point source solutions, llc

5317 NE St Johns Road, Suite D
Vancouver, Washington 98661
503.236.5885

Belmont Arco LLC
2430 NE 163rd Ave
Portland, OR 97230

February 11, 2025

Re: Vapor Intrusion Pathway Investigation
Belmont Auto Services
3840 SE Belmont Street
Portland, OR 97214

Point Source Solutions Project No.: OR220822-1C

Point Source Solutions LLC (Point Source) is pleased to provide the results from the Vapor Intrusion Pathway Investigation performed at 3840 SE Belmont Street, Portland, Oregon (Site).

PURPOSE

The purpose of this investigation is to assess vapor impacts to the subsurface at the above referenced Site and assess the vapor intrusion pathway relative to those impacts.

BACKGROUND INFORMATION

In August 2022 Point Source was engaged by Belmont Arco LLC to investigate the reported release of petroleum hydrocarbons to the subsurface identified as LUST ID #26-23-0326. Upon review, Point Source determined that the identified release was attributable to a past, conditionally closed release LUST ID #26-89-0067. This position was presented to the ODEQ and the assigned ODEQ Project Manager has subsequently agreed with this assessment. The ODEQ has requested that in order to close the new release under the prior LUST ID #26-23-0326, the property owner needs to evaluate soil gas conditions relative to vapor intrusion risk to the west adjoining residential property as well as to the Site building.

On behalf of Belmont ARCO LLC, Point Source performed the above-mentioned soil gas investigation which commenced on September 11, 2024. Based on the results of that investigation, the ODEQ has requested the following further actions be performed.

1. Inspect, provide descriptions, and take photos of the floor's conditions (cracks etc.).
2. Measure pressure differentials.
3. Collect multiple outdoor background samples.
4. Collect indoor air sample(s).
5. Collect 1-2 more sub-slab samples.
6. If possible collect samples when station/building is closed to limit outdoor air intake.

The following report summarizes work performed by Point Source to address the recommendations provided by the ODEQ.

A copy of the ODEQ approved Work Plan is included as **Appendix B**.

SOILS, GEOLOGY & GROUNDWATER CHARACTERISTICS

The Site is situated in the Willamette Valley (Orr, Orr, Baldwin, 1992). Sediments collected in this area record multiple Ice Age floods that originated in Montana, poured through the Cascades via the Columbia

River, and backed up in the valley before eventually draining to the Pacific Ocean. No bedrock was observed in the vicinity of the Site.

According to the USDA Soil Conservation Service Soil Survey of Multnomah County (NRCS Web Soil Survey), the Site is mapped predominantly as Urban Land. Urban Land is soil that has been disturbed and modified by streets, buildings and other structures.

Groundwater at the Site, as observed in onsite wells during monitoring events conducted in 2011 and in 2022 indicated static water levels range from approximately 6 feet below ground surface (bgs) to 9 feet bgs depending on location and seasonality.

According to the contour lines on the USGS Portland, Oregon Quadrangle 7.5-minute series topographic map published in 1984, the Site elevation is approximately 160 feet above mean sea level. The contour lines in the area of the Site indicate groundwater flow beneath the Site is likely to the west.

PREVIOUS SUBSURFACE INVESTIGATIONS AND REGUALTORY HISTORY

LUST Facility 26-89-0067 was issued for a release detected during decommissioning activities at the Site.

The following are excerpts from a Phase I Environmental Site Assessment (ESA) and Focused Phase II ESA prepared by BB&A Environmental for the Site (March 4, 2011, BB&A Project No. BAS01PH1/PH2.101):

> *In 1989, during UST system upgrades and excavation work, three (3) 800-gallon USTs and associated product piping were discovered beneath the northeast corner of the subject property. These USTs were reportedly taken out of service prior to 1973. Petroleum-contaminated soil (PCS) in this area was excavated to the maximum extent practical without threat of undermining the adjacent right-of-ways of Belmont Street and Cesar Chavez Boulevard. Residual PCS was left in place at the northeast corner of the subject property adjacent to the right-of-ways. In 1991, monitoring well W-1 was installed within this former excavation.*
>
> *In 1989, five (5) steel, single-walled USTs were removed from the UST cavity on the west-central portion of the property. The UST cavity was over-excavated to remove detected PCS, as well as accommodate the four (4) current-day 10,000-gallon USTs. At that time a pocket of residual PCS was left in place at the southwest corner of the newly expanded UST cavity.*
>
> *In 1992, monitoring wells W-2, W-3, and W-4 were advanced west, south, and north of the UST cavity. At this same time monitoring well W-5 was installed downgradient of the northeast excavation, and W-6 was installed downgradient of the UST cavity.*
>
> *In 1993, based on detected dissolved gasoline contamination detected in groundwater from on-site monitoring wells, a groundwater extraction and treatment system was installed on-site. A total of approximately 220,000 gallons of groundwater was extracted, treated and discharged to the sewer between 1993 and 1995.*
>
> *As part of a Conceptual Site Model (CSM), a beneficial use survey was conducted, and the results indicated that there is no known beneficial use of shallow groundwater within the locality of the facility.*
>
> *In 2003, monitoring well W-7 was installed north of the eastern product dispenser, and south of residual PCS at the northeast corner of the property. Also in 2003, at the request of DEQ, groundwater samples were collected from each of the seven (7) monitoring wells and analyzed for*

total lead, gasoline-range TPH, and the gasoline-related VOCs. Comparison of 1992 and 2003 groundwater analytical results shows a significant and steady decline in contaminant concentrations. The 2003 groundwater analytical results were compared to RBCs developed by the DEQ, the results of which identified contaminants in groundwater exceeding RBCs for Occupational and Residential Ingestion and Inhalation from Tap Water. *No other RBCs were exceeded, including* Vapor Intrusion into Buildings *(Residential or Occupational)*, Groundwater in an Excavation, *and* Volatilization to Outdoor Air *(Residential or Occupational).*

The DEQ determined that sufficient investigation, cleanup and reporting was completed, and issued a no further action (NFA) determination for the subject property. The NFA determination letter was issued by the DEQ, however, the following restrictions were placed on the subject property:

'Groundwater beneath the property shall not be used for consumption or non-consumptive purposes unless a risk assessment has been conducted and approved by the DEQ…'

On February 8, 2011, groundwater samples were collected from monitoring wells W-1 through W-5, and W-7. Groundwater samples were analyzed for gasoline-range TPH and gasoline-related VOCs. The analytical results did not detect any contaminants in groundwater from monitoring wells W-1, W-2, W-3, and W-5. In groundwater from monitoring well W-7, n-propylbenzene was the only contaminant detected (0.64 ppb). Contaminants detected in groundwater from monitoring well W-4 included: gasoline-range TPH at 9,900 ppb, benzene at 7.77 ppb, toluene at 2.74 ppb, ethylbenzene at 36 ppb, total xylenes at 4.62 ppb, MTBE at 2.41 ppb, naphthalene at 6.52 ppb, 1,2,4-trimethylbenzene at 2.23 ppb, 1,3,5-trimethylbenzene at 0.56 ppb, and isopropylbenzene at 260 ppb. The detected contaminant concentrations in W-4 represent the highest detected contaminant concentrations in groundwater at the subject site. None of the detected contaminants exceed potentially applicable RBCs developed by the DEQ for Vapor Intrusion into Buildings *or* Volatilization to Outdoor *for Residential or Occupational scenarios*, *nor RBCs for* Groundwater in an Excavation.

Based on a review of historical groundwater data, and the results of the recent groundwater sampling event, contaminant concentrations in groundwater have shown a steady decrease in concentration since groundwater monitoring began in 1992. Further, groundwater monitoring results suggest that corrective actions (including PCS-removal excavations and the former groundwater treatment system), and natural attenuation have successfully reduced contaminant concentrations in groundwater at the site, and that no new releases have occurred from the UST system.

In August 2022, Point Source was engaged to sample W-1 through W-7 to evaluate groundwater quality as a component of a pending financial transaction associated with the Site.

Point Source' *Monitoring Well Sampling Report,* dated: September 9, 2022

The following is an excerpt of findings derived from this sampling event:

- *A significant reduction in concentrations of gasoline-range petroleum hydrocarbons and VOCs has occurred between February 2011 sampling event and this most recent August 2022 sampling event.*
- *Chloroform was detected at a concentration of 2.3 ug/l in MW-4. This concentration exceeds the ingestion and inhalation RBC for occupational receptors, however DEQ has already determined that this pathway is not applicable to the Site.*

- *Lead was detected at a concentration of 5.1 ug/l in MW-4. This concentration is below the most stringent DEQ RBC. The February 2011 sampling event did not include analysis for lead.*
- *Diesel-range and oil-range petroleum hydrocarbons were detected in all seven wells. The concentrations in MW-2 and MW-4 exceed the ingestion and inhalation RBC for occupational receptors, however DEQ has already determined that this pathway is not applicable to the Site. The February 2011 sampling event did not include analysis for these heavier hydrocarbons.*
- *PAHs were detected in MW-2, MW-4, and MW-7. All detected concentrations are below the most stringent DEQ RBCs. The February 2011 sampling event did not include analysis for PAHs.*
- *None of the concentrations of the contaminants of interest detected during this sampling event exceed their respective vapor intrusion RBCs (the most stringent RBCs applicable to the Site).*

A copy of the Point Source' Monitoring Well Sampling Report is included as **Appendix C**.

LUST Facility 26-23-0326 was reported during installation of new fueling dispensers at the Site by the contractor performing the installation on May 18, 2023. It appears the contractor was unaware of the CNFA granted in 2004 and thus reported the impacted soil during Site improvement as a new LUST release-prompting the investigations that have subsequently ensued and therefore the premise of this report.

Point Source' ODEQ approved Work Plan titled: *Vapor Intrusion Pathway Investigation* is included as **Appendix B.**

SUBSURFACE INVESTIGATION

The following tasks were completed for this investigation.

Task 1 – Utility Locates

Point Source facilitated a public utility locate and geophysical survey to clear sub slab boring locations.

Task 2 – Subsurface/Indoor Air Investigation and Slab Condition Survey

Point Source collected sub slab soil vapor samples and performed a pressure differential and slab condition survey as follows:

Sub-Slab Soil Vapor Sampling and Survey

Six sub-slab vapor monitoring points (VMPs) were installed directly into the concrete slab of the Site building floor. Locations were selected based on factors that included access, spatial distribution, slab condition, and results from previous investigations. Measurements collected from the VMPs included PID readings and pressure differential measurements as directed per the ODEQ approved Work Plan for this investigation.

The following table briefly summarizes the data collection at each VMP.

Vapor Monitoring Point	PID Reading VOCs in ppm	Pressure Differential Reading Inches of Water
VMP1	3.7	0.0
VMP2	0.1	0.001
VMP3	0.0	0.0

VMP4	0.0	0.0
VMP5	0.0	0.0
VMP6	0.0	0.0

As instructed in the Work Plan, two vapor monitoring points were converted to sub-slab sampling locations. VMP2 and VMP5 were selected based on field measurements and spatial distribution. Sample methodology was performed as follows:

The sub-slab vapor samples were collected via a prefabricated stainless steel sampling point (VaporPin™) which was inserted into 5/8-inch hole drilled through the building floor. TO-15 air samples were collected via a sampling train that included 12 inches of Teflon tubing, brass swage fittings, and a laboratory provided Summa Canister. TO-17 air samples (from previous portion of investigation prior to Work Plan submittal which included samples SS1 and SG2) included 12 inches of Teflon tubing, brass swage fittings, a laboratory provided sorbent tube, and an SKC Pocket Pump in the sample train. After approximately 20-minutes of equilibration time the air volume within the collection apparatus and Teflon tubing was purged for a minimum of three volumes with a low flow sampling pump. A water dam was placed around the vapor pin to act as a primary leak check. No drop in water level was observed during purging or sample collection. Paper towels saturated with 2-Propanol were placed over the equipment fittings during sample collection as a quantifiable leak check compound.

Indoor Air Sampling

Two indoor air samples were collected from the interior convenience store space, one in the northern portion and one in the southern portion, and two ambient air samples were collected from immediately outside the Site structure near the northern and eastern access doors. The ambient samples were collected to compare background conditions relative to constituents observed in analysis of indoor air.

Sample methodology was performed as follows:

Indoor and ambient air samples were collected via a sampling train that included 12 inches of Teflon tubing, brass swage fittings, and a laboratory provided Summa Canister calibrated with vacuum conditions. Samples were collected from approximately chest height to simulate collecting from a person's "breathing zone".

All sampling equipment was thoroughly cleaned and decontaminated before, between, and after use with Liquinox™ or an equivalent phosphate-free detergent solution to reduce the risk of cross-contamination. Nitrile gloves were worn whenever handling samples, equipment, or any other potentially contaminated items. Dedicated tubing was disposed of and new materials were utilized for each sampling location.

Please refer to the **Sample Location Diagram**, presented as **Figure 2** in this report, for sample locations.

LABORATORY ANALYTICAL RESULTS

Samples were transported under chain of custody to Friedman and Bruya of Seattle, Washington. Each sample was labeled for identification. Chain of Custody was maintained for all samples. The samples were analyzed for gasoline range hydrocarbons and VOCs by EPA TO-15. Samples SS1 and SG2 were analyzed for select VOCs, and gasoline and diesel range hydrocarbons using EPA Method TO-17.

Sample analytical results are summarized in Tables 1 and 2 below.

TABLE 1 – SOIL-VAPOR SAMPLES (ug/m3)			
Sample ID	**VOCS BY EPA TO-15**	**GRO & DRO BY EPA TO-15 & TO-17**	**2-propanol**
SS1 (sampled on 9/11/2024 from previous investigation)	MEK – 230 PCE – 2.6 Chlorobenzene – 44 **Benzene – 61** Ethylbenzene – 44 Toluene - 31 Total Xylenes – 97 Styrene – 20 Tert-butylbenzene – 3.3 1,2,4 TMB -- 16	**Gx - 76,000** **Dx - 29,000**	<500
VMP2	Ethanol –39 Acetone –67 Tetrahydrofuran –20 Ethylbenzene – 3.6 Naphthalene – 2.1 Toluene - 13 Total Xylenes – 25.3	Gx – <1,000	<44
VMP5	Ethanol –450 Acetone –92 Tetrahydrofuran –13 1,4 Dioxane – 2.3 PCE -- 76 Toluene - 13 Total Xylenes – 5.3	Gx – <1,100	<46
SG2 (sampled on 9/11/2024 from previous investigation)	No VOCs reported above MRLs	Gx – <1,000 Dx -- <1,600	<250
ODEQ Chronic Vapor Intrusion Screening Level for Commercial Receptors – RBC_{sv}	**Acetone – NITI** **MEK – 730,000** **PCE – 1,600** **Tetrahydrofuran – 8,800** **Chlorobenzene – 7,300** **Tert-Butylbenzene – NITI** **Styrene – 150,000** **1,2,4 TMB – 8,800** **Benzene – 52** **Ethylbenzene – 160** **Naphthalene – 12** **Toluene – 730,000** **Total Xylenes – 15,000**	**Gx - 40,000** **Dx – 14,000**	**Leak Detection Compound**
ODEQ Acute Vapor Intrusion Screening Level for Commercial Receptors – RBC_{sv}	**Acetone – $6.3x10^6$** **MEK – 500,000** **PCE – 4,000** **Styrene – $1.2x10^6$** **Benzene – 2,900** **Ethylbenzene – $2.2x10^6$** **Naphthalene – 20,000** **Toluene – 770,000** **Total Xylenes – 870,000**		**Leak Detection Compound**

TABLE 2 – INDOOR AIR SAMPLES (ug/m3)		
Sample ID	**VOCS BY EPA TO-15**	**GRO BY EPA TO-15**
IA1 (Indoor Air Sample)	Propene – 6.0 Freon 12 – 2.8 Butane – 44 Ethanol -- 980 **Acrolein – 0.51** Pentane – 8.9 Acetone – 36 **Chloroform – 1.8** **Benzene – 1.8** Toluene – 14 Ethylbenzene – 1.6 **Naphthalene – 0.39** Total Xylenes – 8.1	Gx - 310
IA2 (Indoor Air Sample)	Freon 12 – 2.6 Butane – 42 **Acrolein – 0.55** Ethanol -- 870 Pentane – 9.3 Acetone – 41 **Chloroform – 1.4** **Benzene – 1.6** Toluene – 14 Ethylbenzene – 1.7 **Naphthalene – 0.37** Total Xylenes – 8.4	Gx - 290
AA1 (Ambient Air Sample)	Freon 12 – 2.6 **Acrolein – 0.22** Pentane – 13 Chloroform – 0.078 Carbon Tetrachloride – 0.40 Benzene – 1.5 Toluene – 10 Ethylbenzene – 1.2 Naphthalene – 0.22 Total Xylenes – 6.1	Gx - <200
AA2 (Ambient Air Sample)	Freon 12 – 2.3 **Acrolein – 0.14** Pentane – 7.7 Chloroform – 0.088 EDC – 0.081 Carbon Tetrachloride – 0.42 **Benzene – 2.1** Toluene – 9.8 Ethylbenzene – 1.3 Naphthalene – 0.19 Total Xylenes – 6.7	Gx - <200
ODEQ Chronic Indoor Air Screening Level for Commercial Receptors – RBCair	**Freon 12 – 440** **Carbon Tetrachloride -- 2** **EDC – 0.47** **Acrolein – .088** **Pentane – 4,400** **Chloroform – 0.53** **Benzene – 1.6**	**Gx – 1,200**

TABLE 2 – INDOOR AIR SAMPLES (ug/m3)		
Sample ID	**VOCS BY EPA TO-15**	**GRO BY EPA TO-15**
	Toluene – 22,000 **Ethylbenzene – 4.9** **Naphthalene – 0.36** **Total Xylenes – 440**	
ODEQ Acute Indoor Air Screening Level for Commercial Receptors – RBCair	**Acrolein – 21** **EDC --** **Carbon Tetrachloride – 5,700** **Acetone – NITI** **Chloroform – 1,500** **Benzene – 87** **Toluene – 23,000** **Ethylbenzene – 66,000** **Naphthalene – 600** **Total Xylenes – 26,000**	

Notes:
<= Less than laboratory method reporting limits.
Bold= constituent detected above laboratory method reporting limits.
Bold= constituent detected above applicable screening levels.

Laboratory analytical reports and chain-of-custody forms are included as **Appendix A**.

Quality Assurance/Quality Control Review

Laboratory QA/QC measures were performed through data validation of available analytical data generated as part of these sampling events. Data validation considered the following:

- Method Detection and/or Reporting Limits
- Laboratory Matrix Blanks
- Sample Holding Times
- Surrogate and Matrix Spike Recoveries, and
- Laboratory Duplicate Analysis Results

Freidman & Bruya did not report any qualifiers which would indicate problems with the sample results. According to the lab reports provided, all analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Exceptions are qualified in the analytical report. In cases where there is insufficient sample material provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

EXCEPTION TO THE SCOPE OF WORK

The proposed scope of work for this project was substantially completed.

CONCLUSIONS

The following conclusions are based on the results of this investigation.

Of the four sub slab and soil gas samples collected, only SS1 reported compounds that exceed the ODEQ RBC

for vapor intrusion into buildings. These detections are reported as:

- Diesel range organics detected at a concentration of 29,000 ug/L in sample SS1 exceeds the vapor intrusion into buildings RBC of 14,000 ug/L.
- Gasoline range organics detected at a concentration of 76,000 ug/L in sample SS1 exceeds the vapor intrusion into buildings RBC of 40,000 ug/L.
- Benzene detected at concentrations of 61 ug/L in sample SS1 exceeds the vapor intrusion into buildings RBC of 52 ug/L.

Indoor air samples contained slightly elevated levels of several compounds including:

- Benzene detected at concentrations of 1.6 and 1.8 ug/L in the two indoor air samples collected exceeds the indoor air ODEQ RBC of 1.6 ug/L.
- Naphthalene detected at concentrations of 0.37 and 0.39 ug/L in the two indoor air samples collected exceeds the indoor air ODEQ RBC of 0.36 ug/L.
- Chloroform detected at concentrations of 1.8 and 1.4 ug/L in the two indoor air samples collected exceeds the indoor air ODEQ RBC of 0.53 ug/L.
- Acrolein detected at concentrations of 0.51 and 0.55 ug/L in the two indoor air samples collected exceeds the indoor air ODEQ RBC of 0.088 ug/L.

Outdoor ambient air samples contained slightly levels of several compounds including:

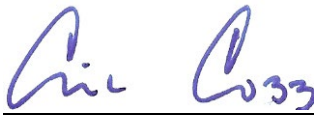
- Benzene detected at concentrations of 2.1 in one of the ambient air samples collected exceeds the indoor air ODEQ RBC of 1.6 ug/L.
- Acrolein detected at concentrations of 0.14 and 0.22 ug/L in the two ambient air samples collected exceeds the indoor air ODEQ RBC of 0.088 ug/L.

Based on the concentrations of detected compounds in sub slab and air samples, and considering the function of the facility as an active service station, Point Source interprets these results as within a range of concentrations that would be expected at such a facility regardless of a release.

RECOMMENDATIONS

Based on the results of this investigation, Point Source is seeking administrative closure of **LUST Facility 26-23-0326** with the State of Oregon on behalf of Arco Belmont LLC.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.



Gil Cobb
Oregon Registered Geologist (G1440)

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Fax: 503.224.0449

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FIGURES

APPENDICES

FIGURES

SITE LOCATION DIAGRAM

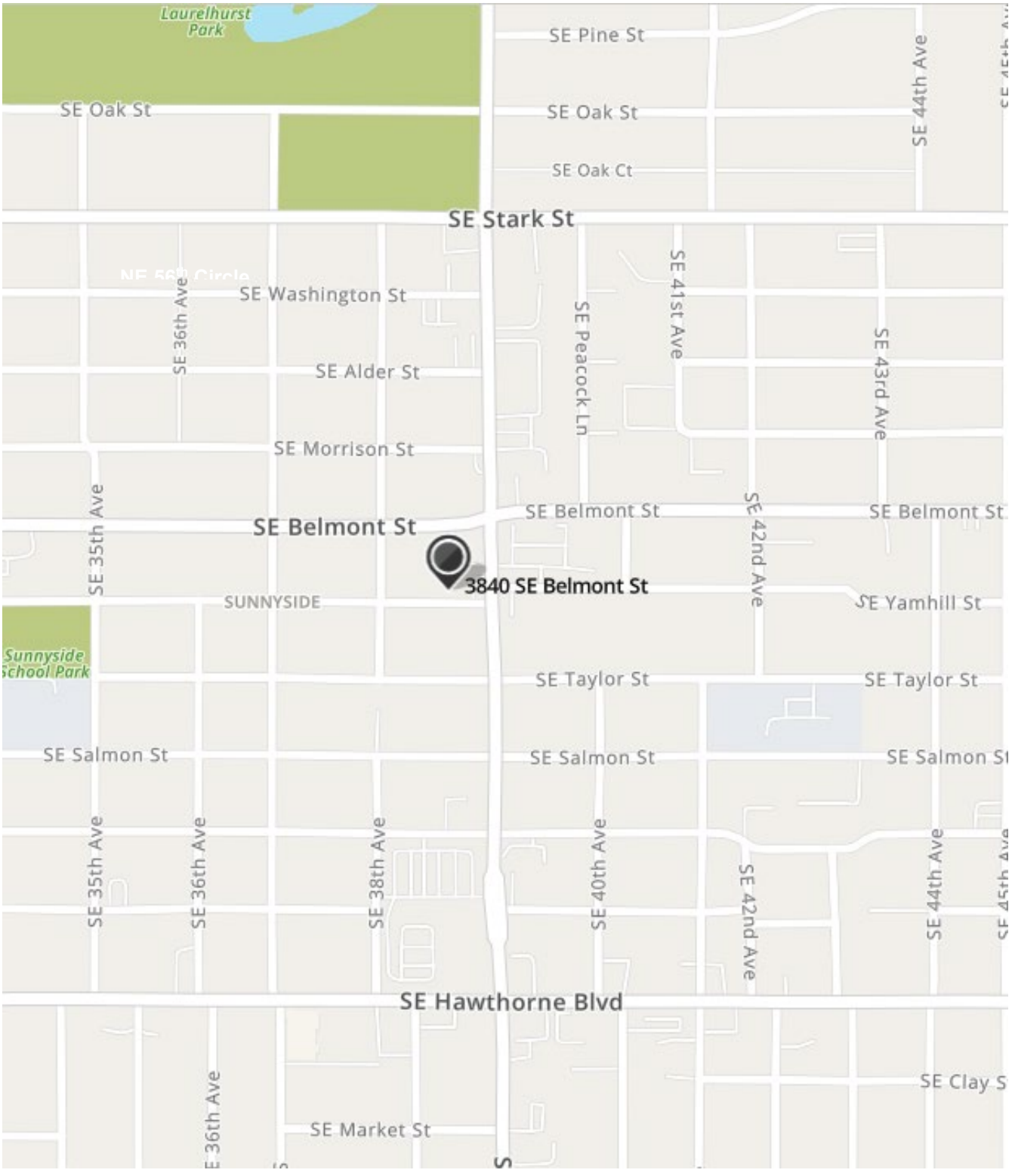

FIGURE 1: SITE LOCATION MAP

Map from Mapquest N↑

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Site Name: Belmont Auto Services
3840 SE Belmont St
Portland, OR 97214

Project Number: OR220822-1C

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SAMPLE LOCATION DIAGRAM

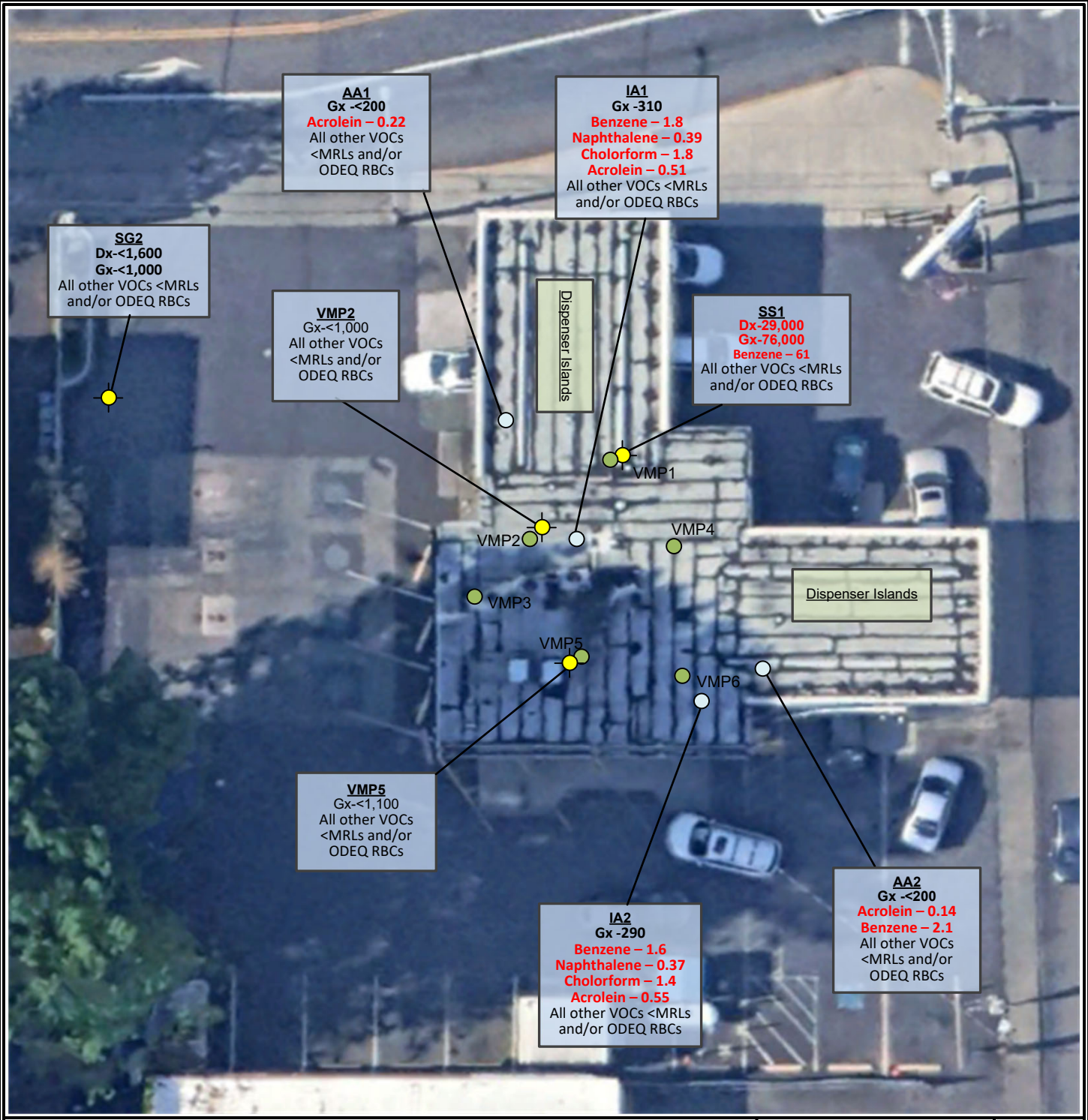

FIGURE 2: SAMPLE LOCATION DIAGRAM

Aerial Imagery from Google Earth 2023

N↑

Notes:

- *Soil-gas and air Sample results in ug/m3*
- *< = Less than laboratory method reporting limits (MDLs)*
- ***BOLD**=above method reporting limits*

Sub Slab/Soil GasSample Location

Air Sample Location

Vapor Monitoring Point (VMP)

Scale in Feet (Approximate)

35

Red = exceeds applicable ODEQ screening level

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ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Belmont Arco
3840 SE Belmont Street
Portland, Oregon

Project Number: OR220822-1C

APPENDICES

APPENDIX A

LABORATORY ANALYTICAL REPORT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Elizabeth Webber-Bruya
Ann Webber-Bruya
Michael Erdahl
Vineta Mills
Eric Young

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www.friedmanandbruya.com

January 28, 2025

Conor McGeehan, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr McGeehan:

Included are the results from the testing of material submitted on January 17, 2025 from the Belmont Arco, F&BI 501219 project. There are 13 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Mac Goldman
Project Manager

Enclosures
c: Point Source Reports
PSS0128R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 17, 2024 by Friedman & Bruya, Inc. from the Point Source Solutions Belmont Arco, F&BI 501219 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
501219 -01	VMP 2
501219 -02	VMP 5
501219 -03	IA1
501219 -04	IA2
501219 -05	AA1
501219 -06	AA2

The TO-15 calibration standard for several compounds exceeded the acceptance criteria. The compounds were not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier.

The concentration for several analytes in samples VMP-5, IA1, IA2, AA1, and AA2 exceeded the calibration range of the instrument. The data were flagged accordingly.

The TO-15 gasoline range concentrations were quantified using a single point calibration at 80 ppbv.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VMP 2	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-01 1/5.1
Date Analyzed:	01/21/25	Data File:	012019.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7	<4.1	1,2-Dichloropropane	<1.2	<0.25
Dichlorodifluoromethane	<5	<1	1,4-Dioxane	<1.8	<0.51
Chloromethane	<19	<9.2	2,2,4-Trimethylpentane	<24	<5.1
F-114	<11	<1.5	Methyl methacrylate	<21	<5.1
Vinyl chloride	<1.3	<0.51	Heptane	<21	<5.1
1,3-Butadiene	<0.23	<0.1	Bromodichloromethane	<0.34	<0.051
Butane	<24	<10	Trichloroethene	<0.55	<0.1
Bromomethane	<20 k	<5.1 k	cis-1,3-Dichloropropene	<4.6	<1
Chloroethane	<13	<5.1	4-Methyl-2-pentanone	<42	<10
Vinyl bromide	<2.2	<0.51	trans-1,3-Dichloropropene	<2.3	<0.51
Ethanol	39	21	Toluene	<38	<10
Acrolein	<0.58	<0.25	1,1,2-Trichloroethane	<0.28	<0.051
Pentane	<30	<10	2-Hexanone	<21	<5.1
Trichlorofluoromethane	<11	<2	Tetrachloroethene	<35	<5.1
Acetone	67	28	Dibromochloromethane	<0.43	<0.051
2-Propanol	<44 k	<18 k	1,2-Dibromoethane (EDB)	<0.39	<0.051
1,1-Dichloroethene	<2	<0.51	Chlorobenzene	<2.3	<0.51
trans-1,2-Dichloroethene	<2	<0.51	Ethylbenzene	3.6	0.84
Methylene chloride	<180	<51	1,1,2,2-Tetrachloroethane	<0.7	<0.1
t-Butyl alcohol (TBA)	<62	<20	Nonane	<27	<5.1
3-Chloropropene	<16	<5.1	Isopropylbenzene	<50	<10
CFC-113	<7.8	<1	2-Chlorotoluene	<26	<5.1
Carbon disulfide	<32	<10	Propylbenzene	<25	<5.1
Methyl t-butyl ether (MTBE)	<37	<10	4-Ethyltoluene	<25	<5.1
Vinyl acetate	<36	<10	m,p-Xylene	18	4.1
1,1-Dichloroethane	<2.1	<0.51	o-Xylene	7.3	1.7
cis-1,2-Dichloroethene	<2	<0.51	Styrene	<4.3	<1
Hexane	<18	<5.1	Bromoform	<11	<1
Chloroform	<0.25	<0.051	Benzyl chloride	<0.26 k	<0.051 k
Ethyl acetate	<37	<10	1,3,5-Trimethylbenzene	<25	<5.1
Tetrahydrofuran	20	6.7	1,2,4-Trimethylbenzene	<25	<5.1
2-Butanone (MEK)	<30	<10	1,3-Dichlorobenzene	<3.1	<0.51
1,2-Dichloroethane (EDC)	<0.21	<0.051	1,4-Dichlorobenzene	<1.2	<0.19
1,1,1-Trichloroethane	<2.8	<0.51	1,2-Dichlorobenzene	<3.1	<0.51
Carbon tetrachloride	<1.6	<0.25	1,2,4-Trichlorobenzene	<3.8	<0.51
Benzene	<1.6	<0.51	Naphthalene	2.1	0.41
Cyclohexane	<35	<10	Hexachlorobutadiene	<1.1	<0.1
Gasoline Range Organics	<1,000	<260			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	VMP 5	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-02 1/5.4
Date Analyzed:	01/21/25	Data File:	012017.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.4	<4.3	1,2-Dichloropropane	<1.2	<0.27
Dichlorodifluoromethane	<5.3	<1.1	1,4-Dioxane	2.3	0.63
Chloromethane	<20	<9.7	2,2,4-Trimethylpentane	<25	<5.4
F-114	<11	<1.6	Methyl methacrylate	<22	<5.4
Vinyl chloride	<1.4	<0.54	Heptane	<22	<5.4
1,3-Butadiene	<0.24	<0.11	Bromodichloromethane	<0.36	<0.054
Butane	<26	<11	Trichloroethene	<0.58	<0.11
Bromomethane	<21 k	<5.4 k	cis-1,3-Dichloropropene	<4.9	<1.1
Chloroethane	<14	<5.4	4-Methyl-2-pentanone	<44	<11
Vinyl bromide	<2.4	<0.54	trans-1,3-Dichloropropene	<2.5	<0.54
Ethanol	450 ve	240 ve	Toluene	<41	<11
Acrolein	<0.62	<0.27	1,1,2-Trichloroethane	<0.29	<0.054
Pentane	<32	<11	2-Hexanone	<22	<5.4
Trichlorofluoromethane	<12	<2.2	Tetrachloroethene	76	11
Acetone	92	39	Dibromochloromethane	<0.46	<0.054
2-Propanol	<46 k	<19 k	1,2-Dibromoethane (EDB)	<0.41	<0.054
1,1-Dichloroethene	<2.1	<0.54	Chlorobenzene	<2.5	<0.54
trans-1,2-Dichloroethene	<2.1	<0.54	Ethylbenzene	<2.3	<0.54
Methylene chloride	<190	<54	1,1,2,2-Tetrachloroethane	<0.74	<0.11
t-Butyl alcohol (TBA)	<65	<22	Nonane	<28	<5.4
3-Chloropropene	<17	<5.4	Isopropylbenzene	<53	<11
CFC-113	<8.3	<1.1	2-Chlorotoluene	<28	<5.4
Carbon disulfide	<34	<11	Propylbenzene	<27	<5.4
Methyl t-butyl ether (MTBE)	<39	<11	4-Ethyltoluene	<27	<5.4
Vinyl acetate	<38	<11	m,p-Xylene	5.3	1.2
1,1-Dichloroethane	<2.2	<0.54	o-Xylene	<2.3	<0.54
cis-1,2-Dichloroethene	<2.1	<0.54	Styrene	<4.6	<1.1
Hexane	<19	<5.4	Bromoform	<11	<1.1
Chloroform	<0.26	<0.054	Benzyl chloride	<0.28 k	<0.054 k
Ethyl acetate	<39	<11	1,3,5-Trimethylbenzene	<27	<5.4
Tetrahydrofuran	13	4.2	1,2,4-Trimethylbenzene	<27	<5.4
2-Butanone (MEK)	<32	<11	1,3-Dichlorobenzene	<3.2	<0.54
1,2-Dichloroethane (EDC)	<0.22	<0.054	1,4-Dichlorobenzene	<1.2	<0.21
1,1,1-Trichloroethane	<2.9	<0.54	1,2-Dichlorobenzene	<3.2	<0.54
Carbon tetrachloride	<1.7	<0.27	1,2,4-Trichlorobenzene	<4	<0.54
Benzene	<1.7	<0.54	Naphthalene	<1.5	<0.27
Cyclohexane	<37	<11	Hexachlorobutadiene	<1.2	<0.11
Gasoline Range Organics	<1,100	<270			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA1	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-03
Date Analyzed:	01/21/25	Data File:	012016.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	6.0	3.5	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	2.8	0.58	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	44 ve	19 ve	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9 k	<1 k	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	980 ve	520 ve	Toluene	14	3.6
Acrolein	0.51	0.22	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	8.9	3.0	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	36	15	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6 k	<3.5 k	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	1.6	0.36
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	6.0	1.4
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	2.1	0.49
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	1.8	0.36	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	0.11	0.027	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	0.45	0.071	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	1.8	0.57	Naphthalene	0.39	0.075
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	310	76			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	IA2	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-04
Date Analyzed:	01/20/25	Data File:	012015.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.4	<0.8	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	2.6	0.53	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	42 ve	18 ve	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9 k	<1 k	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	870 ve	460 ve	Toluene	14	3.8
Acrolein	0.55	0.24	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	9.3	3.1	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	41 ve	17 ve	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6 k	<3.5 k	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	1.7	0.38
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	6.2	1.4
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	2.2	0.51
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	1.4	0.29	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	0.11	0.027	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	0.42	0.067	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	1.6	0.51	Naphthalene	0.37	0.070
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	290	70			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA1	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-05
Date Analyzed:	01/20/25	Data File:	012014.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	97	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	5.3	3.1	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	2.6	0.53	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	68 ve	28 ve	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9 k	<1 k	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	23	12	Toluene	10	2.7
Acrolein	0.22	0.094	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	13	4.3	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6 k	<3.5 k	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	1.2	0.28
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	4.5	1.0
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	1.6	0.37
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	0.078	0.016	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	0.077	0.019	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	0.40	0.064	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	1.5	0.48	Naphthalene	0.22	0.042
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	<200	<50			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	AA2	Client:	Point Source Solutions
Date Received:	01/17/25	Project:	Belmont Arco, F&BI 501219
Date Collected:	01/15/25	Lab ID:	501219-06
Date Analyzed:	01/20/25	Data File:	012013.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.4	<0.8	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	2.3	0.45	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	41 ve	17 ve	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9 k	<1 k	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	25	13	Toluene	9.8	2.6
Acrolein	0.14	0.062	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	7.7	2.6	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6 k	<3.5 k	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	1.3	0.31
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	5.0	1.1
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	1.7	0.40
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	0.088	0.018	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	0.081	0.020	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	0.42	0.067	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	2.1	0.65	Naphthalene	0.19	0.037
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	<200	<50			

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	Belmont Arco, F&BI 501219
Date Collected:	Not Applicable	Lab ID:	05-0161 MB
Date Analyzed:	01/20/25	Data File:	012012.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.4	<0.8	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.99	<0.2	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<4.8	<2	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9 k	<1 k	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<7.5	<2
Acrolein	<0.11	<0.05	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	<5.9	<2	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6 k	<3.5 k	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052 k	<0.01 k
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.073 j	<0.014 j
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21	<0.02
Gasoline Range Organics	<200	<50			

Date of Report: 01/28/25
Date Received: 01/17/25
Project: Belmont Arco, F&BI 501219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 501219-02 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 25)
Propene	ug/m3	<7.4	<7.4	nm
Dichlorodifluoromethane	ug/m3	<5.3	<5.3	nm
Chloromethane	ug/m3	<20	<20	nm
F-114	ug/m3	<11	<11	nm
Vinyl chloride	ug/m3	<1.4	<1.4	nm
1,3-Butadiene	ug/m3	<0.24	<0.24	nm
Butane	ug/m3	<26	<26	nm
Bromomethane	ug/m3	<21	<21	nm
Chloroethane	ug/m3	<14	<14	nm
Vinyl bromide	ug/m3	<2.4	<2.4	nm
Ethanol	ug/m3	450	340	28 vo
Acrolein	ug/m3	<0.62	<0.62	nm
Pentane	ug/m3	<32	<32	nm
Trichlorofluoromethane	ug/m3	<12	<12	nm
Acetone	ug/m3	92	89	3
2-Propanol	ug/m3	<46	<46	nm
1,1-Dichloroethene	ug/m3	<2.1	<2.1	nm
trans-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
Methylene chloride	ug/m3	<190	<190	nm
t-Butyl alcohol (TBA)	ug/m3	<65	<65	nm
3-Chloropropene	ug/m3	<17	<17	nm
CFC-113	ug/m3	<8.3	<8.3	nm
Carbon disulfide	ug/m3	<34	<34	nm
Methyl t-butyl ether (MTBE)	ug/m3	<39	<39	nm
Vinyl acetate	ug/m3	<38	<38	nm
1,1-Dichloroethane	ug/m3	<2.2	<2.2	nm
cis-1,2-Dichloroethene	ug/m3	<2.1	<2.1	nm
Hexane	ug/m3	<19	<19	nm
Chloroform	ug/m3	<0.26	<0.26	nm
Ethyl acetate	ug/m3	<39	<39	nm
Tetrahydrofuran	ug/m3	13	9.4	32 vo
2-Butanone (MEK)	ug/m3	<32	<32	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.22	<0.22	nm
1,1,1-Trichloroethane	ug/m3	<2.9	<2.9	nm
Carbon tetrachloride	ug/m3	<1.7	<1.7	nm
Benzene	ug/m3	<1.7	<1.7	nm
Cyclohexane	ug/m3	<37	<37	nm
1,2-Dichloropropane	ug/m3	<1.2	<1.2	nm
1,4-Dioxane	ug/m3	2.3	2.3	0
2,2,4-Trimethylpentane	ug/m3	<25	<25	nm

Date of Report: 01/28/25
Date Received: 01/17/25
Project: Belmont Arco, F&BI 501219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 501219-02 1/5.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 25)
Methyl methacrylate	ug/m3	<22	<22	nm
Heptane	ug/m3	<22	<22	nm
Bromodichloromethane	ug/m3	<0.36	<0.36	nm
Trichloroethene	ug/m3	<0.58	<0.58	nm
cis-1,3-Dichloropropene	ug/m3	<4.9	<4.9	nm
4-Methyl-2-pentanone	ug/m3	<44	<44	nm
trans-1,3-Dichloropropene	ug/m3	<2.5	<2.5	nm
Toluene	ug/m3	<41	<41	nm
1,1,2-Trichloroethane	ug/m3	<0.29	<0.29	nm
2-Hexanone	ug/m3	<22	<22	nm
Tetrachloroethene	ug/m3	76	75	1
Dibromochloromethane	ug/m3	<0.46	<0.46	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.41	<0.41	nm
Chlorobenzene	ug/m3	<2.5	<2.5	nm
Ethylbenzene	ug/m3	<2.3	<2.3	nm
1,1,2,2-Tetrachloroethane	ug/m3	<0.74	<0.74	nm
Nonane	ug/m3	<28	<28	nm
Isopropylbenzene	ug/m3	<53	<53	nm
2-Chlorotoluene	ug/m3	<28	<28	nm
Propylbenzene	ug/m3	<27	<27	nm
4-Ethyltoluene	ug/m3	<27	<27	nm
m,p-Xylene	ug/m3	5.3	5.3	0
o-Xylene	ug/m3	<2.3	<2.3	nm
Styrene	ug/m3	<4.6	<4.6	nm
Bromoform	ug/m3	<11	<11	nm
Benzyl chloride	ug/m3	<0.28	<0.28	nm
1,3,5-Trimethylbenzene	ug/m3	<27	<27	nm
1,2,4-Trimethylbenzene	ug/m3	<27	<27	nm
1,3-Dichlorobenzene	ug/m3	<3.2	<3.2	nm
1,4-Dichlorobenzene	ug/m3	<1.2	<1.2	nm
1,2-Dichlorobenzene	ug/m3	<3.2	<3.2	nm
1,2,4-Trichlorobenzene	ug/m3	<4	<4	nm
Naphthalene	ug/m3	<1.4	<1.4	nm
Hexachlorobutadiene	ug/m3	<1.2	<1.2	nm

Date of Report: 01/28/25
Date Received: 01/17/25
Project: Belmont Arco, F&BI 501219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ug/m3	23	110	70-130
Dichlorodifluoromethane	ug/m3	67	118	70-130
Chloromethane	ug/m3	28	113	70-130
F-114	ug/m3	94	123	70-130
Vinyl chloride	ug/m3	35	124	70-130
1,3-Butadiene	ug/m3	30	114	70-130
Butane	ug/m3	32	114	70-130
Bromomethane	ug/m3	52	140 vo	70-130
Chloroethane	ug/m3	36	120	70-130
Vinyl bromide	ug/m3	59	119	70-130
Ethanol	ug/m3	25	112	70-130
Acrolein	ug/m3	31	112	70-130
Pentane	ug/m3	40	116	70-130
Trichlorofluoromethane	ug/m3	76	121	70-130
Acetone	ug/m3	32	127	70-130
2-Propanol	ug/m3	33	138 vo	70-130
1,1-Dichloroethene	ug/m3	54	122	70-130
trans-1,2-Dichloroethene	ug/m3	54	117	70-130
Methylene chloride	ug/m3	94	118	70-130
t-Butyl alcohol (TBA)	ug/m3	41	110	70-130
3-Chloropropene	ug/m3	42	102	70-130
CFC-113	ug/m3	100	117	70-130
Carbon disulfide	ug/m3	42	121	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	111	70-130
Vinyl acetate	ug/m3	48	112	70-130
1,1-Dichloroethane	ug/m3	55	120	70-130
cis-1,2-Dichloroethene	ug/m3	54	116	70-130
Hexane	ug/m3	48	108	70-130
Chloroform	ug/m3	66	117	70-130
Ethyl acetate	ug/m3	49	95	70-130
Tetrahydrofuran	ug/m3	40	107	70-130
2-Butanone (MEK)	ug/m3	40	124	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	118	70-130
1,1,1-Trichloroethane	ug/m3	74	119	70-130
Carbon tetrachloride	ug/m3	85	117	70-130
Benzene	ug/m3	43	114	70-130
Cyclohexane	ug/m3	46	96	70-130
1,2-Dichloropropane	ug/m3	62	118	70-130
1,4-Dioxane	ug/m3	49	113	70-130
2,2,4-Trimethylpentane	ug/m3	63	108	70-130

Date of Report: 01/28/25
Date Received: 01/17/25
Project: Belmont Arco, F&BI 501219

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	107	70-130
Heptane	ug/m3	55	101	70-130
Bromodichloromethane	ug/m3	90	114	70-130
Trichloroethene	ug/m3	73	112	70-130
cis-1,3-Dichloropropene	ug/m3	61	117	70-130
4-Methyl-2-pentanone	ug/m3	55	104	70-130
trans-1,3-Dichloropropene	ug/m3	61	119	70-130
Toluene	ug/m3	51	112	70-130
1,1,2-Trichloroethane	ug/m3	74	124	70-130
2-Hexanone	ug/m3	55	101	70-130
Tetrachloroethene	ug/m3	92	120	70-130
Dibromochloromethane	ug/m3	120	116	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	121	70-130
Chlorobenzene	ug/m3	62	115	70-130
Ethylbenzene	ug/m3	59	107	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	125	70-130
Nonane	ug/m3	71	107	70-130
Isopropylbenzene	ug/m3	66	113	70-130
2-Chlorotoluene	ug/m3	70	111	70-130
Propylbenzene	ug/m3	66	113	70-130
4-Ethyltoluene	ug/m3	66	108	70-130
m,p-Xylene	ug/m3	120	111	70-130
o-Xylene	ug/m3	59	112	70-130
Styrene	ug/m3	58	108	70-130
Bromoform	ug/m3	140	116	70-130
Benzyl chloride	ug/m3	70	149 vo	70-130
1,3,5-Trimethylbenzene	ug/m3	66	112	70-130
1,2,4-Trimethylbenzene	ug/m3	66	106	70-130
1,3-Dichlorobenzene	ug/m3	81	122	70-130
1,4-Dichlorobenzene	ug/m3	81	121	70-130
1,2-Dichlorobenzene	ug/m3	81	120	70-130
1,2,4-Trichlorobenzene	ug/m3	100	107	70-130
Naphthalene	ug/m3	71	101	70-130
Hexachlorobutadiene	ug/m3	140	116	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported between the method detection limit and the lowest calibration point. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

501219

SAMPLE CHAIN OF CUSTODY

01/17/25

Report To Conor McMahan

Company PSS

Address 5317 NE St. Johns Rd.

City, State, ZIP Vancouver, WA

Phone 541.390-8805 Email Conor@PointSourceSolutions.com

SAMPLERS (signature)

PROJECT NAME: Belmont Area

PO #

REPORTING LEVEL: ☒ Indoor Air ☐ Deep Soil Gas ☒ Sub Slab/Soil Gas ☐ SVE/Grab

INVOICE TO

Page # _____ of _____

TURNAROUND TIME: ☒ Standard ☐ RUSH _____ Rush charges authorized by: _____

SAMPLE DISPOSAL: ☐ Dispose after 30 days ☐ Archive Samples ☐ Other _____

ANALYSIS REQUESTED

Sample Name	Lab ID	Canister ID	Flow Contr. ID	Date Sampled	Field Initial Press. (Hg)	Field Initial Time	Field Final Press. (Hg)	Field Final Time	TO-15 Full Scan	TO-15 BTEXN	TO-15 cVOCs	6X	Notes
													⊗ per CM MG 1/17
VMP 2	01	2294	31	1/15/25	-31	1103	-5	1171	X			⊗	
VMP 5	02	2295	17		-31	1100	-5	1115					
IA1	03	18566	20476		-30	852	-5	441					
IA2	04	20555	20476		-29	852	-5	441					
AA1	05	20564	15212		-29	854	-6	442					
AA2	06	23230	07870	↓	-30	854	-6	442	↓			↓	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Conor McMahan	PSS	1/16/25	1530
Received by:	Anh Phan	FBI	01/17/25	10:23
Relinquished by:		Samples received at 18 °C		
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501219 CLIENT Point Source INITIALS/ DATE: AP 01/17/25

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 18 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☑ NO

How did samples arrive?
☐ Over the Counter ☐ Picked up by F&BI ☑ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 01/17/25
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 2 days

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	☑ Yes ☐ No	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No	☐ Not on COC/label
Time Sampled	☑ Yes ☐ No	☐ Not on COC/label
# of Containers	☑ Yes ☐ No	
Relinquished	☑ Yes ☐ No	
Requested analysis	☑ Yes ☐ On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☐ NA ☐ YES ☑ NO

Number of unused TO15 canisters _____ **Number of unused TO17 tubes** _____

GLS.

800-322-5555
www.gls-us.com

Ship From
POINT SOURCE SOLUTIONS
CONOR MCGEHAN
5317 NE ST JOHNS RD, SUITE D
VANCOUVER, WA 98661

Ship To
FRIEDMAN & BRUYA, INC
SAMPLE RECEIVING
5500 4TH AVE S
SEATTLE, WA 98108

COD: $0.00
Weight: 0 lb(s)
Reference:

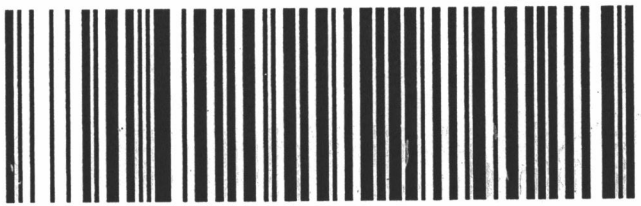
Delivery Instructions:

Signature Type: NOT REQUIRED

Tracking #: 561676533 **PDS**

SEATTLE

S06437C



12087831

KNT WA980-7C0

Print Date: 7/9/2024 11:05 AM

Transaction Record

FedEx

TRACKING NO.:	SHIP DATE:	ESTIMATED SHIPPING CHARGES:
771347270880	Jan 10, 2025	41.52 USD

From address

Sample Receiving
Friedman & Bruya, Inc.
5500 4th Avenue South
98108 WA Seattle
US
Phone: 2062858282
fbi@isomedia.com

To address

CONNOR McGREEHEN
POINT SOURCE
5404 NW HARNEY ST
98663 WA VANCOUVER
US
Phone: 5413908805

Package information

Pieces	Weight	Dimensions (LxWxH)	Carriage value	Package options
1 x	35.00 lb	21 x 21 x 21 in		n/a
1 x	8.00 lb	10 x 10 x 15 in		n/a
Total: 2	**43.00 lb**		**0.00 USD**	

Packaging type:
Your Packaging

Service:
FedEx Ground

Pickup / drop-off type:
I have already scheduled a pickup at my location

Billing information

Bill transportation cost to: ******359
Bill duties, taxes and fees to:
Your reference:

P.O. No.:
Invoice No.:
Department No.:

Please note: This transaction record is neither a statement nor an invoice, and does not confirm shipment tendered to FedEx or payment. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1000, e.g., jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits; Consult the applicable FedEx Service Guide for details. The estimated shipping charge may be different than the actual charges for your shipment. Differences may occur based on actual weight, dimensions, and other factors. Consult the applicable FedEx Service Guide or the FedEx Rate Sheets for details on how shipping charges are calculated.

APPENDIX B

POINT SOURCE WORK PLAN

point source solutions, llc

5317 NE St Johns Road, Suite D
Vancouver, Washington 98661
503.236.5885

Belmont Arco LLC
2430 NE 163rd Ave
Portland, OR 97230

Friday, October 18, 2024

RE: Vapor Intrusion Pathway Investigation
Belmont Auto Services
3840 SE Belmont St
Portland, Oregon 97214

Point Source Proposal OR220822-1C

The following is a proposal to conduct a Vapor Intrusion Pathway Investigation at the above referenced property ("Site").

BACKGROUND

In August 2022 Point Source was engaged by Belmont Arco LLC to investigate the reported release of petroleum hydrocarbons to the subsurface identified as LUST ID #26-23-0326. Upon review, Point Source determined that the identified release was attributable to a past, conditionally closed release LUST ID #26-89-0067. This position was presented to the ODEQ and the assigned ODEQ Project Manager has subsequently agreed with this assessment. The ODEQ has requested that in order to close the new release under the prior LUST ID #26-23-0326, the property owner needs to evaluate soil gas conditions relative to vapor intrusion risk to the west adjoining residential property as well as to the Site building.

On behalf of Belmont ARCO LLC, Point Source performed the above-mentioned soil gas investigation which commenced on September 11, 2024. Based on the results of that investigation, the ODEQ has requested the following further actions be performed.

1. Inspect, provide descriptions, and take photos of the floor's conditions (cracks etc.).
2. Measure pressure differentials.
3. Collect multiple outdoor background samples.
4. Collect indoor air sample(s).
5. Collect 1-2 more sub-slab samples.
6. If possible collect samples when station/building is closed to limit outdoor air intake.

The following scope of work has been prepared to address the recommendations provided by the ODEQ.

SCOPE OF WORK

The following scope of work has been prepared to address the recommendations provided by the ODEQ:

- Measure pressure differentials within the Site building footprint to locate areas where positive pressure is most likely forcing sub slab vapors into the Site building.
- Inspect floor areas for cracks and breakthrough to the sub slab. Report conditions.
- Collect two sub slab soil gas vapor samples in two more locations to assess if there is a vapor intrusion risk to the Site building once areas with the greatest pressure differential have been determined.

5317 NE St Johns Road, Suite D
Vancouver, Washington 98661
503.236.5885

- Collect two indoor and two outdoor ambient air samples to evaluate indoor air conditions in the Site building and establish background levels of contaminants of concern.

Task 1 – Project Coordination

Point Source will develop a site-specific health and safety plan for the proposed sampling activities and coordinate the efforts of subcontract services including analytical laboratory and geophysical survey services.

Task 2 – Subsurface Investigation

Point Source will complete the following activities:

- Point Source will direct a geophysical subcontractor to ensure proposed boring locations are free of underground utilities.
- Point Source will advance a 5/8-inch drill bit through the sub slab in approximately 6-8 locations within the footprint of the Site building and install Geoprobe Vapor Pin test ports. Based on manometer readings indicating where the areas of greatest pressure differential are located, as well as floor cracks identified during the slab condition evaluation, two of the Geoprobe test ports will be utilized for sub slab soil gas sampling locations.
- Two indoor and two outdoor (ambient) air samples will be deployed.

Task 3 – Analytical Services

Point Source will transport the samples to an ODEQ approved laboratory for sub-slab vapor and indoor/ambient sample analysis that will include volatile organic compounds by EPA Method TO-15.

Task 4 – Reporting

A report summarizing the scope of work, methodology, results, and conclusions/recommendations will be prepared by Point Source Solutions and delivered upon completion of the investigation. Analytical results for the submitted samples will be compared with the ODEQ vapor intrusion RBCs presented in the manual titled *"Risk-Based Decision Making for the Remediation of Contaminated Sites"* prepared by ODEQ revised March 2024.

The report will include a statement about whether the results represent a reporting requirement or remediation obligation.

APPENDIX C

POINT SOURCE GW MONITORING REPORT

point source solutions, llc

Belmont Arco LLC
2430 NE 163rd Ave
Portland, OR 97230

Friday, September 02, 2022

RE: Monitoring Well Sampling
Belmont Auto Services
3840 SE Belmont St
Portland, Oregon 97214

Point Source Report OR220822-1

Dear Belmont Arco,

At your request, Point Source Solutions (Point Source) has conducted groundwater monitoring of existing monitoring wells associated with the ARCO gas station located at 3840 Belmont Street in Portland, Oregon (Site).

The Site is identified on a Site Location Map (**Figure 1**), Site Plan (**Figure 2**), and Well Location Diagram (**Figure 3**), all of which are located in the Figures section attached to this report.

BACKGROUND

The following are excerpts from a Phase I Environmental Site Assessment (ESA) and Focused Phase II ESA prepared by BB&A Environmental for the Site (March 4, 2011, BB&A Project No. BAS01PH1/PH2.101):

> *In 1989, during UST system upgrades and excavation work, three (3) 800-gallon USTs and associated product piping were discovered beneath the northeast corner of the subject property. These USTs were reportedly taken out of service prior to 1973. Petroleum-contaminated soil (PCS) in this area was excavated to the maximum extent practical without threat of undermining the adjacent right-of-ways of Belmont Street and Cesar Chavez Boulevard. Residual PCS was left in place at the northeast corner of the subject property adjacent to the right-of-ways. In 1991, monitoring well W-1 was installed within this former excavation.*
>
> *In 1989, five (5) steel, single-walled USTs were removed from the UST cavity on the west-central portion of the property. The UST cavity was over-excavated to remove detected PCS, as well as accommodate the four (4) current-day 10,000-gallon USTs. At that time a pocket of residual PCS was left in place at the southwest corner of the newly expanded UST cavity.*
>
> *In 1992, monitoring wells W-2, W-3, and W-4 were advanced west, south, and north of the UST cavity. At this same time monitoring well W-5 was installed downgradient of the northeast excavation, and W-6 was installed downgradient of the UST cavity.*
>
> *In 1993, based on detected dissolved gasoline contamination detected in groundwater from on-site monitoring wells, a groundwater extraction and treatment system was installed on-site. A total of approximately 220,000 gallons of groundwater was extracted, treated and discharged to the sewer between 1993 and 1995.*
>
> *As part of a Conceptual Site Model (CSM), a beneficial use survey was conducted, and the results indicated that there is no known beneficial use of shallow groundwater within the locality of the facility.*

In 2003, monitoring well W-7 was installed north of the eastern product dispenser, and south of residual PCS at the northeast corner of the property. Also in 2003, at the request of DEQ, groundwater samples were collected from each of the seven (7) monitoring wells and analyzed for total lead, gasoline-range TPH, and the gasoline-related VOCs. Comparison of 1992 and 2003 groundwater analytical results shows a significant and steady decline in contaminant concentrations. The 2003 groundwater analytical results were compared to RBCs developed by the DEQ, the results of which identified contaminants in groundwater exceeding RBCs for Occupational and Residential Ingestion and Inhalation from Tap Water. *No other RBCs were exceeded, including* Vapor Intrusion into Buildings *(Residential or Occupational)*, Groundwater in an Excavation, *and* Volatilization to Outdoor Air *(Residential or Occupational).*

The DEQ determined that sufficient investigation, cleanup and reporting was completed, and issued a no further action (NFA) determination for the subject property. The NFA determination letter was issued by the DEQ, however, the following restrictions were placed on the subject property:

'Groundwater beneath the property shall not be used for consumption or non-consumptive purposes unless a risk assessment has been conducted and approved by the DEQ…'

On February 8, 2011, groundwater samples were collected from monitoring wells W-1 through W-5, and W-7. Groundwater samples were analyzed for gasoline-range TPH and gasoline-related VOCs. The analytical results did not detect any contaminants in groundwater from monitoring wells W-1, W-2, W-3, and W-5. In groundwater from monitoring well W-7, n-propylbenzene was the only contaminant detected (0.64 ppb). Contaminants detected in groundwater from monitoring well W-4 included: gasoline-range TPH at 9,900 ppb, benzene at 7.77 ppb, toluene at 2.74 ppb, ethylbenzene at 36 ppb, total xylenes at 4.62 ppb, MTBE at 2.41 ppb, naphthalene at 6.52 ppb, 1,2,4-trimethylbenzene at 2.23 ppb, 1,3,5-trimethylbenzene at 0.56 ppb, and isopropylbenzene at 260 ppb. The detected contaminant concentrations in W-4 represent the highest detected contaminant concentrations in groundwater at the subject site. None of the detected contaminants exceed potentially applicable RBCs developed by the DEQ for Vapor Intrusion into Buildings *or* Volatilization to Outdoor *for Residential or Occupational scenarios*, *nor RBCs for* Groundwater in an Excavation.

Based on a review of historical groundwater data, and the results of the recent groundwater sampling event, contaminant concentrations in groundwater have shown a steady decrease in concentration since groundwater monitoring began in 1992. Further, groundwater monitoring results suggest that corrective actions (including PCS-removal excavations and the former groundwater treatment system), and natural attenuation have successfully reduced contaminant concentrations in groundwater at the site, and that no new releases have occurred from the UST system.

In August 2022, Point Source was engaged to sample W-1 through W-7 to evaluate groundwater quality as a component of a pending financial transaction associated with the Site.

GROUNDWATER SAMPLING EVENT – AUGUST 2022

On August 22, 2022, Point Source mobilized to the Site to sample the wells. Before each well was sampled, well condition was evaluated, and measurements were taken of the total well depth and static water level. The wells were found to all be in serviceable condition allowing sampling from each of them to proceed. It was noted that the J-plug associated with well W-4 had absorbent socks with oily residue and petroleum odor attached to it on a string inside of the well.

Prior to purging, the static water level elevation was measured from the top of casing (TOC) as a reference point in each well using an electronic water level meter. The wells were purged and sampled using a peristaltic pump with dedicated polyethylene tubing. Well purging was considered complete when:

1) temperature and conductivity stabilized within 3% in three consecutive readings;

2) dissolved oxygen and turbidity stabilized within 10% in three consecutive readings; and

3) pH and oxidation-reduction potential stabilized within 10 mV within three consecutive readings.

Parameter readings were taken every three minutes using a Horiba U-50 Multi-parameter Water Quality Checker connected to a flow-through cell apparatus. The peristaltic pump was operated at a reduced flow during purging and sample collection, at approximately 175 ml/min.

The samples were collected in laboratory-supplied glassware, labeled and placed in a cooler with ice and subsequently transported under chain-of-custody to Friedman and Bruya Environmental Chemists of Seattle, WA for analysis by NWTPH-Gx (gasoline-range petroleum hydrocarbons), NWTPH-Dx (diesel and oil-range petroleum hydrocarbons), EPA Method 8260C (VOCs), EPA Method 8270-SIM (PAHs) and EPA Method 6020B (total lead).

DATA ANALYSIS & INTERPRETATION

Analysis and interpretation of the data generated during the field activities for the sampling events are presented in the following sections.

Groundwater Sampling Results

A summary of sampling information and laboratory analytical results for the February 2011 sampling event and the August 2022 sampling event are provided in **Table 1** below.

TABLE 1 - GROUNDWATER SAMPLE RESULTS
LABORATORY ANALYTICAL RESULTS UG/L

SAMPLE	DATE	STATIC H2O LEVEL TOC	NWTPH-DX/GX	VOCs	PAHs	Total Lead
FEBRUARY 2011 GROUNDWATER SAMPLING EVENT (BB&A)						
W-1	2/8/2011	6.28’	Gx – ND	ND	NA	NA
W-2	2/8/2011	6.46’	Gx – ND	ND	NA	NA
W-3	2/8/2011	6.82’	Gx – ND	ND	NA	NA
W-4	2/8/2011	6.09’	**Gx – 9,900**	**Benzene – 7.77** Toluene – 2.74 **Ethylbenzene – 36.0** Xylenes – 4.62 MTBE – 2.41 **Naphthalene – 6.52** 124-TMB – 2.23 135 TMB – 0.56 Isopropylbenzene – 260	NA	NA
W-5	2/8/2011	6.03’	Gx – ND	NA	NA	NA
W-6	2/8/2011	NS	NS	NS	NS	NS
W-7	2/8/2011	NS	Gx – ND	NA	NA	NA

TABLE 1 - GROUNDWATER SAMPLE RESULTS LABORATORY ANALYTICAL RESULTS UG/L						
SAMPLE	**DATE**	**STATIC H2O LEVEL TOC**	**NWTPH-DX/GX**	**VOCs**	**PAHs**	**Total Lead**
AUGUST 2022 GROUNDWATER SAMPLING EVENT (PSS)						
W-1	8/22/2022	7.28'	Gx - ND Diesel - 62.0* Oil - ND	**Chloroform – 2.3**	ND	ND
W-2	8/22/2022	8.95'	Gx - ND **Diesel - 480.0*** Oil - 320.0*	ND	Acenaphthene – 0.023	ND
W-3	8/22/2022	9.36'	Gx - ND Diesel - 83.0* Oil - ND	ND	ND	ND
W-4	8/22/2022	8.13'	**Gx – 2,900.0** **Diesel – 5,800.0*** Oil - 340.0*	Isopropylbenzene – 5.3	Acenaphthene - 0.99 Fluorene - 0.99 Pyrene - 0.2 Benz[a]anthracene - 0.058 Benzo(a)pyrene - 0.028 Benzo(b)fluoranthene - 0.037	Lead - 5.1
W-5	8/22/2022	6.53'	Gx - ND Diesel - 130.0* Oil - ND	ND	ND	ND
W-6	8/22/2022	7.74'	Gx - 220.0 Diesel - 350.0* Oil - ND	ND	Acenaphthene - 0.047	ND
W-7	8/22/2022	7.58'	Gx - ND Diesel - 60.0* Oil - ND	ND	Pyrene - 0.029	ND
ODEQ Groundwater Ingestion & Inhalation RBC – Occupational Receptors			**Gx – 450.0** **Diesel – 430.0** **Lube Oil – 430.0**	**Benzene – 2.1** **Toluene – 2.74** **Ethylbenzene – 36.0** **Xylenes – 4.62** **MTBE – 2.41** **Naphthalene – 6.52** **124-TMB – 2.23** **135 TMB – 0.56** **Chloroform – 0.98** **Isopropylbenzene – 2,000.0**	**Acenaphthene – 2,500.0** **Fluorene – 280.0** **Pyrene – No Value** **Benz[a]anthracene – 0.38** **Benzo(a)pyrene – 0.47** **Benzo(b)fluoranthene – No Value**	**Lead – 15.0**

Notes:

- *ND = Not detected above laboratory reporting limits*
- *NS = Not sampled/measured*
- *NA = Not analyzed*
- **BOLD** = *Analyte detected above ODEQ Groundwater Ingestion & Inhalation RBC – Occupational Receptors*
- ** = Analyte qualified with "x" qualifier, meaning the sample chromatographic pattern does not resemble the fuel standard used for quantitation.*
- *Various VOCs detected but not listed on ODEQ's Risk-Based Concentrations for Individual Chemicals Table (2018 revision) have been excluded.*

A copy of the laboratory analytical report from the sampling event is provided in **Appendix A**.

Quality Assurance/Quality Control Review

Laboratory QA/QC measures were performed through data validation of available analytical data generated as part of these sampling events. Data validation considered the following:

- Method Detection and/or Reporting Limits
- Laboratory Matrix Blanks
- Sample Holding Times
- Surrogate and Matrix Spike Recoveries, and
- Laboratory Duplicate Analysis Results

Friedman and Bruya reported an "x" qualifier for all diesel and oil-range petroleum hydrocarbons detected in all of the seven water samples. The "x" qualifier notes that "the sample chromatographic pattern does not resemble the fuel standard used for quantitation. Friedman and Bruya did not report any other qualifiers that would indicate problems with the sample results. According to the lab report, all analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Exceptions are qualified in the analytical report. In cases where there is insufficient sample material provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

SUMMARY OF FINDINGS

The following is a summary of findings derived from this sampling event:

- A significant reduction in concentrations of gasoline-range petroleum hydrocarbons and VOCs has occurred between February 2011 sampling event and this most recent August 2022 sampling event.

- Chloroform was detected at a concentration of 2.3 ug/l in MW-4. This concentration exceeds the ingestion and inhalation RBC for occupational receptors, however DEQ has already determined that this pathway is not applicable to the Site.

- Lead was detected at a concentration of 5.1 ug/l in MW-4. This concentration is below the most stringent DEQ RBC. The February 2011 sampling event did not include analysis for lead.

- Diesel-range and oil-range petroleum hydrocarbons were detected in all seven wells. The concentrations in MW-2 and MW-4 exceed the ingestion and inhalation RBC for occupational receptors, however DEQ has already determined that this pathway is not applicable to the Site. The February 2011 sampling event did not include analysis for these heavier hydrocarbons.

- PAHs were detected in MW-2, MW-4, and MW-7. All detected concentrations are below the most stringent DEQ RBCs. The February 2011 sampling event did not include analysis for PAHs.

- None of the concentrations of the contaminants of interest detected during this sampling event exceed their respective vapor intrusion RBCs (the most stringent RBCs applicable to the Site).

No further investigation is recommended at this time provided that the Property owner continues to satisfy the conditions outlined in the ODEQ conditional NFA determination letter (see Appendix B).

Point Source appreciates the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Jeff Jackman or Gil Cobb at 503.236.5885.

Prepared by:
Kyle Fisher, Project Manager

Point Source Solutions, LLC
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661
Phone: 503.236.5885

www.pointsourcesolutions.com

Reviewed By:
Johnny Ramus, Registered Geologist (Oregon #G2727)

Expires: 6/1/2023

Attachments:

Figure 1 - Site Location Map
Figure 2 – Site Plan
Figure 3 – Well Location Diagram

Appendix A – Laboratory Analytical Results
Appendix B – Oregon DEQ Conditional NFA Determination Letter

FIGURES

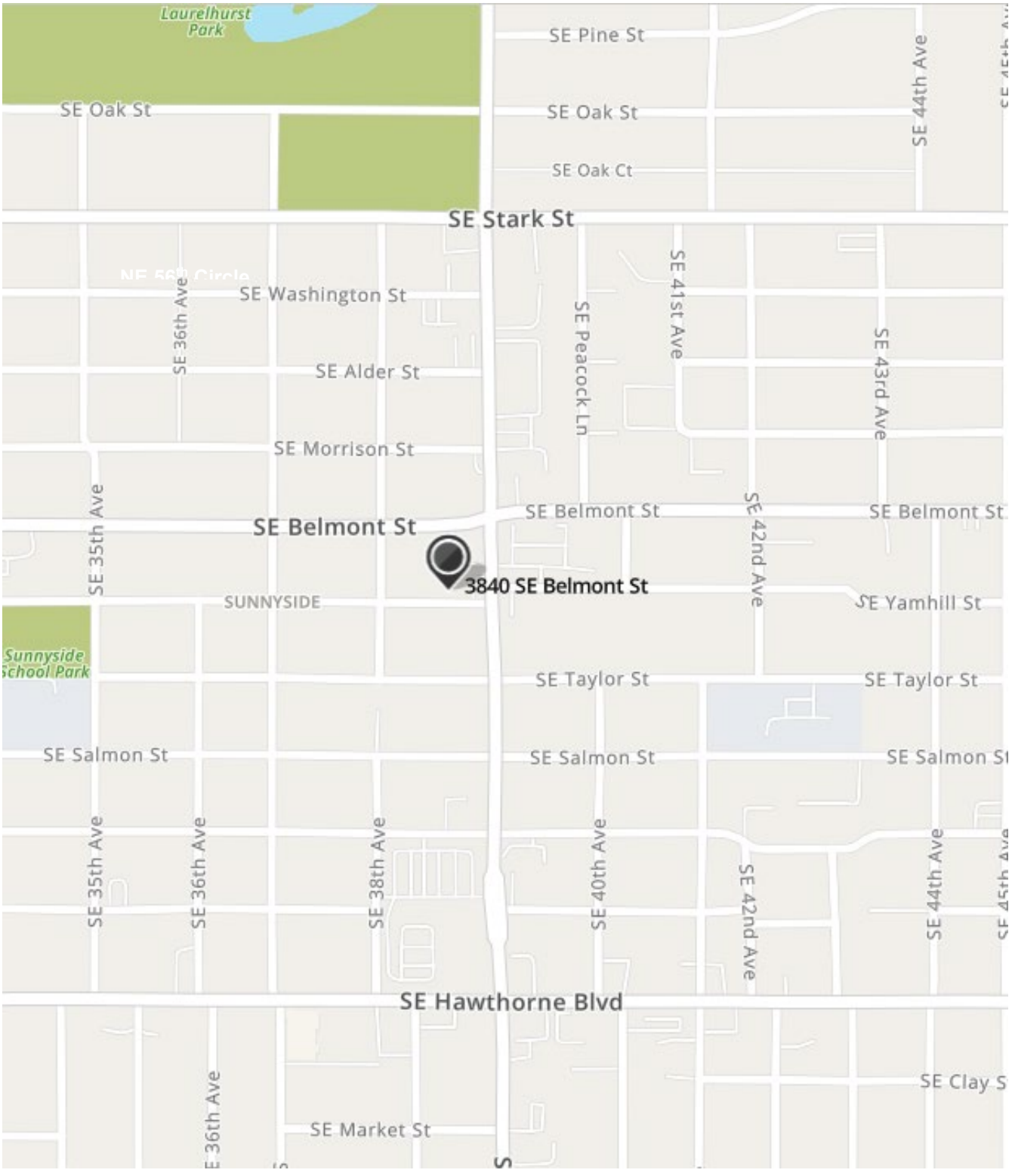


FIGURE 1: SITE LOCATION MAP

Map from Mapquest N↑

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Belmont Auto Services
3840 SE Belmont St
Portland, OR 97214

Project Number: OR220822-1

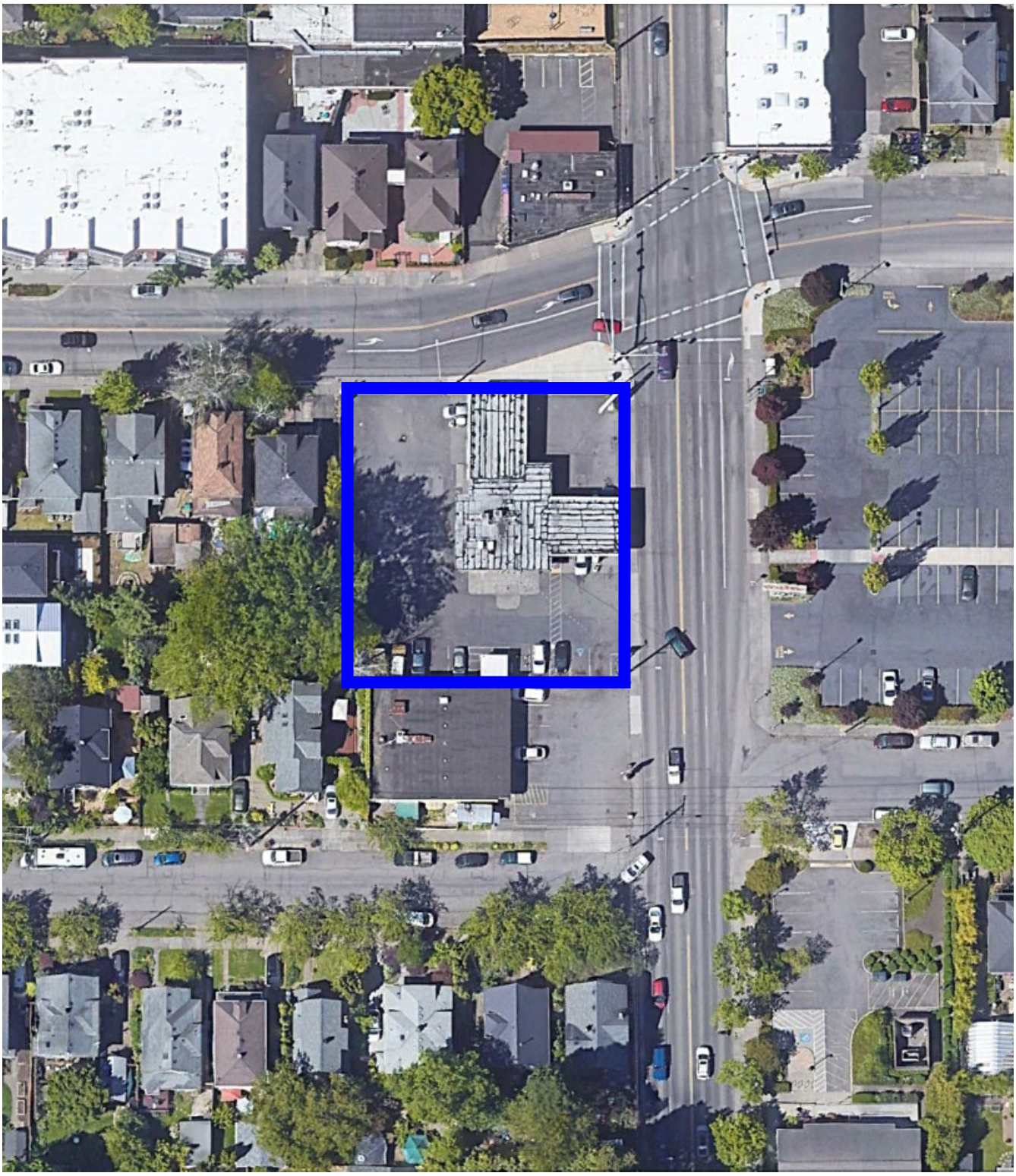


FIGURE 2: SITE PLAN

From Google Earth 2021

N↑

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Belmont Auto Services
3840 SE Belmont St
Portland, Oregon 97214

Project Number: OR220822-1

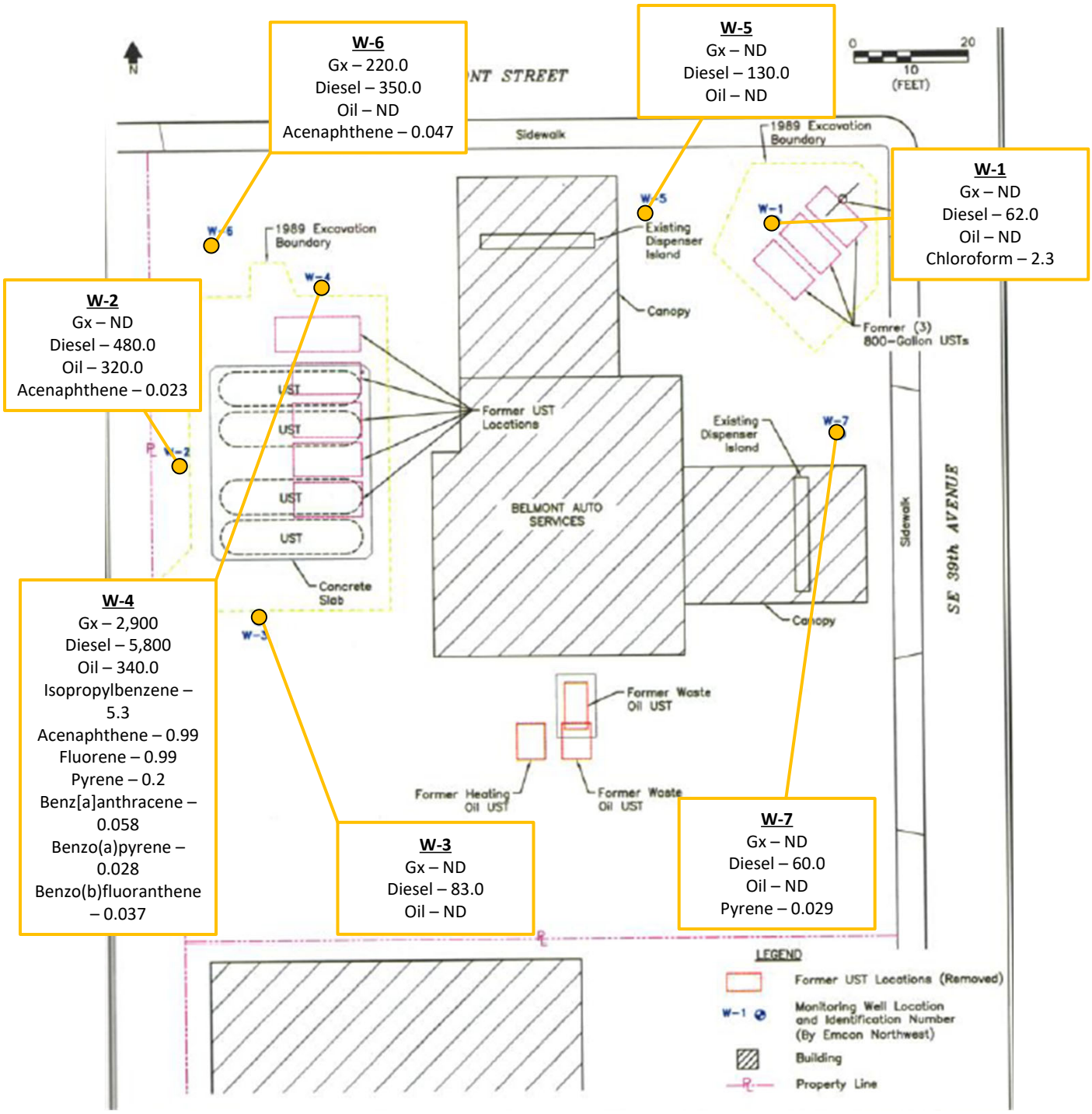


FIGURE 3 – WELL LOCATION DIAGRAM

Image From BB&A (2011)

N↑

Notes:

- *Water Sample results in ug/L*

Water Sample Location

point source solutions, llc
ENVIRONMENTAL CONSULTING AND CONTRACTING

Site Name: Belmont Auto Services
3840 SE Belmont St
Portland, Oregon 97214

Project Number: OR220822-1

APPENDICES

APPENDIX A

LABORATORY ANALYTICAL REPORT

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

September 1, 2022

Jeff Jackman, Project Manager
Point Source Solutions
5317 NE St Johns Rd, Suite D
Vancouver, WA 98661

Dear Mr Jackman:

Included are the results from the testing of material submitted on August 23, 2022 from the 3840 SE Belmont, F&BI 208330 project. There are 34 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Gil Cobb, Johnny Ramus, Jeff Jackman, Kyle Fisher
PSS0901R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 23, 2022 by Friedman & Bruya, Inc. from the Point Source Solutions 3840 SE Belmont, F&BI 208330 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Point Source Solutions
208330 -01	W-1
208330 -02	W-2
208330 -03	W-3
208330 -04	W-4
208330 -05	W-5
208330 -06	W-6
208330 -07	W-7

Methylene chloride was detected in the 8260D analysis of sample W-2. The data were flagged as due to laboratory contamination.

All other quality control requirements were acceptable.

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330
Date Extracted: 08/30/22
Date Analyzed: 08/30/22

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
W-1 208330-01	<100	103
W-2 208330-02	<100	106
W-3 208330-03	<100	107
W-4 208330-04 1/5	2,900	91
W-5 208330-05	<100	99
W-6 208330-06	220	126
W-7 208330-07	<100	105
Method Blank 02-1754 MB	<100	110

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330
Date Extracted: 08/23/22
Date Analyzed: 08/23/22

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 41-152)
W-1 208330-01	62 x	<250	127
W-2 208330-02	480 x	320 x	139
W-3 208330-03	83 x	<250	148
W-4 208330-04	5,800 x	340 x	144
W-5 208330-05	130 x	<250	140
W-6 208330-06	350 x	<250	124
W-7 208330-07	60 x	<250	134
Method Blank 02-2025 MB	<50	<250	96

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-1	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-01
Date Analyzed:	08/25/22	Data File:	208330-01.147
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-2	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-02
Date Analyzed:	08/25/22	Data File:	208330-02.150
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-3	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-03
Date Analyzed:	08/25/22	Data File:	208330-03.151
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-4	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-04
Date Analyzed:	08/25/22	Data File:	208330-04.152
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	5.10

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-5	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-05
Date Analyzed:	08/25/22	Data File:	208330-05.159
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-6	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-06
Date Analyzed:	08/25/22	Data File:	208330-06.160
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	W-7	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	208330-07
Date Analyzed:	08/25/22	Data File:	208330-07.161
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Point Source Solutions
Date Received:	NA	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/25/22	Lab ID:	I2-584 mb
Date Analyzed:	08/25/22	Data File:	I2-584 mb.116
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-1	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-01
Date Analyzed:	08/30/22	Data File:	083023.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	98	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	17	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	2.3	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-2	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-02
Date Analyzed:	08/30/22	Data File:	083024.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	78	126
Toluene-d8	98	84	115
4-Bromofluorobenzene	99	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	7.8 lc	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-3	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-03
Date Analyzed:	08/30/22	Data File:	083025.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	96	78	126
Toluene-d8	99	84	115
4-Bromofluorobenzene	101	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-4	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-04
Date Analyzed:	08/30/22	Data File:	083029.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	5.3
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	5.1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	2.3
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-5	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-05
Date Analyzed:	08/30/22	Data File:	083026.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	102	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-6	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-06
Date Analyzed:	08/30/22	Data File:	083028.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	106	78	126
Toluene-d8	97	84	115
4-Bromofluorobenzene	102	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	W-7	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	208330-07
Date Analyzed:	08/30/22	Data File:	083027.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	LM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	97	78	126
Toluene-d8	103	84	115
4-Bromofluorobenzene	105	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/30/22	Lab ID:	02-1959 mb
Date Analyzed:	08/30/22	Data File:	083007.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	100	78	126
Toluene-d8	100	84	115
4-Bromofluorobenzene	100	72	130

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	1,3-Dichloropropane	<1
Chloromethane	<10	Tetrachloroethene	<1
Vinyl chloride	<0.02	Dibromochloromethane	<0.5
Bromomethane	<5	1,2-Dibromoethane (EDB)	<1
Chloroethane	<1	Chlorobenzene	<1
Trichlorofluoromethane	<1	Ethylbenzene	<1
Acetone	<50	1,1,1,2-Tetrachloroethane	<1
1,1-Dichloroethene	<1	m,p-Xylene	<2
Hexane	<5	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
Methyl t-butyl ether (MTBE)	<1	Isopropylbenzene	<1
trans-1,2-Dichloroethene	<1	Bromoform	<5
1,1-Dichloroethane	<1	n-Propylbenzene	<1
2,2-Dichloropropane	<1	Bromobenzene	<1
cis-1,2-Dichloroethene	<1	1,3,5-Trimethylbenzene	<1
Chloroform	<1	1,1,2,2-Tetrachloroethane	<0.2
2-Butanone (MEK)	<20	1,2,3-Trichloropropane	<1
1,2-Dichloroethane (EDC)	<0.2	2-Chlorotoluene	<1
1,1,1-Trichloroethane	<1	4-Chlorotoluene	<1
1,1-Dichloropropene	<1	tert-Butylbenzene	<1
Carbon tetrachloride	<0.5	1,2,4-Trimethylbenzene	<1
Benzene	<0.35	sec-Butylbenzene	<1
Trichloroethene	<0.5	p-Isopropyltoluene	<1
1,2-Dichloropropane	<1	1,3-Dichlorobenzene	<1
Bromodichloromethane	<0.5	1,4-Dichlorobenzene	<1
Dibromomethane	<1	1,2-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dibromo-3-chloropropane	<10
cis-1,3-Dichloropropene	<0.4	1,2,4-Trichlorobenzene	<1
Toluene	<1	Hexachlorobutadiene	<0.5
trans-1,3-Dichloropropene	<0.4	Naphthalene	<1
1,1,2-Trichloroethane	<0.5	1,2,3-Trichlorobenzene	<1
2-Hexanone	<10		

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-1	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-01
Date Analyzed:	08/24/22	Data File:	082408.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	87	11	173
2-Fluorobiphenyl	90	44	108
2,4,6-Tribromophenol	98	10	140
Terphenyl-d14	106	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-2	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-02
Date Analyzed:	08/24/22	Data File:	082409.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	72	11	173
2-Fluorobiphenyl	79	44	108
2,4,6-Tribromophenol	104	10	140
Terphenyl-d14	103	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	0.023
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-3	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-03
Date Analyzed:	08/24/22	Data File:	082410.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	86	11	173
2-Fluorobiphenyl	87	44	108
2,4,6-Tribromophenol	96	10	140
Terphenyl-d14	113	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-4	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-04
Date Analyzed:	08/24/22	Data File:	082415.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	87	11	173
2-Fluorobiphenyl	76	44	108
2,4,6-Tribromophenol	112	10	140
Terphenyl-d14	105	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	170 ve
Acenaphthylene	<0.02
Acenaphthene	0.78
Fluorene	0.99
Phenanthrene	0.87
Anthracene	0.18
Fluoranthene	0.14
Pyrene	0.20
Benz(a)anthracene	0.058
Chrysene	0.051
Benzo(a)pyrene	0.028
Benzo(b)fluoranthene	0.037
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-4	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-04 1/10
Date Analyzed:	08/24/22	Data File:	082414.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	94 d	11	173
2-Fluorobiphenyl	78 d	44	108
2,4,6-Tribromophenol	95 d	10	140
Terphenyl-d14	100 d	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<2
2-Methylnaphthalene	<2
1-Methylnaphthalene	190
Acenaphthylene	<0.2
Acenaphthene	0.99
Fluorene	0.88
Phenanthrene	0.88
Anthracene	<0.2
Fluoranthene	<0.2
Pyrene	<0.2
Benz(a)anthracene	<0.2
Chrysene	<0.2
Benzo(a)pyrene	<0.2
Benzo(b)fluoranthene	<0.2
Benzo(k)fluoranthene	<0.2
Indeno(1,2,3-cd)pyrene	<0.2
Dibenz(a,h)anthracene	<0.2
Benzo(g,h,i)perylene	<0.4

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-5	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-05
Date Analyzed:	08/24/22	Data File:	082411.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	88	11	173
2-Fluorobiphenyl	97	44	108
2,4,6-Tribromophenol	108	10	140
Terphenyl-d14	102	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-6	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-06
Date Analyzed:	08/24/22	Data File:	082412.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	90	11	173
2-Fluorobiphenyl	91	44	108
2,4,6-Tribromophenol	103	10	140
Terphenyl-d14	100	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	0.047
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	W-7	Client:	Point Source Solutions
Date Received:	08/23/22	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	208330-07
Date Analyzed:	08/24/22	Data File:	082413.D
Matrix:	Water	Instrument:	GCMS12
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	88	11	173
2-Fluorobiphenyl	89	44	108
2,4,6-Tribromophenol	106	10	140
Terphenyl-d14	109	50	150

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	0.028
Pyrene	0.029
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Blank	Client:	Point Source Solutions
Date Received:	Not Applicable	Project:	3840 SE Belmont, F&BI 208330
Date Extracted:	08/24/22	Lab ID:	02-2030 mb
Date Analyzed:	08/24/22	Data File:	082408.D
Matrix:	Water	Instrument:	GCMS9
Units:	ug/L (ppb)	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Nitrobenzene-d5	80	15	144
2-Fluorobiphenyl	82	25	128
2,4,6-Tribromophenol	82	10	142
Terphenyl-d14	105	41	138

Compounds:	Concentration ug/L (ppb)
Naphthalene	<0.2
2-Methylnaphthalene	<0.2
1-Methylnaphthalene	<0.2
Acenaphthylene	<0.02
Acenaphthene	<0.02
Fluorene	<0.02
Phenanthrene	<0.02
Anthracene	<0.02
Fluoranthene	<0.02
Pyrene	<0.02
Benz(a)anthracene	<0.02
Chrysene	<0.02
Benzo(a)pyrene	<0.02
Benzo(b)fluoranthene	<0.02
Benzo(k)fluoranthene	<0.02
Indeno(1,2,3-cd)pyrene	<0.02
Dibenz(a,h)anthracene	<0.02
Benzo(g,h,i)perylene	<0.04

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TPH AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 208373-02 Matrix Spike

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	ug/L (ppb)	1,000	<100	92	93	53-117	1

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	ug/L (ppb)	1,000	97	69-134

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 208312-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	53	118	130	50-150	10

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	ug/L (ppb)	2,500	116	63-142

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 6020B

Laboratory Code: 208330-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	92	104	75-125	12

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	99	80-120

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Dichlorodifluoromethane	ug/L (ppb)	10	117	122	46-206	4
Chloromethane	ug/L (ppb)	10	109	112	70-142	3
Vinyl chloride	ug/L (ppb)	10	112	118	70-130	5
Bromomethane	ug/L (ppb)	10	117	120	56-197	3
Chloroethane	ug/L (ppb)	10	117	120	70-130	3
Trichlorofluoromethane	ug/L (ppb)	10	107	109	70-130	2
Acetone	ug/L (ppb)	50	105	104	10-140	1
1,1-Dichloroethene	ug/L (ppb)	10	103	105	70-130	2
Hexane	ug/L (ppb)	10	95	98	54-136	3
Methylene chloride	ug/L (ppb)	10	114	120	43-134	5
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	106	107	70-130	1
trans-1,2-Dichloroethene	ug/L (ppb)	10	110	113	70-130	3
1,1-Dichloroethane	ug/L (ppb)	10	105	104	70-130	1
2,2-Dichloropropane	ug/L (ppb)	10	117	123	70-130	5
cis-1,2-Dichloroethene	ug/L (ppb)	10	105	107	70-130	2
Chloroform	ug/L (ppb)	10	101	102	70-130	1
2-Butanone (MEK)	ug/L (ppb)	50	112	109	17-154	3
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	106	106	70-130	0
1,1,1-Trichloroethane	ug/L (ppb)	10	104	106	70-130	2
1,1-Dichloropropene	ug/L (ppb)	10	102	102	70-130	0
Carbon tetrachloride	ug/L (ppb)	10	108	111	70-130	3
Benzene	ug/L (ppb)	10	107	108	70-130	1
Trichloroethene	ug/L (ppb)	10	110	109	70-130	1
1,2-Dichloropropane	ug/L (ppb)	10	105	105	70-130	0
Bromodichloromethane	ug/L (ppb)	10	105	107	70-130	2
Dibromomethane	ug/L (ppb)	10	109	112	70-130	3
4-Methyl-2-pentanone	ug/L (ppb)	50	113	112	68-130	1
cis-1,3-Dichloropropene	ug/L (ppb)	10	114	115	69-131	1
Toluene	ug/L (ppb)	10	111	109	70-130	2
trans-1,3-Dichloropropene	ug/L (ppb)	10	111	108	70-130	3
1,1,2-Trichloroethane	ug/L (ppb)	10	109	106	70-130	3
2-Hexanone	ug/L (ppb)	50	109	103	45-138	6
1,3-Dichloropropane	ug/L (ppb)	10	105	104	70-130	1
Tetrachloroethene	ug/L (ppb)	10	107	105	70-130	2
Dibromochloromethane	ug/L (ppb)	10	105	106	60-148	1
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	109	107	70-130	2
Chlorobenzene	ug/L (ppb)	10	103	103	70-130	0
Ethylbenzene	ug/L (ppb)	10	108	106	70-130	2
1,1,1,2-Tetrachloroethane	ug/L (ppb)	10	103	101	70-130	2
m,p-Xylene	ug/L (ppb)	20	107	105	70-130	2
o-Xylene	ug/L (ppb)	10	105	104	70-130	1
Styrene	ug/L (ppb)	10	101	101	70-130	0
Isopropylbenzene	ug/L (ppb)	10	103	102	70-130	1
Bromoform	ug/L (ppb)	10	118	115	69-138	3
n-Propylbenzene	ug/L (ppb)	10	102	104	70-130	2
Bromobenzene	ug/L (ppb)	10	103	105	70-130	2
1,3,5-Trimethylbenzene	ug/L (ppb)	10	99	101	70-130	2
1,1,2,2-Tetrachloroethane	ug/L (ppb)	10	107	108	70-130	1
1,2,3-Trichloropropane	ug/L (ppb)	10	104	101	70-130	3
2-Chlorotoluene	ug/L (ppb)	10	101	101	70-130	0
4-Chlorotoluene	ug/L (ppb)	10	100	104	70-130	4
tert-Butylbenzene	ug/L (ppb)	10	101	105	70-130	4
1,2,4-Trimethylbenzene	ug/L (ppb)	10	100	101	70-130	1
sec-Butylbenzene	ug/L (ppb)	10	101	105	70-130	4
p-Isopropyltoluene	ug/L (ppb)	10	99	103	70-130	4
1,3-Dichlorobenzene	ug/L (ppb)	10	101	104	70-130	3
1,4-Dichlorobenzene	ug/L (ppb)	10	99	103	70-130	4
1,2-Dichlorobenzene	ug/L (ppb)	10	98	102	70-130	4
1,2-Dibromo-3-chloropropane	ug/L (ppb)	10	107	108	70-130	1
1,2,4-Trichlorobenzene	ug/L (ppb)	10	94	97	70-130	3
Hexachlorobutadiene	ug/L (ppb)	10	92	99	70-130	7
Naphthalene	ug/L (ppb)	10	94	97	70-130	3
1,2,3-Trichlorobenzene	ug/L (ppb)	10	95	98	70-130	3

Date of Report: 09/01/22
Date Received: 08/23/22
Project: 3840 SE Belmont, F&BI 208330

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR SEMIVOLATILES BY EPA METHOD 8270E

Laboratory Code: 208312-01 1/2 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Naphthalene	ug/L (ppb)	5	<0.4	73	73	46-95	0
2-Methylnaphthalene	ug/L (ppb)	5	<0.4	76	76	50-150	0
1-Methylnaphthalene	ug/L (ppb)	5	<0.4	77	77	50-150	0
Acenaphthylene	ug/L (ppb)	5	<0.04	88	88	50-150	0
Acenaphthene	ug/L (ppb)	5	<0.04	87	87	50-150	0
Fluorene	ug/L (ppb)	5	<0.04	90	90	50-150	0
Phenanthrene	ug/L (ppb)	5	<0.04	92	92	50-150	0
Anthracene	ug/L (ppb)	5	<0.04	93	93	50-150	0
Fluoranthene	ug/L (ppb)	5	<0.04	102	102	50-150	0
Pyrene	ug/L (ppb)	5	<0.04	96	96	50-150	0
Benz(a)anthracene	ug/L (ppb)	5	<0.04	102	102	50-150	0
Chrysene	ug/L (ppb)	5	<0.04	100	100	50-150	0
Benzo(a)pyrene	ug/L (ppb)	5	<0.04	101	101	50-150	0
Benzo(b)fluoranthene	ug/L (ppb)	5	<0.04	105	105	50-150	0
Benzo(k)fluoranthene	ug/L (ppb)	5	<0.04	103	103	50-150	0
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	<0.04	97	97	50-150	0
Dibenz(a,h)anthracene	ug/L (ppb)	5	<0.04	100	100	50-150	0
Benzo(g,h,i)perylene	ug/L (ppb)	5	<0.08	98	98	50-150	0

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Naphthalene	ug/L (ppb)	5	73	50-104
2-Methylnaphthalene	ug/L (ppb)	5	76	54-109
1-Methylnaphthalene	ug/L (ppb)	5	77	55-108
Acenaphthylene	ug/L (ppb)	5	88	60-114
Acenaphthene	ug/L (ppb)	5	87	57-110
Fluorene	ug/L (ppb)	5	90	61-115
Phenanthrene	ug/L (ppb)	5	92	63-113
Anthracene	ug/L (ppb)	5	93	65-117
Fluoranthene	ug/L (ppb)	5	102	68-121
Pyrene	ug/L (ppb)	5	96	66-125
Benz(a)anthracene	ug/L (ppb)	5	102	70-130
Chrysene	ug/L (ppb)	5	100	67-119
Benzo(a)pyrene	ug/L (ppb)	5	101	68-126
Benzo(b)fluoranthene	ug/L (ppb)	5	105	62-130
Benzo(k)fluoranthene	ug/L (ppb)	5	103	67-125
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	5	97	63-131
Dibenz(a,h)anthracene	ug/L (ppb)	5	100	62-133
Benzo(g,h,i)perylene	ug/L (ppb)	5	98	57-133

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

208330

SAMPLE CHAIN OF CUSTODY

ME 8/23/22

Page # 1 of 1 AIG

Report To Jeff Jackman

Company Point Source Solutions

Address 5317 NE St Johns Rd

City, State, ZIP Vancouver, WA 98661

Phone _____ Email _____

SAMPLERS (signature) -

PROJECT NAME: 3840 SE Belmont

PO #:

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME: E03 VW3

☒ Standard turnaround

☐ RUSH _____

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Archive samples

☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead				Notes
						ANALYSES REQUESTED											
W-1	01A-F	8/22/22	13:00	W	6	X	X			X	X		X				
W-2	02		9:03														
W-3	03		9:50														
W-4	04		15:05														
W-5	05		12:00														
W-6	06		10:37														
W-7	07	↓	14:00	↓	↓	↓	↓			↓	↓		↓				
													Samples received at 1 °C				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Kyle Fisher	PSS	8/22/22	15:48
Received by:	Tess Chadel	SSES	8/22/22	15:54
Relinquished by:				
Received by:	Eric Flowers	FB	8/23/22	1800

Friedman & Bruya, Inc.
Ph. (206) 285-8282

APPENDIX B

OREGON DEQ CONDITONAL NFA DETERMINATION LETTER

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6945
TTY (503) 229-5471

June 24, 2004

SCOTT HOOTON
REMEDIATION MANAGEMENT
295 41ST STREET
BUILDING 13, SUITE N
RENTON, WA 98055

Re: Arco Station No. 4068
DEQ File No. 26-89-0067
Facility ID No. 3975

Dear Mr. Hooton:

The Department of Environmental Quality (DEQ) has completed its review of the information submitted to date regarding the underground storage tank cleanup project located at 3840 SE Belmont in Portland, Oregon. Based on information included in the file, the DEQ had determined the investigation into petroleum contamination from this site appears to have met the requirements of the Oregon Administrative Rules (OAR) 340-122-205 through 340-122-360. The determination is based on the commercial/industrial use scenario of the risk-based decision making (RBDM) process.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them, including:

1. The site is an active ARCO service station located at the corner of SE 39th and SE Belmont Street. The site is adjacent to residential dwellings on the west and commercial buildings to the north, east and south. The facility consists of four gasoline and one used oil USTs, two dispenser islands, an office, and two service bays. Asphalt and concrete cover the entire site. The site is zoned Neighborhood Commercial 2 (CN2).

2. In August 1989, five underground storage tanks (USTs) located at the west portion of the facility, were decommissioned by EMCON. The tank cavities were over-excavated to accommodate four new 10,000 gallon double-walled reinforced fiberglass tanks. Two additional 550 gallon USTs, one heating oil and one used oil, located south were also decommissioned. A new 550 gallon double-walled, reinforced-fiberglass used oil tank was installed. Dispenser product and vent lines were excavated and removed in the decommissioning. Stray pipelines and three additional 800 gallon unknown USTs were uncovered in the northeast corner of the site. According to ARCO, the USTs were taken out of service prior to 1973.

3. Two pockets of hydrocarbon-impacted soil above regulatory standards were left at the site. One pocket was in the northeast corner of the site where three abandoned tanks were discovered during the decommissioning of the dispenser islands and associated piping.

The other pocket was adjacent to the southwestern corner of the facility in the west UST complex. Hydrocarbon impacted soils were removed to the maximum extent practical without undermining the structural integrity of the roadways at SE 39th and SE Belmont Street. Hydrocarbon-impacted groundwater was also encountered under the west UST complex. A single groundwater monitoring well (MW-1) was installed in the northeast portion of the site.

4. In 1992, additional monitoring wells (MW-2 through MW-6) were installed. Quarterly groundwater monitoring was initiated, with analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX) only. The monitoring well MW-1 was excluded since it was not located hydraulically down-gradient from the UST basin. Quarterly site monitoring was performed and reported from February 1992 to August 1999 by the IT Group.

5. In March 1993, a groundwater extraction and treatment system was installed at the site. A submersible pump was placed at the depth of approximately 12 feet below ground surface in an observation well in the northeast corner, and a dispersion aeration tank for treatment. A total of approximately 220,000 gallons of treated groundwater was discharged to the city of Portland combined sewer system by a temporary discharge permit. The groundwater extraction and treatment system operated from March through April 1993, and again from February 1994 to August 1995.

6. In 1996, EMCON installed an oxygen-releasing compound (ORC) sock in two monitoring wells, MW-2 and MW-4, and in the observation well previously used for groundwater recovery. The ORC socks were removed from MW-2 and MW-4 in July 1997. An ORC sock was later installed in MW-4 in June 1998 and replaced in 1999. The ORC in the UST observation well has been maintained since initial installation in 1996.

7. A beneficial water use determination indicated there is no known beneficial use of the shallow groundwater within the locality of the facility.

8. Analysis of BTEX constituents was performed during the evaluation of soil contamination prior to tank removal in June 1989. The maximum concentration of a constituent of potential concern (COPC) identified in soil was benzene at 1.22 mg/kg. Based on a conceptual site model and risk assessment by URS in June 2003, benzene was retained as a contaminant of concern for the soil vapor intrusion into buildings for the residential and occupational scenarios for the pocket of contamination left in-place. Natural attenuation may have further reduced the benzene concentration.

9. In 1992, benzene concentrations in groundwater exceeded risk-based concentrations (RBCs) for the excavation worker exposure pathway in MW-4 and MW-6, and for the vapor intrusion into buildings for the residential scenario in MW-2, MW-4, and MW-6. However, since 1995, the RBC value for the excavation worker has not been exceeded in any monitoring wells. In November 1998, the observed benzene concentration in monitoring well MW-4, which historically has exhibited the highest benzene concentration, was 180 ppb.

10. In August and October 2003, in response to a letter from the DEQ, a final round of groundwater monitoring was conducted. Groundwater samples were analyzed for volatile organic compounds, methyl ter-butyl ether (MTBE), ethanol and lead. The highest benzene concentration detected was in the monitoring well MW-4, at a value of 63 ppb. Total lead was detected at concentrations ranging from 2.43 ppb in MW-5 to 943 ppb in MW-7.

11. The exposure pathways identified in the risk assessment include soil and groundwater ingestion, dermal contact, and inhalation by construction and excavation workers; outdoor and indoor volatilization from soil and groundwater and exposure of occupational and excavation workers. The concentrations of residual contaminants in groundwater underlying the site are below the relevant RBCs for any of the exposure pathways.

The no further action determination has been made subject to the following condition:

1. ***No use shall be made of the groundwater at the property, by extraction through wells or by other means that involves consumption or non-consumptive use of the groundwater. This prohibition shall not apply to extraction of groundwater associated with temporary dewatering activities related to the installation of sewers or utilities at the property. Should groundwater use be proposed, a risk assessment must be conducted and submitted to DEQ for review and approval prior to the extraction of any groundwater.***

2. ***At such time as land use changes are planned whether by remodeling, replacement or any other manner, soil samples must be collected and analyzed, and a current risk assessment made, to ensure the adequate protection of human health related to the new uses of the property. Results of soil sample collection and analysis, and the risk assessment, must be provided to DEQ for review and approval before the new use of the property occurs.***

This determination will not apply if new or undisclosed facts show that the cleanup does not comply with the referenced rules. The determination also does not apply to any conditions at the site other than the gasoline release specifically addressed during this site investigation.

Please note that pursuant to OAR 340-122-360(2), a copy of your report must be retained until ten (10) years after the first transfer of the property. We recommend that a copy of this information be kept with the permanent facility records.

On behalf of the DEQ, I thank you for your efforts and cooperation in completion of this cleanup project. Please feel free to contact me at (503) 229-5858 should you have any questions.

Respectfully,

Bijan N. Pour
UST Cleanup Specialist
Northwest Region Tanks Program

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