18	Not Detected
Vinyl Chloride	75-01-4	0.0062	0.033	0.042	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	99

Client ID:	FW-IA-SWC (20231209)(4)		
Lab ID:	2312322A-03A	**Date/Time Analyzed:**	12/23/23 07:35 PM
Date/Time Collected:	12/9/23 08:34 PM	**Dilution Factor:**	1.54
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122316

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.97	1.6	1.1	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	99

Client ID:	FW-IA-SWC (20231209)(4)		
Lab ID:	2312322A-03B	**Date/Time Analyzed:**	12/23/23 07:35 PM
Date/Time Collected:	12/9/23 08:34 PM	**Dilution Factor:**	1.54
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122316sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.012	0.050	0.12	0.26
Benzene	71-43-2	0.020	0.039	0.24	1.5
Chloroform	67-66-3	0.0092	0.060	0.15	0.20
cis-1,2-Dichloroethene	156-59-2	0.0087	0.049	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0067	0.053	0.13	0.56
m,p-Xylene	108-38-3	0.014	0.053	0.27	2.3
o-Xylene	95-47-6	0.020	0.053	0.13	0.84
Tetrachloroethene	127-18-4	0.014	0.084	0.21	0.10 J
Toluene	108-88-3	0.013	0.046	0.29	4.3
Total Xylenes	9999-9999-015	NA	D	0.40	3.1
trans-1,2-Dichloroethene	156-60-5	0.010	0.049	0.61	0.053 J
Trichloroethene	79-01-6	0.018	0.066	0.16	Not Detected
Vinyl Chloride	75-01-4	0.0059	0.031	0.039	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	115
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	100

Client ID:	FW-IA-SEC (20231209)(1.5)		
Lab ID:	2312322A-04A	**Date/Time Analyzed:**	12/23/23 08:14 PM
Date/Time Collected:	12/9/23 07:57 PM	**Dilution Factor:**	1.51
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122317

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.95	1.6	1.0	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	108
4-Bromofluorobenzene	460-00-4	70-130	90
Toluene-d8	2037-26-5	70-130	98

Client ID:	FW-IA-SEC (20231209)(1.5)		
Lab ID:	2312322A-04B	**Date/Time Analyzed:**	12/23/23 08:14 PM
Date/Time Collected:	12/9/23 07:57 PM	**Dilution Factor:**	1.51
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122317sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.012	0.049	0.12	0.27
Benzene	71-43-2	0.020	0.038	0.24	1.4
Chloroform	67-66-3	0.0090	0.059	0.15	0.20
cis-1,2-Dichloroethene	156-59-2	0.0086	0.048	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0066	0.052	0.13	0.56
m,p-Xylene	108-38-3	0.014	0.052	0.26	2.2
o-Xylene	95-47-6	0.019	0.052	0.13	0.89
Tetrachloroethene	127-18-4	0.014	0.082	0.20	0.10 J
Toluene	108-88-3	0.013	0.046	0.28	4.2
Total Xylenes	9999-9999-015	NA	D	0.39	3.1
trans-1,2-Dichloroethene	156-60-5	0.0098	0.048	0.60	0.14 J
Trichloroethene	79-01-6	0.017	0.065	0.16	Not Detected
Vinyl Chloride	75-01-4	0.0058	0.031	0.038	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	114
4-Bromofluorobenzene	460-00-4	70-130	82
Toluene-d8	2037-26-5	70-130	100

Client ID:	DUP-01 (20231209)		
Lab ID:	2312322A-05A	**Date/Time Analyzed:**	12/23/23 08:52 PM
Date/Time Collected:	12/9/23 08:46 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122318

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.92	1.5	1.0	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	98

Client ID:	DUP-01 (20231209)		
Lab ID:	2312322A-05B	**Date/Time Analyzed:**	12/23/23 08:52 PM
Date/Time Collected:	12/9/23 08:46 PM	**Dilution Factor:**	1.46
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122318sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.011	0.047	0.12	0.21
Benzene	71-43-2	0.019	0.037	0.23	1.4
Chloroform	67-66-3	0.0087	0.057	0.14	0.20
cis-1,2-Dichloroethene	156-59-2	0.0083	0.046	0.12	Not Detected
Ethyl Benzene	100-41-4	0.0063	0.051	0.13	0.55
m,p-Xylene	108-38-3	0.013	0.051	0.25	2.2
o-Xylene	95-47-6	0.018	0.051	0.13	0.80
Tetrachloroethene	127-18-4	0.013	0.079	0.20	0.10 J
Toluene	108-88-3	0.012	0.044	0.28	4.2
Total Xylenes	9999-9999-015	NA	D	0.38	3.0
trans-1,2-Dichloroethene	156-60-5	0.0094	0.046	0.58	0.094 J
Trichloroethene	79-01-6	0.017	0.063	0.16	Not Detected
Vinyl Chloride	75-01-4	0.0056	0.030	0.037	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	115
4-Bromofluorobenzene	460-00-4	70-130	82
Toluene-d8	2037-26-5	70-130	100

Client ID:	FW-AA-NWC (20231209)		
Lab ID:	2312322A-06A	**Date/Time Analyzed:**	12/23/23 09:31 PM
Date/Time Collected:	12/9/23 07:45 PM	**Dilution Factor:**	1.40
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122319

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.88	1.4	0.97	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	91
Toluene-d8	2037-26-5	70-130	99

Client ID:	FW-AA-NWC (20231209)		
Lab ID:	2312322A-06B	**Date/Time Analyzed:**	12/23/23 09:31 PM
Date/Time Collected:	12/9/23 07:45 PM	**Dilution Factor:**	1.40
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122319sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.011	0.045	0.11	0.066 J
Benzene	71-43-2	0.018	0.036	0.22	1.4
Chloroform	67-66-3	0.0083	0.055	0.14	0.14
cis-1,2-Dichloroethene	156-59-2	0.0079	0.044	0.11	Not Detected
Ethyl Benzene	100-41-4	0.0061	0.049	0.12	0.53
m,p-Xylene	108-38-3	0.012	0.049	0.24	2.1
o-Xylene	95-47-6	0.018	0.049	0.12	0.76
Tetrachloroethene	127-18-4	0.013	0.076	0.19	0.10 J
Toluene	108-88-3	0.012	0.042	0.26	4.1
Total Xylenes	9999-9999-015	NA	D	0.36	2.9
trans-1,2-Dichloroethene	156-60-5	0.0090	0.044	0.56	0.062 J
Trichloroethene	79-01-6	0.016	0.060	0.15	Not Detected
Vinyl Chloride	75-01-4	0.0053	0.029	0.036	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	116
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	99

Client ID:	FW-AA-SVE (20231209)		
Lab ID:	2312322A-07A	**Date/Time Analyzed:**	12/27/23 02:34 PM
Date/Time Collected:	12/9/23 07:50 PM	**Dilution Factor:**	1.38
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122708

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.87	1.4	0.96	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	98

Client ID:	FW-AA-SVE (20231209)		
Lab ID:	2312322A-07B	**Date/Time Analyzed:**	12/27/23 02:34 PM
Date/Time Collected:	12/9/23 07:50 PM	**Dilution Factor:**	1.38
Media:	6 Liter Summa Canister (100% SIM Ambier	**Instrument/Filename:**	msd21.i / 21122708sim

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.011	0.045	0.11	0.063 J
Benzene	71-43-2	0.018	0.035	0.22	1.4
Chloroform	67-66-3	0.0082	0.054	0.13	0.14
cis-1,2-Dichloroethene	156-59-2	0.0078	0.044	0.11	Not Detected
Ethyl Benzene	100-41-4	0.0060	0.048	0.12	0.54
m,p-Xylene	108-38-3	0.012	0.048	0.24	2.2
o-Xylene	95-47-6	0.018	0.048	0.12	0.81
Tetrachloroethene	127-18-4	0.012	0.075	0.19	0.10 J
Toluene	108-88-3	0.012	0.042	0.26	3.9
Total Xylenes	9999-9999-015	NA	D	0.36	3.0
trans-1,2-Dichloroethene	156-60-5	0.0089	0.044	0.55	0.059 J
Trichloroethene	79-01-6	0.016	0.059	0.15	0.022 J
Vinyl Chloride	75-01-4	0.0052	0.028	0.035	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	115
4-Bromofluorobenzene	460-00-4	70-130	79
Toluene-d8	2037-26-5	70-130	100

Client ID:	Lab Blank		
Lab ID:	2312322A-08A	**Date/Time Analyzed:**	12/23/23 12:23 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122306c

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.63	1.0	0.69	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	113
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	99

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Client ID:	Lab Blank		
Lab ID:	2312322A-08B	**Date/Time Analyzed:**	12/23/23 12:23 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122306simc

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.0078	0.032	0.081	Not Detected
Benzene	71-43-2	0.013	0.026	0.16	Not Detected
Chloroform	67-66-3	0.0060	0.039	0.098	0.0087 J
cis-1,2-Dichloroethene	156-59-2	0.0057	0.032	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0043	0.035	0.087	Not Detected
m,p-Xylene	108-38-3	0.0090	0.035	0.17	0.015 J
o-Xylene	95-47-6	0.013	0.035	0.087	0.013 J
Tetrachloroethene	127-18-4	0.0091	0.054	0.14	Not Detected
Toluene	108-88-3	0.0086	0.030	0.19	Not Detected
Total Xylenes	9999-9999-015	NA	D	0.26	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.0065	0.032	0.40	Not Detected
Trichloroethene	79-01-6	0.012	0.043	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0038	0.020	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	122
4-Bromofluorobenzene	460-00-4	70-130	87
Toluene-d8	2037-26-5	70-130	101

Client ID:	Lab Blank		
Lab ID:	2312322A-08C	**Date/Time Analyzed:**	12/27/23 01:03 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122707c

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	75-09-2	0.63	1.0	0.69	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	100
Toluene-d8	2037-26-5	70-130	99

Client ID:	Lab Blank		
Lab ID:	2312322A-08D	**Date/Time Analyzed:**	12/27/23 01:03 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122707sima

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.0078	0.032	0.081	Not Detected
Benzene	71-43-2	0.013	0.026	0.16	Not Detected
Chloroform	67-66-3	0.0060	0.039	0.098	0.0094 J
cis-1,2-Dichloroethene	156-59-2	0.0057	0.032	0.079	Not Detected
Ethyl Benzene	100-41-4	0.0043	0.035	0.087	Not Detected
m,p-Xylene	108-38-3	0.0090	0.035	0.17	0.015 J
o-Xylene	95-47-6	0.013	0.035	0.087	0.016 J
Tetrachloroethene	127-18-4	0.0091	0.054	0.14	Not Detected
Toluene	108-88-3	0.0086	0.030	0.19	0.0094 J
Total Xylenes	9999-9999-015	NA	D	0.26	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.0065	0.032	0.40	Not Detected
Trichloroethene	79-01-6	0.012	0.043	0.11	Not Detected
Vinyl Chloride	75-01-4	0.0038	0.020	0.026	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	122
4-Bromofluorobenzene	460-00-4	70-130	86
Toluene-d8	2037-26-5	70-130	101

Client ID:	CCV		
Lab ID:	2312322A-09A	**Date/Time Analyzed:**	12/23/23 08:22 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122302

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	101

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	100

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Client ID:	CCV		
Lab ID:	2312322A-09B	**Date/Time Analyzed:**	12/23/23 08:22 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122302sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	96
Benzene	71-43-2	101
Chloroform	67-66-3	100
cis-1,2-Dichloroethene	156-59-2	112
Ethyl Benzene	100-41-4	109
m,p-Xylene	108-38-3	96
o-Xylene	95-47-6	95
Tetrachloroethene	127-18-4	88
Toluene	108-88-3	102
Total Xylenes	9999-9999-015	96
trans-1,2-Dichloroethene	156-60-5	110
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	112

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	82
Toluene-d8	2037-26-5	70-130	103

Client ID:	CCV		
Lab ID:	2312322A-09C	**Date/Time Analyzed:**	12/27/23 11:16 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122705

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	114

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	91
4-Bromofluorobenzene	460-00-4	70-130	94
Toluene-d8	2037-26-5	70-130	101

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Client ID:	CCV		
Lab ID:	2312322A-09D	**Date/Time Analyzed:**	12/27/23 11:16 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122705sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	105
Benzene	71-43-2	112
Chloroform	67-66-3	112
cis-1,2-Dichloroethene	156-59-2	126
Ethyl Benzene	100-41-4	121
m,p-Xylene	108-38-3	106
o-Xylene	95-47-6	105
Tetrachloroethene	127-18-4	97
Toluene	108-88-3	115
Total Xylenes	9999-9999-015	106
trans-1,2-Dichloroethene	156-60-5	124
Trichloroethene	79-01-6	92
Vinyl Chloride	75-01-4	127

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	80
Toluene-d8	2037-26-5	70-130	103

Client ID:	LCS		
Lab ID:	2312322A-10A	**Date/Time Analyzed:**	12/23/23 09:38 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122303

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	101

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCSD		
Lab ID:	2312322A-10AA	**Date/Time Analyzed:**	12/23/23 10:29 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122304

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	100

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	95
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCS		
Lab ID:	2312322A-10B	**Date/Time Analyzed:**	12/23/23 09:38 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122303sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	98
Benzene	71-43-2	103
Chloroform	67-66-3	99
cis-1,2-Dichloroethene	156-59-2	112
Ethyl Benzene	100-41-4	113
m,p-Xylene	108-38-3	98
o-Xylene	95-47-6	98
Tetrachloroethene	127-18-4	90
Toluene	108-88-3	102
Total Xylenes	9999-9999-015	98
trans-1,2-Dichloroethene	156-60-5	110
Trichloroethene	79-01-6	85
Vinyl Chloride	75-01-4	112

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	81
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

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Client ID:	LCSD		
Lab ID:	2312322A-10BB	**Date/Time Analyzed:**	12/23/23 10:29 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122304sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	97
Benzene	71-43-2	102
Chloroform	67-66-3	98
cis-1,2-Dichloroethene	156-59-2	112
Ethyl Benzene	100-41-4	113
m,p-Xylene	108-38-3	97
o-Xylene	95-47-6	98
Tetrachloroethene	127-18-4	90
Toluene	108-88-3	102
Total Xylenes	9999-9999-015	98
trans-1,2-Dichloroethene	156-60-5	110
Trichloroethene	79-01-6	84
Vinyl Chloride	75-01-4	112

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	100
4-Bromofluorobenzene	460-00-4	70-130	80
Toluene-d8	2037-26-5	70-130	103

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCS		
Lab ID:	2312322A-10C	**Date/Time Analyzed:**	12/27/23 09:53 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122703

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	114

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	92
4-Bromofluorobenzene	460-00-4	70-130	89
Toluene-d8	2037-26-5	70-130	98

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCSD		
Lab ID:	2312322A-10CC	**Date/Time Analyzed:**	12/27/23 10:31 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122704

Compound	CAS#	%Recovery
Methylene Chloride	75-09-2	115

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	98

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCS		
Lab ID:	2312322A-10D	**Date/Time Analyzed:**	12/27/23 09:53 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122703sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	116
Benzene	71-43-2	119
Chloroform	67-66-3	114
cis-1,2-Dichloroethene	156-59-2	129
Ethyl Benzene	100-41-4	123
m,p-Xylene	108-38-3	99
o-Xylene	95-47-6	98
Tetrachloroethene	127-18-4	107
Toluene	108-88-3	112
Total Xylenes	9999-9999-015	98
trans-1,2-Dichloroethene	156-60-5	127
Trichloroethene	79-01-6	99
Vinyl Chloride	75-01-4	130

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	75
Toluene-d8	2037-26-5	70-130	98

* % Recovery is calculated using unrounded analytical results.

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Client ID:	LCSD		
Lab ID:	2312322A-10DD	**Date/Time Analyzed:**	12/27/23 10:31 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122704sim

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	109
Benzene	71-43-2	116
Chloroform	67-66-3	112
cis-1,2-Dichloroethene	156-59-2	127
Ethyl Benzene	100-41-4	125
m,p-Xylene	108-38-3	106
o-Xylene	95-47-6	106
Tetrachloroethene	127-18-4	101
Toluene	108-88-3	113
Total Xylenes	9999-9999-015	106
trans-1,2-Dichloroethene	156-60-5	124
Trichloroethene	79-01-6	93
Vinyl Chloride	75-01-4	128

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	101
4-Bromofluorobenzene	460-00-4	70-130	79
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

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12/27/2023
Ms. Maya Key
Kennedy Jenks Consultants
10850 Gold Center Drive
Suite 350
Rancho Cordova CA 95670

Project Name:
Project #:
Workorder #: 2312322B

Dear Ms. Maya Key

The following report includes the data for the above referenced project for sample(s) received on 12/12/2023 at Eurofins Air Toxics LLC.

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

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

Regards,

Monica Tran

Project Manager

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WORK ORDER #: 2312322B

Work Order Summary

CLIENT:	Ms. Maya Key Kennedy Jenks Consultants 10850 Gold Center Drive Suite 350 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable (Federal Way) Kennedy Jenks Consultants 32001 32nd Avenue South Suite 100 Federal Way, WA 98001
PHONE:	916-858-2700	**P.O. #**	1996002.16
FAX:	916-858-2754	**PROJECT #**	
DATE RECEIVED:	12/12/2023	**CONTACT:**	Monica Tran
DATE COMPLETED:	12/27/2023		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08A	FW-SS-1 (20231209)	Modified TO-15	5.3 "Hg	9.8 psi
09A	FW-SS-2 (20231209)	Modified TO-15	6.5 "Hg	9.9 psi
10A	FW-SS-3 (20231209)	Modified TO-15	5.7 "Hg	10 psi
11A	FW-SS-5 (20231209)	Modified TO-15	6.7 "Hg	10 psi
12A(cancelled)	DUP-02 (20231209)	Modified TO-15	29.8 "Hg	9.9 psi
13A	Lab Blank	Modified TO-15	NA	NA
14A	CCV	Modified TO-15	NA	NA
15A	LCS	Modified TO-15	NA	NA
15AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 12/27/23

Technical Director

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

LABORATORY NARRATIVE
Modified TO-15
Kennedy Jenks Consultants
Workorder# 2312322B

Five 1 Liter Summa Canister (100% Certified) samples were received on December 12, 2023. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Initial Calibration	</=30% RSD with 2 compounds allowed out to < 40% RSD	</=30% RSD with 4 compounds allowed out to < 40% RSD
Blank and standards	Zero Air	UHP Nitrogen provides a higher purity gas matrix than zero air

Receiving Notes

Sample DUP-02 (20231209) was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

Analytical Notes

Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene.

As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives.

A Method Detection Limit (MDL) study is not maintained for Total Xylenes.

Definition of Data Qualifying Flags

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

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

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

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

N - The identification is based on presumptive evidence.

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

a-File was requantified

b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

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Client ID:	FW-SS-1 (20231209)		
Lab ID:	2312322B-08A	**Date/Time Analyzed:**	12/23/23 05:30 PM
Date/Time Collected:	12/9/23 10:35 PM	**Dilution Factor:**	2.02
Media:	1 Liter Summa Canister (100% Certified)	**Instrument/Filename:**	msd21.i / 21122313

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.16	0.57	0.82	Not Detected
Benzene	71-43-2	0.082	0.45	0.64	17
Chloroform	67-66-3	0.17	0.69	0.99	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.42	0.56	0.80	Not Detected
Ethyl Benzene	100-41-4	0.18	0.61	0.88	7.6
m,p-Xylene	108-38-3	0.086	0.61	0.88	22
Methylene Chloride	75-09-2	1.3	2.1	1.4	Not Detected
o-Xylene	95-47-6	0.14	0.61	0.88	12
Tetrachloroethene	127-18-4	0.083	0.96	1.4	2.4
Toluene	108-88-3	0.11	0.53	7.6	14
Total Xylene	1330-20-7	NA	D	1.8	34
trans-1,2-Dichloroethene	156-60-5	0.16	0.56	0.80	Not Detected
Trichloroethene	79-01-6	0.31	0.76	1.1	Not Detected
Vinyl Chloride	75-01-4	0.060	0.36	0.52	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	107
4-Bromofluorobenzene	460-00-4	70-130	88
Toluene-d8	2037-26-5	70-130	102

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Client ID:	FW-SS-2 (20231209)		
Lab ID:	2312322B-09A	**Date/Time Analyzed:**	12/23/23 04:51 PM
Date/Time Collected:	12/9/23 10:08 PM	**Dilution Factor:**	2.14
Media:	1 Liter Summa Canister (100% Certified)	**Instrument/Filename:**	msd21.i / 21122312

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.16	0.61	0.87	Not Detected
Benzene	71-43-2	0.087	0.48	0.68	1.5
Chloroform	67-66-3	0.18	0.73	1.0	0.38 J
cis-1,2-Dichloroethene	156-59-2	0.44	0.59	0.85	Not Detected
Ethyl Benzene	100-41-4	0.19	0.65	0.93	6.3
m,p-Xylene	108-38-3	0.091	0.65	0.93	28
Methylene Chloride	75-09-2	1.3	2.2	1.5	Not Detected
o-Xylene	95-47-6	0.15	0.65	0.93	15
Tetrachloroethene	127-18-4	0.088	1.0	1.4	0.61 J
Toluene	108-88-3	0.11	0.56	8.1	11
Total Xylene	1330-20-7	NA	D	1.8	43
trans-1,2-Dichloroethene	156-60-5	0.17	0.59	0.85	Not Detected
Trichloroethene	79-01-6	0.33	0.80	1.2	Not Detected
Vinyl Chloride	75-01-4	0.064	0.38	0.55	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	110
4-Bromofluorobenzene	460-00-4	70-130	86
Toluene-d8	2037-26-5	70-130	101

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Client ID:	FW-SS-3 (20231209)		
Lab ID:	2312322B-10A	**Date/Time Analyzed:**	12/23/23 04:11 PM
Date/Time Collected:	12/9/23 09:36 PM	**Dilution Factor:**	2.08
Media:	1 Liter Summa Canister (100% Certified)	**Instrument/Filename:**	msd21.i / 21122311

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.16	0.59	0.84	Not Detected
Benzene	71-43-2	0.085	0.46	0.66	2.2
Chloroform	67-66-3	0.18	0.71	1.0	0.49 J
cis-1,2-Dichloroethene	156-59-2	0.43	0.58	0.82	Not Detected
Ethyl Benzene	100-41-4	0.19	0.63	0.90	7.3
m,p-Xylene	108-38-3	0.088	0.63	0.90	31
Methylene Chloride	75-09-2	1.3	2.2	1.4	Not Detected
o-Xylene	95-47-6	0.15	0.63	0.90	16
Tetrachloroethene	127-18-4	0.086	0.99	1.4	5.5
Toluene	108-88-3	0.11	0.55	7.8	15
Total Xylene	1330-20-7	NA	D	1.8	47
trans-1,2-Dichloroethene	156-60-5	0.16	0.58	0.82	Not Detected
Trichloroethene	79-01-6	0.32	0.78	1.1	Not Detected
Vinyl Chloride	75-01-4	0.062	0.37	0.53	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	109
4-Bromofluorobenzene	460-00-4	70-130	88
Toluene-d8	2037-26-5	70-130	100

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Client ID:	FW-SS-5 (20231209)		
Lab ID:	2312322B-11A	**Date/Time Analyzed:**	12/23/23 03:13 PM
Date/Time Collected:	12/9/23 10:57 PM	**Dilution Factor:**	2.17
Media:	1 Liter Summa Canister (100% Certified)	**Instrument/Filename:**	msd21.i / 21122310

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.17	0.61	0.88	Not Detected
Benzene	71-43-2	0.088	0.48	0.69	1.6
Chloroform	67-66-3	0.19	0.74	1.0	0.46 J
cis-1,2-Dichloroethene	156-59-2	0.45	0.60	0.86	Not Detected
Ethyl Benzene	100-41-4	0.20	0.66	0.94	5.6
m,p-Xylene	108-38-3	0.092	0.66	0.94	25
Methylene Chloride	75-09-2	1.4	2.3	1.5	Not Detected
o-Xylene	95-47-6	0.15	0.66	0.94	15
Tetrachloroethene	127-18-4	0.090	1.0	1.5	0.74 J
Toluene	108-88-3	0.12	0.57	8.2	9.9
Total Xylene	1330-20-7	NA	D	1.9	40
trans-1,2-Dichloroethene	156-60-5	0.17	0.60	0.86	Not Detected
Trichloroethene	79-01-6	0.34	0.82	1.2	Not Detected
Vinyl Chloride	75-01-4	0.065	0.39	0.55	Not Detected

J = Estimated value.
D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	106
4-Bromofluorobenzene	460-00-4	70-130	87
Toluene-d8	2037-26-5	70-130	99

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Client ID:	Lab Blank		
Lab ID:	2312322B-13A	**Date/Time Analyzed:**	12/23/23 12:23 PM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122306d

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dichloroethane	107-06-2	0.077	0.28	0.40	Not Detected
Benzene	71-43-2	0.041	0.22	0.32	Not Detected
Chloroform	67-66-3	0.086	0.34	0.49	Not Detected
cis-1,2-Dichloroethene	156-59-2	0.21	0.28	0.40	Not Detected
Ethyl Benzene	100-41-4	0.091	0.30	0.43	Not Detected
m,p-Xylene	108-38-3	0.042	0.30	0.43	Not Detected
Methylene Chloride	75-09-2	0.63	1.0	0.69	Not Detected
o-Xylene	95-47-6	0.071	0.30	0.43	Not Detected
Tetrachloroethene	127-18-4	0.041	0.47	0.68	Not Detected
Toluene	108-88-3	0.054	0.26	3.8	Not Detected
Total Xylene	1330-20-7	NA	D	0.87	Not Detected
trans-1,2-Dichloroethene	156-60-5	0.079	0.28	0.40	Not Detected
Trichloroethene	79-01-6	0.15	0.38	0.54	Not Detected
Vinyl Chloride	75-01-4	0.030	0.18	0.26	Not Detected

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	113
4-Bromofluorobenzene	460-00-4	70-130	99
Toluene-d8	2037-26-5	70-130	99

Client ID:	CCV		
Lab ID:	2312322B-14A	**Date/Time Analyzed:**	12/23/23 08:22 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122302

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	97
Benzene	71-43-2	102
Chloroform	67-66-3	99
cis-1,2-Dichloroethene	156-59-2	104
Ethyl Benzene	100-41-4	105
m,p-Xylene	108-38-3	101
Methylene Chloride	75-09-2	101
o-Xylene	95-47-6	103
Tetrachloroethene	127-18-4	94
Toluene	108-88-3	100
Total Xylene	1330-20-7	102
trans-1,2-Dichloroethene	156-60-5	104
Trichloroethene	79-01-6	98
Vinyl Chloride	75-01-4	106

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	95
Toluene-d8	2037-26-5	70-130	100

Client ID:	LCS		
Lab ID:	2312322B-15A	**Date/Time Analyzed:**	12/23/23 09:38 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122303

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	100
Benzene	71-43-2	105
Chloroform	67-66-3	99
cis-1,2-Dichloroethene	156-59-2	104
Ethyl Benzene	100-41-4	108
m,p-Xylene	108-38-3	102
Methylene Chloride	75-09-2	101
o-Xylene	95-47-6	104
Tetrachloroethene	127-18-4	95
Toluene	108-88-3	102
Total Xylene	1330-20-7	103
trans-1,2-Dichloroethene	156-60-5	103
Trichloroethene	79-01-6	101
Vinyl Chloride	75-01-4	106

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	93
4-Bromofluorobenzene	460-00-4	70-130	92
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

Client ID:	LCSD		
Lab ID:	2312322B-15AA	**Date/Time Analyzed:**	12/23/23 10:29 AM
Date/Time Collected:	NA - Not Applicable	**Dilution Factor:**	1.00
Media:	NA - Not Applicable	**Instrument/Filename:**	msd21.i / 21122304

Compound	CAS#	%Recovery
1,2-Dichloroethane	107-06-2	99
Benzene	71-43-2	104
Chloroform	67-66-3	100
cis-1,2-Dichloroethene	156-59-2	105
Ethyl Benzene	100-41-4	109
m,p-Xylene	108-38-3	102
Methylene Chloride	75-09-2	100
o-Xylene	95-47-6	106
Tetrachloroethene	127-18-4	95
Toluene	108-88-3	102
Total Xylene	1330-20-7	104
trans-1,2-Dichloroethene	156-60-5	104
Trichloroethene	79-01-6	100
Vinyl Chloride	75-01-4	108

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	95
4-Bromofluorobenzene	460-00-4	70-130	93
Toluene-d8	2037-26-5	70-130	101

* % Recovery is calculated using unrounded analytical results.

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12/27/2023
Ms. Maya Key
Kennedy Jenks Consultants
10850 Gold Center Drive
Suite 350
Rancho Cordova CA 95670

Project Name:
Project #:
Workorder #: 2312322C

Dear Ms. Maya Key

The following report includes the data for the above referenced project for sample(s) received on 12/12/2023 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

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

Regards,

Monica Tran

Project Manager

eurofins | Air Toxics

WORK ORDER #: 2312322C

Work Order Summary

CLIENT:	Ms. Maya Key Kennedy Jenks Consultants 10850 Gold Center Drive Suite 350 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable (Federal Way) Kennedy Jenks Consultants 32001 32nd Avenue South Suite 100 Federal Way, WA 98001
PHONE:	916-858-2700	**P.O. #**	1996002.16
FAX:	916-858-2754	**PROJECT #**	
DATE RECEIVED:	12/12/2023	**CONTACT:**	Monica Tran
DATE COMPLETED:	12/27/2023		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
08A	FW-SS-1 (20231209)	Modified ASTM D-1946	5.3 "Hg	9.8 psi
09A	FW-SS-2 (20231209)	Modified ASTM D-1946	6.5 "Hg	9.9 psi
10A	FW-SS-3 (20231209)	Modified ASTM D-1946	5.7 "Hg	10 psi
11A	FW-SS-5 (20231209)	Modified ASTM D-1946	6.7 "Hg	10 psi
12A(cancelled)	DUP-02 (20231209)	Modified ASTM D-1946	29.8 "Hg	9.9 psi
13A	Lab Blank	Modified ASTM D-1946	NA	NA
14A	CCV	Modified ASTM D-1946	NA	NA
15A	LCS	Modified ASTM D-1946	NA	NA
15AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Heidi Hayes DATE: 12/27/23

Technical Director

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

LABORATORY NARRATIVE
Modified ASTM D-1946
Kennedy Jenks Consultants
Workorder# 2312322C

Five 1 Liter Summa Canister (100% Certified) samples were received on December 12, 2023. The laboratory performed analysis via Modified ASTM Method D-1946 for Helium in air using GC/TCD. The method involves direct injection of 1.0 mL of sample.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the EATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A minimum of 5-point calibration curve is performed. Quantitation is based on average Response Factor.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

Sample DUP-02 (20231209) was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: FW-SS-1 (20231209)

Lab ID#: 2312322C-08A

No Detections Were Found.

Client Sample ID: FW-SS-2 (20231209)

Lab ID#: 2312322C-09A

No Detections Were Found.

Client Sample ID: FW-SS-3 (20231209)

Lab ID#: 2312322C-10A

No Detections Were Found.

Client Sample ID: FW-SS-5 (20231209)

Lab ID#: 2312322C-11A

No Detections Were Found.

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Client Sample ID: FW-SS-1 (20231209)

Lab ID#: 2312322C-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122024c**	**Date of Collection: 12/9/23 10:35:00 PM**	
Dil. Factor:	**2.02**	**Date of Analysis: 12/20/23 08:43 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.10	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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Client Sample ID: FW-SS-2 (20231209)

Lab ID#: 2312322C-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122025c**	**Date of Collection: 12/9/23 10:08:00 PM**	
Dil. Factor:	**2.14**	**Date of Analysis: 12/20/23 09:06 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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Client Sample ID: FW-SS-3 (20231209)

Lab ID#: 2312322C-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122026c**	**Date of Collection: 12/9/23 9:36:00 PM**	
Dil. Factor:	**2.08**	**Date of Analysis: 12/20/23 09:30 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.10	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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Client Sample ID: FW-SS-5 (20231209)

Lab ID#: 2312322C-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122027c**	**Date of Collection: 12/9/23 10:57:00 PM**	
Dil. Factor:	**2.17**	**Date of Analysis: 12/20/23 09:54 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

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Client Sample ID: Lab Blank

Lab ID#: 2312322C-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122013c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/23 03:37 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

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Client Sample ID: CCV

Lab ID#: 2312322C-14A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122011c**	**Date of Collection: NA**
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/23 02:50 PM**

Compound	%Recovery
Helium	99

Container Type: NA - Not Applicable

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Client Sample ID: LCS

Lab ID#: 2312322C-15A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122012c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/23 03:14 PM**	

Compound	%Recovery	Method Limits
Helium	105	85-115

Container Type: NA - Not Applicable

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Client Sample ID: LCSD

Lab ID#: 2312322C-15AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**10122029c**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/23 11:00 PM**	

Compound	%Recovery	Method Limits
Helium	105	85-115

Container Type: NA - Not Applicable

Appendix D: Data Validation Reports

Data Validation Report

Site/Facility Name: Frank Wear
Laboratory Sample Delivery Group: 2312322A
Laboratory Report Date: 2023-12-28
Date Validated: 2024-01-09
Laboratory Name: Air Toxics Ltd
Laboratory Location: Folsom, CA

Table 1. Data Validation Summary

Quality Control Element	Item Checked?	Issue Noted?	Data Qualified?
Chain of Custody	X		
Sample Preservation	X		
Holding Time	X		
Method Blanks	X	X	X
Trip Blanks	NA		
Laboratory Control Samples	X		
Matrix Spikes	NA		
Surrogate Recovery	X		
Laboratory Duplicates	NA		
Field Blank Samples	NA		
Field Duplicate Samples	X	X	
Chromatograms Provided	NA		
Dissolved Metals Field Filtered	NA		
Other Issues or Information	X	X	

Data Validation Details

Chain of Custody

Chain of Custody (COC) located in separate file from laboratory report. No action taken.

The Laboratory Report Noted: "The Chain of Custody (COC) information for samples FW-IA-NEC (20231209)(1.5), FW-IA-NWC (20231209)(4), FW-IA-SWC (20231209)(4) and FW-IA-SEC (20231209)(1.5) did not match the entries on the sample tags with regard to sample identification. Therefore the information on the sample tags was used to process and report the samples." Associated sample heights were added to sample IDs by the laboratory from information provided on the sample tags, no action taken.

Method Blanks
Chloroform was detected in the method blank in batch 21122301 at 0.0087J ug/m3. Associated samples FW-AA-NWC (20231209), FW-IA-NEC (20231209)(1.5), FW-IA-NWC (20231209)(4), FW-IA-SWC (20231209)(4), FW-IA-SEC (20231209)(1.5), DUP-01 (20231209) and FW-AA-NWC (20231209) were detected <2x the reporting limit, qualified as non-detect, U, at the reported result value.

m,p-Xylene was detected in the method blank in batch 21122301 at 0.015J ug/m3. Associated samples FW-IA-NEC (20231209)(1.5), FW-IA-NWC (20231209)(4), FW-IA-SWC (20231209)(4), FW-IA-SEC (20231209)(1.5), DUP-01 (20231209) and FW-AA-NWC (20231209) were detected >2x the reporting limit, no action taken.

o-Xylene was detected in the method blank in batch 21122301 at 0.013J ug/m3. Associated samples FW-IA-NEC (20231209)(1.5), FW-IA-NWC (20231209)(4), FW-IA-SWC (20231209)(4), FW-IA-SEC (20231209)(1.5), DUP-01 (20231209) and FW-AA-NWC (20231209) were detected >2x the reporting limit, no action taken.

Chloroform was detected in the method blank in batch 21122701 at 0.0094J ug/m3. Associated sample FW-AA-SVE (20231209) was detected <2x the reporting limit, qualified as non-detect, U, at the reported result value.

m,p-Xylene was detected in the method blank in batch 21122701 at 0.015J ug/m3. Associated sample FW-AA-SVE (20231209) was detected >2x the reporting limit, no action taken.

o-Xylene was detected in the method blank in batch 21122701 at 0.016J ug/m3. Associated sample FW-AA-SVE (20231209) was detected >2x the reporting limit, no action taken.

Toluene was detected in the method blank in batch 21122701 at 0.0094J ug/m3. Associated sample FW-AA-SVE (20231209) was detected >2x the reporting limit, no action taken.

Trip Blanks
Trip blanks were not collected or associated with this sample delivery group.

Matrix Spikes
Project specific matrix spikes were not analyzed for samples in this sample delivery group.

Laboratory Duplicates
Laboratory duplicates were not required by the methods in this sample delivery group.

Field Blank Samples
Field blanks were not collected or associated with this sample delivery group.

Field Duplicate Samples
The RPDs for the duplicate pair FW-IA-NEC (20231209)(1.5) and DUP-01 (20231209) ranged from 0-52.3%. The RPD for trans-1,2-Dichloroethene was above the acceptance criteria at 52.3%, the results were <5x the reporting limit and the difference between sample results was <1x the lowest reporting limit, no action taken.

Chromatograms Provided
Petroleum analyses were not performed for this sample delivery group.

Dissolved Metals Field Filtered
Dissolved metals were not analyzed for samples in this sample delivery group.

Other Issues or Information

The Laboratory Report Noted:
"The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file." No action taken.

"As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives." Associated sample results reported between the Method Detection Limit and the Reporting Limit were qualified as estimated, J, by the laboratory, no action taken.

"Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene." No action taken.

Data Usability Statement:

Based on the data validation review, the data are acceptable as delivered. The findings with respect to the quality assurance/quality control (QA/QC) data identified in this report do not adversely affect the use of the analytical results.

Table 2. Description of samples

Sample ID	Sample Date	Lab Sample ID	Sample Type	Matrix	TO-15	TO-15 SIM
DUP-01 (20231209)	2023-12-09	2312322A-05A	FD	AI	X	
DUP-01 (20231209)	2023-12-09	2312322A-05B	FD	AI		X
FW-AA-NWC (20231209)	2023-12-09	2312322A-06A	N	AA	X	
FW-AA-NWC (20231209)	2023-12-09	2312322A-06B	N	AA		X
FW-AA-SVE (20231209)	2023-12-09	2312322A-07A	N	AA	X	
FW-AA-SVE (20231209)	2023-12-09	2312322A-07B	N	AA		X
FW-IA-NEC (20231209)(1.5)	2023-12-09	2312322A-01A	N	AI	X	
FW-IA-NEC (20231209)(1.5)	2023-12-09	2312322A-01B	N	AI		X
FW-IA-NWC (20231209)(4)	2023-12-09	2312322A-02A	N	AI	X	
FW-IA-NWC (20231209)(4)	2023-12-09	2312322A-02B	N	AI		X
FW-IA-SEC (20231209)(1.5)	2023-12-09	2312322A-04A	N	AI	X	
FW-IA-SEC (20231209)(1.5)	2023-12-09	2312322A-04B	N	AI		X
FW-IA-SWC (20231209)(4)	2023-12-09	2312322A-03A	N	AI	X	
FW-IA-SWC (20231209)(4)	2023-12-09	2312322A-03B	N	AI		X

Table 3. Parent sample identification

Sample ID	Parent Sample ID	Sample Type
DUP-01 (20231209)	FW-IA-NEC (20231209)(1.5)	FD

Table 4. Data that have been qualified are listed below.

Sample ID	Lab Sample ID	Analytic Method	CasRN	Parameter Name	Validated Result	Unit	Validator Reason
DUP-01 (20231209)	2312322A-05B	TO-15 SIM	67-66-3	Chloroform	< 0.20 U	ug/m3	U due to method blank
FW-AA-NWC (20231209)	2312322A-06B	TO-15 SIM	67-66-3	Chloroform	< 0.14 U	ug/m3	U due to method blank
FW-AA-SVE (20231209)	2312322A-07B	TO-15 SIM	67-66-3	Chloroform	< 0.14 U	ug/m3	U due to method blank
FW-IA-NEC (20231209)(1.5)	2312322A-01B	TO-15 SIM	67-66-3	Chloroform	< 0.20 U	ug/m3	U due to method blank
FW-IA-NWC (20231209)(4)	2312322A-02B	TO-15 SIM	67-66-3	Chloroform	< 0.20 U	ug/m3	U due to method blank
FW-IA-SEC (20231209)(1.5)	2312322A-04B	TO-15 SIM	67-66-3	Chloroform	< 0.20 U	ug/m3	U due to method blank
FW-IA-SWC (20231209)(4)	2312322A-03B	TO-15 SIM	67-66-3	Chloroform	< 0.20 U	ug/m3	U due to method blank

Abbreviations

AA	Ambient Air
AI	Indoor Air
FD	Field Duplicate Sample
N	Normal Environmental Sample
NA	Not Applicable
U	The value has been qualified as non detect due to blank contamination.
ug/m3	Not Defined
X	Item checked

Data Validation Report

Site/Facility Name: Frank Wear
Laboratory Sample Delivery Group: 2312322B
Laboratory Report Date: 2023-12-27
Date Validated: 2024-01-09
Laboratory Name: Air Toxics Ltd
Laboratory Location: Folsom, CA

Table 1. Data Validation Summary

Quality Control Element	Item Checked?	Issue Noted?	Data Qualified?
Chain of Custody	X		
Sample Preservation	X		
Holding Time	X		
Method Blanks	X		
Trip Blanks	NA		
Laboratory Control Samples	X		
Matrix Spikes	NA		
Surrogate Recovery	X		
Laboratory Duplicates	NA		
Field Blank Samples	NA		
Field Duplicate Samples	NA		
Chromatograms Provided	NA		
Dissolved Metals Field Filtered	NA		
Other Issues or Information	X	X	

Data Validation Details

Chain of Custody
Chain of Custody (COC) located in separate file from laboratory report. Workorder 2312322B was reported and validated for method TO-15 only. Analysis for Helium was reported and validated under SDG 2312322C.

The Laboratory Report Noted: "Sample DUP-02 (20231209) was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled." No action taken.

Trip Blanks
Trip blanks were not collected or associated with this sample delivery group.

Matrix Spikes
Project specific matrix spikes were not analyzed for samples in this sample delivery group.

Laboratory Duplicates
Laboratory duplicates were not required by the methods in this sample delivery group.

Field Blank Samples
Field blanks were not collected or associated with this sample delivery group.

Field Duplicate Samples
Field duplicates were not collected or associated with this sample delivery group.

Chromatograms Provided
Petroleum analyses were not performed for this sample delivery group.

Dissolved Metals Field Filtered
Dissolved metals were not analyzed for samples in this sample delivery group.

Other Issues or Information

The Laboratory Report Noted:
"Total Xylenes concentration is calculated by summing the individual concentrations of m,p-Xylene and O-Xylene. A Method Detection Limit (MDL) study is not maintained for Total Xylenes." No action taken.

"As per client project requirements, the laboratory has reported estimated values for target compound hits that are below the Reporting Limit but greater than the Method Detection Limit. Concentrations that are below the level at which the canister was certified may be false positives." Associated sample results reported between the Method Detection Limit and the Reporting Limit were qualified as estimated, J, by the laboratory, no action taken.

Data Usability Statement:

Based on the data validation review, the data are acceptable as delivered. The findings with respect to the quality assurance/quality control (QA/QC) data identified in this report do not adversely affect the use of the analytical results.

Table 2. Description of samples

Sample ID	Sample Date	Lab Sample ID	Sample Type	Matrix	TO-15
FW-SS-1 (20231209)	2023-12-09	2312322B-08A	N	GS	X
FW-SS-2 (20231209)	2023-12-09	2312322B-09A	N	GS	X
FW-SS-3 (20231209)	2023-12-09	2312322B-10A	N	GS	X
FW-SS-5 (20231209)	2023-12-09	2312322B-11A	N	GS	X

Table 3. Parent sample identification

Sample ID	Parent Sample ID	Sample Type
Not applicable		

Table 4. Data that have been qualified are listed below.

Sample ID	Lab Sample ID	Analytic Method	CasRN	Parameter Name	Validated Result	Unit	Validator Reason
Not applicable							

Abbreviations

GS	Soil Gas
N	Normal Environmental Sample
NA	Not Applicable
X	Item checked

Data Validation Report

Site/Facility Name: Frank Wear
Laboratory Sample Delivery Group: 2312322C
Laboratory Report Date: 2023-12-27
Date Validated: 2024-01-09
Laboratory Name: Air Toxics Ltd
Laboratory Location: Folsom, CA

Table 1. Data Validation Summary

Quality Control Element	Item Checked?	Issue Noted?	Data Qualified?
Chain of Custody	X		
Sample Preservation	X		
Holding Time	X		
Method Blanks	X		
Trip Blanks	NA		
Laboratory Control Samples	X		
Matrix Spikes	NA		
Surrogate Recovery	NA		
Laboratory Duplicates	NA		
Field Blank Samples	NA		
Field Duplicate Samples	NA		
Chromatograms Provided	NA		
Dissolved Metals Field Filtered	NA		
Other Issues or Information	X		

Data Validation Details

Chain of Custody
Chain of Custody (COC) located in separate file from laboratory report. Workorder 2312322C was reported and validated for Helium only. Analysis for TO-15 was reported and validated under SDG 2312322B.

The Laboratory Report Noted: "Sample DUP-02 (20231209) was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled." No action taken.

Trip Blanks
Trip blanks were not collected or associated with this sample delivery group.

Matrix Spikes
Project specific matrix spikes were not analyzed for samples in this sample delivery group.

Surrogate Recovery
Surrogates were not required by the methods in this sample delivery group.

Laboratory Duplicates
Laboratory duplicates were not required by the methods in this sample delivery group.

Field Blank Samples
Field blanks were not collected or associated with this sample delivery group.

Field Duplicate Samples
Field duplicates were not collected or associated with this sample delivery group.

Chromatograms Provided
Petroleum analyses were not performed for this sample delivery group.

Dissolved Metals Field Filtered
Dissolved metals were not analyzed for samples in this sample delivery group.

Data Usability Statement:

Based on the data validation review, the data are acceptable as delivered. The findings with respect to the quality assurance/quality control (QA/QC) data identified in this report do not adversely affect the use of the analytical results.

Table 2. Description of samples

Sample ID	Sample Date	Lab Sample ID	Sample Type	Matrix	D1946
FW-SS-1 (20231209)	2023-12-09	2312322C-08A	N	GS	X
FW-SS-2 (20231209)	2023-12-09	2312322C-09A	N	GS	X
FW-SS-3 (20231209)	2023-12-09	2312322C-10A	N	GS	X
FW-SS-5 (20231209)	2023-12-09	2312322C-11A	N	GS	X

Table 3. Parent sample identification

Sample ID	Parent Sample ID	Sample Type
Not applicable		

Table 4. Data that have been qualified are listed below.

Sample ID	Lab Sample ID	Analytic Method	CasRN	Parameter Name	Validated Result	Unit	Validator Reason
Not applicable							

Abbreviations

GS	Soil Gas
N	Normal Environmental Sample
NA	Not Applicable
X	Item checked

Appendix E: Historical Analytical Results Tables

Table E-1: Historical Indoor and Ambient Air Analytical Results

Location ID	Sample Date	Sample Type	1,2-Dichloro-ethane	Benzene	Chloroform	cis-1,2-Dichloro-ethene	Ethylbenzene	Methylene Chloride	Tetrachloro-ethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloro-ethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total
MTCA Method B Indoor Air Cleanup Level[(a)]			0.096 ug/m3	0.32 ug/m3	0.11 ug/m3	18 ug/m3	460 ug/m3	66 ug/m3	9.6 ug/m3	2300 ug/m3	18 ug/m3	0.33 ug/m3	0.28 ug/m3	46 ug/m3	46 ug/m3	46 ug/m3
AMB-NWALL	9/25/2011	N	<0.15		<0.90	<0.14			<0.25			<0.20				
AA-SVE	12/09/2023	N	**0.063 J**	**1.4**	< 0.14 U	< 0.11	**0.54**	< 0.96	**0.10 J**	**3.9**	**0.059 J**	**0.022 J**	< 0.035	**2.2**	**0.81**	**3.0**
AMB-UPWIND	9/25/2011	N	<0.14		<0.84	<0.14			<0.23			<0.18				
AMB-UPWIND	7/6/2012	N	<0.16		<0.94	<0.15			<0.26			**0.048**				
AMB-UPWIND	8/13/2012	N	<0.16	**0.40**	<0.98		**0.20**	<1.4	<0.27	**1.1**	<0.80	**0.068**	<0.051	**0.46**	**0.17**	**0.63**
AMB-UPWIND	9/12/2012	N	<0.15	**0.64**	<0.89	<0.14	**0.19**	<1.3	<0.25	**1.6**	<0.72	<0.030	<0.047	**0.58**	**0.22**	**0.8**
AMB-UPWIND	11/5/2012	N	<0.15	**2.3**	<0.91	<0.15	**1.3**	<1.3	**0.45**	**8.8**	<0.74	**0.11**	<0.048	**4.5**	**1.6**	**6.1**
AMB-UPWIND	3/12/2013	N	**1.5**	**1.3**	<1.8	<0.29	**1.9**	**410**	**70**	**53**	<1.4	**0.22**	<0.093	**4.5**	**1.6**	**6.1**
AMB-UPWIND	6/14/2013	N	<0.15	**0.32**	<0.90	<0.15	**0.71**	<1.3	<0.25	**1.7**	<0.73	<0.030	<0.047	**2.4**	**0.84**	**3.24**
AMB-UPWIND	9/19/2013	N	<0.15	**0.35**	<0.92	<0.15	**0.24**	<1.3	<0.26	**1.8**	<0.74	<0.030	<0.048	**0.71**	**0.25**	**0.96**
AMB-UPWIND	12/10/2013	N	<0.13	<0.25	<0.77	<0.12	<0.14	<1.1	<0.21	<0.12	<0.63	<0.025	<0.040	<0.27	<0.14	**0.41**
AMB-UPWIND	4/11/2014	N	<0.15	**0.36**	<0.91	<0.15	<0.16	<1.3	**5.6**	**0.75**	<0.74	**0.088**	<0.048	**0.38**	<0.16	**0.54**
AMB-UPWIND	6/6/2014	N	<0.15	<0.30	<0.92	**0.18**	<0.16	<1.3	**4.1**	**0.80**	<0.74	**0.12**	<0.048	**0.33**	<0.16	**0.49**
AMB-UPWIND	9/12/2014	N	<0.14	**0.48**	<0.83	**0.48**	**0.16**	<1.2	**4.1**	**1.1**	<0.67	**0.086**	<0.043	**0.51**	**0.17**	**0.68**
AMB-UPWIND	12/4/2014	N	<0.14	**1.2**	<0.85	**0.21**	**0.55**	<1.2	<0.24	**3.6**	<0.69	**0.053**	**0.067**	**1.9**	**0.67**	**2.57**
AMB-UPWIND	3/16/2015	N	<0.13	**0.54**	<0.79	**0.22**	**0.22**	<1.1	**1.5**	**1.3**	<0.64	**0.11**	**0.065**	**0.71**	**0.26**	**0.97**
AMB-UPWIND	6/24/2015	N	<0.14	<0.28	<0.86	**0.47**	**0.28**	<1.2	**0.70**	**1.2**	<0.70	**0.16**	<0.045	**0.95**	**0.33**	**1.28**
AMB-UPWIND	9/25/2015	N	<0.16	**0.66**	<1.0	**0.26**	**0.42**	<1.4	**0.71**	**3.0**	<0.81	**0.12**	<0.052	**1.4**	**0.51**	**1.91**
AMB-UPWIND	1/7/2016	N	<0.13	**2.5**	<0.81	**<0.13**	**1.4**	<1.2	**1.3**	**8.5**	<0.66	**0.34**	<0.042	**4.8**	**1.8**	**6.6**
AMB-UPWIND	4/14/2017	N	**0.10 J**	**0.82**	<0.64	<0.10	**0.26**	<0.92	<0.18	**2.2**	<0.52	**0.14**	<0.034	**0.93**	**0.36**	**1.29**
AMB-UPWIND	1/4/2018	N	<0.15	**1.3**	<0.92	<0.15	**0.66**	<1.3	<0.26	**3.9**	<0.75	<0.051	<0.048	**2.30**	**0.88**	**3.18**
AA-NWC	12/09/2023	N	**0.066 J**	**1.4**	< 0.14 U	< 0.11	**0.53**	< 0.97	**0.10 J**	**4.1**	**0.062 J**	< 0.15	< 0.036	**2.1**	**0.76**	**2.9**
BMS-M1	9/25/2011	N	**0.15**		**1.4**	<0.14			**6.3**			<0.19				
BMS-M1	10/20/2011	N	<0.14		**2.3**	<0.14			**6.0**			**0.08**				
BMS-M1	7/6/2012	N	**0.34**		**2.9**	<0.15			**0.29**			**0.071**				
BMS-M1	8/13/2012	N	**0.25**	**0.50**	**1.8**	<0.15	**0.30**	<1.3	<0.25	**3.8**	<0.74	**0.083**	<0.048	**0.78**	**0.33**	**1.11**
BMS-M1	9/12/2012	N	<0.14	**4.4**	**1.2**	<0.14	**0.34**	<1.2	<0.24	**3.8**	<0.71	**0.058**	<0.046	**1.2**	**0.42**	**1.62**
BMS-M1	11/5/2012	N	**0.26**	**2.1**	**2.7**	<0.15	**1.3**	<1.3	**0.37**	**9.9**	<0.74	**0.11**	<0.048	**4.3**	**1.5**	**5.8**
BMS-M1	3/12/2013	N	**0.21**	**1.0**	**1.5**	<0.14	**0.55**	**7.0**	**1.7**	**5.4**	<0.72	**0.065**	<0.047	**1.8**	**0.64**	**2.44**
BMS-M1	6/14/2013	N	<0.15	**0.34**	**2.3**	<0.14	**0.33**	<1.3	<0.25	**1.3**	<0.72	<0.029	<0.046	**0.70**	**0.27**	**0.97**
BMS-M1	9/19/2013	N	**0.16**	**0.48**	**2.4**	<0.14	**0.30**	<1.2	**0.24**	**3.2**	<0.69	**0.055**	<0.044	**0.87**	**0.32**	**1.19**
BMS-M1	12/10/2013	N	<0.12	**1.9**	<0.74	<0.12	**1.0**	<1.0	**0.24**	**4.5**	<0.60	**0.033**	<0.039	**2.1**	**0.75**	**2.9**
BMS-M1	4/11/2014	N	<0.14	**0.39**	<0.87	<0.14	**0.16**	<1.2	**1.3**	**1.3**	<0.71	**0.033**	<0.046	**0.49**	**0.16**	**0.65**
BMS-M1	6/6/2014	N	<0.14	<0.28	**1.1**	<0.14	**0.15**	<1.2	**1.8**	**1.4**	<0.70	**0.071**	<0.045	**0.42**	**0.16**	**0.58**
BMS-M1	9/12/2014	N	<0.14	**0.62**	**5.4**	**0.48**	**0.20**	<1.2	**2.8**	**1.8**	<0.67	**0.071**	<0.043	**0.58**	**0.25**	**0.83**
BMS-M1	12/4/2014	N	<0.14	**1.3**	**2.0**	<0.14	**0.50**	<1.2	**0.28**	**4.2**	<0.69	**0.066**	**0.070**	**1.7**	**0.62**	**2.3**
BMS-M1	3/16/2015	N	<0.14	**0.59**	**1.7**	**0.16**	**0.24**	<1.2	**0.62**	**2.0**	<0.67	**0.056**	<0.043	**0.80**	**0.29**	**1.09**
BMS-M1	6/24/2015	N	<0.14	**0.32**	<0.86	**1.8**	**1.8**	<1.2	**0.52**	**1.3**	<0.70	**0.13**	<0.045	**5.3**	**1.2**	**6.5**
BMS-M1	9/25/2015	N	**0.83**	**0.79**	**1.3**	**0.51**	**1.6**	<1.3	**0.70**	**4.3**	<0.72	**0.13**	<0.046	**4.7**	**1.2**	**5.9**
BMS-M1	1/7/2016	N	**0.64**	**2.8**	**0.86**	<0.11	**3.1**	<0.95	**0.74**	**9.6**	<0.54	**0.11**	<0.035	**9.3**	**2.7**	**12.0**

Table E-1: Historical Indoor and Ambient Air Analytical Results

Location ID	Sample Date	Sample Type	1,2-Dichloro-ethane	Benzene	Chloroform	cis-1,2-Dichloro-ethene	Ethylbenzene	Methylene Chloride	Tetrachloro-ethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloro-ethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total
MTCA Method B Indoor Air Cleanup Level[(a)]			0.096 ug/m3	0.32 ug/m3	0.11 ug/m3	18 ug/m3	460 ug/m3	66 ug/m3	9.6 ug/m3	2300 ug/m3	18 ug/m3	0.33 ug/m3	0.28 ug/m3	46 ug/m3	46 ug/m3	46 ug/m3
BMS-M1	4/14/2017	N	<0.15	**0.77**	**1.6**	<0.15	**0.31**	<1.3	<0.25	**2.2**	<0.74	<0.050	<0.048	**1.0**	**0.49**	**1.5**
BMS-M1	1/4/2018	N	<0.16	**1.5**	<0.99	<0.16	**0.74**	<1.4	<0.27	**4.3**	<0.80	<0.054	<0.052	**2.8**	**1.0**	**3.8**
IA-NEC	12/09/2023	N	**0.21**	**1.4**	< 0.20 U	< 0.12	**0.56**	< 1.0	**0.10 J**	**4.2**	**0.055 J**	< 0.16	< 0.039	**2.2**	**0.81**	**3.0**
IA-NEC	12/09/2023	FD	**0.21**	**1.4**	< 0.20 U	< 0.12	**0.55**	< 1.0	**0.10 J**	**4.2**	**0.094 J**	< 0.16	< 0.037	**2.2**	**0.80**	**3.0**
IA-NWC	12/09/2023	N	**0.20**	**1.4**	< 0.20 U	< 0.13	**0.54**	< 1.1	**0.10 J**	**4.1**	**0.059 J**	< 0.18	< 0.042	**2.2**	**0.80**	**3.0**
BMS-M2	9/25/2011	N	<0.14		**1.3**	<0.14			**6.2**			**0.27**				
BMS-M2	10/20/2011	N	<0.15		**2.4**	<0.14			**6.2**			**0.083**				
BMS-M3	9/25/2011	N	**0.15**		**1.3**	<0.13			**6.6**			<0.18				
BMS-M3	10/20/2011	N	<0.14		**2.7**	<0.14			**6.5**			**0.085**				
BMS-M3	7/6/2012	N	**0.33**		**2.7**	<0.14			**0.25**			**0.067**				
BMS-M3	8/13/2012	N	**0.23**	**0.46**	**1.8**	<0.15	**0.26**	<1.3	<0.25	**3.8**	<0.74	**0.077**	<0.048	**0.75**	**0.30**	**1.05**
BMS-M3	9/12/2012	N	<0.14	**1.0**	**1.1**	<0.14	**0.31**	<1.2	<0.24	**2.8**	<0.71	**0.032**	<0.046	**1.0**	**0.35**	**1.4**
BMS-M3	11/5/2012	N	**0.30**	**2.6**	**2.9**	<0.14	**1.5**	**1.9**	**0.56**	**12**	<0.69	**0.13**	<0.045	**5.0**	**1.8**	**6.8**
BMS-M3	3/12/2013	N	**0.20**	**1.0**	**1.2**	<0.15	**0.57**	**13**	**2.5**	**5.8**	<0.74	**0.065**	<0.048	**1.8**	**0.64**	**2.4**
BMS-M3	6/14/2013	N	**0.12**	**0.28**	**1.9**	<0.11	**0.60**	<0.96	<0.19	**1.4**	<0.55	<0.022	<0.035	**1.9**	**0.66**	**2.6**
BMS-M3	9/19/2013	N	**0.20**	**0.54**	**2.1**	<0.13	**0.50**	**1.8**	**0.57**	**5.4**	<0.66	**0.52**	<0.042	**1.3**	**0.51**	**1.8**
BMS-M3	12/10/2013	N	**0.16**	**1.8**	<0.75	<0.12	**1.4**	**2.7**	**1.1**	**17**	<0.61	**0.054**	<0.039	**3.4**	**1.2**	**4.6**
BMS-M3	4/11/2014	N	<0.15	**0.37**	<0.90	<0.14	<0.16	<1.3	**1.2**	**1.2**	<0.73	**0.031**	<0.047	**0.45**	**0.16**	**0.61**
BMS-M3	6/6/2014	N	<0.14	<0.28	**0.93**	<0.14	**0.17**	<1.2	**1.6**	**1.5**	<0.70	**0.062**	<0.046	**0.43**	**0.17**	**0.6**
BMS-M3	9/12/2014	N	<0.11	**0.78**	**2.8**	**0.50**	**0.20**	<0.94	**3.6**	**1.8**	<0.54	**0.086**	<0.035	**0.58**	**0.19**	**0.77**
BMS-M3	12/4/2014	N	<0.14	**1.3**	**1.8**	<0.14	**0.53**	<1.2	**0.29**	**4.2**	<0.69	**0.075**	**0.086**	**1.8**	**0.64**	**2.44**
BMS-M3	3/16/2015	N	**0.16**	**0.61**	**1.5**	**0.14**	**0.34**	<1.1	**0.62**	**3.9**	<0.64	**0.080**	<0.041	**0.98**	**0.35**	**1.33**
BMS-M3	6/24/2015	N	<0.13	**0.28**	<0.81	**2.3**	**2.1**	<1.2	**0.59**	**1.2**	<0.66	**0.14**	<0.042	**6.1**	**1.4**	**7.5**
BMS-M3	9/25/2015	N	**0.86**	**0.78**	**1.4**	**0.38**	**1.6**	<1.4	**0.69**	**4.2**	<0.78	**0.13**	<0.050	**4.6**	**1.2**	**5.8**
BMS-M3	1/7/2016	N	**0.65**	**2.8**	**0.93**	<0.11	**3.1**	<0.94	**0.74**	**9.4**	<0.54	**0.13**	<0.035	**9.2**	**2.7**	**11.9**
BMS-M3	4/14/2017	N	<0.16	**0.73**	**1.4**	<0.15	**0.32**	<1.3	<0.26	**2.1**	<0.76	<0.052	<0.049	**1.0**	**0.46**	**1.5**
BMS-M3	1/4/2018	N	<0.17	**1.6**	<1.0	<0.17	**0.82**	<1.5	<0.29	**4.5**	<0.84	<0.057	<0.054	**3.2**	**1.2**	**4.4**
IA-SEC	12/09/2023	N	**0.27**	**1.4**	< 0.20 U	< 0.12	**0.56**	< 1.0	**0.10 J**	**4.2**	**0.14 J**	< 0.16	< 0.038	**2.2**	**0.89**	**3.1**
IA-SWC	12/09/2023	N	**0.26**	**1.5**	< 0.20 U	< 0.12	**0.56**	< 1.1	**0.10 J**	**4.3**	**0.053 J**	< 0.16	< 0.039	**2.3**	**0.84**	**3.1**
BMS-U1	9/25/2011	N	<0.17		**1.3**	<0.16			**5.7**			<0.22				
BMS-U1	10/20/2011	N	<0.14		**2.9**	<0.13			**6.1**			**0.086**				

Notes and Abbreviations:

"<" indicates compound not detected at or above the indicated method detection limit

"U" indicates that the value has been qualified as undetected (at the detected concentration if above the method reporting limit) due to blank contamination.

"J" indicates an estimated concentration based on either being less than the laboratory reporting limit or data validation findings.

Bold indicates detected concentration

Blue shading indicates exceedance of the applicable screening level

Grey shading indicates the compound was not detected at or above the indicated method detection limit, but the method detection limit exceeds the applicable screening level

FD = duplicate sample

Table E-1: Historical Indoor and Ambient Air Analytical Results

			1,2-Dichloro-ethane	Benzene	Chloroform	cis-1,2-Dichloro-ethene	Ethylbenzene	Methylene Chloride	Tetrachloro-ethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloro-ethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total
MTCA Method B Indoor Air Cleanup Level[(a)]			0.096	0.32	0.11	18	460	66	9.6	2300	18	0.33	0.28	46	46	46
			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
Location ID	Sample Date	Sample Type														

N = normal environmental sample
ug/m3 = micrograms per cubic meter.

(a) MTCA Method B Indoor Air Cleanup Level, published in Ecology's Cleanup Levels and Risk Calculations (CLARC) database, effective February 2024.

Table E-2: Subslab Analytical Results

Location ID	Sample Date	Sample Type	1,2-Dichloro-ethane	Benzene	Chloroform	cis-1,2-Dichloro-ethene	Ethylbenzene	Methylene Chloride	Tetrachloro-ethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloro-ethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total	HELIUM
MTCA Method B Indoor Air Cleanup Level[a]			0.096	0.32	0.11	18	460	66	9.6	2300	18	0.33	0.28	46	46	46	
Subslab Soil Vapor Screening Level[b]			3.2	11	3.6	610	15,000	2,200	320	77,000	600	11	9.3	1,500	1,500	1,500	
			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	%
SS-1	9/25/2011	N	<4.1	<3.2	**7.5**	<4.0	<4.4	<3.5	**3,600**	**11**	<8.0	<5.5	<2.6	<8.8	<4.4	**13.2**	<1.0
SS-1	8/13/2012	N	<0.82	**0.47**	<0.49	<0.80	<0.88	**0.97**	**450**	**2.7**	<0.80	<1.1	<0.26	**2.8**	**1.1**	**3.9**	**0.8**
SS-1	9/12/2012	N	<0.82	**4.3**	**1.9**	<0.80	**6.1**	**8.5**	**57**	**29**	<0.80	<1.1	<0.26	**21**	**7.6**	**28.6**	**0.2**
SS-1	11/5/2012	N	<0.41	**0.26**	**0.29**	<0.40	**1.1**	<0.35	**51**	**7.1**	<0.40	<0.55	<0.13	**4.1**	**1.6**	**5.7**	**0.7**
SS-1	3/12/2013	N	<0.41	**0.58**	<0.25	<0.40	**1.2**	<0.35	**40**	**22**	<0.40	<0.55	<0.13	**3.3**	**1.3**	**4.6**	**0.2**
SS-1	6/14/2013	N	<0.82	<0.32	**0.54**	<0.80	<0.88	<0.71	**63**	**4.2**	<0.80	<1.1	<0.26	**1.6**	<0.88	**2.48**	<0.10
SS-1	9/19/2013	N	<0.41	**0.16**	**0.35**	<0.40	**1.1**	<0.35	**82**	**3.8**	<0.40	<0.55	<0.13	**2.8**	**1.9**	**4.7**	<0.10
SS-1	12/10/2013	N	<0.41	**0.77**	<0.25	<0.40	**0.85**	<0.35	**12**	**2.6**	<0.40	<0.55	<0.13	**1.8**	**0.73**	**2.53**	**0.70**
SS-1	4/11/2014	N	<0.41	**0.26**	<0.25	<0.40	<0.44	<0.35	**80**	**2.1**	<0.40	<0.55	<0.13	**0.88**	<0.44	**1.32**	<0.10
SS-1	6/6/2014	N	<0.41	**0.79**	**0.53**	<0.40	<0.44	<0.35	**110**	**5.2**	<0.40	<0.55	<0.13	**1.4**	**0.73**	**2.13**	<0.10
SS-1	9/12/2014	N	<0.41	**0.19**	**0.99**	<0.40	<0.44	<0.35	**57**	**1.4**	<0.40	<0.55	<0.13	**0.66**	<0.44	**1.1**	<0.10
SS-1	12/4/2014	N	<0.41	<0.16	<0.25	<0.40	<0.44	<0.35	**27**	**0.76**	<0.40	<0.55	<0.13	**0.69**	<0.44	**1.13**	<0.10
SS-1	3/16/2015	N	<0.82	<0.32	<0.49	<0.80	<0.88	**0.74**	**47**	**8.2**	<0.80	<1.1	<0.26	**0.96**	<0.88	**1.84**	<0.10
SS-1	6/24/2015	N	<0.82	<0.32	<0.49	<0.80	<0.88	<0.71	**166**	<1.53	<0.80	<1.09	<0.26	<0.88	<0.88	**1.76**	<0.10
SS-1	9/25/2015	N	<0.41	<0.16	<0.25	**0.54**	**0.47**	<0.35	**37**	**1.1**	<0.40	<0.55	<0.13	**2.1**	**1.2**	**3.3**	<0.10
SS-1	1/7/2016	N	<0.41	<0.16	<0.25	<0.40	**<0.44**	<0.35	**8.2**	**<0.76**	<0.40	<0.55	<0.13	**<0.44**	**<0.44**	**0.88**	<0.10
SS-1	4/14/2017	N	<0.41	**0.45**	**0.49**	<0.40	**0.53**	<0.35	**23**	**4.0**	<0.40	<0.55	<0.13	**1.3**	**0.66**	**1.96**	<0.10
SS-1	1/4/2018	N	<0.41	**1.3**	<0.25	<0.40	**3.2**	**6.2**	**3.7**	**14**	<0.40	**13**	<0.13	**12**	**4.8**	**16.8**	<0.10
SS-1	12/09/2023	N	< 0.82	**17**	< 0.99	< 0.80	**7.6**	< 1.4	**2.4**	**14**	< 0.80	< 1.1	< 0.52	**22**	**12**	**34**	< 0.10
SS-2	9/25/2011	N	<4.1	<3.2	**27**	<4.0	<4.4	<3.5	**45,000**	**19**	<8.0	<5.5	<2.6	<8.8	<4.4	**13.2**	<1.0
SS-2	12/09/2023	N	< 0.87	**1.5**	**0.38 J**	< 0.85	**6.3**	< 1.5	**0.61 J**	**11**	< 0.85	< 1.2	< 0.55	**28**	**15**	**43**	< 0.11
SS-3	9/25/2011	N	<4.1	<3.2	**16**	<4.0	<4.4	<3.5	**50,000**	**15**	<8.0	<5.5	<2.6	<8.8	<4.4	**13.2**	<1.0
SS-3	12/09/2023	N	< 0.84	**2.2**	**0.49 J**	< 0.82	**7.3**	< 1.4	**5.5**	**15**	< 0.82	< 1.1	< 0.53	**31**	**16**	**47**	< 0.10
SS-4	8/13/2012	N	<0.82	**0.60**	**1.4**	<0.80	**1.3**	**6,200**	**110**	**5.7**	<0.80	<1.1	<0.26	**5.8**	**1.8**	**7.6**	**1.8**
SS-4	9/12/2012	N	<0.82	**0.94**	**2.4**	<0.80	**4.4**	**1,300**	**14**	**25**	<0.80	<1.1	<0.26	**11**	**4.5**	**15.5**	**4.8**
SS-4	11/5/2012	N	**0.42**	**1.5**	**2.6**	<0.40	**1.8**	**780**	**4.0**	**12**	<0.40	<0.55	<0.13	**5.3**	**2.3**	**7.6**	**6.7**
SS-4	3/12/2013	N	<0.41	**1.4**	**1.2**	<0.40	**0.76**	**130**	**1.1**	**4.5**	<0.40	<0.55	<0.13	**2.1**	**0.71**	**2.81**	**6.1**
SS-4	6/14/2013	N	<0.41	**0.27**	**3.8**	<0.40	**0.70**	**420 E**	**6.8**	**3.0**	<0.40	<0.55	<0.13	**1.5**	**0.69**	**2.19**	**4.89**
SS-4	9/19/2013	N	<0.41	**0.55**	**5.4**	<0.40	**3.0**	**110**	**3.9**	**12**	<0.40	<0.55	<0.13	**7.0**	**4.5**	**11.5**	**1.46**
SS-4	12/10/2013	N	<0.41	**2.8**	**0.34**	<0.40	**1.8**	**13**	<0.69	**6.7**	<0.40	<0.55	<0.13	**4.1**	**1.5**	**5.6**	**6.68**
SS-4	4/11/2014	N	<0.41	**0.60**	**0.42**	<0.40	**0.44**	**29**	**2.9**	**3.0**	<0.40	<0.55	<0.13	**1.4**	**0.55**	**2.0**	**0.70**
SS-4	6/6/2014	N	<0.41	**0.41**	**1.5**	<0.40	<0.44	**44**	**7.8**	**4.2**	<0.40	<0.55	<0.13	**1.3**	**0.57**	**1.9**	**1.68**
SS-4	9/12/2014	N	<0.41	**0.49**	**5.5**	<0.40	<0.44	**0.35**	**1.5**	**3.0**	<0.40	<0.55	<0.13	**1.2**	**0.57**	**1.8**	<0.10
SS-4	12/4/2014	N	<0.41	**0.49**	**1.1**	<0.40	<0.44	**5.3**	**84**	**2.3**	<0.40	<0.55	<0.13	**1.6**	**0.55**	**2.2**	<0.10
SS-4	3/16/2015	N	<0.41	**0.67**	**1.7**	<0.40	**0.87**	**8.4**	**4.4**	**17**	<0.40	<0.55	<0.13	**3.0**	**1.4**	**4.4**	**1.19**
SS-5	6/24/2015	N	<0.41	**0.36**	**0.30**	**4.14**	**0.88**	<0.35	**9.64**	**2.10**	<0.40	<0.55	<0.13	**2.33**	**1.01**	**3.34**	**0.76**
SS-5	9/25/2015	N	**1.0**	**0.99**	**3.1**	**0.95**	**1.5**	**0.43**	**1.8**	**4.1**	<0.40	<0.55	<0.13	**5.0**	**1.9**	**6.9**	<0.10
SS-5	1/7/2016	N	**0.57**	**2.2**	**1.0**	<0.40	**1.6**	**0.63**	**2.6**	**7.2**	<0.40	<0.55	<0.13	**4.8**	**1.4**	**6.2**	**0.25**

Table E-2: Subslab Analytical Results

			1,2-Dichloro-ethane	Benzene	Chloroform	cis-1,2-Dichloro-ethene	Ethylbenzene	Methylene Chloride	Tetrachloro-ethene (PCE)	Toluene	trans-1,2-Dichloroethene	Trichloro-ethene (TCE)	Vinyl Chloride	Xylene, m,p-	Xylene, o-	Xylene, total	HELIUM
MTCA Method B Indoor Air Cleanup Level[(a)]			0.096	0.32	0.11	18	460	66	9.6	2300	18	0.33	0.28	46	46	46	
Subslab Soil Vapor Screening Level[(b)]			3.2	11	3.6	610	15,000	2,200	320	77,000	600	11	9.3	1,500	1,500	1,500	
			ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	%
Location ID	Sample Date	Sample Type															
SS-5	4/14/2017	N	<0.41	**1.2**	**1.4**	<0.40	**1.0**	**0.95**	<0.69	**5.8**	<0.40	<0.55	<0.13	**3.4**	**1.4**	**4.8**	**1.42**
SS-5	1/4/2018	N	<0.41	**1.8**	**0.79**	<0.40	**3.4**	**2.7**	**1.9**	**9.6**	<0.40	**4.6**	<0.13	**13**	**5.3**	**18**	<0.10
SS-5	12/09/2023	N	< 0.88	**1.6**	**0.46 J**	< 0.86	**5.6**	< 1.5	**0.74 J**	**9.9**	< 0.86	< 1.2	< 0.55	**25**	**15**	**40**	< 0.11

Notes and Abbreviations:

"<" indicates compound not detected at or above the indicated method detection limit

"J" indicates an estimated concentration based on either being less than the laboratory reporting limit or data validation findings.

Bold indicates detected concentration

Blue shading indicates exceedance of the applicable screening level

Grey shading indicates the compound was not detected at or above the indicated method detection limit, but the method detection limit exceeds the applicable screening level

N = normal environmental sample

ug/m3 = micrograms per cubic meter.

(a) MTCA Method B Indoor Air Cleanup Level, published in Ecology's Cleanup Levels and Risk Calculations (CLARC) database, effective February 2024.

(b) Soil vapor screening level from CLARC database, or calculated by dividing the indoor air cleanup level by 0.03 attenuation factor per Ecology's *Guidance for Evaluating Vapor Intrusion in Washington State* , March 2022.