

**SRI PHASE 5 SOIL VAPOR INVESTIGATION SUMMARY REPORT
CHELAN CHEVRON SITE
232 East Woodin Avenue
Chelan, Washington**

November 8, 2021

**Prepared for:
Washington State Department of Ecology
1250 West Alder Street
Union Gap, Washington 98903**

**Prepared by:
Leidos, Inc.
11824 North Creek Parkway N, Suite 101
Bothell, Washington 98011**

**On Behalf of:
Resource Environmental, LLC
925 Salida Del Sol Drive
Paso Robles, California 93446**

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Russell S. Shropshire, PE
Principal Engineer

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SRI PHASE 5 SOIL VAPOR INVESTIGATION SUMMARY REPORT CHELAN CHEVRON SITE

1. INTRODUCTION AND OBJECTIVE

Leidos, Inc. (Leidos), on behalf of Resource Environmental, LLC (RELLC), has prepared this report to summarize the results of Tier I soil vapor sampling performed at the Chelan Chevron Site (the Site) in Chelan, Washington (Figures 1 and 2). This work was performed as part of on-going Supplemental Remedial Investigation (SRI) activities being performed at the Site pursuant to the terms of Agreed Order No. DE 10629.

The objective of this work was to assess soil vapor conditions in the vicinity of monitoring wells MW-21 and MW-44, where petroleum contamination is known to be present in shallow soils that could potentially serve as a source for petroleum vapor intrusion to nearby buildings.

2. BACKGROUND

The potential for petroleum vapor intrusion into buildings in the vicinity of the Site was evaluated previously by soil vapor sampling performed in 2003 (SAIC, 2006) and Tier II sampling conducted in June 2015 and February 2016, which included sampling of sub-slab soil vapor and indoor air at nine buildings located to the south of E. Woodin Avenue, as well as outdoor air sampling at three locations (Leidos, 2015 and 2016). Based on the results of these investigations, it was determined that petroleum vapor intrusion was not an exposure pathway of concern for the Site.

However, following completion of the 2016 Tier II sampling, petroleum light non-aqueous phase liquid (LNAPL) was first detected in monitoring well MW-21 and later gauged at thicknesses of up to 16.19 feet. More recent investigation work performed by Leidos in 2018 also identified high concentrations of gasoline-range organics (GRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) beginning at a depth of 14.5 feet below ground surface at monitoring well MW-44. Orphaned underground storage tanks (USTs) have also been determined to be present in close proximity to both of these monitoring wells. Based on these results, and in accordance with Ecology guidance for initially assessing the potential for petroleum vapor intrusion (Ecology, 2016), Ecology requested further assessment to evaluate the potential for petroleum vapor intrusion in the vicinity of these two locations.

3. SCOPE OF WORK

The initial scope of work for the SRI Phase 5 Tier I soil vapor sampling event was originally proposed by Arcadis, on behalf of Chevron, in the *Supplemental Remedial Investigation Workplan – Phase 5*, dated June 16, 2020 (Arcadis, 2020). This scope of work was later revised by Leidos in an addendum to Arcadis' work plan, Addendum 1, (Leidos, 2020), which was approved by Ecology on September 24, 2020.

The scope of work included installation and sampling of two new shallow soil vapor sampling probes (SVP-1 and SVP-2) located along the northern boundary of E. Woodin Avenue (Figure 2).

- SVP-1 was installed on the property at 221 E. Woodin Avenue in order to evaluate shallow soil vapor conditions in the vicinity of monitoring well MW-44 and the orphaned USTs that were confirmed to be present in this area by investigation activities completed in November 2020 (Leidos, 2021).
- SVP-2 was installed in the sidewalk to the south of the property at 137 E. Woodin Avenue. This soil vapor sampling probe was installed to evaluate soil vapor conditions in the vicinity of monitoring well MW-21 and the orphaned USTs that were confirmed to be present in this area by investigation activities completed in November 2018 (Leidos, 2019).

4. SOIL VAPOR SAMPLING PROBE INSTALLATION

Installation of soil vapor sampling probes SVP-1 and SVP-2 was completed November 8-9, 2020, during the November 2020 SRI Phase 5 field activities.

Soil vapor sampling probe installation activities were performed by Anderson Environmental Contracting (AEC), under the supervision of a Washington State licensed driller. Soil borings for the soil vapor sampling probe installations were completed by a combination of air-knife and hand-auger methods, with soil samples collected for logging and field screening at approximately 2-foot intervals. Use of air-knife equipment for construction of the soil vapor sampling probes is generally not recommended if the probes will be sampled immediately or soon after construction, due to the potential to disturb representative soil vapor conditions by aeration of the surrounding formation. Leidos typically allows a period of at least two weeks after construction, to allow soil vapor conditions to re-equilibrate before sampling, if air-knife equipment is used for soil vapor sampling probe construction. For the soil vapor sampling event documented by this report, a period of more than 150 days elapsed between installation and sampling of soil vapor sampling probes SVP-1 and SVP-2. Therefore, the use of air-knife equipment during construction of the probes would not be expected to impact the soil vapor sampling results.

Soil vapor sampling probes were constructed using 6-inch long stainless steel screens equipped with a ¼-inch Swagelok® fitting (AMS, Inc. part number 21013), which were connected to ¼-inch diameter Teflon® tubing and capped at the ground surface using a stainless steel Swagelok® ball-valve. The screen interval for each soil vapor sampling probe was established as follows, based on the specific target sampling depth for each location:

- For SVP-1, the screen interval was set from approximately 5.0 to 5.5 feet bgs in order to evaluate shallow soil vapor conditions expected to be present beneath the building floor slabs expected to be present on the properties at 217 and 221 E. Woodin Avenue.
- For SVP-2, the screen interval was set from approximately 9.0 to 9.5 feet bgs in order to evaluate soil vapor conditions at a depth similar to the bottom depth of basement areas believed to be present in the buildings at 131, 133, and 135 E. Woodin Avenue.

The vapor probe borings were backfilled with 2/12 Monterey sand from the bottom of the boring to a depth of approximately 6 inches above the top of the screen interval. Approximately 12 inches of dry granular bentonite were placed above the sand and the borings were then sealed with pre-hydrated bentonite to a depth of 18 inches bgs, and finished with an 8-inch diameter flush mount well box set in concrete.

Additional soil vapor sampling probe construction details, including boring logs and soil sample analytical results are presented in Leidos' SRI Phase 5 summary report (Leidos, 2021).

5. SOIL VAPOR SAMPLE COLLECTION

Soil vapor sampling field activities were performed on April 16, 2021 following the procedures described in Section 8 of the Sampling and Analysis Plan (SAP) [Appendix A of Addendum 1 (Leidos, 2020)]. Samples were collected in 6-liter Summa air-sampling canisters provided by the subcontracted laboratory for the project, Eurofins Air Toxics of Folsom, California. Multiple quality assurance and quality control (QA/QC) checks were conducted during the sampling process, including initial canister vacuum checks, canister and manifold shut-in tests, and secondary leak testing by collection of the samples under a shroud containing helium at a concentration of approximately 10 percent, or greater, by volume. One duplicate sample (DUP-1-210416) was collected for laboratory QA/QC purposes. In addition, equipment blank (EB-1-210416) and equipment blank control (EBC-1-210416) samples were collected to assess possible contributions of target analyte concentrations from vapor point construction materials, such as the tubing, valves, or sample probe screens.

6. SOIL VAPOR SAMPLE ANALYSIS

Soil vapor samples were submitted to Eurofins Air Toxics for the following analyses:

- BTEX, methyl tertiary butyl ether (MTBE), naphthalene, ethylene dibromide (EDB), and ethylene dichloride (EDC) by modified EPA Method TO-15 GC/MS SIM;
- C9-C10 aromatics, C5-C8 aliphatics, and C9-C12 aliphatics by Massachusetts Department of Environmental Protection Air Phase Petroleum Hydrocarbons (MADEP APH); and
- Oxygen, carbon dioxide, methane, nitrogen, and helium by modified Method ASTM D-1946.

MADEP APH analyses were subcontracted by Eurofins Air Toxics to the Eurofins TestAmerica laboratory in Burlington, Vermont.

Laboratory analytical reports are provided in Appendix A.

7. SOIL VAPOR SAMPLING RESULTS

Laboratory results of the April 16, 2021 Tier I soil vapor sampling event are summarized in Table 1 and are further discussed in the following subsections.

7.1 TO-15 SAMPLING RESULTS

Results of the TO-15 analyses indicate that none of the target compounds were detected above their laboratory reporting limits in the sample collected from SVP-1 (SVP-1-210416) or its duplicate sample (DUP-1-210416). For the sample collected at SVP-2 (SVP-2-210416), only toluene was detected above the laboratory reporting limit, at a concentration of 0.26 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), which is well below the Model Toxics Control Act (MTCA) Method B sub-slab soil gas screening level for this compound (76,200 $\mu\text{g}/\text{m}^3$).

Benzene, toluene, ethylbenzene, and xylenes were all detected at low levels (less than their respective Method B sub-slab soil gas screening levels) in the equipment blank (EB-1-210416) and equipment blank control (EBC-1-210416) samples. The results for these two samples are very similar. Therefore, the soil vapor sampling probe materials do not appear to be a potential source for detections of the target compounds in the soil vapor samples. The slightly higher concentration of toluene detected in the equipment blank sample (3.8 $\mu\text{g}/\text{m}^3$ versus 2.5 $\mu\text{g}/\text{m}^3$ in the equipment blank control sample) is believed to be more likely a result of sample variability than an indication of a toluene contribution from the sample probe construction materials. The results for these two samples are therefore representative of outdoor ambient air conditions at the Site. These results are similar to those reported for outdoor air sampling conducted in 2015 and 2016, which previously confirmed the presence of low-level concentrations of BTEX in samples of outdoor air collected at multiple locations throughout the Site. (Leidos, 2016).

7.2 MADEP APH SAMPLING RESULTS

Results of the MA APH analyses indicate that C5-C8 aliphatics were detected in all of the samples collected, including the equipment blank and equipment blank control samples, at concentrations ranging from 18 to 54 $\mu\text{g}/\text{m}^3$. Toluene was also detected in the equipment blank sample (EB-1-210416) at a concentration of 3.1 $\mu\text{g}/\text{m}^3$. No other target analytes for the MADEP APH analysis were detected in any of the vapor samples. Similar to the TO-15 analytical results, results of the MADEP APH analyses indicate that the concentrations of petroleum-related analytes detected in the soil gas samples are similar to, or less than, the concentrations of these analytes detected in the equipment blank and equipment blank control samples.

Results of the MADEP APH analyses were also used in combination with the TO-15 sampling results to calculate a total TPH concentration for each sample, as well as a site-specific sub-slab soil gas screening level for TPH, using Ecology Implementation Memorandum # 18, *Petroleum Vapor Intrusion (PVI): Updated Screening Levels, Cleanup Levels, and Assessing PVI Threats to Future Buildings* (see Appendix B). Total TPH results for the three shallow soil vapor samples collected ranged from 45.9 to 80.7 $\mu\text{g}/\text{m}^3$, all of which are well below the MTCA Method B generic sub-slab soil gas screening level of 4,700 $\mu\text{g}/\text{m}^3$ and the most conservative site-specific sub-slab soil gas screening level calculated for the Site, 4,022 $\mu\text{g}/\text{m}^3$.

7.3 ASTM D-1946 SAMPLING RESULTS

Results of the ASTM D-1946 analyses indicate that helium was not detected in any of the samples collected from SVP-1 or SVP-2, including the duplicate sample (DUP-1-210416) that was collected at SVP-1. These results indicate that the TO-15 and MA APH sampling results were not affected by sample train leakage or short-circuiting of ambient air to the soil vapor sampling probes during collection of these samples.

Oxygen results for the samples collected from SVP-1 and SVP-2 ranged from 19 to 20 percent. These results are less than atmospheric oxygen (approximately 21 percent); however, these values are indicative of well oxygenated shallow soils in which petroleum vapors, if present, are known to rapidly attenuate.

Slightly elevated concentrations of carbon dioxide in the soil vapor samples may be indicative of aerobic biodegradation of petroleum hydrocarbons in shallow soil vapor. The lack of detectable methane in these samples is consistent with the high levels of oxygen observed, since methane production in the subsurface would be associated with anaerobic biodegradation.

8. SUMMARY AND CONCLUSIONS

The results of this soil vapor investigation are consistent with the results of previous petroleum vapor intrusion investigation work performed at the Site, which indicate that petroleum vapor intrusion is not an exposure pathway of concern for the Site.

EPA Method TO-15 analytical results from this sampling event indicate that none of the target analytes were detected above their laboratory reporting limits in the two samples collected from soil vapor sampling probe SVP-1, which is located in close proximity to the orphaned USTs present on the property at 221 E. Woodin Avenue. At SVP-2, in the western portion of the Site, a low concentration of toluene (0.26 µg/m³) was detected by the TO-15 analysis; however, this result was less than the concentration of toluene detected in outdoor ambient air (2.5 µg/m³), which is represented by the results for the equipment blank control sample (EBC-1-210416). Results of the TO-15 analyses also indicate that none of the carcinogenic compounds (benzene, naphthalene, MTBE, EDB, and EDC) were detected at concentrations exceeding MTCA Method B screening levels for sub-slab or shallow soil vapor.

The MADEP APH analyses provide similar results that indicate that the concentrations of petroleum-related analytes detected in the soil gas samples are similar to, or less than, the concentrations of these analytes detected in the equipment blank and equipment blank control samples. Results of the ASTM D-1946 analyses indicate that no leaks occurred during collection of the soil vapor samples and no other irregularities were noted in these data.

Based on the extremely low levels of petroleum constituents detected in the soil vapor samples collected during this sampling event, and in consideration of the results of past petroleum vapor intrusion investigations conducted at the Site, Leidos believes that further assessment of petroleum vapor intrusion at the Site is not warranted.

9. REFERENCES

- Arcadis (2020). "Supplemental Remedial Investigation Workplan – Phase 5, Chevron Service Station No. 9-6590." June 16.
- Ecology (2016). "Updated Process for Initially Assessing the Potential for Petroleum Vapor Intrusion, Implementation Memorandum No. 14." March 31.
- Ecology (2018). "Petroleum Vapor Intrusion (PVI): Updated Screening Levels, Cleanup Levels, and Assessing PVI Threats to Future Buildings, Implementation Memorandum No. 18." January 10.
- Leidos (2015). "Supplemental Remedial Investigation Report – Phase 1, Chevron Service Station No. 9-6590." December 14.
- Leidos (2016). "Summary of February 2016 Tier 2 Vapor Intrusion Assessment Sampling Event, Chevron Service Station No. 9-6590." June 6.
- Leidos (2019). "Agency Review Draft - Supplemental Remedial Investigation Report – Phase 4, Chelan Chevron." July 8.
- Leidos (2020). "Final - Supplemental Remedial Investigation Work Plan – Phase 5, Addendum 1, Chelan Chevron." September 24.

Leidos (2021). “Agency Review Draft - Supplemental Remedial Investigation Report – Phase 5, Chelan Chevron.” April 27.

SAIC (2006). “Final - Remedial Investigation/Feasibility Study Report, Chevron Service Station No. 9-6590.” December.

LIMITATIONS

This technical document was prepared on behalf of RELLC and is intended for its sole use and for use by the local, state, or federal regulatory agency that the technical document was sent to by Leidos. Any other person or entity obtaining, using, or relying on this technical document hereby acknowledges that they do so at their own risk, and Leidos shall have no responsibility or liability for the consequences thereof.

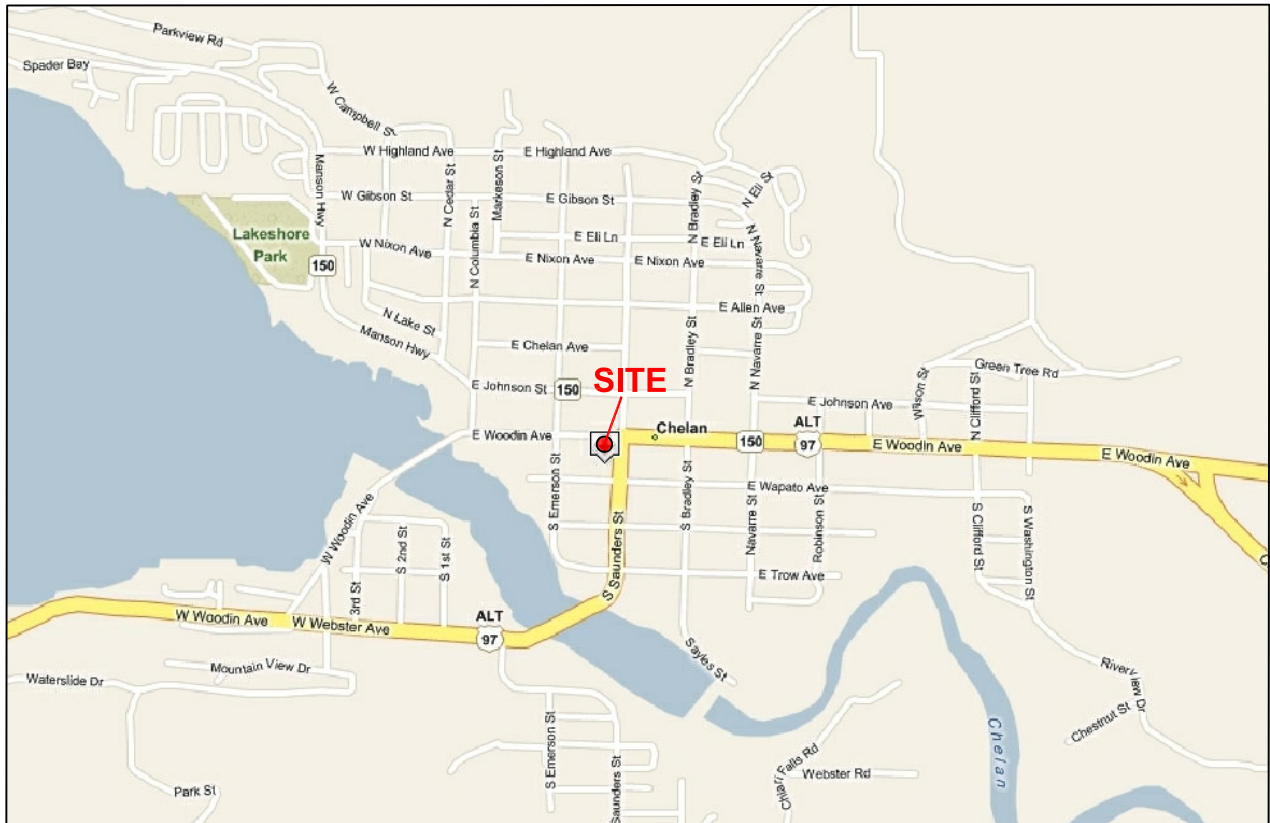
Site history and background information provided in this technical document is based on sources that may include interviews with environmental regulatory agencies and property management personnel and a review of acquired environmental regulatory agency documents and property information obtained from RELLC and others. Leidos has not made, nor has it been asked to make, any independent investigation concerning the accuracy, reliability, or completeness of such information beyond that described in this technical document.

Recognizing reasonable limits of time and cost, this technical document cannot wholly eliminate uncertainty regarding the vertical and lateral extent of impacted environmental media.

Opinions and recommendations presented in this technical document apply only to site conditions and features as they existed at the time of Leidos site visits or site work and cannot be applied to conditions and features of which Leidos is unaware and has not had the opportunity to evaluate.

All sources of information on which Leidos has relied in making its conclusions (including direct field observations) are identified by reference in this technical document or in appendices attached to this technical document. Any information not listed by reference or in appendices has not been evaluated or relied on by Leidos in the context of this technical document. The conclusions, therefore, represent our professional opinion based on the identified sources of information.

Figures



Maps Provided by Google Maps

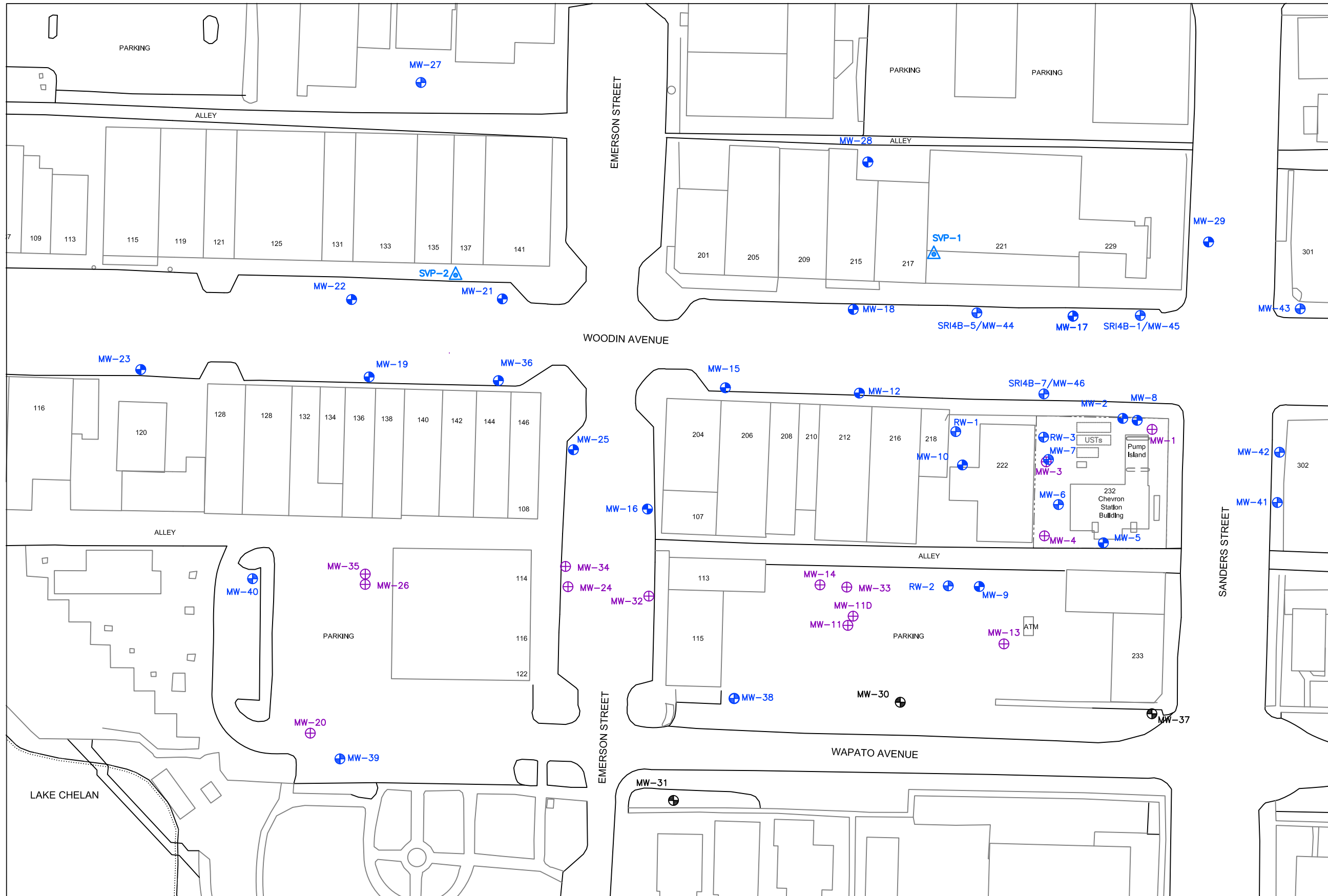


Chelan Chevron Site
232 East Woodin Avenue
Chelan, Washington

FIGURE 1
Vicinity Map

FILE NAME:
96590_VM.dwg

DATE:
8/9/2021



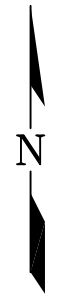
- LEGEND**
- MW-2 PERCHED GROUNDWATER MONITORING WELL
 - MW-30 DEEP GROUNDWATER MONITORING WELL
 - MW-1 ABANDONED DRY MONITORING WELL
 - SVP-1 SRI PHASE 5 SOIL VAPOR SAMPLING PROBE LOCATION

NOTES

Base Map from City of Chelan, 1994

Additional Reference Material:
Aerial Photograph from September 1991
(Washington State Department of Natural Resources)

0 80' 160'



Chelan Chevron Site
232 East Woodin Avenue
Chelan, Washington

FIGURE 2
Site Map

FILE NAME: Chelan_Site_Map_2021.dwg DATE: 08/25/2021

Tables

Table 1
Summary of SRI Phase 5 Soil Vapor Sampling Results
Chelan Chevron Site

Sample Location/Type:	SVP-1		SVP-2	Equipment Blank	Equipment Blank Control
Sample ID:	SVP-1-210416	DUP-1-210416	SVP-2-210416	EB-1-210416	EBC-1-210416
Sample Date:	4/16/2021	4/16/2021	4/16/2021	4/16/2021	4/16/2021
Sample Media:	Soil Vapor	Soil Vapor	Soil Vapor	Outdoor Ambient Air	Outdoor Ambient Air
Analytical Results for Modified EPA Method TO-15 GC/MS SIM (µg/m3)					
Benzene	0.082 J	0.065 J	0.13 J	1.0	1.0
Toluene	0.15 J	0.14 J	0.26	3.8	2.5
Ethylbenzene	<0.016	<0.015	0.040 J	0.36	0.36
m,p-Xylene	0.060 J	0.028 J	0.14 J	1.3	1.3
o-Xylene	0.028 J	<0.021	0.043 J	0.45	0.46
MTBE	<0.018	<0.018	<0.019	<0.036	<0.018
Naphthalene	0.27 J	<0.12	0.24 J	<0.25	<0.12
EDB	<0.022	<0.021	<0.022	<0.043	<0.021
EDC	<0.014	<0.014	<0.015	0.068 J	0.064 J
Analytical Results for Air Phase Petroleum Hydrocarbons by MADEP APH (µg/m3)					
Benzene	<2.4	<2.3	<2.5	<2.3	<2.3
Toluene	<2.4	<2.3	<2.5	3.1	<2.3
Ethylbenzene	<2.4	<2.3	<2.5	<2.3	<2.3
m,p-Xylene	<2.4	<2.3	<2.5	<2.3	<2.3
o-Xylene	<2.4	<2.3	<2.5	<2.3	<2.3
MTBE	<2.4	<2.3	<2.5	<2.3	<2.3
Naphthalene	<2.4	<2.3	<2.5	<2.3	<2.3
Butadiene	<2.4	<2.3	<2.5	<2.3	<2.3
C9-C10 Aromatics	<12	<12	<12	<12	<12
C5-C8 Aliphatics	54	43	18	46	34
C9-C12 Aliphatics	<14	<14	<15	<14	<14
Analytical Results for Natural Gas Analysis by Modified ASTM D-1946 (%)					
Oxygen	19	19	20	21	21
Methane	<0.00012	<0.00012	<0.00012	0.00018	0.00022
Helium	<0.012	<0.012	<0.012	<0.012	<0.012
Hydrogen	<0.012	<0.012	<0.012	<0.012	<0.012
Nitrogen	80	80	80	79	79
Carbon Dioxide	1.3	1.3	0.43	0.046	0.045

Notes:

1. Bold values indicate that the analyte was detected at a concentration greater than the laboratory reporting limit.
2. < = Compound was not detected above the Method Detection Limit (TO-15) or the Reporting Limit (MADEP APH and Modified ASTM D-1946).
3. J = Compound was detected at a value above the Method Detection Limit but less than the Reporting Limit; therefore, the value reported is considered an estimate.

MTCA Method B Sub-Slab Soil Gas Screening Levels:

Benzene = 10.7 µg/m3
Toluene = 76,200 µg/m3
Ethylbenzene = 15,200 µg/m3
m,p-Xylene = 1,520 µg/m3
o-Xylene = 1,520 µg/m3

MTBE = 321 µg/m3
Naphthalene = 2.5 µg/m3
EDB = 0.14 µg/m3
EDC = 3.2 µg/m3

Appendix A:
Laboratory Analytical Reports

9/15/2021

Mr. Russ Shropshire

Leidos

11824 N Creek Parkway North

Ste 101

Bothell WA 98011

Project Name: Chelan

Project #: WA-02

Workorder #: 2104497AR1

Dear Mr. Russ Shropshire

The following report includes the data for the above referenced project for sample(s) received on 4/21/2021 at Eurofins Air Toxics LLC.

The data and associated QC analyzed by Modified TO-15 SIM 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

WORK ORDER #: 2104497AR1

Work Order Summary

CLIENT:	Mr. Russ Shropshire Leidos 11824 N Creek Parkway North Ste 101 Bothell, WA 98011	BILL TO:	Accounts Payable-Harrisburg Leidos 6310 Allentown Blvd. Harrisburg, PA 17110
PHONE:	425-485-5800	P.O. #	P010255011
FAX:		PROJECT #	WA-02 Chelan
DATE RECEIVED:	04/21/2021	CONTACT:	Monica Tran
DATE COMPLETED:	05/03/2021		
DATE REISSUED:	09/15/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVP-1-210416	Modified TO-15 SIM	1.6 "Hg	1.8 psi
02A	SVP-2-210416	Modified TO-15 SIM	2.6 "Hg	1.8 psi
03A	EB-1-210416	Modified TO-15 SIM	1.6 "Hg	1.4 psi
04A	EBC-1-210416	Modified TO-15 SIM	1.6 "Hg	1.6 psi
05A	DUP-1-210416	Modified TO-15 SIM	1.4 "Hg	1.5 psi
06A	Lab Blank	Modified TO-15 SIM	NA	NA
07A	CCV	Modified TO-15 SIM	NA	NA
08A	LCS	Modified TO-15 SIM	NA	NA
08AA	LCSD	Modified TO-15 SIM	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 09/15/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935

Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified TO-15 SIM
Leidos
Workorder# 2104497AR1

Five 6 Liter Summa Canister (SIM Certified) samples were received on April 21, 2021. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode.

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

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to <math>< 40\%</math> RSD	Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to <math>< 40\%</math> RSD
Daily Calibration	+/- 30% Difference	Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; 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 SVP-1-210416 and DUP-1-210416 did not match the information on the canister with regard to canister barcodes. The samples labeled 0502 and 2414 on the COC are labeled as 000002414 and 0000000502 on the canisters. The client was notified of the discrepancy and the information on the canister was used to process and report the samples.

Analytical Notes

Dilution was performed on sample EB-1-210416 due to the presence of high level non-target species.

Per client request, the workorder was reissued on 9/15/21 for the following reasons:

1. To report estimated values for target compound hits that are below the reporting limit but greater than the method detection limit. All the canisters used for this project have been certified to the reporting limit for the target analytes included in this workorder. Concentrations that are below the level at which the canister was certified may be false positives.
2. To report in a different format.

Definition of Data Qualifying Flags

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

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

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

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

CN- See Case Narrative.

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

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

MODIFIED EPA METHOD TO-15 GC/MS SIM

Chelan

Client ID:	SVP-1-210416	Date/Time Analyzed:	4/26/21 02:05 PM
Lab ID:	2104497AR1-01A	Dilution Factor:	1.19
Date/Time Collected:	4/16/21 07:44 AM	Instrument/Filename:	msd21.i / 21042607simR1
Media:	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.022	0.073	0.18	Not Detected
1,2-Dichloroethane	107-06-2	0.014	0.038	0.096	Not Detected
Benzene	71-43-2	0.019	0.030	0.19	0.082 J
Ethyl Benzene	100-41-4	0.016	0.041	0.10	Not Detected
m,p-Xylene	108-38-3	0.021	0.041	0.21	0.060 J
Methyl tert-butyl ether	1634-04-4	0.018	0.034	0.43	Not Detected
Naphthalene	91-20-3	0.13	0.12	0.31	0.27 J
o-Xylene	95-47-6	0.022	0.041	0.10	0.028 J
Toluene	108-88-3	0.014	0.036	0.22	0.15 J

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	100
4-Bromofluorobenzene	460-00-4	70-130	109
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM

Chelan

Client ID:	SVP-2-210416	Date/Time Analyzed:	4/26/21 02:44 PM
Lab ID:	2104497AR1-02A	Dilution Factor:	1.23
Date/Time Collected:	4/16/21 05:01 AM	Instrument/Filename:	msd21.i / 21042608simR1
Media:	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.022	0.076	0.19	Not Detected
1,2-Dichloroethane	107-06-2	0.015	0.040	0.10	Not Detected
Benzene	71-43-2	0.019	0.031	0.20	0.13 J
Ethyl Benzene	100-41-4	0.016	0.043	0.11	0.040 J
m,p-Xylene	108-38-3	0.022	0.043	0.21	0.14 J
Methyl tert-butyl ether	1634-04-4	0.019	0.035	0.44	Not Detected
Naphthalene	91-20-3	0.13	0.13	0.32	0.24 J
o-Xylene	95-47-6	0.022	0.043	0.11	0.043 J
Toluene	108-88-3	0.015	0.037	0.23	0.26

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	97
4-Bromofluorobenzene	460-00-4	70-130	113
Toluene-d8	2037-26-5	70-130	96

MODIFIED EPA METHOD TO-15 GC/MS SIM
Chelan

Client ID:	EB-1-210416	Date/Time Analyzed:	4/26/21 03:22 PM
Lab ID:	2104497AR1-03A	Dilution Factor:	2.32
Date/Time Collected:	4/16/21 07:51 AM	Instrument/Filename:	msd21.i / 21042609simR1
Media:	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.043	0.14	0.36	Not Detected
1,2-Dichloroethane	107-06-2	0.028	0.075	0.19	0.068 J
Benzene	71-43-2	0.036	0.059	0.37	1.0
Ethyl Benzene	100-41-4	0.030	0.080	0.20	0.36
m,p-Xylene	108-38-3	0.041	0.080	0.40	1.3
Methyl tert-butyl ether	1634-04-4	0.036	0.067	0.84	Not Detected
Naphthalene	91-20-3	0.25	0.24	0.61	Not Detected
o-Xylene	95-47-6	0.042	0.080	0.20	0.45
Toluene	108-88-3	0.028	0.070	0.44	3.8

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	94
4-Bromofluorobenzene	460-00-4	70-130	105
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM

Chelan

Client ID:	EBC-1-210416	Date/Time Analyzed:	4/26/21 03:59 PM
Lab ID:	2104497AR1-04A	Dilution Factor:	1.17
Date/Time Collected:	4/16/21 07:51 AM	Instrument/Filename:	msd21.i / 21042610simR1
Media:	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.021	0.072	0.18	Not Detected
1,2-Dichloroethane	107-06-2	0.014	0.038	0.095	0.064 J
Benzene	71-43-2	0.018	0.030	0.19	1.0
Ethyl Benzene	100-41-4	0.015	0.041	0.10	0.36
m,p-Xylene	108-38-3	0.021	0.041	0.20	1.3
Methyl tert-butyl ether	1634-04-4	0.018	0.034	0.42	Not Detected
Naphthalene	91-20-3	0.12	0.12	0.31	Not Detected
o-Xylene	95-47-6	0.021	0.041	0.10	0.46
Toluene	108-88-3	0.014	0.035	0.22	2.5

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	95
4-Bromofluorobenzene	460-00-4	70-130	106
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM

Chelan

Client ID:	DUP-1-210416	Date/Time Analyzed:	4/26/21 04:37 PM
Lab ID:	2104497AR1-05A	Dilution Factor:	1.16
Date/Time Collected:	4/16/21 12:00 AM	Instrument/Filename:	msd21.i / 21042611simR1
Media:	6 Liter Summa Canister (SIM Certified)		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.021	0.071	0.18	Not Detected
1,2-Dichloroethane	107-06-2	0.014	0.038	0.094	Not Detected
Benzene	71-43-2	0.018	0.030	0.18	0.065 J
Ethyl Benzene	100-41-4	0.015	0.040	0.10	Not Detected
m,p-Xylene	108-38-3	0.020	0.040	0.20	0.028 J
Methyl tert-butyl ether	1634-04-4	0.018	0.033	0.42	Not Detected
Naphthalene	91-20-3	0.12	0.12	0.30	Not Detected
o-Xylene	95-47-6	0.021	0.040	0.10	Not Detected
Toluene	108-88-3	0.014	0.035	0.22	0.14 J

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	97
4-Bromofluorobenzene	460-00-4	70-130	110
Toluene-d8	2037-26-5	70-130	98

MODIFIED EPA METHOD TO-15 GC/MS SIM
Chelan

Client ID:	Lab Blank	Date/Time Analyzed:	4/26/21 10:45 AM
Lab ID:	2104497AR1-06A	Dilution Factor:	1.00
Date/Time Collected:	NA - Not Applicable	Instrument/Filename:	msd21.i / 21042606simaR1
Media:	NA - Not Applicable		

Compound	CAS#	MDL (ug/m3)	LOD (ug/m3)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,2-Dibromoethane (EDB)	106-93-4	0.018	0.061	0.15	Not Detected
1,2-Dichloroethane	107-06-2	0.012	0.032	0.081	Not Detected
Benzene	71-43-2	0.016	0.026	0.16	Not Detected
Ethyl Benzene	100-41-4	0.013	0.035	0.087	Not Detected
m,p-Xylene	108-38-3	0.018	0.035	0.17	Not Detected
Methyl tert-butyl ether	1634-04-4	0.016	0.029	0.36	Not Detected
Naphthalene	91-20-3	0.11	0.10	0.26	Not Detected
o-Xylene	95-47-6	0.018	0.035	0.087	Not Detected
Toluene	108-88-3	0.012	0.030	0.19	Not Detected

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	109
Toluene-d8	2037-26-5	70-130	94

MODIFIED EPA METHOD TO-15 GC/MS SIM
Chelan

Client ID:	CCV	Date/Time Analyzed:	4/26/21 07:20 AM
Lab ID:	2104497AR1-07A	Dilution Factor:	1.00
Date/Time Collected:	NA - Not Applicable	Instrument/Filename:	msd21.i / 21042602sim
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2-Dibromoethane (EDB)	106-93-4	110
1,2-Dichloroethane	107-06-2	105
Benzene	71-43-2	105
Ethyl Benzene	100-41-4	109
m,p-Xylene	108-38-3	108
Methyl tert-butyl ether	1634-04-4	98
Naphthalene	91-20-3	70
o-Xylene	95-47-6	106
Toluene	108-88-3	106

D: Analyte not within the DoD scope of accreditation.

Surrogates	CAS#	Limits	%Recovery
1,2-Dichloroethane-d4	17060-07-0	70-130	94
4-Bromofluorobenzene	460-00-4	70-130	123
Toluene-d8	2037-26-5	70-130	107

MODIFIED EPA METHOD TO-15 GC/MS SIM
Chelan

Client ID:	LCS	Date/Time Analyzed:	4/26/21 08:06 AM
Lab ID:	2104497AR1-08A	Dilution Factor:	1.00
Date/Time Collected:	NA - Not Applicable	Instrument/Filename:	msd21.i / 21042603sim
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2-Dibromoethane (EDB)	106-93-4	104
1,2-Dichloroethane	107-06-2	95
Benzene	71-43-2	97
Ethyl Benzene	100-41-4	104
m,p-Xylene	108-38-3	106
Methyl tert-butyl ether	1634-04-4	96
Naphthalene	91-20-3	107
o-Xylene	95-47-6	101
Toluene	108-88-3	103

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	113
Toluene-d8	2037-26-5	70-130	107

* % Recovery is calculated using unrounded analytical results.

MODIFIED EPA METHOD TO-15 GC/MS SIM
Chelan

Client ID:	LCSD	Date/Time Analyzed:	4/26/21 08:44 AM
Lab ID:	2104497AR1-08AA	Dilution Factor:	1.00
Date/Time Collected:	NA - Not Applicable	Instrument/Filename:	msd21.i / 21042604sim
Media:	NA - Not Applicable		

Compound	CAS#	%Recovery
1,2-Dibromoethane (EDB)	106-93-4	103
1,2-Dichloroethane	107-06-2	98
Benzene	71-43-2	98
Ethyl Benzene	100-41-4	103
m,p-Xylene	108-38-3	104
Methyl tert-butyl ether	1634-04-4	99
Naphthalene	91-20-3	99
o-Xylene	95-47-6	98
Toluene	108-88-3	99

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	115
Toluene-d8	2037-26-5	70-130	105

* % Recovery is calculated using unrounded analytical results.



Air Toxics

Analysis Request / Canister Chain of Custody

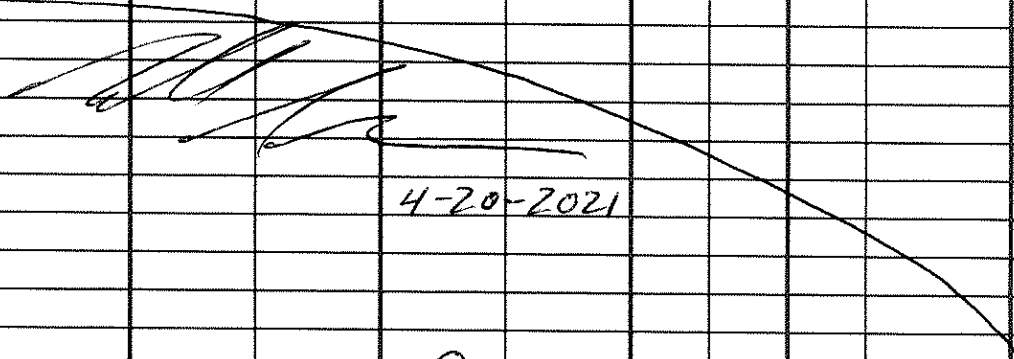
For Laboratory Use Only

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

PID: _____ Workorder #: 2104497

page 1 of 1

Client: <u>Leidos</u>	Special Instructions/Notes: <u>For TO-15, report BTEX, EDB, EDC, MIBE, and Naphthalene only.</u>	Turnaround Time (Rush surcharges may apply)							
Project Name: <u>Chelan</u>	<u>For ASTM D-1946, report CH₄, CO₂, H₂, He, N₂, and O₂</u>	Standard <input checked="" type="checkbox"/> Rush _____ (specify)							
Project Manager: <u>R. Shropshire</u> Project # <u>WA-02</u>		Canister Vacuum/Pressure							
Sampler: <u>R. Shropshire</u>		Requested Analyses							
Site Name: <u>Chelan</u>		<table border="1"> <tr> <th colspan="2">Lab Use Only</th> <th rowspan="2">EPA TO-15 SIM</th> <th rowspan="2">Mass APH</th> <th rowspan="2">ASTM D-1946</th> </tr> <tr> <th>Receipt</th> <th>Final (psig) Gas: N₂ / He</th> </tr> </table>	Lab Use Only		EPA TO-15 SIM	Mass APH	ASTM D-1946	Receipt	Final (psig) Gas: N ₂ / He
Lab Use Only		EPA TO-15 SIM	Mass APH	ASTM D-1946					
Receipt	Final (psig) Gas: N ₂ / He								

Lab ID	Field Sample Identification (Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	EPA TO-15 SIM	Mass APH	ASTM D-1946
				Date	Time	Date	Time							
01A	SVP-1-210416	35290/0502	25370	4-16-21	0616	4-16-21	0744	29	0.7			X	X	X
02A	SVP-2-210416	6L0341/00917	22578	↓	0422	↓	0501	29.25	0.8			X	X	X
03A	EB-1-210416	N2489/6L1563	25378	↓	0708	↓	0751	28.75	0.8			X	X	X
04A	EBC-1-210416	6L2932	25637	↓	0708	↓	0751	29	0.6			X	X	X
05A	DUP-1-210416	12071/2414	—	↓	—	↓	—	—	—			X	X	X
 4-20-2021														

Relinquished by: (Signature/Affiliation) <u>Russ Shropshire</u> <u>Leidos</u>	Date	Time	Received by: (Signature/Affiliation) <u>Ch. East</u>	Date	Time
	4-20-21	15:15		4-21-21	10:25
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only		
Shipper Name: <u>Best Up</u>	Custody Seals Intact?	Yes No <u>None</u>

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

5/4/2021

Mr. Russ Shropshire

Leidos

11824 N Creek Parkway North

Ste 101

Bothell WA 98011

Project Name: Chelan

Project #: WA-02

Workorder #: 2104497B

Dear Mr. Russ Shropshire

The following report includes the data for the above referenced project for sample(s) received on 4/21/2021 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

WORK ORDER #: 2104497B

Work Order Summary

CLIENT:	Mr. Russ Shropshire Leidos 11824 N Creek Parkway North Ste 101 Bothell, WA 98011	BILL TO:	Mr. Russ Shropshire Leidos 11824 N Creek Parkway North Ste 101 Bothell, WA 98011
PHONE:	425-485-5800	P.O. #	
FAX:		PROJECT #	WA-02 Chelan
DATE RECEIVED:	04/21/2021	CONTACT:	Monica Tran
DATE COMPLETED:	05/04/2021		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SVP-1-210416	Modified ASTM D-1946	1.6 "Hg	1.8 psi
02A	SVP-2-210416	Modified ASTM D-1946	2.6 "Hg	1.8 psi
03A	EB-1-210416	Modified ASTM D-1946	1.6 "Hg	1.4 psi
04A	EBC-1-210416	Modified ASTM D-1946	1.6 "Hg	1.6 psi
05A	DUP-1-210416	Modified ASTM D-1946	1.4 "Hg	1.5 psi
06A	Lab Blank	Modified ASTM D-1946	NA	NA
06B	Lab Blank	Modified ASTM D-1946	NA	NA
07A	CCV	Modified ASTM D-1946	NA	NA
07B	CCV	Modified ASTM D-1946	NA	NA
08A	LCS	Modified ASTM D-1946	NA	NA
08AA	LCSD	Modified ASTM D-1946	NA	NA
08B	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 

 Technical Director

DATE: 05/04/21

Certification numbers: AZ Licensure AZ0775, FL NELAP – E87680, LA NELAP – 02089, NH NELAP - 209220, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-20-16, UT NELAP – CA009332020-12, VA NELAP - 10615, WA NELAP - C935
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)
 Accreditation number: CA300005-014, Effective date: 10/18/2020, Expiration date: 10/17/2021.

Eurofins Air Toxics, LLC certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, LLC.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
 (916) 985-1000 . (800) 985-5955 . FAX (916) 351-8279

LABORATORY NARRATIVE
Modified ASTM D-1946
Leidos
Workorder# 2104497B

Five 6 Liter Summa Canister (SIM Certified) samples were received on April 21, 2021. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

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

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
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 $\geq 95\%$ 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

The Chain of Custody (COC) information for samples SVP-1-210416 and DUP-1-210416 did not match the information on the canister with regard to canister barcodes. The samples labeled 0502 and 2414 on the COC are labeled as 000002414 and 0000000502 on the canisters. The client was notified of the discrepancy and the information on the canister was used to process and report the samples.

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

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

Client Sample ID: SVP-1-210416

Lab ID#: 2104497B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	19
Nitrogen	0.12	80
Carbon Dioxide	0.012	1.3

Client Sample ID: SVP-2-210416

Lab ID#: 2104497B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	20
Nitrogen	0.12	80
Carbon Dioxide	0.012	0.43

Client Sample ID: EB-1-210416

Lab ID#: 2104497B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	21
Methane	0.00012	0.00018
Nitrogen	0.12	79
Carbon Dioxide	0.012	0.046

Client Sample ID: EBC-1-210416

Lab ID#: 2104497B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	21
Methane	0.00012	0.00022
Nitrogen	0.12	79
Carbon Dioxide	0.012	0.045

Client Sample ID: DUP-1-210416

Lab ID#: 2104497B-05A

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

Client Sample ID: DUP-1-210416

Lab ID#: 2104497B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	19
Nitrogen	0.12	80
Carbon Dioxide	0.012	1.3



Air Toxics

Client Sample ID: SVP-1-210416

Lab ID#: 2104497B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042636	Date of Collection:	4/16/21 7:44:00 AM
Dil. Factor:	1.19	Date of Analysis:	4/27/21 07:25 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	19
Methane	0.00012	Not Detected
Helium	0.012	Not Detected
Hydrogen	0.012	Not Detected
Nitrogen	0.12	80
Carbon Dioxide	0.012	1.3

Container Type: 6 Liter Summa Canister (SIM Certified)



Client Sample ID: SVP-2-210416

Lab ID#: 2104497B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042637	Date of Collection:	4/16/21 5:01:00 AM
Dil. Factor:	1.23	Date of Analysis:	4/27/21 07:54 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	20
Methane	0.00012	Not Detected
Helium	0.012	Not Detected
Hydrogen	0.012	Not Detected
Nitrogen	0.12	80
Carbon Dioxide	0.012	0.43

Container Type: 6 Liter Summa Canister (SIM Certified)



Client Sample ID: EB-1-210416

Lab ID#: 2104497B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042638	Date of Collection:	4/16/21 7:51:00 AM
Dil. Factor:	1.16	Date of Analysis:	4/27/21 08:22 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	21
Methane	0.00012	0.00018
Helium	0.012	Not Detected
Hydrogen	0.012	Not Detected
Nitrogen	0.12	79
Carbon Dioxide	0.012	0.046

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: EBC-1-210416

Lab ID#: 2104497B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042639	Date of Collection:	4/16/21 7:51:00 AM
Dil. Factor:	1.17	Date of Analysis:	4/27/21 08:51 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	21
Methane	0.00012	0.00022
Helium	0.012	Not Detected
Hydrogen	0.012	Not Detected
Nitrogen	0.12	79
Carbon Dioxide	0.012	0.045

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: DUP-1-210416

Lab ID#: 2104497B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042640	Date of Collection:	4/16/21
Dil. Factor:	1.16	Date of Analysis:	4/27/21 09:13 AM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.12	19
Methane	0.00012	Not Detected
Helium	0.012	Not Detected
Hydrogen	0.012	Not Detected
Nitrogen	0.12	80
Carbon Dioxide	0.012	1.3

Container Type: 6 Liter Summa Canister (SIM Certified)



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2104497B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042631	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/26/21 09:04 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Methane	0.00010	Not Detected
Nitrogen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 2104497B-06B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	10042630c	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	4/26/21 08:36 PM

Compound	Rpt. Limit (%)	Amount (%)
Hydrogen	0.010	Not Detected
Helium	0.010	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 2104497B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042627	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/26/21 07:18 PM

Compound	%Recovery
Oxygen	96
Methane	97
Helium	101
Nitrogen	92
Carbon Dioxide	100

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 2104497B-07B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	10042629c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/26/21 08:12 PM

Compound	%Recovery
Hydrogen	105

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 2104497B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042628	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/26/21 07:43 PM

Compound	%Recovery	Method Limits
Oxygen	96	85-115
Methane	97	85-115
Helium	99	85-115
Nitrogen	93	85-115
Carbon Dioxide	99	85-115

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 2104497B-08AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	10042652	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/27/21 02:32 PM

Compound	%Recovery	Method Limits
Oxygen	96	85-115
Methane	97	85-115
Helium	100	85-115
Nitrogen	93	85-115
Carbon Dioxide	100	85-115

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 2104497B-08B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1945

File Name:	10042653c	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 4/27/21 03:17 PM

Compound	%Recovery	Method Limits
Hydrogen	100	85-115

Container Type: NA - Not Applicable



Air Toxics

Analysis Request / Canister Chain of Custody

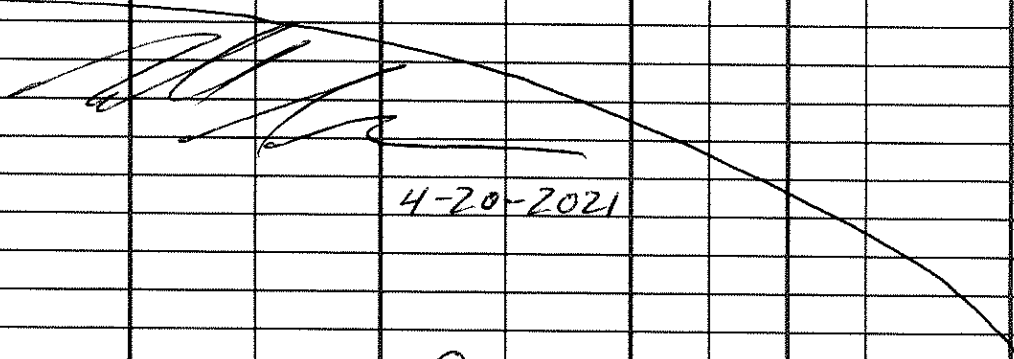
For Laboratory Use Only

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

PID: _____ Workorder #: 2104497

page 1 of 1

Client: <u>Leidos</u>	Special Instructions/Notes: <u>For TO-15, report BTEX, EDB, EDC, MIBE, and Naphthalene only.</u> <u>For ASTM D-1946, report CH₄, CO₂, H₂, He, N₂, and O₂</u>	Turnaround Time (Rush surcharges may apply)						
Project Name: <u>Chelan</u>		Standard <input checked="" type="checkbox"/> Rush _____ (specify)						
Project Manager: <u>R. Shropshire</u> Project # <u>WA-02</u>		Canister Vacuum/Pressure	Requested Analyses					
Sampler: <u>R. Shropshire</u>		Lab Use Only						
Site Name: <u>Chelan</u>		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	EPA TO-15 SIM	Mass APH	ASTM D-1946

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	EPA TO-15 SIM	Mass APH	ASTM D-1946
				Date	Time	Date	Time							
01A	SVP-1-210416	35290/0502	25370	4-16-21	0616	4-16-21	0744	29	0.7			X	X	X
02A	SVP-2-210416	6L0341/00917	22578	↓	0422	↓	0501	29.25	0.8			X	X	X
03A	EB-1-210416	N2489/6L1563	25378	↓	0708	↓	0751	28.75	0.8			X	X	X
04A	EBC-1-210416	6L2932	25637	↓	0708	↓	0751	29	0.6			X	X	X
05A	DUP-1-210416	12071/2414	—	↓	—	↓	—	—	—			X	X	X
 4-20-2021														

Relinquished by: (Signature/Affiliation) <u>Russ Shropshire</u> <u>Leidos</u>	Date	Time	Received by: (Signature/Affiliation) <u>Chelan</u>	Date	Time
	4-20-21	15:15		4-21-21	10:25
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Lab Use Only		
Shipper Name: <u>Best Up</u>	Custody Seals Intact?	Yes No <u>None</u>

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

ANALYTICAL REPORT

Eurofins TestAmerica, Burlington
530 Community Drive
Suite 11
South Burlington, VT 05403
Tel: (802)660-1990

Laboratory Job ID: 200-58278-1
Laboratory Sample Delivery Group: 200-58278-1
Client Project/Site: Chelan

For:
Eurofins Air Toxics, Inc.
180 Blue Ravine Road
Suite B
Folsom, California 95630

Attn: Alexandra Winslow

Elizabeth A. Nye

Authorized for release by:
5/5/2021 1:39:29 PM

Elizabeth Nye, Project Manager I
(802)660-1990
Elizabeth.Nye@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Job ID: 200-58278-1

Laboratory: Eurofins TestAmerica, Burlington

Narrative

CASE NARRATIVE

Client: Eurofins Air Toxics, Inc.

Project: Chelan

Report Number: 200-58278-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 04/29/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

PETROLEUM HYDROCARBON

Samples SVP-1-210416, SVP-2-210416, EB-1-210416, EBC-1-210416 and DUP-1-210416 were analyzed for petroleum hydrocarbon in accordance with MADEP APH. The samples were analyzed on 05/03/2021.

The laboratory control sample (LCS) for analytical batch 200-166431 recovered outside control limits for Butadiene. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Samples SVP-1-210416[1.19X], SVP-2-210416[1.23X], EB-1-210416[1.16X], EBC-1-210416[1.17X] and DUP-1-210416[1.16X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Client Sample ID: SVP-1-210416

Lab Sample ID: 200-58278-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	54		14	14	ug/m3	1.19		APH	Total/NA

Client Sample ID: SVP-2-210416

Lab Sample ID: 200-58278-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	18		15	15	ug/m3	1.23		APH	Total/NA

Client Sample ID: EB-1-210416

Lab Sample ID: 200-58278-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Toluene	3.1		2.3	2.3	ug/m3	1.16		APH	Total/NA
C5-C8 Aliphatics (adjusted)	46		14	14	ug/m3	1.16		APH	Total/NA

Client Sample ID: EBC-1-210416

Lab Sample ID: 200-58278-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	34		14	14	ug/m3	1.17		APH	Total/NA

Client Sample ID: DUP-1-210416

Lab Sample ID: 200-58278-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
C5-C8 Aliphatics (adjusted)	43		14	14	ug/m3	1.16		APH	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Burlington

Client Sample Results

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Client Sample ID: SVP-1-210416

Lab Sample ID: 200-58278-1

Date Collected: 04/16/21 07:44

Matrix: Air

Date Received: 04/29/21 10:45

Sample Container: Summa Canister 6L

Method: APH - Air Phase Petroleum Hydrocarbons

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	2.4	U **+	2.4	2.4	ug/m3			05/03/21 15:07	1.19
Methyl tert-butyl ether	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
Benzene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
Toluene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
Ethylbenzene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
m-Xylene & p-Xylene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
o-Xylene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
Naphthalene	2.4	U	2.4	2.4	ug/m3			05/03/21 15:07	1.19
C9-C10 Aromatics	12	U	12	12	ug/m3			05/03/21 15:07	1.19
C5-C8 Aliphatics (adjusted)	54		14	14	ug/m3			05/03/21 15:07	1.19
C9-C12 Aliphatics (adjusted)	14	U	14	14	ug/m3			05/03/21 15:07	1.19

Client Sample ID: SVP-2-210416

Lab Sample ID: 200-58278-2

Date Collected: 04/16/21 05:01

Matrix: Air

Date Received: 04/29/21 10:45

Sample Container: Summa Canister 6L

Method: APH - Air Phase Petroleum Hydrocarbons

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	2.5	U **+	2.5	2.5	ug/m3			05/03/21 16:16	1.23
Methyl tert-butyl ether	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
Benzene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
Toluene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
Ethylbenzene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
m-Xylene & p-Xylene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
o-Xylene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
Naphthalene	2.5	U	2.5	2.5	ug/m3			05/03/21 16:16	1.23
C9-C10 Aromatics	12	U	12	12	ug/m3			05/03/21 16:16	1.23
C5-C8 Aliphatics (adjusted)	18		15	15	ug/m3			05/03/21 16:16	1.23
C9-C12 Aliphatics (adjusted)	15	U	15	15	ug/m3			05/03/21 16:16	1.23

Client Sample ID: EB-1-210416

Lab Sample ID: 200-58278-3

Date Collected: 04/16/21 07:51

Matrix: Air

Date Received: 04/29/21 10:45

Sample Container: Summa Canister 6L

Method: APH - Air Phase Petroleum Hydrocarbons

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	2.3	U **+	2.3	2.3	ug/m3			05/03/21 17:08	1.16
Methyl tert-butyl ether	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
Benzene	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
Toluene	3.1		2.3	2.3	ug/m3			05/03/21 17:08	1.16
Ethylbenzene	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
m-Xylene & p-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
o-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
Naphthalene	2.3	U	2.3	2.3	ug/m3			05/03/21 17:08	1.16
C9-C10 Aromatics	12	U	12	12	ug/m3			05/03/21 17:08	1.16
C5-C8 Aliphatics (adjusted)	46		14	14	ug/m3			05/03/21 17:08	1.16
C9-C12 Aliphatics (adjusted)	14	U	14	14	ug/m3			05/03/21 17:08	1.16

Eurofins TestAmerica, Burlington

Client Sample Results

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Client Sample ID: EBC-1-210416

Lab Sample ID: 200-58278-4

Date Collected: 04/16/21 07:51

Matrix: Air

Date Received: 04/29/21 10:45

Sample Container: Summa Canister 6L

Method: APH - Air Phase Petroleum Hydrocarbons

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	2.3	U **	2.3	2.3	ug/m3			05/03/21 18:00	1.17
Methyl tert-butyl ether	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
Benzene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
Toluene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
Ethylbenzene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
m-Xylene & p-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
o-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
Naphthalene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:00	1.17
C9-C10 Aromatics	12	U	12	12	ug/m3			05/03/21 18:00	1.17
C5-C8 Aliphatics (adjusted)	34		14	14	ug/m3			05/03/21 18:00	1.17
C9-C12 Aliphatics (adjusted)	14	U	14	14	ug/m3			05/03/21 18:00	1.17

Client Sample ID: DUP-1-210416

Lab Sample ID: 200-58278-5

Date Collected: 04/16/21 00:00

Matrix: Air

Date Received: 04/29/21 10:45

Sample Container: Summa Canister 6L

Method: APH - Air Phase Petroleum Hydrocarbons

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Butadiene	2.3	U **	2.3	2.3	ug/m3			05/03/21 18:52	1.16
Methyl tert-butyl ether	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
Benzene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
Toluene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
Ethylbenzene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
m-Xylene & p-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
o-Xylene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
Naphthalene	2.3	U	2.3	2.3	ug/m3			05/03/21 18:52	1.16
C9-C10 Aromatics	12	U	12	12	ug/m3			05/03/21 18:52	1.16
C5-C8 Aliphatics (adjusted)	43		14	14	ug/m3			05/03/21 18:52	1.16
C9-C12 Aliphatics (adjusted)	14	U	14	14	ug/m3			05/03/21 18:52	1.16

QC Sample Results

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Method: APH - Air Phase Petroleum Hydrocarbons

Lab Sample ID: MB 200-166431/4
Matrix: Air
Analysis Batch: 166431

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

Analyte	MB MB		RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Butadiene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
Methyl tert-butyl ether	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
Benzene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
Toluene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
Ethylbenzene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
m-Xylene & p-Xylene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
o-Xylene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
Naphthalene	2.0	U	2.0	2.0	ug/m3			05/03/21 14:15	1
C9-C10 Aromatics	10	U	10	10	ug/m3			05/03/21 14:15	1
C5-C8 Aliphatics (adjusted)	12	U	12	12	ug/m3			05/03/21 14:15	1
C9-C12 Aliphatics (adjusted)	12	U	12	12	ug/m3			05/03/21 14:15	1

Lab Sample ID: LCS 200-166431/3
Matrix: Air
Analysis Batch: 166431

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	90.4	96.1		ug/m3		106	70 - 130
Benzene	79.9	73.9		ug/m3		93	70 - 130
Toluene	94.4	91.6		ug/m3		97	70 - 130
Ethylbenzene	109	111		ug/m3		102	70 - 130
m-Xylene & p-Xylene	109	113		ug/m3		104	70 - 130
o-Xylene	109	120		ug/m3		110	70 - 130
Naphthalene	131	123		ug/m3		93	50 - 150
C9-C10 Aromatics	630	644		ug/m3		102	70 - 130
n-Heptane	103	113		ug/m3		110	70 - 130
n-Decane	146	167		ug/m3		114	70 - 130
1,3,5-Trimethylbenzene	123	130		ug/m3		106	70 - 130

QC Association Summary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Air - GC/MS VOA

Analysis Batch: 166431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-58278-1	SVP-1-210416	Total/NA	Air	APH	
200-58278-2	SVP-2-210416	Total/NA	Air	APH	
200-58278-3	EB-1-210416	Total/NA	Air	APH	
200-58278-4	EBC-1-210416	Total/NA	Air	APH	
200-58278-5	DUP-1-210416	Total/NA	Air	APH	
MB 200-166431/4	Method Blank	Total/NA	Air	APH	
LCS 200-166431/3	Lab Control Sample	Total/NA	Air	APH	

Lab Chronicle

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Client Sample ID: SVP-1-210416

Lab Sample ID: 200-58278-1

Date Collected: 04/16/21 07:44

Matrix: Air

Date Received: 04/29/21 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	APH		1.19	166431	05/03/21 15:07	GGG	TAL BUR

Client Sample ID: SVP-2-210416

Lab Sample ID: 200-58278-2

Date Collected: 04/16/21 05:01

Matrix: Air

Date Received: 04/29/21 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	APH		1.23	166431	05/03/21 16:16	GGG	TAL BUR

Client Sample ID: EB-1-210416

Lab Sample ID: 200-58278-3

Date Collected: 04/16/21 07:51

Matrix: Air

Date Received: 04/29/21 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	APH		1.16	166431	05/03/21 17:08	GGG	TAL BUR

Client Sample ID: EBC-1-210416

Lab Sample ID: 200-58278-4

Date Collected: 04/16/21 07:51

Matrix: Air

Date Received: 04/29/21 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	APH		1.17	166431	05/03/21 18:00	GGG	TAL BUR

Client Sample ID: DUP-1-210416

Lab Sample ID: 200-58278-5

Date Collected: 04/16/21 00:00

Matrix: Air

Date Received: 04/29/21 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	APH		1.16	166431	05/03/21 18:52	GGG	TAL BUR

Laboratory References:

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

Accreditation/Certification Summary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Laboratory: Eurofins TestAmerica, Burlington

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

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-23
Connecticut	State	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-16-21
Florida	NELAP	E87467	06-30-21
Minnesota	NELAP	050-999-436	12-31-21
New Hampshire	NELAP	2006	12-18-21
New Jersey	NELAP	VT972	06-30-21
New York	NELAP	10391	04-01-22
Pennsylvania	NELAP	68-00489	04-30-22
Rhode Island	State	LAO00298	12-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00272	10-30-23
Vermont	State	VT4000	02-10-22
Virginia	NELAP	460209	12-14-21
Wisconsin	State	399133350	08-31-21

Method Summary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Method	Method Description	Protocol	Laboratory
APH	Air Phase Petroleum Hydrocarbons	MA DEP	TAL BUR

Protocol References:

MA DEP = Massachusetts Department Of Environmental Protection

Laboratory References:

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



Sample Summary

Client: Eurofins Air Toxics, Inc.
Project/Site: Chelan

Job ID: 200-58278-1
SDG: 200-58278-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
200-58278-1	SVP-1-210416	Air	04/16/21 07:44	04/29/21 10:45	
200-58278-2	SVP-2-210416	Air	04/16/21 05:01	04/29/21 10:45	
200-58278-3	EB-1-210416	Air	04/16/21 07:51	04/29/21 10:45	
200-58278-4	EBC-1-210416	Air	04/16/21 07:51	04/29/21 10:45	
200-58278-5	DUP-1-210416	Air	04/16/21 00:00	04/29/21 10:45	

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Analysis Request / Canister Chain of Custody

For Laboratory Use Only

PID: _____ Workorder #: 2104497

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

page 1 of 1

Client: <u>Leidos</u>	Special Instructions/Notes: <u>For TO-15, report BTEX, EDB, EDC, MTBE, and Naphthalene only.</u> <u>For ASTM D-1946, report CH₄, CO₂, H₂, He, N₂, and O₂</u>	Turnaround Time (Rush surcharges may apply)							
Project Name: <u>Chelan</u>		Standard <u>X</u>	Rush _____ (specify)						
Project Manager: <u>R. Shropshire</u>		Canister Vacuum/Pressure		Requested Analyses					
Project #: <u>WA-02</u>		Lab Use Only							
Sampler: <u>R. Shropshire</u>		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	EPA TO-15	SIM	Mass APH	ASTM D-1946
Site Name: <u>Chelan</u>									

Lab ID	Field Sample Identification(Location)	Can #	Flow Controller #	Start Sampling Information		Stop Sampling Information		Initial (in Hg)	Final (in Hg)	Receipt	Final (psig) Gas: N ₂ / He	EPA TO-15	SIM	Mass APH	ASTM D-1946
				Date	Time	Date	Time								
<u>01A</u>	<u>SVP-1-210416</u>	<u>35290/0502</u>	<u>25370</u>	<u>4-16-21</u>	<u>0616</u>	<u>4-16-21</u>	<u>0744</u>	<u>29</u>	<u>0.7</u>			<u>X</u>	<u>X</u>	<u>X</u>	
<u>02A</u>	<u>SVP-2-210416</u>	<u>6L0341/00917</u>	<u>22578</u>	↓	<u>0422</u>	↓	<u>0501</u>	<u>29.25</u>	<u>0.8</u>			<u>X</u>	<u>X</u>	<u>X</u>	
<u>03A</u>	<u>EB-1-210416</u>	<u>N2489/6L1563</u>	<u>25378</u>	↓	<u>0708</u>	↓	<u>0751</u>	<u>28.75</u>	<u>0.8</u>			<u>X</u>	<u>X</u>	<u>X</u>	
<u>04A</u>	<u>EBC-1-210416</u>	<u>6L2932</u>	<u>25637</u>	↓	<u>0708</u>	↓	<u>0751</u>	<u>29</u>	<u>0.6</u>			<u>X</u>	<u>X</u>	<u>X</u>	
<u>05A</u>	<u>DUP-1-210416</u>	<u>12071/2414</u>	<u>—</u>	↓	<u>—</u>	↓	<u>—</u>	<u>—</u>	<u>—</u>			<u>X</u>	<u>X</u>	<u>X</u>	
<u>4-20-2021</u>															



200-58278 Chain of Custody

Relinquished by: (Signature/Affiliation) <u>Russ Shropshire</u> <u>Leidos</u>	Date <u>4-20-21</u>	Time <u>15:15</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date <u>4-21-21</u>	Time <u>10:25</u>
Relinquished by: (Signature/Affiliation) <u>Andrey Martynuk</u>	Date <u>4-28-21</u>	Time <u>12:45</u>	Received by: (Signature/Affiliation) <u>[Signature]</u>	Date <u>4/29/21</u>	Time <u>10:45</u>
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Shipper Name: BestNet Custody Seals Intact? Yes No None

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

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5/5/2021



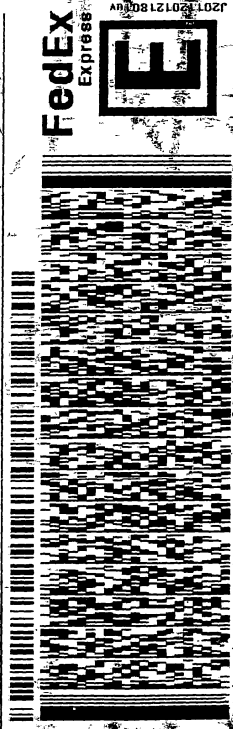
ORIGIN ID:MHRA (916) 605-3334
SHIPPING DEPT
EUROFINS AIR TOXICS
180 BLUE RAVINE BLVD. STE. B
FOLSOM, CA 95630
UNITED STATES US

SHIP. DATE: 28APR21
ACTWTG: 29.00 LB
CAD#: 0488489/CAFE3409
DIMS: 19x19x17 IN
BILL SENDER

56DC3/F986/0542

TO: **DON DAWICKI**
EUROFINS TEST AMERICA
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(602) 923-1026
REF: 138911



2 of 2
MPS# 9487 1154 3940
Mat# 9487 1154 3930

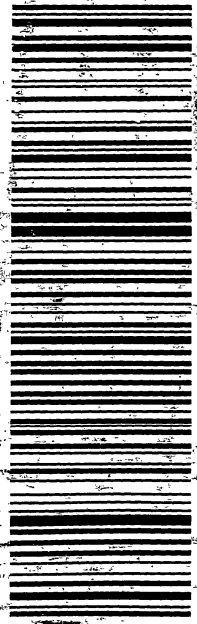
THU - 29 APR 4:30P
STANDARD OVERNIGHT

0201

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Login Sample Receipt Checklist

Client: Eurofins Air Toxics, Inc.

Job Number: 200-58278-1

SDG Number: 200-58278-1

Login Number: 58278

List Number: 1

Creator: Lavigne, Scott M

List Source: Eurofins TestAmerica, Burlington

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

Appendix B:
Total TPH and TPH Cleanup Level Calculations

Soil vapor samples collected at Chelan on 4-16-2021

Original full data set:

Hazardous Substance	Data in $\mu\text{g}/\text{m}^3$ for All Results 4-16-2021				
	SVP-1	SVP-1 (dup)	SVP-2	EB-1	EBC-1
C5-C8 Aliphatics (adjusted)	54	43	18	46	34
C9-C12 Aliphatics (adjusted)	14 U	14 U	15 U	14 U	14 U
C9-C10 Aromatics	12 U	12 U	12 U	12 U	12 U
Benzene (MA APH)	2.4 U	2.3 U	2.5 U	2.3 U	2.3 U
Benzene (TO-15)	0.082 J	0.065 J	0.13 J	1.0	1.0
Toluene (MA APH)	2.4 U	2.3 U	2.5 U	3.1	2.3 U
Toluene (TO-15)	0.15 J	0.14 J	0.26	3.8	2.5
Ethylbenzene (MA APH)	2.4 U	2.3 U	2.5 U	2.3 U	2.3 U
Ethylbenzene (TO-15)	0.016 U	0.015 U	0.040 J	0.36	0.36
Total Xylenes (MA APH)	2.4 U	2.3 U	2.5 U	2.3 U	2.3 U
Total Xylenes (TO-15)	0.088 J	0.028 J	0.183 J	1.75	1.76
Methyl Tert-Butyl Ether (MTBE) (MA APH)	2.4 U	2.3 U	2.5 U	2.3 U	2.3 U
Methyl Tert-Butyl Ether (MTBE) (TO-15)	0.018 U	0.018 U	0.019 U	0.036 U	0.018 U
Ethylene Dibromide (EDB) (TO-15)	0.022 U	0.021 U	0.022 U	0.043 U	0.021 U
1,2-Dichloroethane (EDC) (TO-15)	0.014 U	0.014 U	0.015 U	0.068 J	0.064 J
Naphthalene (MA APH)	2.4 U	2.3 U	2.5 U	2.3 U	2.3 U
Naphthalene (TO-15)	0.27 J	0.12 U	0.24 J	0.25 U	0.12 U

Note: Bold values are detected concentrations.

Final values used in TPH/CUL/SL calculations (using highest detection, lowest ND):

Hazardous Substance	Data in $\mu\text{g}/\text{m}^3$ for All Results 4-16-2021				
	SVP-1	SVP-1 (dup)	SVP-2	EB-1	EBC-1
C5-C8 Aliphatics (adjusted)	54	43	18	46	34
C9-C12 Aliphatics (adjusted)	14 U	14 U	15 U	14 U	14 U
C9-C10 Aromatics	12 U	12 U	12 U	12 U	12 U
Benzene	0.082	0.065	0.13	1.0	1.0
Toluene	0.15	0.14	0.26	3.8	2.5
Ethylbenzene	0.016 U	0.015 U	0.040	0.36	0.36
Total Xylenes	0.088	0.028	0.183	1.75	1.76
Methyl Tert-Butyl Ether (MTBE)	0.018 U	0.018 U	0.019 U	0.036 U	0.018 U
Ethylene Dibromide (EDB)	0.022 U	0.021 U	0.022 U	0.043 U	0.021 U
1,2-Dichloroethane (EDC)	0.014 U	0.014 U	0.015 U	0.068	0.064
Naphthalene	0.27	0.12 U	0.24	0.25 U	0.12 U

Notes:

EB-1 is an equipment blank -- essentially an ambient air sample collected through a vapor probe, valve, and Teflon tubing.

EBC-1 is an equipment blank control -- essentially an ambient air sample.

Bold values are detected concentrations.

Calculation of Total TPH, CULs, and SLs for 4-16-2021 samples (applying the MDL for ND results):

Hazardous Substance	Measured Concentration in SVP-1 ($\mu\text{g}/\text{m}^3$)	Non-carcinogenic CUL/SL Evaluation			Carcinogenic SL Evaluation		
		Fraction of Total Conc. (F_i)	Non-carcinogenic Air CUL _i ($\mu\text{g}/\text{m}^3$)	F_i/CUL_i	Sample Result Detected?	Carcinogenic Sub-slab SL ($\mu\text{g}/\text{m}^3$)	Carcinogenic Sub-slab SL Exceeded?
C5-C8 Aliphatics (adjusted)	54	0.67	2.72E+03	2.46E-04	--	--	--
C9-C12 Aliphatics (adjusted)	14	0.17	1.36E+02	1.28E-03	--	--	--
C9-C10 Aromatics	12	0.15	1.82E+02	8.17E-04	--	--	--
Benzene	0.082	0.001	1.37E+01	7.42E-05	Yes	1.07E+01	No
Toluene	0.15	0.002	2.24E+03	8.30E-07	--	--	--
Ethylbenzene	0.016	0.0002	4.58E+02	4.33E-07	--	--	--
Total Xylenes	0.088	0.001	4.64E+01	2.35E-05	--	--	--
Methyl Tert-Butyl Ether (MTBE)	0.018	0.0002	1.37E+03	1.63E-07	No	3.21E+02	No
Ethylene Dibromide (EDB)	0.022	0.0003	4.11E+00	6.64E-05	No	1.39E-01	No
1,2-Dichloroethane (EDC)	0.014	0.0002	3.20E+00	5.42E-05	No	3.21E+00	No
Naphthalene	0.27	0.003	1.38E+00	2.43E-03	Yes	2.45E+00	No
Total TPH	80.7	1.00	201		<== Site-Specific Total TPH MTCA Method B Indoor Air CUL (based on SVP-1 data)		
			6,686		<== Site-Specific Total TPH Sub-slab Soil Gas SL (based on SVP-1 data and 0.03 AF)		

Hazardous Substance	Measured Concentration in SVP-1-Dup ($\mu\text{g}/\text{m}^3$)	Non-carcinogenic CUL/SL Evaluation			Carcinogenic SL Evaluation		
		Fraction of Total Conc. (F_i)	Non-carcinogenic Air CUL _i ($\mu\text{g}/\text{m}^3$)	F_i/CUL_i	Sample Result Detected?	Carcinogenic Sub-slab SL ($\mu\text{g}/\text{m}^3$)	Carcinogenic Sub-slab SL Exceeded?
C5-C8 Aliphatics (adjusted)	43	0.62	2.72E+03	2.28E-04	--	--	--
C9-C12 Aliphatics (adjusted)	14	0.20	1.36E+02	1.48E-03	--	--	--
C9-C10 Aromatics	12	0.17	1.82E+02	9.50E-04	--	--	--
Benzene	0.065	0.0009	1.37E+01	6.83E-05	Yes	1.07E+01	No
Toluene	0.14	0.002	2.24E+03	9.00E-07	--	--	--
Ethylbenzene	0.015	0.0002	4.58E+02	4.72E-07	--	--	--
Total Xylenes	0.028	0.0004	4.64E+01	8.69E-06	--	--	--
Methyl Tert-Butyl Ether (MTBE)	0.018	0.0003	1.37E+03	1.89E-07	No	3.21E+02	No
Ethylene Dibromide (EDB)	0.021	0.0003	4.11E+00	7.36E-05	No	1.39E-01	No
1,2-Dichloroethane (EDC)	0.014	0.0002	3.20E+00	6.30E-05	No	3.21E+00	No
Naphthalene	0.12	0.002	1.38E+00	1.25E-03	No	2.45E+00	No
Total TPH	69.4	1.00	242		<== Site-Specific Total TPH MTCA Method B Indoor Air CUL (based on SVP-1-Dup data)		
			8,075		<== Site-Specific Total TPH Sub-slab Soil Gas SL (based on SVP-1-Dup data and 0.03 AF)		

Hazardous Substance	Measured Concentration in SVP-2 ($\mu\text{g}/\text{m}^3$)	Non-carcinogenic CUL/SL Evaluation			Carcinogenic SL Evaluation		
		Fraction of Total Conc. (F_i)	Non-carcinogenic Air CUL _i ($\mu\text{g}/\text{m}^3$)	F_i/CUL_i	Sample Result Detected?	Carcinogenic Sub-slab SL ($\mu\text{g}/\text{m}^3$)	Carcinogenic Sub-slab SL Exceeded?
C5-C8 Aliphatics (adjusted)	18	0.39	2.72E+03	1.44E-04	--	--	--
C9-C12 Aliphatics (adjusted)	15	0.33	1.36E+02	2.40E-03	--	--	--
C9-C10 Aromatics	12	0.26	1.82E+02	1.44E-03	--	--	--
Benzene	0.13	0.003	1.37E+01	2.07E-04	Yes	1.07E+01	No
Toluene	0.26	0.006	2.24E+03	2.53E-06	--	--	--
Ethylbenzene	0.040	0.0009	4.58E+02	1.90E-06	--	--	--
Total Xylenes	0.183	0.004	4.64E+01	8.59E-05	--	--	--
Methyl Tert-Butyl Ether (MTBE)	0.019	0.0004	1.37E+03	3.02E-07	No	3.21E+02	No
Ethylene Dibromide (EDB)	0.022	0.0005	4.11E+00	1.17E-04	No	1.39E-01	No
1,2-Dichloroethane (EDC)	0.015	0.0003	3.20E+00	1.02E-04	No	3.21E+00	No
Naphthalene	0.24	0.005	1.38E+00	3.79E-03	Yes	2.45E+00	No
Total TPH	45.9	1.00	121	<== Site-Specific Total TPH MTCA Method B Indoor Air CUL (based on SVP-2 data)			
			4,022				

Notes:

MTCA Method B generic indoor air CUL is $140 \mu\text{g}/\text{m}^3$, and the generic sub-slab soil gas SL is $4,700 \mu\text{g}/\text{m}^3$ (CLARC, non-carcinogenic CUL).

Total TPH concentrations for all three samples are below all the site-specific and the generic CUL and SL values (non-carcinogenic).

AF = Attenuation factor

CUL = MTCA Method B indoor air cleanup level

SL = MTCA Method B sub-slab soil gas screening level