July 15, 2024

Joe Kasperski, LG Toxics Cleanup Program, Southwest Region Office Department of Ecology PO Box 47775 Olympia, WA 98504-7775

Subject: Bud Clary Subaru 961 Commerce Avenue Longview, WA

Dear Mr. Kasperski:

This Remedial Investigation - Additional Characterization 2024 report includes the results of recent site explorations of soil and groundwater conducted at the Bud Clary Subaru facility (Site). Specific areas investigated were defined in Ecology's opinion letter dated December 20, 2023.

We trust the information presented in this report meets your needs at this time. Should you require additional information or have any questions, please contact us at your convenience. Our ultimate goal for the Site continues to be obtaining a No Further Action determination from Ecology.

Sincerely, Blue Sage Environmental, Inc.

Alexander H. Koch Project Manager



Remedial Site Investigation/ 2024 Additional Characterization

Bud Clary Subaru 961 Commerce Avenue Longview, Washington 98632

Prepared for

Bud Clary Chevrolet 1030 Commerce Avenue Longview, WA 98632

Prepared by

Blue Sage Environmental, Inc. 198007 E 30th Ave Kennewick, Washington 99337

July 15, 2024

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ACRONYMS AND ABBREVIATIONS

AS	air sparge			
ARAR	applicable or relevant and appropriate requirement			
BSE	Blue Sage Environmental, Inc.			
CAA	Cleanup Action Alternatives			
САР	Cleanup Action Plan			
CCS	Cowlitz Clean Sweep, Inc.			
CUL	Cleanup Levels			
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act			
DCA	Disproportionate Cost Analysis			
Ecology	Washington State Department of Ecology			
EPA	U.S. Environmental Protection Agency			
EPI	Environmental Partners, Inc.			
F&B	Friedman and Bruya, Inc., Environmental Chemists			
FS	Feasibility Study			
GCI	Geotech Consultants, Inc.			
GRO	Gasoline Range Organics			
µg/L	micrograms per liter			
mg/kg	milligrams per kilogram			
MTCA	Washington State Model Toxics Control Act			
NFA	No Further Action			
OSHA	Occupational Safety and Health Act			
POC	Points of Compliance			
RCRA	Resource Conservation Recovery Act			
REC	Recognized Environmental Condition			
RI	Remedial Investigation			
ROW	Right-of-Way			
SEPA	State Environmental Policy Act			
SITE	Soil, soil-vapor, surface water and/or groundwater contaminated with petroleum hydrocarbons.			
SVE	Soil Vapor Extraction			
TEE	Terrestrial Ecological Evaluation			

- TPH Total Petroleum Hydrocarbons
- USGS U.S. Geological Survey
- UST Underground Storage Tank
- VCP Voluntary Cleanup Program
- VOC Volatile Organic Compound
- WISHA Washington Industrial Health and Safety Act
- WAC Washington Administrative Code

1.0 INTRODUCTION

This site investigation and interim cleanup report of Bud Clary Subaru in Longview, Washington, hereafter referred to as the Site, has been completed for the Bud Clary Auto Group (BCAG). The purpose of site investigations is to characterize the nature and extent of site contamination, and to design, evaluate, and monitor interim cleanup actions. This work is being carried out following the Washington Department of Ecology's (Ecology) Model Toxics Control Act (MTCA, *WAC 173-340*). More specifically, this Site is being managed as an independent cleanup pursuant to WAC 173-340-515.

1.1 General Site Information

Site Property Address:

Bud Clary SubaruI961 Commerce Avenue1Longview Washington 98632ICowlitz County Parcel # R0329640ERTS ID No.683551IVCP ID No.SW1706F/S No. 34656

Site Owner:

Bud Clary Auto Group 1030 Commerce Avenue Longview Washington 98632 (360) 560-1700 Kelly and Bryce Clary, Principals C/S No. 14902

Legal Description: SUB: AP 16 BLK:90 LOT:1,2,3, LOT:3A,4 DESC: WLY 50 FT LOT 3 SEC,TWN,RNG:33-8N-2W PARCEL: 09278

Latitude: 47.13138 Longitude: -122.93694

Site Consultant:

Blue Sage Environmental, Inc. (BSE) 198007 E 30th Avenue Kennewick, WA 99337 Alexander H Koch, Project Manager (509) 947-4059

1.2 Site Description and History

The Site is a 24,000 square foot commercial parcel in Longview, Washington (*Figure 1*). Currently Bud Clary Subaru is an active car dealership. A review of R. L. Polk & Company historical telephone directories first identifies the property as a used car business in 1964. In 1972, the property was a Datson dealership. Previous to the early sixties, the property had been an undeveloped lot. Jim Clary, Bud Clary Auto Group,

purchased the property in 1987. The purchase included a 10,000 square foot showroom and vehicle service building.

The Site is located in a commercial and retail area of Longview, with other auto dealerships, businesses, and the offices of the Cowlitz County Public Utilities Division located nearby. In early 2018, the building was demolished to make way for the construction of a new showroom. This site redevelopment initiated a cycle of site investigations, cleanup actions, and groundwater monitoring.

1.3 Site Use

Following construction of the new showroom and service building in 2019, the Site continues to be utilized as a car dealership.

1.4 Regional Geology

Geologic information for the Site was obtained from a Washington State Department of Natural Resources Geological Map of Washington State by J. Eric Schuster, 2005. According to the geological map, the City of Longview is located in an area predominately Quaternary Alluvium that was transported and deposited by the Columbia and Cowlitz Rivers. Alluvium consists of mostly unconsolidated silt, sand, and gravel valley fill with some clay. The alluvium ranges from loose to medium density and may contain interbedding of marsh, peat, artificial fill, and glacial deposits. This soil description is consistent with the lithology observed during the subsurface investigation.

The groundwater at the Site is typically encountered at relatively shallow depths. Based on previous groundwater sampling events, the depth to groundwater across the Site has ranged from 9.4 to 11.0 feet below ground surface. Groundwater direction is interpreted to be typically southwest or west-southwest in this area. Actual Site groundwater direction and gradient be calculated following the completion and elevation survey of groundwater monitoring wells on the Site.

Drinking water from the City of Longview has been typically supplied from the Cowlitz River treated by the Regional Water Treatment Plan (RWTP). Concerns about changing water quality in the Cowlitz River and aging components at the RWTP prompted the development of a new treatment plan, the Mint Farm Regional Water Treatment Plan (MFRWTP). The MFRWTP is located approximately 2.5 miles west of the Site. The Site is located outside the Mint Farm Wellhead Protection Area (WHPA).

2.0 PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Geotechnical Investigations (Geotech Consultants, Inc.)

As part of the geotechnical engineering studies for the new showroom and service center, Geotech Consultants, Inc. completed two exploratory borings across the site on April 12 and 13, 2018. Petroleum oil contaminated sludge was encountered in the borings. This discovery triggered the need for further site investigation.

2.2 Test Hole Sampling (Cowlitz Clean Sweep, Inc.)

On April 23, 2018, Cowlitz Clean Sweep, Inc. (CCS), a division of PNE Corporation of Longview, Washington, excavated test holes with a backhoe across the north end of the Site. An oily sludge and petroleum odor in the soil was observed in multiple locations within the subsurface. Material from the test holes was placed in a 55-gallon drum. A composite soil sample was obtained of the sludge material on April 24, 2018, and submitted to APEX Laboratories, LLC (APEX) in Kelso, WA. It was analyzed for diesel and oil hydrocarbons (NWTPH-Dx), gasoline range organics (NWTPH-Gx), volatile organic compounds (EPA 5035A/8260C), semi-volatile organic compounds (EPA 8270D), and RCRA 8 heavy metals (EPA 6020). Detected concentrations of lube oil hydrocarbons (5280 mg/kg), and gasoline (215 mg/kg) exceeded their respective Model Toxics Control Act (MTCA) Method A cleanup levels (CUL) in the sample. The semi-volatile organic compounds analysis included carcinogenic polycyclic aromatic hydrocarbons (cPAH). Analytical results were below CUL. Summary of soil sample analytical results can be found in *Table 1*.

2.3 Exploratory and Remedial Excavation (CCS)

During the week of July 16th, 2018, CCS began an exploratory excavation in the northwest corner of the property (*Figure 2*). CCS removed approximately 45 tons of petroleum contaminated soil, tires, oil filters, and oily debris down to approximately ten feet below ground surface (bgs). Groundwater was encountered at this depth. Excavation activity was halted when it became apparent petroleum contamination was not localized but extended over a larger area than originally estimated. Seven soil samples were obtained from the excavated area. These soil samples were sent to Libby Environmental, Inc. in Olympia and analyzed for diesel range organics (DRO) and polychlorinated biphenyls (PCB). Analytical results confirmed a wider spread of petroleum contamination than originally discovered by earlier soil sampling. PCBs were

not found in these samples. CCS soil sample analytical results are summarized in Table 1.

The 45 tons of contaminated soil and debris were transported to the Cowlitz County Landfill for disposal by CCS. The source of the contamination remains unknown. However, it was present under the northern end of the original building prior to Jim Clary purchasing the property .

2.4 Site Investigation July 2018

CCS contracted with Environmental Partners, Inc. (EPI) of Issaquah, Washington for consulting services to begin characterization of the Site. ESN-Northwest (ESN) of Olympia, Washington provided direct-push (i.e., Geoprobe) subsurface sampling. Libby Environmental, Inc. (Libby) of Olympia, Washington provided on-site laboratory services. From July 23 through July 31, 2018, EPI completed forty-three borings across the Site (Figure 2). The investigation confirmed elevated concentrations of DRO and GRO in soil and groundwater across the northern portion of the property. EPI soil sample analytical results are summarized in *Table 2*.

EPI groundwater collected groundwater grab samples from their 2018 borings. Analytical results from the groundwater samples are summarized in *Table 3*.

2.5 BSE Remedial Excavation

In August 2018, Blue Sage Environmental directed the remedial excavation of the area of contamination identified by EPI. Depth of the excavation was approximately 10 feet bgs in the western third and 11 feet bgs in the eastern two-thirds of the excavation. Groundwater was encountered below these depths. On August 17th, 4,000 gallons of petroleum contaminated water was pumped from the west end of the excavation. The contaminated water was transported to ORRCO, Inc. in Portland for treatment and discharge. In total, approximately 1,173 tons of petroleum contaminated soil was transported to the Wasco County Landfill from Aug 16 to Aug 22, 2018.

2.6 Excavation Area Soil Sampling

Following excavation activities on August 22, 2018, five soil samples were obtained from the exposed floor with the assistance of the tracked excavator. These samples were obtained from the center to the east end of the excavation at a depth of approximately 12 feet bgs. The four floor samples had elevated concentrations of lube oil above the MTCA Method A Cleanup Level for soils. The east sidewall sample,

obtained from a depth of 10 feet bgs, did not have GRO, BTEX, or DRO concentrations above their laboratory reporting limits. Structural fill material was imported and placed into the open excavation. The material was compacted in layers and brought back up to surface grade.

2.7 Injection of Remediation Agents

As evidenced by the BSE excavation soil samples, and the EPI boring soil samples, there remains soil contaminated with DRO below 11 feet bgs across the eastern twothirds of the excavated area. Furthermore, groundwater is present at the 10-foot depth of excavation, and localized groundwater is impacted by petroleum hydrocarbons. To address the residual soil and groundwater contamination, BSE coordinated with BB&A Environmental of Wilsonville, Oregon, to design an in-situ remediation scheme utilizing their proprietary BOS 200[®] injection solution. In-situ remediation is achieved by the BOS 200[®] solution by combining conditioned activated carbon to adsorb contamination and provide biological matrix, together with nutrients and biological culture to affect biological remediation of subsurface contamination. On August 27 through August 29, 2018, BB&A completed 58 injection points across the excavated area. A total of 6,100 lbs. of BOS 200; 3,950 lbs. of gypsum and 15 gallons of microbes were mixed in 4,350 gallons of water to make the injection solution. This solution was injected subsurface at 10, 12, and 14 feet bgs at each injection point.

On August 29, 2018, four borings were advanced around the east and south sides of the excavation using a direct push drill rig operated by BB&A Environmental (BB&A). Soil samples were obtained from the 10-foot and 15-foot level in each boring using a hollow bore sampler. Samples were analyzed for gasoline, BTEX, and diesel/heavy oil. No concentrations were detected above laboratory reporting levels.

Excavation grab soil samples and boring soil samples collected in 2018. BSE boring soil sample, excavation grab sample locations, and BB&A injection points are shown in *Figure 3*. A summary of BSE 2018 soil sample analytical results can be found in Table 4.

2.8 Groundwater Monitoring

On April 19, 2019, ESN Northwest installed five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) across the Site (*Figure 4*). Samples collected from these wells were analyzed for gasoline/BTEX, and diesel/lube oil to assess biological degradation within the BOS 200 matrix. These monitoring wells have also been analyzed at various times

for methyl tertiary-butyl ether (MTBE), ethylene dibromide (EDB), 1,2 dichloroethane (EDC), lead, and carcinogenic polycyclic aromatic hydrocarbons (cPAH). A summary of the groundwater analytical results can be found in *Tables 5a, 5b, and 5c*.

2.9 Exploratory Borings - 2021

Three borings were advanced on April 14, 2021, B-11, B-12, and SV-1 (soil vapor monitoring well) Soil samples were collected at various depths from borings B-11 and B-12. Elevated concentrations of gasoline and lube oil above their CULs were detected in soil samples from both borings. Boring B-12 was completed as SV-2 (soil vapor monitoring well). BSE 2019 and 2021 boring soil sample, locations are shown in Figure 4. A summary of soil sample analytical results can be found in Table 1. Cross sectional figures XS1, XS2, and XS3 illustrate the disposition of remaining soil contamination across the Site (*Appendix I*).

3.0 REQUEST FOR ECOLOGY OPINION 2023

In July 2023, BSE requested an opinion from Ecology on the Site. Ecology's opinion letter, dated December 20, 2023, responded with the following:

- 1. Additional soil and groundwater investigation is needed along Fir Street. Ecology requested additional soil and groundwater data be collected from areas north-northeast of the line between borings SB-9 and SB-37.
- cPAHs were detected in soil sample collected by Cowlitz Clean Sweep. Considering the detections of cPAHs lack spatial information, Ecology recommended collecting additional soil samples from areas of known, or probable contamination, for cPAH analysis.
- 3. Ecology recommended collecting at least one additional soil gas sample from each collection point when temperatures are low and barometric pressure is falling and low, optimal conditions for vapor intrusion to occur.
- 4. Identify Points of Compliance

BSE submitted a work plan to Ecology, dated January 9, 2024, for additional investigation at the Site.

3.1 Exploratory Borings – 2024

On April 29, 2024, three borings (B-13, B-14, and MW-6) were advanced along the northern edge of the property adjacent to Fir Street (*Figure 5*). Holocene Drilling provided the direct push rig utilized to complete the borings. Subsurface soil sampling in the borings was accomplished using a 60-inch long, 2.25-inch OD, macro-core sampler. Inside the sampler is a 1.75 OD, disposable, PVC single-use sample tube, or liner. The soil core retained in the sample liner was field screened by visually inspecting the soil for staining and other evidence of contaminants. A photoionization detector (PID) was used to screen the borings for volatile organic compounds (VOCs).

Boring logs can be found in *Appendix II*.

3.2 Boring Soil Samples

Visual inspections of the cores from each boring did not detect any staining or odor associated with petroleum hydrocarbon fuels. PID screening of each core did not detect any VOCs. Samples were collected on April 29, 2024, at the following depths:

B-13 – 8, 13 and 15 feet B-14 – 10, 13 and 15 feet

MW-6 – 10, 13 and 15 feet

The collected soil samples were analyzed for the following:

Diesel/Lube Oil	NWTPH-Dx
Gasoline	NWTPH-Gx
BTEX	EPA 8260
MTBE/EDB/EDC	EPA 8260
сРАН	EPA 8270
Lead	EPA 6020

3.3 Analytical Results – Boring Soil

Soil samples were delivered under chain of custody (COC) to the Friedman & Bruya laboratory in Seattle. Analytical results for diesel/lube oil, gasoline, VOCs, and cPAHs in soil samples B-13-13, B-13-15, B-14-13, B-14-15, MW-6-13 and MW-6-15 were less than the laboratory reporting limits. Analytical results for total lead were all below the CUL.

There was an omission on the COC. Samples B-13-8, B-14-10 and MW-6-10 were not marked for analysis. This was not noticed until late May when the data was being reviewed. This was past the 14-day holding time for gas/BTEX and diesel analysis. The samples for NWTPH-Dx analysis were stored in a refrigerator and maintained at <4 degrees Celsius. The samples for NWTPH-Gx were frozen to <-10 degrees Celsius. At BSE's request, the samples were analyzed for Gx and Dx on June 21, 2024. Analytical results for gas and diesel/lube oil in these three samples were less than the laboratory reporting limits.

BSE boring soil sample analytical results are summarized in Table 4.

3.4 Boring Groundwater Samples

Upon completion of the soil borings B-13 and B-14, well casing materials consisting of 1-inch PVC pipe with a five-foot section of screen at the bottom was placed in the open borehole. A 1/4 inch-diameter, disposable, flexible polyethylene tubing was lowered into the well casing for the collection of the groundwater sample. A peristaltic pump was used to purge and sample each well. Groundwater samples were analyzed for the following:

Diesel/Lube Oil	NWTPH-Dx
Gasoline	NWTPH-Gx

BTEX	EPA 8260
MTBE/EDB/EDC	EPA 8260
сРАН	EPA 8270
Lead	EPA 6020

3.5 Analytical Results - Boring Groundwater

Groundwater samples from borings B-13 and B-14 were delivered under COC to the Friedman & Bruya laboratory in Seattle. Analytical results for diesel/lube oil, gasoline, VOCs, and cPAHs in groundwater samples B-13, B-14, and MW-6 were less than the laboratory reporting limits. Analytical results for total and dissolved lead were all below the CUL. BSE boring groundwater analytical results are summarized in Tables 5a, 5b, and 5c.

Copies of the laboratory report for soil and groundwater sample analysis from the borings can be found in *Appendix III*.

3.6 Groundwater

Boring MW-6 was completed as a monitoring well (Figure 5). It was developed 24 hours after completion allowing surrounding soils to stabilize. The six Site monitoring wells were sampled on May 9, 2024. Samples were delivered under COC to the Friedman & Bruya laboratory in Seattle. Monitoring well groundwater samples were analyzed for the following:

Diesel/Lube Oil	NWTPH-Dx
Gasoline	NWTPH-Gx
BTEX	EPA 8260
cPAH	EPA 8270
Lead	EPA 6020

Groundwater flow direction on May 9., 2024, was generally from the east to west (*Figure WC-17*). Historical groundwater flow direction is charted in *Figure 6.*

3.7 Analytical Results - Groundwater

All six monitoring wells did not detect gasoline, BTEX, cPAH, and total and dissolved lead at their laboratory reporting limit. Monitoring well MW-2 and MW-6 detected concentrations of diesel and/or lube oil range organics. The laboratory identified these concentrations as polar metabolites. Monitoring well MW-5 detected a concentration of diesel range hydrocarbons. However, the chromatographic pattern does not resemble

the fuel standard. Groundwater analytical results are summarized in Table 5. The monitoring well groundwater laboratory report and chromatograms can be found in *Appendix IV*.

3.8 Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAH)

In April 2018, CCS had a sample of the oily sludge from their test holes analyzed for cPAH. Results from this analysis are following:

or Arranarytical results – units mg/kg						
Benzo(a)	Benzo(a)	Benzo(b)	Benzo(k)	Chrysene	Dibenz(a,h)	Indeno(1,2,3-
pyrene	anthracene	fluoranthene	fluoranthene		anthracene	cd)pyrene
<0.0796	<0.0409	<0.0612	<0.0612	0.0752	<0.0409	<0.0409

cPAH analytical results - units mg/kg

Only chrysene was detected above laboratory reporting limits, but below the CUL in this sample. The three BSE borings along Fir Street (B-13, B-14, and MW-6) had soil samples analyzed for cPAHs. Analytical results were not detected at their laboratory reporting limit. Results are summarized in Table 4.

Groundwater samples collected from the borings on April 29, 2024, and the monitoring well groundwater samples on May 8, 2024, were analyzed for cPAHs. Analytical results for cPAH in each sample were not detected at the reporting limit. Results are summarized in Table 5.

3.9 Soil Vapor Analysis

Two soil gas sampling wells (SV-2 and SV-2) were placed along the northeast corner and northern end of the building (Figure 4). Both wells were situated inside the excavated area where petroleum hydrocarbon contaminated soil remains below 11 feet bgs. Vapor samples were collected in 2021 in early spring (April 20th) and late spring (June 18th) to assess the potential of atmospheric pressure (barometric) impacting results. That spring, temperature and barometric pressure did not vary significantly. Ecology requested that another sampling be conducted when the barometric pressure lowered below the levels recorded in 2021. In January 2024, vapor samples were collected from the soil gas wells. Results are summarized in Table 6. The 2024 lab report for soil vapor can be found in *Appendix V*. The level of soil gas total petroleum hydrocarbons is below site-specific screening levels.

3.10 Interpretation of Results

Borings B-13 and B-14 were adjacent to Fir Street, outside the boundary of excavation in native soils. Boring MW-6 was on the northern edge of the excavated area, also in native soil. Soil samples B-13-13, B-13-15, B-14-13, B-14-15, MW-6-13, and MW-6-15 collected from the three borings did not detect any petroleum hydrocarbons, volatiles, or cPAH at the laboratory reporting limits (Table 4). Due to an error on the COC, soil samples B-13-8, B-14-10, and MW-6-10 were analyzed for NWTPH-Gx and NWTPH-Dx past their holding time of 14 days. Analytical results did not detect analytes at laboratory reporting limits.

Groundwater grab samples were collected from borings B-13 and B-14. No concentrations at the laboratory report limits were detected for diesel/lube oil, gasoline, BTEX/additives, or cPAH (Table 5). Groundwater samples were collected from the six monitoring wells on May 9, 2024. No concentrations of gasoline, BTEX/additives, or cPAH were detected at laboratory reporting limits. Diesel/lube oil range hydrocarbons were detected in monitoring wells MW-2, MW-5, and MW-6. Concentrations in MW-2 and MW-6 are identified as polar metabolites. These non-petroleum compounds derived as the result of the biodegrading breakdown of heavier oils. This is consistent with the process that was initiated by the introduction of BOS 200 into the excavation area. Silica gel cleanup would remove these non-hydrocarbon polar metabolites.

Multiple lines of evidence from soil samples B-13-8, B-14-10, and MW-6-10 were evaluated to form a conclusion on potential petroleum hydrocarbon fuel contamination in those samples. Field notes were reviewed for visual, olfactory observation, and PID measurements from the borings. Analytical results from the groundwater grab samples collected in borings B-13 and B-14 as well as sample results from the developed well MW-6 were evaluated. Potential for petroleum hydrocarbon contamination in the three samples that were analyzed past their holding times is consistent with the laboratory results, not detected at laboratory reporting limits.

4.0 POINTS OF COMPLIANCE

Contaminated soil with concentrations of gasoline and diesel/lube oil range organics above MTCA Method A CULs remains below 12 feet inside the eastern half of the excavation boundary (Figure 5). Soils outside the excavation boundary along the north, east, and western edges and across the western end have concentrations of gasoline, BTEX, and diesel/lube oil below MTCA Method A cleanup levels (Tables 2 and 4). The remaining areas with elevated levels of petroleum hydrocarbons in soil are contained either under the existing building, or under asphalt/concrete surfaces. This meets protection of human health and the environment (WAC 173-340-7490(4)(a) by limiting direct contact. Access by soil macro-invertebrates, bioturbation, burrowing animals, and plant roots are restricted. Future land use will continue to be an automobile dealership.

Groundwater has been monitored in five Site monitoring wells since June 2019. A sixth monitoring well (MW-6) was installed in April 2024. There have been no elevated concentrations of gasoline, BTEX/additives, diesel/lube oil, lead, and cPAH detected in any well.

Levels of soil gas for total petroleum hydrocarbons meet sub-slab screening levels.

4.1 Contaminants of Concern (COCs)

Based on a review of soil and groundwater sample concentrations, contaminants of concern for this site are gasoline, BTEX/additives, diesel/lube oil, c-PAHs, and lead. Initial characterization sampling of RCRA 8 metals, and PCBs were either not detected, or below their respective MTCA Method A cleanup levels in soil and groundwater.

4.2 Proposed Cleanup Standards

Soil and groundwater screening levels used for this project for the purpose of determining contamination that may pose a threat to human health and the environment will follow MTCA Method A Cleanup Levels as delineated below.

Hazardous Substance	Soil Cleanup Level	Groundwater Cleanup	
	(mg/kg)	Level	
		(μg/L)	
Gasoline	30	800	
Benzene	0.03	5	
Ethylbenzene	6	700	
Toluene	7	1,000	
Xylenes	9	1,000	

MTBE	0.1	20
Lead	250	15
EDB	0.005	0.01
EDC	Not listed	5
Diesel/Lube Oil	2,000	500
c-PAH	0.1	0.1
РСВ	1	0.1

These levels were developed in accordance with WAC 173-340-900, Table 830-1; required testing for petroleum releases. They are therefore considered to be adequately protective of human health and the environment for unrestricted land use.

4.3 Conceptual Site Model

The conceptual site model (CSM) for Bud Clary Subaru regarding exposure pathways is attached as *Figure 7*. After characterizing soil and groundwater at the Site, COCs of concern are diesel/lube oil, gasoline, and benzene. These compounds have been identified in both soil and/or groundwater. The depth of remaining soil contamination with diesel/lube oil and gasoline/benzene petroleum hydrocarbons is below 12 feet. These soils have an institutional control in place. They are covered by 11 feet of clean fill and capped with either asphalt or concrete. This effectively protects terrestrial receptors such as macro-invertebrates, burrowing animals, and plant roots. Additionally, the potential for human contact is protected by this depth. Groundwater monitoring has documented concentrations of diesel/lube oil, gasoline, BTEX and cPAH to be either not detected at laboratory reporting limits, or below MTCA CULs. Soil gas levels for total petroleum hydrocarbons are below sub-slab levels. Potential human and terrestrial receptors and exposure pathways are limited.

5.0 LIMITATIONS

This report has been prepared for the exclusive use of the Bud Clary Auto Group, Kelly and Bryce Clary, and their designated representatives for specific application to the Longview Site. Reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Blue Sage Environmental, Inc., shall be at the user's sole risk. Within the limitations of scope, schedule, and budget, this report was completed in a manner consistent with that level of care and skill exercised by members of the profession currently practicing in the same locality under similar conditions as this project. No warranty is either express or implied.

REFERENCES

Washington Department of Ecology, *Guidance for Remediation of Petroleum Contaminated Soils*, Publication No. 10-09-057, September 2011.

Washington Department of Ecology, Toxics Cleanup Program, *Model Toxics Control Act Cleanup Regulation, Chapter 173-340 WAC*, Publication No. 94-06, Revised 2013, Olympia, Washington.

Blue Sage Environmental, Inc., January 8, 2019, *Site Investigation/Interim Cleanup Action Report*, Kennewick, Washington, Consultants Report to Client/Ecology.

Blue Sage Environmental, Inc., February 8, 2021, *2020 Site Status Report*, Kennewick, Washington, Consultants Report to Client/Ecology

Blue Sage Environmental, Inc., July 14, 2023, *Groundwater Monitoring 2021-2023 and Additional Site Characterization Report*, Kennewick, Washington, Consultants Report to Client/Ecology.

FIELD EXPLORATION METHODS

Blue Sage Environmental, Inc. (BSE) completed subsurface soil and shallow groundwater sampling during the assessment and cleanup action conducted on the Site. Sampling activities were conducted in general accordance with Ecology's guidelines and regulations.

Health and Safety Plan

In accordance with WISHA standards, under the assumption that the project is being performed under the WISHA Hazardous Waste Operations Standard and state regulations, a site-specific Health and Safety Plan was developed for the field activities completed at the subject property. All field personnel reviewed the plan and implemented the procedures while conducting on-site field activities. The health and safety plan included specifications for and the appropriate level of protective clothing as dictated by Site conditions.

Underground Utility Clearance

Before conducting subsurface exploration and excavation remediation, BSE contacted the Washington Utilities Locate Center, a service that notifies public utilities of proposed subsurface investigations. Site public utilities were located and marked prior to the start of subsurface work. All below-grade utility locations were identified by marking their inferred location on the ground surface. This information was used to aid in identifying sampling locations.

Quality Assurance Quality Control

Quality Assurance/Quality Control (QA/QC) for the presented scope of work included generally accepted procedures for sample collection, storage, tracking, and documentation. All sampling equipment was washed with a detergent wash and water rinse before the collection of the samples. Samples were placed into laboratory supplied containers. All samples were labeled with a project identifier, sample number, date, time, sampler name, and analytical method. Samples were placed in zip-lock[™] bags and stored inside a cooler/shipping container packed with blue ice. Appropriate chain-of-custody documentation was completed. All samples were delivered to an Ecology-certified analytical laboratory under chain-of-custody (COC) within their required holding times after being collected.

Direct Push Soil Sampling

Subsurface soil sampling was accomplished utilizing direct push technology. Soil samples were recovered from each boring using a 60-inch long, 2.25-inch OD, macrocore sampler. Inside the sampler is a 1.75 OD, disposable, PVC single-use sample tube, or liner. A core catcher was attached to the sampler to keep loose soil from escaping the liner when the sampler was withdrawn from the ground. The liner was removed from the sampler and cut open to allow logging and sampling of the soil core. The core sampler, including the cutting tip and rods, was decontaminated, and a new liner placed in the core sampler between each use.

After the liner was cut, the soil type was evaluated by the BSE field representative and recorded into a soil boring log. Soils were observed and categorized for grain-size, color, presence of artifacts, moisture, odor, staining, sheen, and any other indications of contamination. The soil core retained in the sample liner was field screened by visually inspecting the soil for staining and other evidence of contaminants. Soil samples were collected where indications of contamination were observed or from where contamination would likely be present (i.e., at the groundwater interface). All soil samples were collected in accordance with U.S. Environmental Protection Agency (EPA) Method 5035A.

Collected samples were labeled with a sample number, date, time, and sampler's name and stored in an ice chest containing frozen blue ice. Chain-of-custody procedures were followed to document sample handling. Samples were transported to an Ecology approved laboratory within 48 hours. They were analyzed for gasoline-range petroleum hydrocarbons by Ecology Method NWTPH-Gx and BTEX by EPA Method 8260.

Upon completion of each soil boring the resulting hole was either backfilled with bentonite (hydrated with a small amount of water) and the ground surface restored to match original or a monitoring well was installed.

Groundwater Monitoring Well Construction

Soil borings were completed as groundwater monitoring wells in the following manner:

- The well casing materials consisted of 2-inch-diameter, flush-threaded, schedule 40 PVC pipe.
- The screened interval of the well casing was perforated with 0.020-inch factory-cut slots.
- The filter pack for the well consisted of clean, 10/20 Colorado Silica Sand.

- The annular seal of the well consisted of granulated Wyoming Bentonite.
- All PVC casing materials were cleaned at the factory before installation.
- The bottom of the well casing was sealed with a threaded sediment cup. Blank (non-slotted) riser casing was used to extend the well from the top of the screened interval to ground surface. The length of the screened interval is identified on the boring logs.
- Well construction was accomplished by lowering the casing, into the completed boring, through the inside of the hollow-stem augers. The augers were withdrawn from the boring about three feet, and the resulting annular space around the well screen was backfilled with sand (poured through the top of the hollow-stem augers). This process was repeated until the filter pack was installed to about two feet above the top of the screened interval. The augers were completely withdrawn from the boring, and the annular space around the blank riser was backfilled with granulated bentonite to the depth shown on the boring logs.
- The well casing was sealed at the ground surface with a watertight expansion cap or PVC slip cap.
- A tamper-resistant steel cover was set over the well, flush to the ground surface. The cover was grouted in place with concrete.
- A reference point was marked on the top of the PVC well casing for consistent groundwater depth measurements.
- The well identification was written on a waterproof tag and placed inside the well box.

Well Development

Individual monitoring wells were developed a minimum of 48 hours after completion. Each monitoring well was developed by continuous pumping until the pump discharge was free of visible turbidity. The main purpose of developing new monitoring wells is to re-establish the natural hydraulic flow conditions of the formations which may have been disturbed during well construction. Over pumping or removing water from the well at a rapid rate was the devolvement technique used. Well development continued until the initially turbid water turned nearly clear.

Water Level Measurements in Wells

Water level measurements were referenced to the top of the well casing. The static water level was measured in each monitoring well using a water level indicator (Slope

Indicator Company, model 51453). The water level probe was lowered into the well until the instrument detected water. The cable on the indicator is laser-marked in 0.01-foot graduations with labels at 0.1-foot and 1.0-foot intervals.

Temporary Well Sampling, Direct-Push Method

Upon completion of the soil boring, well casing materials consisted of 1-inch PVC pipe with a five-foot section of screen at the bottom, was placed in the open borehole. A 1/4 inch-diameter, disposable, flexible polyethylene tubing was lowered into the well casing for the collection of the groundwater sample. A peristaltic pump was used to purge and sample each well. Purging was performed to remove suspended sediments and to stabilize well-screen materials.

Upon completion of the groundwater sampling, all well material was extracted. The resulting hole was backfilled with bentonite (hydrated with a small amount of water) and the ground surface restored to match original surface. The extracted Strataprobe rod was washed between boring locations and new tubing was used between sampling locations.

Monitoring Well Sampling

Groundwater was sampled in each well using a peristaltic pump in accordance with the following protocol:

- The height of the water column within the well was calculated by subtracting the depth to water from the total depth of the well.
- Water samples were obtained from the well casing following EPA low stress and purging procedures.
- All purge water was collected for proper disposal (determined by analytical results).
- The contract laboratory prepared the sample containers to conform to EPArecommended preservation techniques for the analytes of concern.
- Groundwater samples were collected with a peristaltic pump. Sample containers were open only as long as necessary to collect the samples.
- Dedicated tubing was used at each sampling location.

Surface Soil Sampling

Because of various ground surface and soil conditions at sampling locations, one or more of the following techniques were used to collect soil samples. • A hole was hand excavated by shovel or post-hole excavator to the sampling depth. A clean spoon or trowel was then used to expose undisturbed soil. A second clean spoon or trowel was used to collect and place sidewall soils into their appropriate laboratory containers.

• In areas where the ground surface was very dense or covered with pavement, a boring was advanced to a depth of two feet with a hollow-stem drilling rig. The auger was removed, and a clean spoon or trowel was used to expose undisturbed soil along the sides of the hole. A second clean spoon or trowel was used to collect and place sidewall soils into a glass laboratory jar.

• EPA Method 5035A was used for collection of samples to be analyzed for volatile constituents (gasoline, BTEX, VOCs). Samples were collected from the soil core using an Easy Draw Syringe and Powerstop Handle. The soil plug was then extruded into a laboratory-supplied 40 ml VOA Vial containing methanol preservative.

Collected soil samples were screened for evidence of contamination, indicated by noticeable odor, visible staining, or discoloration on the soil sampler and in the soil sample. All soil samples were forwarded to the analytical laboratory using proper Chain-of-Custody procedures.

Test-pit Soil Sampling

Subsurface soil samples were collected from excavated test-pits at the depths specified in the attached test-pit logs. Because of various ground surface and soil conditions at sampling locations, one or more of the following techniques were used to collect soil samples.

A clean spoon or trowel was used to expose undisturbed soil along one side of the testpit. A second clean spoon or trowel was used to collect and place soils into a glass laboratory jar. The jar cover was closed.

When entering an excavation that is not shored, and was potentially dangerous, the excavator equipment was used to collect a bucket of soil from the sampling location and lift it out of the test-pit. Samples were collected from soils contained in the bucket.

EPA Method 5035A was used for collection of samples to be analyzed for volatile constituents (gasoline, BTEX, VOCs). Samples were collected from the soil core using an Easy Draw Syringe and Powerstop Handle. The soil plug was then extruded into a laboratory-supplied 40 ml VOA Vial containing methanol preservative.

Soil samples were reviewed for evidence of contamination, indicated by noticeable odor, visible staining, or discoloration on the soil sampler and in the soil sample. A

portion of each soil sample was placed into a plastic bag and the collected vapors were drawn through the PID for qualitative screening of VOCs. The vapor reading result was noted in the field log.

FIGURES

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



Mapping Reference: Delorme, City of Longview GIS mapping, Bing, and Google Maps



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BLUE SAGE ENVIRONMENTAL INC KENNEWICK, WA

Bud Clary Subaru

961 Commerce Avenue Longview, Washington

Figure 6




TABLES

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

Table 1 CCS-Longview Soil Analytical Data - 2018 Exploration Bud Clary Subaru 961 Commerce Avenue, Longview, WA

April 2018 Test Holes

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes
units:mg/kg	MTCA	Method A Cl	eanup Level	2000	2000	30/100	0.03	7	6	9
BC Composite	04/24/18	Drum	na	<594	5,280	215	<0.0498	<0.249	0.24	1.34

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
units:mg/kg	МТСА	Method A Cl	eanup Level	20	1600*	2	2000	250	2	400*	400*
BC Composite	04/24/18	Drum	na	<1.22	30	<0.243	6.16	10.3	<0.0972	<1.22	<0.243

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	benzo(a) pyrene	benzo(a) anthracene	benzo(b) fluoranthene	benzo(k) fluoranthene	chrysene	dibenz(a,h) anthracene	indeno(1,2,3- cd)pyrene
units:mg/kg	МТСА	Method A Cl	eanup Level			Total cPAH S	oil Cleanup Leve	el <0.1 mg/kg		
BC Composite	04/24/18	Drum	na	< 0.0796	<0.0409	<0.0612	<0.0612	0.0752	< 0.0409	< 0.0409

July 2019 Exploratory Excavation

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Diesel	Lube Oil	PCB**
units:mg/kg	МТСА	Method A Cl	eanup Level	2000	2000	
SPOT 1	07/19/18	Floor	10	<50	<250	<0.1
SPOT 2	07/19/18	Floor	10	<50	<250	<0.1
SPOT 3	07/19/18	Floor	10	<50	<250	<0.1
S2 NW	07/19/18	Sidewall	na	<50	13000 E	<0.1
S2 N MID	07/19/18	Sidewall	na	<50	15000 E	<0.1
S2 NE	07/19/18	Sidewall	na	<50	873	<0.1
S2-NW-A	07/19/18	Sidewall	na	<50	21000 E	<0.1

<u>Notes:</u> 5.9 Bold number(s) indicate contaminant detected

31 Bold and red number(s) indicate concentration above MTCA Method A cleanup level

Е Reported result is an estimate as it exceeded laboratory calibration range

400* Clarc Table, Method B Direct Contact

PCB** Combination of Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260

Table 2 - Environmental Partners, Inc. Summary of Soil Analytical Data – Direct Push Technology Samples Bud Clary Subaru 961 Commerce Avenue, Longview, Washington

Sample ID	Sample	Sample Petroleum Hyd Date GRO ^a DRO			rbons		ВТ	EX ^c		Total
Sample ID	(Feet)	Date	GROª	DRO ^b	ORO⁵	Benzene	Toluene	Ethylbenzen e	Xylenes	PCBs ^d
SB-1	10	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
50-1	12	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-2	8	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
00-2	13	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-3	10	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
00-0	13	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
	4	7/23/2018		<50	<250					
SB-4	8	7/23/2018	600 E	<50	590	<0.02	<0.10	<0.05	<0.15	
	12	7/23/2018	29	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-5	12	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-6	12	7/23/2018	61	<50	1,850	<0.02	<0.10	<0.05	<0.15	
	8	7/23/2018		<50	<250					
SB-7	10	7/23/2018	170	<50	3,660	<0.02	<0.10	<0.05	<0.15	
	12	7/23/2018		<50	<250					
	4	7/23/2018		<50	<250					
SB-8	8	7/23/2018	290 E	<50	16,000	<0.02	<0.10	<0.05	0.5	
	12	7/23/2018		<50	3,010					
SB-9	10	7/23/2018	60	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-10	10	7/23/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-11	10	7/23/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
	4	7/23/2018		<50	<250					
SB-12	6	7/23/2018	640 E	<50	12,400	<0.02	<0.10	<0.05	0.45	
	8	7/23/2018		<50	4,380					
SB-13	12	7/24/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
	8	7/24/2018		<50	16,600					
SB-14	12	7/24/2018	750 E	<50	22,700	<0.02	<0.10	0.41	1.75	
	16	7/24/2018		<50	380					
	8	7/24/2018		<50	34,800					
SB-15	10	7/24/2018	740 E	<50	20,000 E	<0.02	<0.10	0.083	0.47	
	14	7/24/2018		<50	560					
SB-16	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-17	12	7/24/2018	<10	<50	<250	<0.02	740,	<0.05	<0.15	
SB-18	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-19	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-20	12	7/24/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-21	12	7/24/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
SB-22	8	7/24/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-24	10	7/24/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
SB-25	16	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	

Table 2 - Environmental Partners, Inc. Summary of Soil Analytical Data – Direct Push Technology Samples **Bud Clary Subaru** 961 Commerce Avenue, Longview, Washington

Comula ID	Sample	Sample	Petro	leum Hydroca	rbons		ВТ	EXc		Total
Sample ID	Depth (Feet)	Date	GROª	DRO⁵	ORO⁵	Benzene	Toluene	Ethylbenzen e	Xylenes	PCBs ^d
SB-26	16	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-28	14	7/25/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-29	8	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-30	6	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-31	10	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-34	4	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-35	10	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-36	12	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-37	9	7/31/2018	17	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-38	8	7/31/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB 20	10	7/31/2018	77	<50	1,400	<0.02	<0.10	<0.05	<0.15	
30-39	15	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-40	9	7/31/2018	<10	<50	350	<0.02	<0.10	<0.05	<0.15	
SB-41	10	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-42	9	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-43	9	7/31/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
MTCA Method for Unrest	A Soil Clea	inup Level Uses ^e	30/100 ^f	2,(000	0.03	7	6	9	1

Notes:

All results presented in milligrams/kilogram (mg/kg). Elevated

Bold results indicate that the compound was detected above the laboratory method detection limit. Bold

Shaded cells indicate that the compound was detected at a concentration greater than the MTCA Method A cleanup level.

Analyzed by NWTPH-Gx. а

Analyzed by NWTPH-Dx/Dx Extended. b

Analyzed by EPA Method 8260C. С

- d Analyzed by EPA Method 8280
- Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1, Washington Administrative Code (WAC) 173-340-900. е

MTCA Method A Soil Cleanup Level is 30 mg/kg when benzene is present in the sample and 100 mg/kg when benzene is not detected. f

- Not analyzed --
- ND Not detected above the method detection limit.

Compounds

- GRO Gasoline-range organics
- DRO Diesel-range organics
- ORO Oil-range organics
- Benzene, toluene, ethylbenzene and total xylenes BTEX

Qualifier:

Reported result is an estimate because it exceeds the calibration range. Е

Table 3 - Environmental Partners, Inc. Summary of Groundwater Analytical Data – Direct Push Technology Samples Bud Clary Subaru 961 Commerce Avenue, Longview, Washington

Sample ID	Sample	Sample	Petro	leum Hydrocar	bons		ВТ	EXc	
Sample ID	(Feet)	Date	GROª	DRO⁵	ORO⁵	Benzene	Toluene	Ethylbenzene	Xylenes
SB-1GW	9.3	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-2GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-3GW	9.4	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-4GW	10.1	7/23/2018	2,200	<200	1,800	<1.0	<2.0	<1.0	<2.0
SB-5GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-6GW	7.5	7/23/2018	7,000 E	<200	40,000	<1.0	<2.0	<1.0	7.4
SB-7GW	9.5	7/23/2018	440	<200	5,200	<1.0	<2.0	<1.0	<2.0
SB-8GW	9.7	7/23/2018	17,000 E	<200	85,000	<1.0	<2.0	<1.0	8.3
SB-9GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-10GW	7.5	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-11GW	7.4	7/23/2018	290	<200	<400	<1.0	<2.0	<1.0	3.7
SB-12GW	7.4	7/23/2018	420	<200	<400	<1.0	<2.0	<1.0	5.4
SB-13GW	9.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-14GW	9.7	7/24/2018	7,600	<200	35,100	<1.0	<2.0	2.5	19.4
SB-15GW	9.6	7/24/2018	4,780	<200	5,600	<1.0	<2.0	<1.0	2.8
SB-16GW	7.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-17GW	7.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-18GW	7.6	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-19GW	7.7	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-20GW	9.4	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-21GW	9.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-24GW	9.6	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-25GW	9.5	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-26GW	9.6	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-28GW	9.6	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-29GW	9.6	7/25/2018	<100	<200	<400				
SB-30GW	9.6	7/25/2018	<100	<200	<400				
SB-31GW	8	7/25/2018		<200	<400				
SB-32GW	9.6	7/25/2018		<200	<400				
SB-33GW	9.6	7/25/2018		<200	<400				
SB-34GW	8	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-35GW	10.2	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-36GW	9.5	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-37GW	11.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-38GW	9.5	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-39GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-40GW	10.0	7/31/2018	970	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-41GW	9.5	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-42GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-43GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
MTCA Method A Groundwater Cleanup Level ^d		ter Cleanup	800/1,000 ^e	500	500	5	1,000	700	1,000

Notes:

All results presented in micrograms per liter (μ g/L).

Bold Bold results indicate that the compound was detected above the laboratory method detection limit.

Shaded cells indicate that the compound was detected at a concentration greater than the MTCA Method A cleanup level.

a Analyzed by NWTPH-Gx.

b Analyzed by NWTPH-Dx/Dx Extended

c Analyzed by EPA Method 8260C.

d Model Toxics Control Act (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1, Washington Administrative Code (WAC) 173-340-900.

e MTCA Method A Groundwater Cleanup Level is 800 μg/L when benzene is present in the sample and 1,000 μg/L when benzene is not detected. -- Not analyzed

Compounds:

e e i i p e a i a e i	
GRO	Gasoline-range organics
DRO	Diesel-range organics
ORO	Oil-range organics
BTEX	Benzene, toluene, ethylbenzene and total xylenes
Qualifier:	
Е	Reported result is an estimate because it exceeds the calibration range.

Table 4BSE Soil Analytical Data - Excavation and BoringsBud Clary Subaru961 Commerce Avenue, Longview, WA

Sample Location	Sample Date	Sample Number	Sample Depth (ft)	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Methyl tert- Butyl Ether (MTBE)	Ethylene Dibromide (EDB)	1,2-Dichloro ethane (EDC)	cPAHs	Lead
М	TCA Method A C	leanup Level	units: mg/kg	20	000	30/100	0.03	7	6	9	0.1	0.005	480†	0.1^	250
Excavation	08/22/18	EX CTR West	12	480	74,000	-	-	-	-	-					-
Excavation	08/22/18	EX NE Floor	12	<50	8,300	-	-	-	-	-					-
Excavation	08/22/18	EX SE Floor	12	60	66,000	-	-	-	-	-					-
Excavation	08/22/18	EX East Floor	12	540	81,000	-	-	-	-	-					-
Excavation	08/22/18	EX East Sidewall	10	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
B1	08/29/18	B1-10	10	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B1-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B2	08/29/18	B2-10 B2-15	10 15	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B2-15 (Dup)	15	-	-	<10	<0.02	0.53	0.12	0.61					-
B3	08/29/18	B3-10	10	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B3-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B4	08/29/18	B4-10	10	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					<5
	08/29/18	B4-15 B4-15 (Dup)	15 15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW/ 1/P6	00/23/10	B4-15 (Ddp)	15	<50	<100	-10	-0.02	<0.05	-0.05	-0.15					-
	04/29/19	B0-10	15	< 30	270.000	< TO	<0.02	< 0.05	<0.03	<0.15 E 9					-
IVIVV-2/D7	04/29/19 04/29/19	B7-13 B7-15	13	210	370,000	5,700 11	0.09	0.48	<0.05	5.8 <0.15					-
MW-3/B8	04/29/19	B8-11	11	4,200	210,000	5,900	<0.02	< 0.05	< 0.05	<0.15					-
	04/29/19	B8-15	15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW-4/B9	04/29/19	B9-11	11	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW-5/B10	04/29/19	B10-15	15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
B11	04/15/21	B-11-13	13	<50	6,000	48	<0.02	< 0.05	<0.05	<0.15					-
	04/15/21	B-11-17	17	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B12	04/15/21	B-12-13	13	<50	5,200	420	< 0.02	0.05	0.21	1.2					-
D10	04/15/21	B-12-17	17	<00	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B13	04/29/24 04/29/24	B-13-8 B-13-13	8 13	- <50	- <250	- <5	- <0.002	- <0.002	-<0.002	- <0.004	- <0.002	- <0.005	- <0.003	- <0.02	4.1
	04/29/24	B-13-15	15	<50	<250	<5	< 0.002	< 0.002	<0.002	< 0.004	< 0.002	<0.005	< 0.003	< 0.02	1.2
B14	04/29/24	B-14-10	10	-	-	-	-	-	-	-	-	-	-	-	-
	04/29/24	B-14-13	13	<50	<250	<5	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.005	< 0.003	< 0.02	1.7
MALO	04/29/24	D-14-15	10	<00	<200	<>	<0.002	<0.002	<0.002	<0.004	<0.002	<0.005	<0.003	<0.02	1.3
0- 1/1/1	04/29/24 04/29/24	WW-6-10 MW-6-13	10	- <50	- <250	- <5	- <0.002	- <0.002	- <0.002	- <0.004	- <0.002	- <0.005	- <0.003	- <0.02	1.8
	04/29/24	MW-6-15	15	<50	<250	<5	<0.002	<0.002	<0.002	<0.004	<0.002	< 0.005	<0.003	<0.02	1.1

Notes:

- Contaminant not analyzed

<0.20 Shaded number, concentration less than laboratory method detection limit.

5.9 Bold number(s) indicate contaminant detected below MTCA Method A Cleanup Level

31 Bold and red number(s) indicate concentration exceeds MTCA Method A cleanup level

† CLARC Method B Soil direct contact noncancer

Table 5aBSE Groundwater Analytical DataBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	МТВЕ	EDB	EDC	Lead	cPAH (1)	PCBs	Elevation TOC	Depth to Water	Water Table Elevation
							Laborato	ry Units Report	ed in µg/L		_	u 1	1			<i>(</i> 1)	
MTCA Metho	od A Cleanup	500	500	800	50	1000	700	1000	20	0.01	5	15	0.1	various	MSL	(ft)	(ft)
IVI VV-1	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<.1	< 1	<1	<0.1	-	16.95	8.94	8.01
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.65	7.30
	12/02/19	<200	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.30	7.59
	12/19/20	<100	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		9.19 7.07	8.08
	03/17/21	<50	<100	<100	<1	<1	<1	<3					_			7.97	9.02
	06/17/21	<100	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8 52	8.43
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	_	_	_	_	-		9.68	7.27
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.68	9.27
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.17	8.78
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.83	9.12
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.67	7.28
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.36	8.59
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.45	8.50
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.44	8.51
	09/21/23	<100	310	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		9.78	7.17
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02			7.79	9.16
MW-2	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.20	9.15	8.05
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.90	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.60	7.60
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.37	7.83
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.33	8.87
	03/17/21	<50	<100	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.01	9.19
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.68	8.52
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.89	7.31
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.88	9.32
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.35	8.85
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.00	9.20
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.90	7.30
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.57	8.63
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.64	8.56
	06/22/23	-	-	-	-	-	-	-	-	<0.01	-	-	-	-		8.00	8.54
	09/21/23	<100	200 560x	<100	<1	<1	<1	<0	-	-	-	<0.2	-0.02	-		10.00 9.01	7.20
	03/09/24	338	3007	<100	< 1	<1	< 1	< 3	-	-	-	<1.0	<0.02			8.01	9.19
MW-3	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.32	9.28	8.04
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		10.02	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.76	7.56
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.52	7.80
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.45	8.87
	05/17/21	<50	<100	<100	<1	<1	<1	<0	-	-	-	-	-	-		0.20 8.80	9.12
	00/17/21	< 100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		0.00	7.34
	12/08/21	<250	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8.00	9.32
	03/31/22	<250	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8 49	8.83
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	_	_	_	_	-		8 12	9.20
	09/28/22	-	-200	-	-	-	-	-	-	_	_	_	_	-		9.95	7.37
	12/12/22	-	_	-	-	_	-	-	-	-	-	-	-	-		8.68	8.64
	03/20/23	-	-	-	-	_	-	-	-	_	-	-	-	-		8.76	8.56
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.80	8.52
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		10.15	7.17
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	< 0.02			8.26	9.06
MW-4	06/27/10	<250	~250	~100	~1	~1	~1	~3	~1	~1	~1	~1	<i>~</i> ∩ 1	_	17 30	Q 2Q	<u>8</u> 01
	09/10/10	<250	<250	<100	~1	<1	~1	<3	-	-	-	-		<01	17.50	10.00	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	=	_	_	_	_	<0.1		9 73	7.57
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.56	7.74
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.38	8.92

Table 5a BSE Groundwater Analytical Data Bud Clary Subaru 961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	МТВЕ	EDB	EDC	Lead	cPAH (1)	PCBs	Elevation TOC	Depth to Water	Water Table Elevation
						1	Laborato	ry Units Reporte	ed in µg/L					-			
MTCA Metho	od A Cleanup	500	500	800	50	1000	700	1000	20	0.01	5	15	0.1	various	MSL	(ft)	(ft)
MW-4	03/17/21	<50	<100	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.35	8.95
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.87	8.43
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		10.02	7.28
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.05	9.25
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.55	8.75
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.19	9.11
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.98	7.32
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.72	8.58
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.80	8.50
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.80	8.50
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		10.14	7.16
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	< 0.02			8.23	9.07
MW-5	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.16	9.20	7.96
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	_	<0.1		9.88	7.28
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.63	7.53
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.42	7.74
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.29	8.87
	03/17/21	<50	<100	<100	<1	<1	<1	<3	_	_	_	-	-	_		8.19	8.97
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.78	8.38
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.93	7.23
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.95	9.21
	03/31/22	<250	<250	140	<1	<1	<1	<3	-	-	-	-	-	-		8.47	8.69
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.11	9.05
	09/28/22		-	-	-	-	-	-	-	-	-	-	-	-		9.90	7.26
	12/12/22	-	_	_	-	_	-	-	-	-	-	-	-	-		8.63	8.53
	03/20/23	-	_	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.68	8.48
	06/22/23	-	_	-	-	-	-	-	-	< 0.01	-	-	-	-		8.71	8.45
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	< 0.2	-	-		10.05	7.11
	05/09/24	300x	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02			8.07	9.09
B-13 (g)	04/29/24	<50	<250	<100	< 0.35	<1	<1	<3	<1	<0.01	<0.2	3.4 /<1 ^D	<0.02		-	8.80	-
B-14 (g)	04/29/24	<50	<250	<100	< 0.35	<1	<1	<3	<1	<0.01	<0.2	<1'/<1"	<0.02		-	8.00	-
MW-6	05/09/24	130x	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02		16.91	7.86	9.05

Notes:

Contaminant not analyzed

5.9 130x

Contaminant not analyzed Bold number(s) indicates contaminant detected Bold number with x indicates chromatogaphic pattern does not resemble fuel standard used for quantificaion Bold and red number(s) indicates concentration above MTCA Method A cleanup level Grab-groundwater sample from boring All seven cPAH compounds included in reported concentration Analysis for total metals Analysis for dissolved metals

31 (g) (1) T D

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-1	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	75	<0.10
	09/21/21	19.7	<0.10
	12/08/21	31.4	0.225
	03/31/22	45.1	0.37
	06/01/22	43.8	0.673
	09/28/22	28.3	0.108
	12/12/22	49.2	0.278
	03/20/23	63.4	1.12
	06/22/23	37.3	0.885
	09/21/23	14.9	0.109
	05/09/24	-	-
MW-2	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	460	0.31
	09/21/21	400	<0.10
	12/08/21	361	0.222
	03/31/22	198	<0.10
	06/01/22	141	0.116
	09/28/22	189	<0.025
	12/12/22	202	0.537
	03/20/23	264	0.188
	06/22/23	242	0.219
	09/21/23	42.4	<0.025
	05/09/24	-	-
MW-3	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	330	0.26
	09/21/21	790	<0.10

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-3	12/08/21	197	0.418
	03/31/22	122	<0.10
	06/01/22	52.9	0.228
	09/28/22	198	<0.025
	12/12/22	96.5	0.259
	03/20/23	98.8	0.259
	06/22/23	129	0.128
	09/21/23	387	0.217
	05/09/24	43.2	0.234
MW-4	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	10.5	0.41
	09/21/21	16.5	0.49
	12/08/21	6.66	0.693
	03/31/22	2.37	0.39
	06/01/22	2.64	0.465
	09/28/22	6.94	1.84
	12/12/22	1.39	0.344
	03/20/23	1.49	0.384
	06/22/23	2.57	0.836
	09/21/23	5.56	0.595
	05/09/24	-	-
MW-5	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	-	-
	09/21/21	/60	<0.10
	12/08/21	113	<0.10
	03/31/22	119	<0.10
	00/01/22	133	<0.000
	09/20/22	234	<0.025
	12/12/22	80.5	<0.25

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-5	03/20/23	95.8	0.026
	06/22/23	75.4	0.078
	09/21/23	139	0.584
	05/09/24	-	-

Notes:

-	Contaminant not analyzed
---	--------------------------

5.9 Bold number(s) indicate contaminant detected

760 Bold and red number(s) indicate concentration above 173-200 WAC Water Quality Standards

<0.10 Less than laboratory reporting limit

Table 5c Bud Clary Subaru Groundwater Parameters (1)

-

Blue Sage Environmental, Inc. Kennewick, WA (509) 947-4059

Well Number	Sample Date	Temperature (⁰C)	Conductivity (ms/cm ²)	Conductivity (µS/cm)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	рН	Oxidation Reduction Potential
	0/05/00	10.15	0.404	000		0.01	0.00	44.0
MIVV-1	9/25/20	16.15	0.404	336	8.4	0.81	6.09	41.3
	12/19/20	13.42	0.358	279	29.1	2.99	6.38	67.2
	3/17/21	13.12	0.336		45.5	4.78	6.43	12.3
	6/17/21	15 55	0.345	284	7.5	0.74	5.03	92.9
	0/01/21	17.44	0.0470	204	1.5	0.74	0.05	27.0
	9/21/21	17.41	0.473			0.29	6.25	-37.0
	12/8/21	13.24	0.364	282	9.2	0.95	6.45	-17.1
	3/31/22	13.60		314	11.3	1.20	6.37	100.7
	6/1/22	1/ 10	0.259	326	27.8	2.63	6.41	-15.2
	0/1/22	19.10	0.200	020	21.0	2.00	0.40	-15.2
	9/28/22	13.81	0.324	255	4.8	0.50	6.12	-15.2
	12/12/22	15.57	0.193	235.0	11.6	1.14		40.2
	3/20/23	13.39	0.326	254	16.7	1.74	6.43	-69.7
	6/22/23	14 18	0 240		2.5	0.25	6.39	90.7
	0/21/23	16.05	0.100		3.3	0.37	6.35	55 1
	9/21/23	10.05	0.199		3.3	0.37	0.33	55.1
	5/9/24	13.09	0.274		40.4	4.19	6.18	110.6
MW/ O	0/25/20	10.04	1.070	10.0	6.6	0.00	C 57	65 Q
11114-2	9/25/20	10.24	1.0/0	16.0	0.0	0.00	0.57	-05.2
	12/19/20	14.42	0.685	548.0	17.1	1.74	6.45	82.9
	3/17/21	13.00	1.071		11.9	1.25	6.34	13.0
	6/17/21	17.07	1.307	1,109	18.8	1.82	5.98	97.5
	9/21/21	19 70	1 810			0.38	6.63	-99.0
	12/0/21	10.70	1.010	900	0.4	0.00	0.00	00.0
	12/0/21	13.64	1.107	609	0.1	0.62	6.30	-0.9
	3/31/22	13.90		596	17.8	1.84	6.20	112.5
	6/1/22	14.77	0.394	491	19.8	1.95	6.18	15.9
	9/28/22	14.54	1.296	1.037	3.4	0.35	6.49	-54.2
	12/12/22	15 76	0.266	445	26.6	2.64	0.10	70.0
	12/12/22	13.70	0.300	445	20.0	2.04		12.5
	3/20/23	13.15	0.656	507	26.7	2.80	6.36	-67.2
	6/22/23	16.44	0.658		21.7	2.19	6.26	116.8
	9/21/23	17.26	1.487		3.5	0.33	6.79	-142.8
	5/9/24	15 14	0.562		94.7	9.51	6.23	106.6
MW-3	9/25/20	16.06	2.123	1,762	10.9	1.10	6.47	-28.3
	12/19/20	13.36	0.601	468	20.1	2.00	6.47	63.6
	3/17/21	11.63	0.879		90.6	9.84	6.21	65.1
	6/17/21	15 10	0.754	611	50.2	5.01	5.07	06.7
	0/17/21	13.10	0.754	011	50.2	5.01	5.57	30.7
	9/21/21	18.18	1.760			0.13	6.54	-82.0
	12/8/21	11.72	0.566	422	7.4	0.79	6.15	26.8
	3/31/22	12.40		372	49.2	5.25	6.10	137.7
	6/1/22	13 72	0 175	222	39.6	4 10	6.05	32.9
	0/20/22	12.20	0.976	690	2.2	0.25	6.00	26.7
	9/20/22	13.20	0.870	000	3.3	0.35	0.20	-20.7
	12/12/22	13.40	0.199	266	41.2	4.31		81.9
	3/20/23	11.70	0.319	238	49.3	5.35	6.18	-66.0
	6/22/23	14.51	0.400		22.9	2.33	6.20	126.0
	0/21/23	15.04	1 211		4.5	0.46	6 58	-105 /
	5/21/25	12.07	0.105		4.5 61 0	6.42	5.02	122.0
	5/9/24	13.47	0.195		01.0	0.43	5.95	132.0
MW-4	9/25/20	15.81	0.813	672	18.1	1.96	6.20	13.6
	12/19/20	12 40	0 147	111.0	53.1	5.69	671	30.9
	2/17/21	10.46	0.145		02.0	10.44	6.61	E0 7
	3/17/21	10.40	0.145		92.0	10.44	0.01	30.7
	6/17/21	14.64	0.085	68.0	48.4	4.92	6.32	70.4
	9/21/21	18.33	0.142			3.22	6.17	24.0
	12/8/21	9.74	0.088	62.0	47.1	5.33	6.51	28.6
	3/31/22	10.7		44 1	66.2	7 34	6 69	118.2
	6/1/22	12.00	0 038	51.0	57.0	6 1 2	6 57	11 0
	0/1/22	12.09	0.030	51.0	57.0	0.12	0.07	41.0
	9/28/22	13.35	0.103	80.0	2.9	0.30	o.21	-29.4
	12/12/22	10.56	0.031	42.0	77.4	8.62		119.1
	3/20/23	8.90	0.055	37.0	86.1	9.99	6.64	-71.3
	6/22/23	13.00	0.058		3.6	0.38	6.48	129.1
	0/21/20	10.00	0.000		0.0	0.00	0.00	00.4
	9/21/23	15.11	0.104		9.1	0.92	0.29	-00.1
	5/9/24	11.95	0.038		76.1	8.20	6.01	84.1
MW-5	9/25/20	16.28	0 739	616	3.2	0.32	6.49	-72.0
	12/10/20	10.20	0.005	400.0	16.0	1 70	6.40	07 5
	12/19/20	13.00	0.625	469.0	16.9	1.79	0.49	97.5
	3/17/21	12.98	1.636		32.4	3.39	6.59	-121.7
	6/17/21	15.46	1.505	1,230	5.2	0.52	6.20	31.0
	9/21/21	16.90	1.380			0.01	6.37	-96.0
	12/8/21	12.37	0.694	519	16	0.17	6.61	_115 3
	12/0/21	12.3/	0.004	510	1.0	0.17	0.01	-110.0
	3/31/22	13.00		001	1.8	0.18	0.62	-89.0
	6/1/22	13.85	0.549	697	4.2	0.43	6.57	-85.6
	9/28/22	13.35	0.734	571	2.4	0.25	6.50	-83.7
	12/12/22	14 55	0.361	451	73	0.74		-114 7
	2/20/22	12.04	0.501	400	F.4	0.77	6.0	454.0
	3/20/23	12.84	0.521	400	5.4	0.57	0.8	-154.2
	6/22/23	14.01	0.593		2.3	0.23	6.69	-116.0
	9/21/23	15.21	0.635		2.9	0.29	6.8	-133.8
	5/9/24	13.61	0.441		42.7	4.46	6.5	-111.7
		10.51						
MW-6	5/9/24	13.61	0.309		8.5	0.85	6.2	-8.7

Notes:

(1)

Parameters at time of sample collection.

Table 6aBSE Soil-Gas Analytical DataBud Clary Subaru961 Commerce Avenue, Longview, WA

Boring / Location Identifier	Sample Date	Sample Name	Sample Depth (ft)	Temperature (F)/Barometric Pressure (in)	APH [EC5-8 aliphatics] Fraction	APH [EC9-12 aliphatics] Fraction	APH [EC9-10 aromatics] Fraction	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Petroleum Hydrocarbons (TPH) (1)
Site-Specific Sub-Slab Screening Level						†	t	†	†	†	†	†	2,228 ⁽³⁾
MTCA Method B Sub-Slab Soil-Gas Screening Levels (2), Non cancer						†	t	46	460	76,000	15,000	1,500	1,500 ⁽²⁾
		MTCA Method B St	ub-Slab Soil-Gas Scree	ening Levels (2), Cancer	†	†	t	2.5	11	†	†	†	†
SV-1	4/20/2021	SV-1	5	61.5/30.18	460	190	<120	1.5	<1.5	<90	<2.1	<4.2	760
	6/18/2021	SV-1	5	69.9/30.09	<370	160	<120	<1.3	<1.6	<92	<2.1	10.8	464
	1/30/2024	SV-1	5	52/29.89	450	1,000	130	1.9	<1.6	<37	3.3	18	1,623
SV-2	4/20/2021	SV-2	5	61.5/30.18	550	200	<130	<1.4	<1.7	<100	<2.3	<4.7	870
	6/18/2021	SV-2	5	69.9/30.09	<400	220	<130	<1.4	<1.7	<100	3.5	5.9	546
	1/30/2024	SV-2	5	52/29.89	420	720	<130	1.5	<1.7	<39	2.4	12.9	1,242

Notes:

Analysis Methods: EPA TO-15 and MA-APH. See Laboratory reports for specifics.

(1) Sum of all analyzed petroleum compounds. For analytes with non-detects, half of the reporting limit was used for the Total TPH calculation.

(2) MTCA Method B Soil-Gas Screening Levels, for Sub-Slab samples collected beneath a building slab or samples shallower than 15 feet deep below ground surface. Screening levels taken from Ecology's February 2024 CLARC Tables.

(3) Site-Specific Screening Level calculated using the equation for Method B CUL for TPH from Washington Department of Ecology Guidance for Evaluating Vapor Intrusion in Washington State, March 2022
 -- Not Analyzed / Unknown

<0.02 Not Detected, concentration less than the laboratory method detection limit.

12 Bold Number(s) indicates contaminant detected.

33 Red Bold Number(s) and red text indicates cConcentrations exceeding Ecology's published Sub-Slab Soil Gas Screening Levels.

** Based on screening levels provided by PLIA

Table 6b

Site-Specific Indoor Air Method B Cleanup Level and Sub-Slab Screening Level Non-Carcinogenic Total Petroleum Hydrocarbons Bud Clary Subaru

961 Commerce Avenue, Longview, WA

	Concentration	Fi	Total	Fi/Non-C CUL	Site-Specific			
			Non-Cancer CUL		CUL			
	ug/m ³		ug/m ³		ug/m ³			
Aliphatic EC 5-8	450	0.27735	2720	0.000101967				
Aliphatic EC 9-12	1000	0.61633	46.4	0.013283035				
Aromatic EC 9-10	130	0.08012	182	0.000440238				
Napthalene	1.9	0.00117	1.38	0.000848574				
Benzene	0.8	0.00049	13.7	3.59902E-05				
Toluene	18.5	0.01140	2240	5.09025E-06				
Ethylbenzene	3.3	0.00203	458	4.44083E-06				
Xylenes	18	0.01109	46.4	0.000239095				
Total	1622.5	1.00000		0.01495843	67			
			Site specific CUL			67	ug/m ³	
			Site-Specific Sub-S	lab Screening Leve	9	2,228	ug/m^3	
Fi = fraction of to	tal concentration =	- measured con	centration/total sum	med concentraton o	of petroleum analy	tes		
Total Non-Cancer	Cleanup Level (CU	L) taken from V	Vashington Departme	ent of Ecology <i>Guida</i>	ince for Evaluatir	ng Vapor Intrusi	on in Wash	ington State,
March 2022			C 1	07	-	0		5
Site-Specific CUL =	= 1/Σ(F <i>i /</i> Non-C CU	L)						
Site-Specific Sub-S	Slab Screeing Level	= (site-specific	CUL/generic indoor a	air CUL)*generic sub-	slab screening lev	el		

APPENDIX I

Cross Sectional Figures

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



			Z	0	10 (FEET)	20
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	•—• SS —•—•—•	- 0 0 0 0 0 0 0	— 0 — 0 — 0 — 0 — 0	- G	AS	
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Section Lo	cations				Date: 06/17/24	Figure XS1



0	6									
3										
3 (FEET)										
Vertical Scale:	1"=6'									

<u>LEGEND</u>

x= <10 x= <mark>350</mark>	Gasoline (Gx) & Diesel (Dx) Range Total Petroleum Hydrocarbons per Northwest Method NWTPH-Gx & NWTPH-Dx; Units in parts per million (ppm) <10 or <250 = Not Detected
1W2	BSE May 2019 Soil Boring/ Monitoring Well Location and Identification Number
W1 🕤	Monitoring Well Location and Identification Number (By BSE 5/14/2019)
в1 🗙	BSE Aug. 2018 Soil Boring Location and Identification Number
NE 💽	BSE Aug. 2018 Test Pit Location and Identification Number (Grab Sample in Excavation)
в−33	Soil Boring Location and Identification Number (July 2018)

Figure

XS2







<u>LEGEND</u>

Gx= <10 Dx= 350	Gasoline (Gx) & Diesel (Dx) Range Total Petroleum Hydrocarbons per Northwest Method NWTPH-Gx & NWTPH-Dx; Units in parts per million (ppm) <10 or <250 = Not Detected
B7/MW2	BSE May 2019 Soil Boring/ Monitoring Well Location and Identification Number
MW1 🕤	Monitoring Well Location and Identification Number (By BSE 5/14/2019)
в1 🗙	BSE Aug. 2018 Soil Boring Location and Identification Number
NE 🔕	BSE Aug. 2018 Test Pit Location and Identification Number (Grab Sample in Excavation)
SB−33 (Soil Boring Location and Identification Number (July 2018)



Figure

XS3

APPENDIX II

2024 Boring Logs

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

1	bse-13	.vsd							_					-
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL DESCR	IPTIC	DN			Recovery %	nscs	PID (ppmv in headspace)	V O	VELL CONSTRUCTION	
0		0-1': FILL, gravel 2-5': Poorly graded sand, odor					rained, bro	wn, dry, no	100	GP SP	0.0		Temporary Boring, Backfilled with Bentonite	Ó
5			B-13-8	 5-10': .SILT (more.sanc	"Y.Sanc d at 8' to	– – – – – – ds, grey, wet, o. 10') Ground	no.odor. dwater @ 8	feet Z	100	SM	0.0			5
10				10-13': SIL	10-13': SILTY Sand, dark grey, wet, no odor		- - -	SM	0.0			10		
	B-13-13 13-15': Poorly B-13-15 wet, no odor				orly grad	ded Sand, m	ed-course,	dark grey,	100	SP				
								EOB at 15						
20									- 					20
25														25
									•					
30	Dept	h in fe		J					.L	L				30
	Drillin Drillin	g Metho g Compa	d: Direct Pus	sh thwest	Date: Weather	4/29/2024 r: Overcast, 1	rainy, mid 5	50s	Other In	formatio	n:			1
	Logge	d By:	Haley Carter	es	Page	of	<u> </u>							
	El	NVII KE	BLUE S RONME NNEWI	AGE NTAL I CK, WA	NC	Boring Bud C 961 Co Longv	g Log lary Su ommer view, W	ibaru ce Aven A	ue				B-13	

	bse-14.	.vsd														
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL DESCR	ΙΡΤΙΟ	N				Recovery %	SOSU	PID (ppmv in headspace)	y O	VELL	RUCTION	
0				0-1': FILL, c 2-5': Poorly odor	gravel gradec		grained, b	orown, dry	/, no		GP SM	0.0		Tempora Backfi Ben	ary Boring, lled with tonite	Ö
5		- •	B-14-10		Y sand, I at 8' to	, grey, wet, 0.10')Grou	no odor ndwater @		⊻	100	SM	0.0				5
10			B-14-13	10-13': SIL	10-13': SILTY Sand, dark grey, wet, no odor 13-15': Poorly graded sand, med-course, dark grey,						SM	0.0				10
15	B-14-15				or			EOB at	t 15'		SP					15
20				·												
2 <mark>5</mark>																25
30	Dept	h in fe													·	
	Drilling Drilling Boring Logge	Depth in feet Drilling Method: Direct Push Drilling Company: ESN Northwest Boring Diameter: Two inches Logged By: Haley Carter			Date: 4/29/2024 Weather: Overcast, rainy, mid 50s Page 1					Other Inf	formation	1:				
	El	NVII KE	BLUE S RONME NNEWI	AGE NTAL II CK, WA	NC	Borin Bud 961 C Long	ng Log Clary S Comme view, N	Subaru erce A NA	ı venı	le				E	3-14	

ſ	mw-6 b	oring lo	og.vsdx				_					
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL	RIPTIC	DN		Recovery %	nscs	PID (ppmv in headspace)	WELL CONSTRUCTION	
ľ												
				Surface: As	sphalt						Concrete Seal	
į				0-5': No red	covery			·				1
I											Сар	
ļ								0			Bentonite	
											2" PVC	
		੶≜₽		5 10': 911 7				·			Blank	-
ł				no odor	i Sailt	a, mealum course, grey, wel @6.	<i>,</i>			0.0		
								75	SM			
						Groundwater @ 8.8 feet						
		- ₽ ₽	_MW-6-10									_
1				10-13': SIL	TY Sar	nd, medium course, grey, wet, no			сM	0.0		1
-				odor				75	5111		2" PVC Screen	
-			MW-6-13	13-15': SA	ND, me	edium-coarse, gray, wet, , no odo	r					
			MW-6-15						SP			
5						EOB at 1	5'		_ ¥ _		2" PVC	1
											Plug	
-												
5		· _ 🛓						· – –				-
1												-
_												_
?												
-												
1												
Ĵ	Dept	h in fe	et									3
ł	Drillin	g Metho	d: Direct Pus	sh	Date:	4/29/2024	c	Other In	formatio	n:		
I	Drillin	g Comp	any: Holocene	Э	Weathe	r: Overcast, rainy, mid 50s		DOE W	'ell Tag N	umber: BPX	775	
ļ	Boring	Diame	ter: 2 inches		Page _	_1 of						
ļ	Logge	d By:	Haley Carter									
	El	NVI KE	BLUE S RONME NNEWI	AGE NTAL I CK, WA	NC	Boring Log Bud Clary Subaru 961 Commerce Av Longview, WA	enu	е			MW-6	

APPENDIX III

2024 Borings Lab Report Soil and Groundwater

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

May 8, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on May 1, 2024 from the Longview Subaru, F&BI 405012 project. There are 50 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 BSG0508R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2023 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 405012 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405012 -01	B-13-8
405012 -02	B-13-13
405012 -03	B-13-15
405012 -04	B-13-W
405012 -05	B-14-10
405012 -06	B-14-13
405012 -07	B-14-15
405012 -08	B-14-W
405012 -09	MW-6-10
405012 -10	MW-6-13
405012 -11	MW-6-15

Lead in the 6020B dissolved matrix spike and matrix spike duplicate did not meet the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/02/24

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	Gasoline Range	Surrogate (<u>% Recovery)</u> (Limit 50-150)
B-13-W 405012-04	<100	91
B-14-W 405012-08	<100	89
Method Blank 04-872 MB	<100	87

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/02/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)
B-13-13 405012-02	<5	93
B-13-15 405012-03	<5	95
B-14-13 405012-06	<5	96
B-14-15 405012-07	<5	99
MW-6-13 405012-10	<5	107
MW-6-15 405012-11	<5	92
Method Blank 04-873 MB	<5	93

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/02/24 Date Analyzed: 05/02/24

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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-W 405012-04	<50	<250	106
B-14-W 405012-08	<50	<250	127
Method Blank 04-1051 MB	<50	<250	108

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/01/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-13 405012-02	<50	<250	93
B-13-15 405012-03	<50	<250	90
B-14-13 405012-06	<50	<250	95
B-14-15 405012-07	<50	<250	88
MW-6-13 405012-10	<50	<250	94
MW-6-15 405012-11	<50	<250	97
Method Blank 04-1044 MB	<50	<250	90

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-W 05/01/24 05/03/24 05/03/24 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-04 050312.D GCMS11 IJL
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 101 104 96	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-W 05/01/24 05/03/24 05/03/24 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-08 050313.D GCMS11 IJL
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 101 101 90	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Blan Not Applicab 05/03/24 05/03/24 Water ug/L (ppb)	k le	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 04-0994 mb 050309.D GCMS11 MD
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 102 101 91	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-02 1/0.5 050611.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	97	84	120
Toluene-d8		95	73	128
4-Bromofluorobenz	ene	98	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	er (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppn	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-03 1/0.5 050612.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	110	84	120
Toluene-d8		104	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ether	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-06 1/0.5 050613.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	104	84	120
Toluene-d8		107	73	128
4-Bromofluorobenzene		101	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	er (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-07 1/0.5 050614.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-d4		103	84	120
Toluene-d8		104	73	128
4-Bromofluorobenzene		101	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ether (MTBE)		< 0.002		
1,2-Dichloroethane (EDC)		< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane (EDB)		< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002
ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppm	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-10 1/0.5 050615.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	107	84	120
Toluene-d8		106	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ether	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

o-Xylene

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppn	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-11 1/0.5 050616.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	101	84	120
Toluene-d8		104	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

o-Xylene

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Bla Not Applica 05/06/24 05/06/24 Soil mg/kg (ppn	nnk able n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 04-0997 mb 1/0.5 050609.D GCMS13 MD
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	·d4	107	84	120
Toluene-d8		106	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

o-Xylene

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-13-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-04
Date Analyzed:	05/02/24		Data File:	050216.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 91	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-14-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-08
Date Analyzed:	05/02/24		Data File:	050217.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 97	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Bla	nk	Client:	Blue Sage Environmental
Date Received:	Not Applica	ble	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	04-1050 mb
Date Analyzed:	05/02/24		Data File:	050209.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 92	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-13-13		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24		Lab ID:	405012-02 1/5
Date Analyzed:	05/03/24		Data File:	050321.D
Matrix:	Soil		Instrument:	GCMS9
Units:	mg/kg (ppm) Dry	v Weight	Operator:	VM
Surrogates: Terphenyl-d14	%]	Recovery: 76	Lower Limit: 50	Upper Limit: 124
Compounds:	Con- mg	centration /kg (ppm)		
Benz(a)anthracene		< 0.01		
Chrysene		< 0.01		
Benzo(a)pyrene		< 0.01		
Benzo(b)fluoranther	ne	< 0.01		
Benzo(k)fluoranther	ne	< 0.01		
Indeno(1,2,3-cd)pyre	ene	< 0.01		
Dibenz(a,h)anthrace	ene	< 0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-03 1/5 050322.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 95	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-13 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-06 1/5 050323.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 96	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)	L	
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-07 1/5 050324.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 95	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentratio mg/kg (ppm)	n)	
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-13 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-10 1/5 050325.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 87	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-11 1/5 050326.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 96	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	Not Applicable	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	04-1046 mb 1/5
Date Analyzed:	05/03/24	Data File:	050310.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM
Surrogates: Terphenyl-d14	% Recovery: 107	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-04 x2
Date Analyzed:	05/03/24	Data File:	405012-04 x2.146
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	3.4		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-08
Date Analyzed:	05/02/24	Data File:	405012-08.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentrat	tion	
Analyte:	ug/L (ppl	b)	
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	I4-353 mb2
Date Analyzed:	05/02/24	Data File:	I4-353 mb2.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B-13-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-04
Date Analyzed:	05/02/24	Data File:	405012-04.193
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B-14-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-08
Date Analyzed:	05/02/24		Data File:	405012-08.194
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		
Lead		<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	I4-358 mb
Date Analyzed:	05/02/24	Data File:	I4-358 mb.145
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-02
Date Analyzed:	05/01/24	Data File:	405012-02.141
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-03
Date Analyzed:	05/01/24	Data File:	405012-03.142
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-06
Date Analyzed:	05/01/24	Data File:	405012-06.153
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	1.7		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID: $D \neq F'$	405012-07
Date Analyzed:	05/01/24	Data File:	405012-07.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-10
Date Analyzed:	05/01/24	Data File:	405012-10.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-11
Date Analyzed:	05/01/24	Data File:	405012-11.166
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	1.1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	I4-354 mb
Date Analyzed:	05/01/24	Data File:	I4-354 mb.121
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 4	04435-02 (Dupl	icate)			
	Reporting	Samp	le Duj	olicate	RPD
Analyte	Units	Resul	lt R	esult	(Limit 20)
Gasoline	ug/L (ppb)	<100) <	:100	nm
Laboratory Code: L	aboratory Cont	rol Sampl	e Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Gasoline	ug/L (ppb)	1,000	95	70-130	-

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 40	04485-01 (Duplic	eate)			
		Samp	ole Du	plicate	
	Reporting	Resu	lt F	Result	RPD
Analyte	Units	(Wet V	Wt) (W	Vet Wt)	(Limit 20)
Gasoline	mg/kg (ppm)	<5		<5	nm
Laboratory Code: L	aboratory Contro	ol Sample	e		
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Gasoline	mg/kg (ppm)	40	100	70-130	_

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: Laboratory Control Sample

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	88	65 - 151	10

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code:	405012-02 (Matrix	x Spike)	(Wot wt)	Porcont	Porcont		
Analyte	Reporting Units	Spike Level	Sample Result	Recovery MS	Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	98	108	64-136	10
Laboratory Code:	Laboratory Contro	ol Sampl	e Percent				
	Reporting	Spike	Recovery	y Accepta	ance		
Analyte	Units	Level	LCS	Criter	ria		
Diesel Extended	mg/kg (ppm)	5,000	102	78-12	21		

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ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405066-01 (Matrix Spike)

-				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	102	50 - 150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	< 0.2	103	50 - 150
Benzene	ug/L (ppb)	10	< 0.35	96	50 - 150
Toluene	ug/L (ppb)	10	<1	94	50 - 150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	< 0.01	99	50 - 150
Ethylbenzene	ug/L (ppb)	10	<1	97	50 - 150
m,p-Xylene	ug/L (ppb)	20	<2	97	50 - 150
o-Xylene	ug/L (ppb)	10	<1	97	50 - 150

Laboratory Code: Laboratory Control Sample

	-	~	Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	102	103	70-130	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	103	103	70-130	0
Benzene	ug/L (ppb)	10	96	97	70-130	1
Toluene	ug/L (ppb)	10	97	97	70-130	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	102	102	70-130	0
Ethylbenzene	ug/L (ppb)	10	101	101	70-130	0
m,p-Xylene	ug/L (ppb)	20	101	101	70-130	0
o-Xylene	ug/L (ppb)	10	99	99	70-130	0

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405051-01 (Matrix Spike)

pince)						
		Sample	Percent	Percent		
Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Units	Level	(Wet wt)	\mathbf{MS}	MSD	Criteria	(Limit 20)
mg/kg (ppm)	2	< 0.05	90	89	21 - 145	1
mg/kg (ppm)	2	< 0.05	89	89	12 - 160	0
mg/kg (ppm)	2	< 0.03	90	89	29 - 129	1
mg/kg (ppm)	2	< 0.05	89	87	35 - 130	2
mg/kg (ppm)	2	< 0.05	91	92	28 - 142	1
mg/kg (ppm)	2	< 0.05	92	92	32 - 137	0
mg/kg (ppm)	4	< 0.1	95	93	34 - 136	2
mg/kg (ppm)	2	< 0.05	95	96	33 - 134	1
	Reporting Units mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm)	Reporting UnitsSpike Levelmg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)4mg/kg (ppm)2	Reporting Units Spike Level Sample Result mg/kg (ppm) 2 <0.05	Reporting Units Spike Level Sample Result Percent Recovery mg/kg (ppm) 2 <0.05	Reporting Units Spike Level Sample Result Percent Recovery Percent Recovery mg/kg (ppm) 2 <0.05	Reporting Units Sample Spike Percent Result Percent Recovery Percent Recovery Acceptance Criteria mg/kg (ppm) 2 <0.05

Laboratory Code: Laboratory Control Sample

	I I I I I I I		Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	85	60-123
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	87	56 - 135
Benzene	mg/kg (ppm)	2	89	65 - 136
Toluene	mg/kg (ppm)	2	86	66 - 126
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	95	66 - 129
Ethylbenzene	mg/kg (ppm)	2	91	64-123
m,p-Xylene	mg/kg (ppm)	4	91	68 - 128
o-Xylene	mg/kg (ppm)	2	91	67 - 129

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: Laboratory Control Sample

Laboratory Code. Laboratory Co	Sintoi Sampi	le	Percent	Percent		
Analyte	Reporting Units	Spike Level	Recovery LCS	Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	ug/L (ppb)	10	99	100	66-131	1
Chrysene	ug/L (ppb)	10	96	96	66-129	0
Benzo(a)pyrene	ug/L (ppb)	10	102	104	66-129	2
Benzo(b)fluoranthene	ug/L (ppb)	10	105	107	55 - 144	2
Benzo(k)fluoranthene	ug/L (ppb)	10	103	102	58-139	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	91	94	62-136	3
Dibenz(a,h)anthracene	ug/L (ppb)	10	86	90	55 - 146	5

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405011-02 1/5 (Matrix Spike)

Laboratory Code:	405011-02 1/5 (Mat	rix Spik	e)				
Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.83	< 0.01	83	101	50-150	20
Chrysene	mg/kg (ppm)	0.83	< 0.01	81	84	50 - 150	4
Benzo(a)pyrene	mg/kg (ppm)	0.83	< 0.01	86	90	50 - 150	5
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	< 0.01	88	91	50 - 150	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	< 0.01	88	92	50 - 150	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	< 0.01	77	82	40-140	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	< 0.01	76	81	41-136	6

Laboratory Code: Laboratory Control Sample 1/5

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benz(a)anthracene Chrysene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Indeno(1,2,3-cd)pyrene	mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm)	0.83 0.83 0.83 0.83 0.83 0.83 0.83	$95 \\ 94 \\ 101 \\ 98 \\ 104 \\ 110$	$\begin{array}{c} 70\text{-}130\\ 70\text{-}130\\ 68\text{-}120\\ 67\text{-}128\\ 70\text{-}130\\ 67\text{-}129\end{array}$
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	110	67-128

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code	: 405004-01	(Matrix Sp	ike)				
	Reporting	Spike	Sample	Percent Recovery	Percent Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	95	97	75-125	2

Laboratory Code: Laboratory Control Sample

		Percent			
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Lead	ug/L (ppb)	10	97	80-120	

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405010-01 x10 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<10	67 vo	66 vo	75 - 125	2

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	97	80-120
ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405023-01 x5 (Matrix Spike)

			Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)
Lead	mg/kg (ppm)	50	<5	98	98	75 - 125	0

Laboratory Code: Laboratory Control Sample

Laboratory O	de. Laboratory Com	and Sample	Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	mg/kg (ppm)	$\overline{50}$	99	80-120

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

	1 16. (200) 200-0202	Friedman & Bruya, Inc.		MW-6-13	MW-6-10	B-14-W	B-14-15	B-14-13	13-14-10	8-13-60	B-13-15	8-13-13	B-13-8	Sample ID		PhoneEm	City, State, ZIP	Address	Company RUE SAG	405012 Report To AlEX With
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Friedman & Bruya, Inc. Reli Ph. (206) 285-8282 Rec Rec			MW-6-15	Sample ID		City, State, ZIP PhoneEmail	405012 Report To ATEX Much Company BLUE SAGTE Address
inquished by.			11 A.E	Lab ID		4 hoch 196	
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			X	BTEX EPA 8021 NWTPH-HCID VOCs EPA 8260	ANA	Longu En (Clary)	DY
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DATE T $G/\psi/c/ q$ $\sigma s/\sigma l/24 Q'$				Notes		MPLE DISPOSAL samples Dispose after 30	$\frac{W \mathcal{L}}{F \mathcal{L}} = \frac{F \mathcal{L}}{of}$
11ME 35 7:35						days	Ky Pr 82

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SAMPLE CONDITION UPON RECEIPT C	HECKLIS	ST	
PROJECT # 405012 CLIENT BST	INITIA DATE:	LS/ AP OS/C	1/24
If custody seals are present on cooler, are they intact?	Ø NA	□ YES	N(
Cooler/Sample temperature		(Ø_∘c
Were samples received on ice/cold nacks?	The	rmometer ID: Fl	<u>uke 9631291'</u>
How did samples arrive? How did samples arrive? Directed up by F&BI FedEx/UPS/GSO		Ø YES	□ NC
Number of days samples have been sitting prior to receipt at	t laborate	ory 2	days
Is there a Chain-of-Custody* (COC)? *or other representative documents, letters, and/or shipping memos		Ø YES	o NO
Are the samples clearly identified? (explain "no" answer below)		Ø YES	🗆 NO
Is the following information provided on the COC*? (explain "m	o" answer b	/	
Sample ID'sYesNo# of ContainersYesDate SampledYesNoRelinquishedYesTime SampledYesNoRequested analysisYes	B □ No B □ No B □ No		
Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)		& YES	o NO
Were appropriate sample containers used?	□ NC) 🗆 Un	known
If custody seals are present on samples, are they intact?	NA	□ YES	□ NO
Are samples requiring no headspace, headspace free?	D NA	ø YES	D NO
Air Samples: Were any additional canisters/tubes received? If Yes: Number of unused TO15 canisters Number of unuse	. I NA ed TO17 t	□ YES	□ NO
Explain "no" items from above (use the back i	f needed)		

FRIEDMAN & BRUYA, INC./FORMS/CHECKIN/5500 SAMPLECONDITION.doc

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

June 25, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the additional results from the testing of material submitted on May 1, 2024 from the Longview Subaru, F&BI 405012 project. There are 6 pages included in this report.

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 BSG0625R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2023 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 405012 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405012 -01	B-13-8
405012 -02	B-13-13
405012 -03	B-13-15
405012 -04	B-13-W
405012 -05	B-14-10
405012 -06	B-14-13
405012 -07	B-14-15
405012 -08	B-14-W
405012 -09	MW-6-10
405012 -10	MW-6-13
405012 -11	MW-6-15

The samples were received in good condition at 0 degrees Celsius. The samples for NWTPH-Dx were placed in a refrigerator and maintained at <4 degrees Celsius and samples for NWTPH-Gx were frozen to <-10 degrees Celsius prior to extraction. The NWTPH-Gx and NWTPH-Dx tests were requested outside of the holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 06/24/24 Date Analyzed: 06/24/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)
B-13-8 ht 405012-01	<5	91
B-14-10 ht 405012-05	<5	92
MW-6-10 ht 405012-09	<5	99
Method Blank 04-1363 MB	<5	98

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 06/21/24 Date Analyzed: 06/21/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-8 ht 405012-01	<50	<250	95
B-14-10 ht 405012-05	<50	<250	92
MW-6-10 ht 405012-09	<50	<250	99
Method Blank 04-1438 MB	<50	<250	95

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 4	05012-01 (Duplic	eate)			
		Samp	ole Du	plicate	
	Reporting	Resu	lt F	Result	RPD
Analyte	Units	(Wet V	Wt) (W	Vet Wt)	(Limit 20)
Gasoline	mg/kg (ppm)	<5		<5	nm
Laboratory Code: L	aboratory Contro	ol Sample	e		
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Gasoline	mg/kg (ppm)	40	95	70-130	

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code:	406279-02 (Matri	x Spike)		_	_		
	Reporting	Snike	(Wet wt) Sample	Percent Recovery	Percent Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	104	64-136	0
Laboratory Code:	Laboratory Contr	ol Sampl	e				
	Bonorting	Sniko	Percent	7 Accort	nco		
Analyte	Units	Level	LCS	Crite	ria		
Diesel Extended	mg/kg (ppm)	5,000	94	78-12	21		

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ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

Rec	F11. (200) 200-0202 Rec	Friedman & Bruya, Inc. Rel		MW-6-13	MW-6-10	B-14-6J	B-14-15	B-14-15	13-14-10	8-13-6	B-13-15	8-13-13	B-13-8	Sample ID		PhoneEmail_	City, State, ZIP	Address	Company RUE SAGE	405012 Report To AlEx High
reived by:	eived by:	inquished by	dr.	10 1	DA A-E	7- 4 80	T to	06	65AJE	CH A-F	03 1	20	OI A-E	Lab ID		Alboch 1967				
		Mul	NATIRE	Ç									4/29/24	Date Sampled		2 Og mail com			8	
	W			1240	1235	<u>11</u> 30	1115	1110	1105	1040	1025	020	105	Time Sampled		Project spe	REMARK	Longvie	PROJECT	SAMPLE (
	AN	HALEY	p	\bigcirc	S	3	E	-	S	3	6		S	Sample #0 Type Ja		eific RLs? -	20	W Subarc	NAME	SHAIN OI
	HPHAN	CARTER	RINT NAMI	XX	A A	X	X	X	A A	X	X	X	A A	NWTPH-Dx NWTPH-Gx		Yes / No				CUSTO
									\					BTEX EPA-6021 NWTPH-HCID VOCs EPA 8260	ANAL	() ()	INVOI		PC	0 V DY
Samp	F\$	Biue S	COM	X					7				,	PAHS EPA 8270 PCBS EPA 8082 CPAHS	YSES REQU	her	ICE TO) #	5/01/24
les receive	В	AGE	IPANY	XX		X								M7BE, ED BEDC	ESTED	Default:	2 Archive	Rush cha	□ RUSH_	L VW2
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Friedman & Bruya, Inc. Reli Ph. (206) 285-8282 Rec Rec			MW-6-15	Sample ID		City, State, ZIP PhoneEmail	405012 Report To ATEX Much Company BLUE SAGTE Address
inquished by.			11 A.E	Lab ID		4 hoch 196	
MATURE			 4/29/24	Date Sampled		72 Elemandic	
			1245	Time Sampled		REMARK	SAMPLE SAMPLE PROJECT
HAC			 S	Sample # Type J.		S ecific RLs? -	CHAIN O RS (signatur RS (signatur RS (signatur Subar)
VHPHA			 X	NWTPH-Dx NWTPH-Gx	1	Yes / No	F CUSTO
			X	BTEX EPA 8021 NWTPH-HCID VOCs EPA 8260	ANA	Longu En (Clary)	DY
Samp			×	РАНѕ ЕРА 8270 РСВѕ ЕРА 8082 СРАН5	LYSES REQU	Subaru	0570 00#
IPANY Α 67 ξ β los receive			X	MTBÉ, ÉD B , EX. Lesd	ESTED	SAN Archive Other_ Default:	Page Page TUR TUR Rush char
DATE T $G/\psi/c/ q$ $\sigma s/\sigma l/24 Q'$				Notes		MPLE DISPOSAL samples Dispose after 30	$\frac{W \mathcal{L}}{F \mathcal{L}} = \frac{F \mathcal{L}}{of}$
11ME 35 7:35						days	Ky Pr 82

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SAMPLE CONDITION UPON RECEIPT C	HECKLIS	ST	
PROJECT # 405012 CLIENT BST	INITIA DATE:	LS/ AP OS/C	1/24
If custody seals are present on cooler, are they intact?	Ø NA	□ YES	N(
Cooler/Sample temperature		(Ø_∘c
Were samples received on ice/cold nacks?	The	rmometer ID: Fl	<u>uke 9631291'</u>
How did samples arrive? How did samples arrive? Directed up by F&BI FedEx/UPS/GSO		Ø YES	□ NC
Number of days samples have been sitting prior to receipt at	t laborate	ory 2	days
Is there a Chain-of-Custody* (COC)? *or other representative documents, letters, and/or shipping memos		Ø YES	o NO
Are the samples clearly identified? (explain "no" answer below)		Ø YES	🗆 NO
Is the following information provided on the COC*? (explain "m	o" answer b	/	
Sample ID'sYesNo# of ContainersYesDate SampledYesNoRelinquishedYesTime SampledYesNoRequested analysisYes	B □ No B □ No B □ No		
Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)		& YES	o NO
Were appropriate sample containers used?	□ NC) 🗆 Un	known
If custody seals are present on samples, are they intact?	NA	□ YES	□ NO
Are samples requiring no headspace, headspace free?	D NA	ø YES	D NO
Air Samples: Were any additional canisters/tubes received? If Yes: Number of unused TO15 canisters Number of unuse		□ YES	o NO
Explain "no" items from above (use the back i	f needed)		

FRIEDMAN & BRUYA, INC./FORMS/CHECKIN/5500 SAMPLECONDITION.doc

File :P:\Proc_GC13\06-21-24\062124.D
Operator : IJL
Acquired : 21 Jun 2024 05:07 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-01
Misc Info :
Vial Number: 24



File :P:\Proc_GC13\06-21-24\062125.D
Operator : IJL
Acquired : 21 Jun 2024 05:18 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-05
Misc Info :
Vial Number: 25



File :P:\Proc_GC13\06-21-24\062126.D
Operator : IJL
Acquired : 21 Jun 2024 05:30 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-09
Misc Info :
Vial Number: 26



File :P:\Proc_GC13\06-21-24\062105.D
Operator : TL
Acquired : 21 Jun 2024 08:36 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 04-1438 mb
Misc Info :
Vial Number: 7



File :P:\Proc_GC13\06-21-24\062128.D Operator : IJL Acquired : 21 Jun 2024 05:53 pm using AcqMethod Dx.M Instrument : GC13 Sample Name: 500 Dx 71-152C Misc Info : Vial Number: 3

ERR



Time

File :U:\GC15\GC15_DATA\06-24-24\062409.D Operator : al Acquired : 24 Jun 2024 09:57 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 405012-01 Misc Info : Vial Number: 8

Response_

Signal: 062409.D\F1D1A.ch



Time

File :U:\GC15\GC15_DATA\06-24-24\062410.D Operator : al Acquired : 24 Jun 2024 10:16 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 405012-05 Misc Info : Vial Number: 9

Response_

Signal: 062410.D\FID1A.ch

ID: B-14-10



File :U:\GC15\GC15_DATA\06-24-24\062411.D
Operator : al
Acquired : 24 Jun 2024 10:34 am using AcqMethod Gx.M
Instrument : GC15
Sample Name: 405012-09
Misc Info :
Vial Number: 10



Time

File :U:\GC15\GC15_DATA\06-24-24\062407.D Operator : al Acquired : 24 Jun 2024 09:20 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 04-1363 mb Misc Info : Vial Number: 6

Response_

Signal: 062407.D\FID1A.ch Method Blank NWTPH-Gx

7.00

8.00

9.00

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1.00

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4.00

5.00

6.00

600000

200000

Time

10.00 11.00 12.00 13.00 14.00 15.00



File :U:\GC15\GC15_DATA\06-24-24\062403.D Operator : al Acquired : 24 Jun 2024 08:05 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 1000 Gx 72-179C #1 Misc Info : Vial Number: 2



APPENDIX IV

2024 Groundwater Monitoring Laboratory Report

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

May 20, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on May 10, 2024 from the Subaru Longview, F&BI 405182 project. There are 30 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 BSG0520R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 10, 2024 by Friedman & Bruya, Inc. from the Blue Sage Environmental Subaru Longview, F&BI 405182 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405182 -01	MW-1
405182 -02	MW-2
405182 -03	MW-3
405182 -04	MW-4
405182 -05	MW-5
405182 -06	MW-6
405182 -07	Trip Blank

Sample MW-3 were sent to Fremont Analytical for nitrate and sulfate analyses. The report is enclosed.

The 6020B total lead calibration standard exceeded the acceptance criteria. The metal was not detected, therefore this did not represent an out of control condition, and the results are not considered estimates.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182 Date Extracted: 05/15/24 Date Analyzed: 05/16/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)
MW-1 405182-01	<1	<1	<1	<3	<100	94
MW-2 405182-02	<1	<1	<1	<3	<100	96
MW-3 405182-03	<1	<1	<1	<3	<100	90
MW-4 405182-04	<1	<1	<1	<3	<100	83
MW-5 405182-05	<1	<1	<1	<3	<100	94
MW-6 405182-06	<1	<1	<1	<3	<100	92
Method Blank 04-893 MB	<1	<1	<1	<3	<100	84

Results Reported as ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182 Date Extracted: 05/15/24 Date Analyzed: 05/15/24

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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 41-152)
MW-1 405182-01	<50	<250	85
MW-2 405182-02	99 x	560 x	85
MW-3 405182-03	<50	<250	81
MW-4 405182-04	<50	<250	87
MW-5 405182-05	300 x	<250	92
MW-6 405182-06	130 x	<250	88
Method Blank 04-1155 MB	<50	<250	93

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-1 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-01 051618.D GCMS9
Units:	ug/L (ppb)		Operator:	VIVI
Surrogates: Terphenyl-d14		% Recovery: 103	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-2 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-02 051619.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 102	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-3 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-03 051620.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 98	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-4 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-04 051621.D GCMS9
Units:	ug/L (ppb)		Operator:	V IVI
Surrogates: Terphenyl-d14		% Recovery: 95	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-5 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-05 051622.D GCMS9
Units:	ug/L (ppb)		Operator:	VIVI
Surrogates: Terphenyl-d14		% Recovery: 101	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-6 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-06 051623.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 97	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		
ENVIRONMENTAL CHEMISTS

Analysis For Semivolatile Compounds By EPA Method 8270E

Client Sample ID:	Method Bla	nk	Client:	Blue Sage Environmental
Date Received:	Not Applica	ble	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/16/24		Lab ID:	04-1152 mb
Date Analyzed:	05/16/24		Data File:	051612.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 101	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-01
Date Analyzed:	05/16/24	Data File:	405182-01.288
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-02
Date Analyzed:	05/16/24	Data File:	405182-02.279
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-3	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-03
Date Analyzed:	05/16/24	Data File:	405182-03.280
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-4		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24		Lab ID:	405182-04
Date Analyzed:	05/16/24		Data File:	405182-04.281
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

<1 k

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-5		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24		Lab ID:	405182-05
Date Analyzed:	05/16/24		Data File:	405182-05.282
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

<1 k

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-06
Date Analyzed:	05/16/24	Data File:	405182-06.283
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	I4-398 mb
Date Analyzed:	05/15/24	Data File:	I4-398 mb.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

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82

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-02
Date Analyzed:	05/13/24		Data File:	405182-02.099
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-3		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-03
Date Analyzed:	05/13/24		Data File:	405182-03.100
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-4		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-04
Date Analyzed:	05/13/24		Data File:	405182-04.101
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-05
Date Analyzed:	05/13/24		Data File:	405182-05.102
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-6		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-06
Date Analyzed:	05/13/24		Data File:	405182-06.108
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24	Lab ID:	I4-390 mb
Date Analyzed:	05/13/24	Data File:	I4-390 mb.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 405234-01 (Duplicate)									
	Reporting	Sample	Duplicate	RPD					
Analyte	Units	Result	Result	(Limit 20)					
Benzene	ug/L (ppb)	<1	<1	nm					
Toluene	ug/L (ppb)	<1	<1	nm					
Ethylbenzene	ug/L (ppb)	<1	<1	nm					
Xylenes	ug/L (ppb)	<3	<3	nm					
Gasoline	ug/L (ppb)	<100	<100	nm					

	Percent							
	Reporting	Spike	Recovery	Acceptance				
Analyte	Units	Level	LCS	Criteria				
Benzene	ug/L (ppb)	50	102	70-130				
Toluene	ug/L (ppb)	50	98	70-130				
Ethylbenzene	ug/L (ppb)	50	104	70-130				
Xylenes	ug/L (ppb)	150	87	70-130				
Gasoline	ug/L (ppb)	1,000	89	70-130				

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	100	72-139	4

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Laboratory Code. Laboratory Co	Reporting	Spike	Percent Recovery	Percent Recovery	Acceptance	RPD
Analyte	Ūnits –	Level	LCS	LCSD	Criteria	(Limit 20)
Benz(a)anthracene	ug/L (ppb)	10	88	93	70-130	6
Chrysene	ug/L (ppb)	10	90	95	70-130	5
Benzo(a)pyrene	ug/L (ppb)	10	94	100	70-130	6
Benzo(b)fluoranthene	ug/L (ppb)	10	93	97	70-130	4
Benzo(k)fluoranthene	ug/L (ppb)	10	90	99	70-130	10
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	90	95	70-130	5
Dibenz(a,h)anthracene	ug/L (ppb)	10	89	98	70-130	10

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Laboratory Code: 405241-09 x10 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<10	102	95	75 - 125	7

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	98	80-120

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Laboratory Code	: 405182-01 ((Matrix Sp	ike)				
				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	93	89	75 - 125	4

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	98	80-120

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

SAMPLE CHAIN OF CUSTODY MC 05 -10 - 2.4 SAMPLESS (signature) PROJECT NAME PROJECT N	Friedman & Bruya, Inc. Ph. (206) 285-8282		Trip Blank	MW-6	5- W.W	M(W)-4	MW -3	MW-2	$M(\omega) - 1$	Sample ID		PhoneEmai	City. State, ZIP	Address	Report To <u>HEX 11001</u>	HOSI82
SAMPLE CHAIN OF CUSTODY SAMPLERS (signature) PO # PROJECT NAME PO # REMARKS Date Sampled Time Sampled	telinquished by: teceived by: telinquished by: teceived by:		OT AS	06	25	OY A.6	03A.H	07 (01 A-6	Lab ID		1 ahoch 196				-
SAMPLE CHAIN OF CUSTODY SAMPLERS (signature) PROJECT NAME PROJECT NAME Supplet specific RLs? - Yes / No Time Sampled Time Samplet 12(5) 12(GNATURE		1					5/9/24	5/9/24	Date Sampled		12 algonally				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
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SA	MPLE CONDI	TION UPON RECE	IPT CHE	CKLIST		
PROJECT # 40518	2 CLIENT	BST		INITIALS DATE:	AP 05/10,	124
If custody seals are	present on co	oler, are they intact	?	Ģ∕NA	D YES	🗆 NO
Cooler/Sample temp	perature			Therm	ometer ID: Flui	°C
Were samples receiv	ved on ice/colc	l packs?			Ø YES	🗆 NO
How did samples ar	rive? he Counter	□ Picked up by F&B	I C] FedEx/	UPS/GSO	
Is there a Chain-of- *or other representative do	Custody* (CO(ocuments, letters, a	C) ? ind/or`shipping memos			LYES	o NO
Number of days san	nples have bee	n sitting prior to re	ceipt at la	aborato	ry/	_days
Are the samples clea	arly identified	? (explain "no" answer be	low)		-YES	□ NO
Were all sample con leaking etc.)? (explain	t ainers receiv "no" answer below	ed intact (i.e. not b)	roken,		U YES	□ NO
Were appropriate sa	ample contain	ers used?	□ÆS	□ NC) 🗆 U	nknown
If custody seals are	present on sa	mples, are they inta	ct?	o NA	□ YES	□ NO
Are samples requiri	ng no headspa	ace, headspace free	?	o na	I YES	🗆 NO
Is the following info (explain "no" answer below	ormation prov	ided on the COC, an	id does it	match t	he sampl	e label?
Sample ID's	🛛 Yes 🗆 No					
Date Sampled	🛛 Yes 🗆 No			0	Not on CO	C/label
Time Sampled	🛛 Yes 🗆 No	·			Not on CO	C/label
# of Containers	□ Yes ☑ No				Not on CO	C/label
Relinquished	⊻ Yes ⊔ No	T_1.1				
Requested analysis		1010				
Other comments (us	e a separate pa	ge if needed)				
Air Samples: Were a	any additional	canisters/tubes rec	eived?	Ø NA	D YES	D NO
Number of unused 7	ΓO15 canisters	s Number	of unused	d TO17 t	ubes	



3600 Fremont Ave N Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

Friedman & Bruya Michael Erdahl 5500 4th Ave S Seattle, WA 98108

RE: 405182, E-191 Work Order Number: 2405214

May 17, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 1 sample(s) on 5/10/2024 for the analyses presented in the following report.

Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910





www.fremontanalytical.com

Date: 05/17/2024



CLIENT: Project: Work Order:	Friedman & Bruya 405182 2405214	Work Order S	Sample Summary
Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2405214-001	MW-3	05/09/2024 12:15 PM	05/10/2024 12:45 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



WO#: **2405214** Date: **5/17/2024**

CLIENT:Friedman & BruyaProject:405182

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers & Acronyms



WO#: 2405214 Date Reported: 5/17/2024

Qualifiers:

- * Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

Acronyms:

%Rec - Percent Recovery **CCB** - Continued Calibration Blank **CCV** - Continued Calibration Verification **DF** - Dilution Factor **DUP - Sample Duplicate** HEM - Hexane Extractable Material ICV - Initial Calibration Verification LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate MCL - Maximum Contaminant Level MB or MBLANK - Method Blank MDL - Method Detection Limit MS/MSD - Matrix Spike / Matrix Spike Duplicate PDS - Post Digestion Spike Ref Val - Reference Value **REP - Sample Replicate RL** - Reporting Limit **RPD** - Relative Percent Difference SD - Serial Dilution SGT - Silica Gel Treatment SPK - Spike Surr - Surrogate



Analytical Report

 Work Order:
 2405214

 Date Reported:
 5/17/2024

Project: 405182

Lab ID: 2405214-001 Client Sample ID: MW-3	Collection Date: 5/9/2024 12:15:00 PM Matrix: Water						
Analyses	Result	RL Q	ual	Units	DF	Date Analyzed	
Ion Chromatography by EPA 300.0				Batcl	h ID: 43	868 Analyst: FG	
Nitrate (as N)	0.234	0.200		mg/L	1	5/11/2024 6:22:00 AM	
Sulfate	43.2	10.0	D	mg/L	10	5/15/2024 10:48:00 PM	



Work Order: CLIENT: Project:	2405214 Friedman & E 405182	Bruya						QC S	SUMMAI matograph	RY REF	PORT A 300.0
Sample ID: LCS-4	13868	SampType: LCS			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	620	
Client ID: LCSW	V	Batch ID: 43868	3				Analysis Date: 5/10/2	2024	SeqNo: 191	1131	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N) Sulfate		0.736 3.55	0.200 1.00	0.7500 3.750	0 0	98.1 94.7	90 110 90 110				
Sample ID: MB-43	3868	SampType: MBL	(Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	520	
Client ID: MBLK	Ś	Batch ID: 43868	3				Analysis Date: 5/10/2	2024	SeqNo: 191	1133	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		ND	0.200								
Sulfate		ND	1.00								
Sample ID: 24052	11-003BDUP	SampType: DUP			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	520	
Client ID: BATC	H	Batch ID: 43868	3				Analysis Date: 5/11/2	2024	SeqNo: 191	1142	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		ND	0.200					0		20	
Sulfate		6.94	1.00					6.912	0.447	20	
Sample ID: 24052	11-003BMS	SampType: MS			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	620	
Client ID: BATC	H	Batch ID: 43868	3				Analysis Date: 5/11/2	2024	SeqNo: 191	1143	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		0.745	0.200	0.7500	0	99.3	80 120)			
Sulfate		10.7	1.00	3.750	6.912	102	80 120				



Client Name:	FB	Work Order Num	ber: 2405214	
Logged by:	Morgan Wilson	Date Received:	5/10/2024	12:45:00 PM
Chain of Cust	tody			
1. Is Chain of C	Custody complete?	Yes 🖌	No 🗌	Not Present
2. How was the	e sample delivered?	<u>Courier</u>		
<u>Log In</u>				
3. Custody Sea (Refer to con	Is present on shipping container/cooler? nments for Custody Seals not intact)	Yes	No 🗌	Not Present 🗹
4. Was an atter	npt made to cool the samples?	Yes 🖌	No 🗌	
5. Were all item	ns received at a temperature of >2°C to 6°C *	Yes 🔽	No 🗌	
6. Sample(s) in	proper container(s)?	Yes 🖌	No 🗌	
7. Sufficient sar	mple volume for indicated test(s)?	Yes 🖌	No 🗌	
8. Are samples	properly preserved?	Yes 🖌	No 🗌	
9. Was preserv	ative added to bottles?	Yes	No 🖌	NA 🗌
10. Is there head	Ispace in the VOA vials?	Yes	No 🗌	NA 🗹
11. Did all sampl	es containers arrive in good condition(unbroken)?	Yes 🗹	No 🗌	
12. Does paperw	vork match bottle labels?	Yes 🗹	No 🗌	
13. Are matrices	correctly identified on Chain of Custody?	Yes 🖌	No 🗌	
14. Is it clear what	at analyses were requested?	Yes 🖌	No 🗌	
15. Were all hold be met?	times (except field parameters, pH e.g.) able to	Yes 🖌	No 🗌	
<u>Special Hand</u>	<u>lling (if applicable)</u>			
16. Was client	notified of all discrepancies with this order?	Yes	No 🗌	NA 🔽
Persor	n Notified: Date			
By Wh	nom: Via:	🗌 eMail 🗌 Pł	hone 🗌 Fax	In Person
Regar	ding:			
Client	Instructions:			
17. Additional re	emarks:			

Item Information

Item #	Temp ⁰C
Sample	0.6

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Seattle, WA 98119-20. Ph. (206) 285-8282 Fax (206) 283-5044	3012 16th Avenue Wes	Friedman & Bruya, In							MW-3	Sample ID		Phone #(206) 285-82	City, State, ZIP Seat	Address 5500	Company Frie	Send Report To Mic
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Page 8 of 8

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2405:214

APPENDIX V

2024 Soil Vapor Laboratory Report

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



April 28, 2021

Mr. Alex Koch Blue Sage Environmental 198007 East 30th Ave, Kennewick WA 99337

Dear Alex,

Please find enclosed analytical data report for PROJECT: **Subaru Longview** located in Longview, WA. Two soil vapor samples were analyzed for TO-15 BTEX and APH on April 21, 2021.

The results of the analyses are summarized and included on this report. Applicable detection limits and QA/QC data are included.

ESN Analytical appreciates the opportunity to have provided services for this project. If you have any further questions about the data report, please give us a call at 425-207-8345.

Thank you so much and it was a pleasure working with your company on this project. We are looking forward to the next opportunity to work together.

Sincerely,

Dely Grace Agoy

Senior Chemist 425-207-8345 delygrace.agoy@esnanalytical.com



ANALYTICAL DATA REPORT Project: Subaru Longview

Location: Longview, WA

Submitted to: BLUE SAGE ENVIRONMENTAL

Project Manager: Alex Koch

Sample Collector: Haley Carter

Sample Matrix: Soil Vapor



CONTENTS

1.	SAMPLE INFORMATION	.1
2.	TEST RESULTS	.2
3.	CHAIN OF CUSTODY	.3



SAMPLE INFORMATION

SAMPLE ID	ESN Analytical Project Number	SAMPLING DATE	SAMPLING TIME	Mat rix	Analysis
SV-1	S210420.R1	04/20/21	Initial Time 1015 Final Time 1035	SV	TO-15 BTEX, APH
SV-2	S210420.R1	04/20/21	Initial Time 1040 Final Time 1050	SV	TO-15 BTEX, APH


TEST RESULTS

Sampling date: April 20, 2021

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 21, 2021 by Friedman & Bruya, Inc. from the ESN NW Bud Clary Subaru, F&BI 104370 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	ESN NW
104370 -01	SV-1
104370 -02	SV-2

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.



ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-1	Clien	t:	ESN NW
Date Received:	04/21/21	Proje	ct:	Bud Clary Subaru, F&BI 104370
Date Collected:	04/20/21	Lab I	D:	104370-01 1/4.8
Date Analyzed:	04/21/21	Data	File:	042121.D
Matrix:	Air	Instru	ament:	GCMS7
Units:	ug/m3	Opera	ator:	bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 94	Lower Limit: 70	Upper Limit: 130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 alipha	tics 460			
APH EC9-12 alipha	atics 190			
APH EC9-10 arom	atics <120			

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Clien Projec Lab I Data Instru Opera	t: ct: D: File: ument: ator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 93	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 aliph	tics 550 atics 200			

APH EC9-10 aromatics <130



ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 04/21/21 Air ug/m3	Cli Pre La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 01-823 MB 042116.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	Recovery zene 9	% Lower y: Limit: 2 70	Upper Limit: 130	
Compounds:	Concentratio ug/m	n 3		
APH EC5-8 alipha APH EC9-12 aliph APH EC9-10 arom	tics <7 atics <2 atics <2	5 5 5		



ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-1 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pro La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-01 1/4.8 042121.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	Recover ene g	% Lower y: Limit: 5 70	Upper Limit: 130	
	Conc	entration		
Compounds:	ug/m	3 ppbv		
Benzene	<1	5 <0.48		
Toluene	<5	0 <24		
Ethylbenzene	<2	1 <0.48		
m,p-Xylene	<4	2 <0.96		
o-Xylene	<2	1 <0.48		
Naphthalene	1	5 0.28		
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pre La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pr La Da Ins Op % Lower	ient: oject: b ID: ta File: strument: erator: Upper	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pr La Da Ins Op % Lower 7: Limit:	ient: oject: b ID: ta File: strument: erator: Upper Limit:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenzed	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene 5	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m3	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover, ene \$ Conc ug/m	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1.	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 7</td <td>ent: oject: b ID: ta File: strument: erator: Upper Limit: 130</td> <td>ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat</td>	ent: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene	SV-2 04/21/21 04/20/21 Air ug/m3 Recover ene S Conc ug/m <1 <10 <2	Cli Pr- La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54	ent: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene m p. Yulene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1 <10 <2	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54	eent: oject: b ID: tta File: strument: eerator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenzed Compounds: Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1. <10 <2. <4.	Cli Pr- La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54 7 <1.1 3 <0.54	eent: oject: b ID: ta File: strument: eerator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene Nanbthalene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1. <10 <2 <4. <2 <1.	Cli Pr La Da M (197 Cli Cli Cli Cli Cli Cli Cli Cli Cli Cli	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat



ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Clien	t:	ESN NW
Date Received:	Not Applicable	Proje	et:	Bud Clary Subaru, F&BI 104370
Date Collected:	Not Applicable	Lab I	D:	01-823 MB
Date Analyzed:	04/21/21	Data	File:	042116.D
Matrix:	Air	Instr	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenze	ene 93	70	130	
	Concent	tration		
Compounds:	ug/m3	ppbv		
Benzene	< 0.32	< 0.1		
Toluene	<19	<5		
Ethylbenzene	< 0.43	< 0.1		
m,p-Xylene	< 0.87	< 0.2		
o-Xylene	< 0.43	< 0.1		
Naphthalene	< 0.26	< 0.05		



ENVIRONMENTAL CHEMISTS

Date of Report: 04/27/21 Date Received: 04/21/21 Project: Bud Clary Subaru, F&BI 104370

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 104370-01 1/4.8 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	460	500	8
APH EC9-12 aliphatics	ug/m3	190	200	5
APH EC9-10 aromatics	ug/m3	<120	<120	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
APH EC5-8 aliphatics	ug/m3	67	99	70-130
APH EC9-12 aliphatics	ug/m3	67	122	70-130
APH EC9-10 aromatics	ug/m3	67	104	70-130



ENVIRONMENTAL CHEMISTS

Date of Report: 04/27/21 Date Received: 04/21/21 Project: Bud Clary Subaru, F&BI 104370

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

Laboratory Code: 104370-01 1/4.8 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.5	<1.5	nm
Toluene	ug/m3	<90	<90	nm
Ethylbenzene	ug/m3	<2.1	<2.1	nm
m,p-Xylene	ug/m3	<4.2	<4.2	nm
o-Xylene	ug/m3	<2.1	<2.1	nm
Naphthalene	ug/m3	1.5	1.5	0

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	96	70-130
Toluene	ug/m3	51	102	70-130
Ethylbenzene	ug/m3	59	93	70-130
m,p-Xylene	ug/m3	120	97	70-130
o-Xylene	ug/m3	59	101	70-130
Naphthalene	ug/m3	71	101	70-130



ENVIRONMENTAL CHEMISTS

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.

 ${\rm d}$ - 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.

 ${\bf J}$ - 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.



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3155 NE Sunset Blvd, Suite A Renton, WA 98056 Phone: 425.207.8345 Email: <u>lab@esnanalytical.com</u> Web: www.esnanalytical.com

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

June 28, 2021

Dely Grace Agoy, Project Manager ESN Analytical 3155 NE Sunset Blvd, Suite A Renton, WA 98056

Dear Ms Agoy:

Included are the results from the testing of material submitted on June 18, 2021 from the Subaru Longview, F&BI 106323 project. There are 10 pages included in this report.

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: Alex Koch ESN0628R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 18, 2020 by Friedman & Bruya, Inc. from the ESN Analytical Subaru Longview project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	ESN Analytical
106323 -01	SV-2
106323 -02	SV-1

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-2	Client	t:	ESN Analytical
Date Received:	06/18/21	Projec	et:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	Lab I	D:	106323-01 1/5.3
Date Analyzed:	06/21/21	Data	File:	062127.D
Matrix:	Air	Instru	ament:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphatics <400				
APH EC9-12 aliphatics 22				
APH EC9-10 aroma	atics <130			

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-1	Clien	t:	ESN Analytical
Date Received:	06/18/21	Proje	ct:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	Lab I	D:	106323-02 1/4.9
Date Analyzed:	06/21/21	Data	File:	062128.D
Matrix:	Air	Instru	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphatics <370				
APH EC9-12 alipha	atics 160			
APH EC9-10 aroma	atics <120			

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Clien	t:	ESN Analytical	
Date Received:	Projec	et:	Subaru Longview, F&BI 106323	
Date Collected:	Not Applicable	Lab I	D:	01-1226 MB
Date Analyzed:	06/21/21	Data	File:	062121.D
Matrix:	Air	Instru	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphatics <75				
APH EC9-12 alipha	atics <25			
APH EC9-10 aroma	atics <25			

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 06/18/21 06/17/21 06/21/21 Air ug/m3		Clier Proje Lab I Data Instr Oper	at: act: D: File: ument: ator:	ESN Analytical Subaru Longview, F&BI 106323 106323-01 1/5.3 062127.D GCMS7 bat
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		%	Lower	Upper	
Surrogates:	Recover	y:	Limit:	Limit:	
4-Bromofluorobenze	ene g)1	70	130	
	Cond	entra	ation		
Compounds:	ug/n	13	ppbv		
Benzene	<1	.7	< 0.53		
Toluene	<10	00	<26		
Ethylbenzene	3	.5	0.81		
m,p-Xylene	-	.6	3.7		
o-Xylene	5	.9	1.4		
Naphthalene	<1	.4	< 0.26		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-1	Cl	ient:	ESN Analytical
Date Received:	06/18/21	Pr	oject:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	La	ab ID:	106323-02 1/4.9
Date Analyzed:	06/21/21	Da	ata File:	062128.D
Matrix:	Air	In	strument:	GCMS7
Units:	ug/m3	Ol	perator:	bat
	0/		. Unner	
Surrogatos:	Recovery	· Limit	Limit:	
A-Bromofluorohenze	ana 91	. בחוות. 70	130	
4-Diomondorobenze	5110 51		/ 150	
	Conce	ntration		
Compounds:	ug/mä	8 ppbv	7	
Benzene	<1.6	6 < 0.49)	
Toluene	<92	2 <24	Į	
Ethylbenzene	<2.1	< 0.49)	
m,p-Xylene	7.9) 1.8	3	
o-Xylene	2.9	0.67	7	
Naphthalene	<1.5	3 < 0.24	Ļ	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 06/21/21 Air ug/m3	Clier Proje Lab Data Instr	nt: ect: ID: File: rument:	ESN Analytical Subaru Longview, F&BI 106323 01-1226 MB 062121.D GCMS7 bat
Onits.	ug/III5	Oper	ator.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 91	Lower Limit: 70	Upper Limit: 130	
	Concen	tration		
Compounds:	ug/m3	ppbv		
Benzene	< 0.32	< 0.1		
Toluene	<19	<5		
Ethylbenzene	< 0.43	< 0.1		
m,p-Xylene	< 0.87	< 0.2		
o-Xylene	< 0.43	< 0.1		
Naphthalene	< 0.26	< 0.05		

ENVIRONMENTAL CHEMISTS

Date of Report: 06/28/21 Date Received: 06/18/21 Project: Subaru Longview, F&BI 106323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 106322-01 1/5 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	<370	<370	nm
APH EC9-12 aliphatics	ug/m3	<120	<120	nm
APH EC9-10 aromatics	ug/m3	<120	<120	nm

Laboratory Code: Laboratory Control Sample

Lasoratory coact Lasoratory	onor or wampio			
			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
APH EC5-8 aliphatics	ug/m3	67	84	70-130
APH EC9-12 aliphatics	ug/m3	67	103	70-130
APH EC9-10 aromatics	ug/m3	67	95	70-130

ENVIRONMENTAL CHEMISTS

Date of Report: 06/28/21 Date Received: 06/18/21 Project: Subaru Longview, F&BI 106323

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

Laboratory Code: 106322-01 1/5 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.6	<1.6	nm
Toluene	ug/m3	<94	<94	nm
Ethylbenzene	ug/m3	<2.2	<2.2	nm
m,p-Xylene	ug/m3	<4.3	<4.3	nm
o-Xylene	ug/m3	<2.2	<2.2	nm
Naphthalene	ug/m3	<1.3	<1.3	nm

Laboratory Code: Laboratory Control Sample

Baseratory could Baseratory	compro Sampro			
			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	80	70-130
Toluene	ug/m3	51	83	70-130
Ethylbenzene	ug/m3	59	74	70-130
m,p-Xylene	ug/m3	120	79	70-130
o-Xylene	ug/m3	59	81	70-130
Naphthalene	ug/m3	71	86	70-130

ENVIRONMENTAL CHEMISTS

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.

 ${\rm J}$ - 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.

Fax (206) 283-5044 Forms\coc\cocto-is.doc	Ph. (206) 285-8282	Seattle, WA 98119-2029	3012 16th Avenue West	Friedman & Brilling								2. NS	Sample Name		Phone	Address City, State, ZIP	Company BSE	Reprit To Suber
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Nhan Phan	- Wan that	MALEY CARTSIC	PRINT NAME		Ğ	Ğ	ŝĉ	SG	SG	SC	0 w1 20 11/1/19 05	5 00 08- 12/11/ 08	ting el: or Air I Gas Date Vac. One) Sampled ("Hg) Time ("Hg		3	Subaru Longuiza	PROJECT NAME & ADDRESS	SAMPLE CHAIN OF CUSTOI
FLBT 6/18/21	RN Allale C	BSE 6/181210	COMPANY DATE		Samples received at 12						Illo XX I	N X X cell	TO15 Full Scan TO15 Full Scan TO15 BTEXN TO15 cVOCs APH Helium	ANALYSIS REQUESTED	SUDGIU LOPUNEW Default: Clean after Archive (Fee may	TNU/OTOP TO	PO# PURNAROUN	NE 06/18/21 Pare # 1
1320	1:4Sau	345	TIME									lotes			POSAL er 3 days apply)	rized by:	UD TIME	2

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

February 13, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on January 31, 2024 from the Subaru Longview, F&BI 401405 project. There are 10 pages included in this report.

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 BSG0213R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 31, 2024 by Friedman & Bruya, Inc. from the Blue Sage Environmental Subaru Longview, F&BI 401405 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
401405 -01	SV-1-20240130
401405 -02	SV-2-20240130

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-1-20240130 01/31/24 01/30/24 02/01/24 Air ug/m3	Clien Projec Lab I Data Instru Opera	t: ct: D: File: ument: ator:	Blue Sage Environmental Subaru Longview, F&BI 401405 401405-01 1/4.9 020114.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: sene 96	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 alipha	tics 450 atics 1,000			

APH EC9-10 aromatics 130

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2-20240130 01/31/24 01/30/24 02/01/24 Air ug/m3	Client Projec Lab I Data Instru Opera	t: ct: D: File: ument: utor:	Blue Sage Environmental Subaru Longview, F&BI 401405 401405-02 1/5.2 020115.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 95	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 aliph APH EC9-10 arom	tics 420 atics 720 atics <130			

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client	t:	Blue Sage Environmental
Date Received:	Not Applicable	Projec	et:	Subaru Longview, F&BI 401405
Date Collected:	Not Applicable	Lab II	D:	04-0248 MB
Date Analyzed:	02/01/24	Data	File:	020112.D
Matrix:	Air	Instru	ament:	GCMS7
Units:	ug/m3	Opera	tor:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 92	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 alipha	tics <75			
APH EC9-12 aliph	atics <25			

APH EC9-10 aromatics <25

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Unito:	SV-1-20240130 01/31/24 01/30/24 02/01/24 Air	Clier Proje Lab Data Instr	nt: ect: ID: a File: rument:	Blue Sage Environmental Subaru Longview, F&BI 401405 401405-01 1/4.9 020114.D GCMS7 bat
Units.	ug/III0	Oper	lator.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 100	Lower Limit: 70	Upper Limit: 130	
	Conce	ntration		
Compounds:	ug/m3	ppbv		
Benzene	<1.6	< 0.49		
Toluene	<37	<9.8		
Ethylbenzene	3.3	0.77		
m,p-Xylene	14	3.2		
o-Xylene	4.0	0.91		
Naphthalene	1.9	0.37		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Unito:	SV-2-20240130 01/31/24 01/30/24 02/01/24 Air yg/m3	Clie: Proj Lab Data Inst	nt: ect: ID: a File: rument:	Blue Sage Environmental Subaru Longview, F&BI 401405 401405-02 1/5.2 020115.D GCMS7 bat
Units.	ug/III5	Ope	14101.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 99	Lower Limit: 70	Upper Limit: 130	
	Conce	ntration		
Compounds:	ug/m3	ppbv		
Benzene	<1.7	< 0.52		
Toluene	<39	<10		
Ethylbenzene	2.4	0.55		
m,p-Xylene	10	2.3		
o-Xylene	2.9	0.66		
Naphthalene	1.5	0.28		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 02/01/24 Air ug/m3	Clier Proj- Lab Data Instr Oper	nt: ect: ID: t File: rument: cator:	Blue Sage Environmental Subaru Longview, F&BI 401405 04-0248 MB 020112.D GCMS7 bat
Surrogates: 4-Bromofluorobenze	Recovery: ene 96	Lower Limit: 70	Upper Limit: 130	
	Conce	ntration		
Compounds:	ug/m3	ppbv		
Benzene	< 0.32	< 0.1		
Toluene	<7.5	<2		
Ethylbenzene	< 0.43	< 0.1		
m,p-Xylene	< 0.87	< 0.2		
o-Xylene	< 0.43	< 0.1		
Naphthalene	< 0.26	< 0.05		

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/24 Date Received: 01/31/24 Project: Subaru Longview, F&BI 401405

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 401405-01 1/4.9 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	450	530	16
APH EC9-12 aliphatics	ug/m3	1,000	960	4
APH EC9-10 aromatics	ug/m3	130	120	8

Laboratory Code: Laboratory Control Sample

assilatory coust according c	oner or wampie				
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
APH EC5-8 aliphatics	ug/m3	67	83	70-130	
APH EC9-12 aliphatics	ug/m3	67	107	70-130	
APH EC9-10 aromatics	ug/m3	67	98	70-130	

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/24 Date Received: 01/31/24 Project: Subaru Longview, F&BI 401405

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

Laboratory Code: 401405-01 1/4.9 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.6	<1.6	nm
Toluene	ug/m3	<37	<37	nm
Ethylbenzene	ug/m3	3.3	3.3	0
m,p-Xylene	ug/m3	14	14	0
o-Xylene	ug/m3	4.0	3.9	3
Naphthalene	ug/m3	1.9	1.7	11

Laboratory Code: Laboratory Control Sample

	-		Percent	
Analyta	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LUS	Uriteria
Benzene	ug/m3	43	103	70 - 130
Toluene	ug/m3	51	109	70-130
Ethylbenzene	ug/m3	59	106	70-130
m,p-Xylene	ug/m3	120	109	70-130
o-Xylene	ug/m3	59	109	70-130
Naphthalene	ug/m3	71	100	70-130

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

FORMS\COC\COCTO-15.DOC	Fax (206) 283-5044	Ph. (206) 285-8282	Seattle, WA 98108	5500 4th Avenue South	Friedman & Bruya, Inc.							SV-2-2040130	SN-1-20410130	Sample Name	SAMPLE INFORMATION	PhoneEr	City, State, ZIP	Company BLUE SAL	Report To AIEX 1600	401 your
Γ	Receiv	Relinq	Receiv	Relinq			-					02	01	Lab ID		nail A		60	2	
	red by:	uished by:	ed by: H	uished by:	SIC							9748	9529	Canister ID		hochig				
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) .	R	F	RE	IA / SG	IA / SG	IA / SG	IA / SG	IA / SG	IA / SG	IA / SQ	IA / SG	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)		Jama I. Low	NOTES	Suba	- SAMPL	SAMPL
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FIGURES

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



Mapping Reference: Delorme, City of Longview GIS mapping, Bing, and Google Maps



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BLUE SAGE ENVIRONMENTAL INC KENNEWICK, WA

Bud Clary Subaru

961 Commerce Avenue Longview, Washington

Figure 6





TABLES

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

Table 1 CCS-Longview Soil Analytical Data - 2018 Exploration Bud Clary Subaru 961 Commerce Avenue, Longview, WA

April 2018 Test Holes

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes
units:mg/kg	MTCA	Method A Cl	eanup Level	2000	2000	30/100	0.03	7	6	9
BC Composite	04/24/18	Drum	na	<594	5,280	215	<0.0498	<0.249	0.24	1.34

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
units:mg/kg	МТСА	Method A Cl	eanup Level	20	1600*	2	2000	250	2	400*	400*
BC Composite	04/24/18	Drum	na	<1.22	30	<0.243	6.16	10.3	<0.0972	<1.22	<0.243

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	benzo(a) pyrene	benzo(a) anthracene	benzo(b) fluoranthene	benzo(k) fluoranthene	chrysene	dibenz(a,h) anthracene	indeno(1,2,3- cd)pyrene
units:mg/kg	МТСА	Method A Cl	eanup Level			Total cPAH S	oil Cleanup Leve	el <0.1 mg/kg		
BC Composite	04/24/18	Drum	na	< 0.0796	< 0.0409	<0.0612	< 0.0612	0.0752	< 0.0409	<0.0409

July 2019 Exploratory Excavation

Sample Number	Sample Date	Sample Location	Sample Depth (ft)	Diesel	Lube Oil	PCB**
units:mg/kg	МТСА	Method A Cl	eanup Level	2000	2000	
SPOT 1	07/19/18	Floor	10	<50	<250	<0.1
SPOT 2	07/19/18	Floor	10	<50	<250	<0.1
SPOT 3	07/19/18	Floor	10	<50	<250	<0.1
S2 NW	07/19/18	Sidewall	na	<50	13000 E	<0.1
S2 N MID	07/19/18	Sidewall	na	<50	15000 E	<0.1
S2 NE	07/19/18	Sidewall	na	<50	873	<0.1
S2-NW-A	07/19/18	Sidewall	na	<50	21000 E	<0.1

<u>Notes:</u> 5.9 Bold number(s) indicate contaminant detected

31 Bold and red number(s) indicate concentration above MTCA Method A cleanup level

Е Reported result is an estimate as it exceeded laboratory calibration range

400* Clarc Table, Method B Direct Contact

PCB** Combination of Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260

Table 2 - Environmental Partners, Inc. Summary of Soil Analytical Data – Direct Push Technology Samples Bud Clary Subaru 961 Commerce Avenue, Longview, Washington

Sample ID	Sample	Sample	Petro	leum Hydroca	rbons		ВТ	EX ^c		Total
Sample ID	(Feet)	Date	GROª	DRO ^b	ORO⁵	Benzene	Toluene	Ethylbenzen e	Xylenes	PCBs ^d
SB-1	10	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
50-1	12	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-2	8	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
00-2	13	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-3	10	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
00-0	13	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
	4	7/23/2018		<50	<250					
SB-4	8	7/23/2018	600 E	<50	590	<0.02	<0.10	<0.05	<0.15	
	12	7/23/2018	29	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-5	12	7/23/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-6	12	7/23/2018	61	<50	1,850	<0.02	<0.10	<0.05	<0.15	
	8	7/23/2018		<50	<250					
SB-7	10	7/23/2018	170	<50	3,660	<0.02	<0.10	<0.05	<0.15	
	12	7/23/2018		<50	<250					
	4	7/23/2018		<50	<250					
SB-8	8	7/23/2018	290 E	<50	16,000	<0.02	<0.10	<0.05	0.5	
	12	7/23/2018		<50	3,010					
SB-9	10	7/23/2018	60	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-10	10	7/23/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-11	10	7/23/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
	4	7/23/2018		<50	<250					
SB-12	6	7/23/2018	640 E	<50	12,400	<0.02	<0.10	<0.05	0.45	
	8	7/23/2018		<50	4,380					
SB-13	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
	8	7/24/2018		<50	16,600					
SB-14	12	7/24/2018	750 E	<50	22,700	<0.02	<0.10	0.41	1.75	
	16	7/24/2018		<50	380					
	8	7/24/2018		<50	34,800					
SB-15	10	7/24/2018	740 E	<50	20,000 E	<0.02	<0.10	0.083	0.47	
	14	7/24/2018		<50	560					
SB-16	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-17	12	7/24/2018	<10	<50	<250	<0.02	740,	<0.05	<0.15	
SB-18	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-19	12	7/24/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-20	12	7/24/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-21	12	7/24/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
SB-22	8	7/24/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-24	10	7/24/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
SB-25	16	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	

Table 2 - Environmental Partners, Inc. Summary of Soil Analytical Data – Direct Push Technology Samples **Bud Clary Subaru** 961 Commerce Avenue, Longview, Washington

Comula ID	Sample	Sample	Petro	leum Hydroca	rbons		ВТ	EXc		Total
Sample ID	Depth (Feet)	Date	GROª	DRO⁵	ORO⁵	Benzene	Toluene	Ethylbenzen e	Xylenes	PCBs ^d
SB-26	16	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-28	14	7/25/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-29	8	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-30	6	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-31	10	7/25/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-34	4	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-35	10	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-36	12	7/26/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	<0.1
SB-37	9	7/31/2018	17	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB-38	8	7/31/2018	<10	<50	<250	<0.02	<0.10	< 0.05	<0.15	
SB 20	10	7/31/2018	77	<50	1,400	<0.02	<0.10	<0.05	<0.15	
30-39	15	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-40	9	7/31/2018	<10	<50	350	<0.02	<0.10	<0.05	<0.15	
SB-41	10	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-42	9	7/31/2018	<10	<50	<250	<0.02	<0.10	<0.05	<0.15	
SB-43	9	7/31/2018	<10	<50	<250	< 0.02	<0.10	< 0.05	<0.15	
MTCA Method for Unrest	A Soil Clea	inup Level Uses ^e	30/100 ^f	2,(000	0.03	7	6	9	1

Notes:

All results presented in milligrams/kilogram (mg/kg). Elevated

Bold results indicate that the compound was detected above the laboratory method detection limit. Bold

Shaded cells indicate that the compound was detected at a concentration greater than the MTCA Method A cleanup level.

Analyzed by NWTPH-Gx. а

Analyzed by NWTPH-Dx/Dx Extended. b

Analyzed by EPA Method 8260C. С

- d Analyzed by EPA Method 8280
- Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1, Washington Administrative Code (WAC) 173-340-900. е

MTCA Method A Soil Cleanup Level is 30 mg/kg when benzene is present in the sample and 100 mg/kg when benzene is not detected. f

- Not analyzed --
- ND Not detected above the method detection limit.

Compounds

- GRO Gasoline-range organics
- DRO Diesel-range organics
- ORO Oil-range organics
- Benzene, toluene, ethylbenzene and total xylenes BTEX

Qualifier:

Reported result is an estimate because it exceeds the calibration range. Е

Table 3 - Environmental Partners, Inc. Summary of Groundwater Analytical Data – Direct Push Technology Samples Bud Clary Subaru 961 Commerce Avenue, Longview, Washington

Sample ID	Sample	Sample	Petro	leum Hydrocar	bons		ВТ	EXc	
Sample ID	(Feet)	Date	GROª	DRO⁵	ORO⁵	O ^b Benzene 00 <1.0 00 .10	Toluene	Ethylbenzene	Xylenes
SB-1GW	9.3	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-2GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-3GW	9.4	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-4GW	10.1	7/23/2018	2,200	<200	1,800	<1.0	<2.0	<1.0	<2.0
SB-5GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-6GW	7.5	7/23/2018	7,000 E	<200	40,000	<1.0	<2.0	<1.0	7.4
SB-7GW	9.5	7/23/2018	440	<200	5,200	<1.0	<2.0	<1.0	<2.0
SB-8GW	9.7	7/23/2018	17,000 E	<200	85,000	<1.0	<2.0	<1.0	8.3
SB-9GW	9.6	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-10GW	7.5	7/23/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-11GW	7.4	7/23/2018	290	<200	<400	<1.0	<2.0	<1.0	3.7
SB-12GW	7.4	7/23/2018	420	<200	<400	<1.0	<2.0	<1.0	5.4
SB-13GW	9.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-14GW	9.7	7/24/2018	7,600	<200	35,100	<1.0	<2.0	2.5	19.4
SB-15GW	9.6	7/24/2018	4,780	<200	5,600	<1.0	<2.0	<1.0	2.8
SB-16GW	7.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-17GW	7.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-18GW	7.6	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-19GW	7.7	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-20GW	9.4	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-21GW	9.5	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-24GW	9.6	7/24/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-25GW	9.5	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-26GW	9.6	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-28GW	9.6	7/25/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-29GW	9.6	7/25/2018	<100	<200	<400				
SB-30GW	9.6	7/25/2018	<100	<200	<400				
SB-31GW	8	7/25/2018		<200	<400				
SB-32GW	9.6	7/25/2018		<200	<400				
SB-33GW	9.6	7/25/2018		<200	<400				
SB-34GW	8	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-35GW	10.2	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-36GW	9.5	7/26/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-37GW	11.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-38GW	9.5	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-39GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-40GW	10.0	7/31/2018	970	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-41GW	9.5	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-42GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
SB-43GW	9.0	7/31/2018	<100	<200	<400	<1.0	<2.0	<1.0	<2.0
MTCA Method A Groundwater Cleanup Level ^d		ter Cleanup	800/1,000 ^e	500	500	5	1,000	700	1,000

Notes:

All results presented in micrograms per liter (μ g/L).

Bold Bold results indicate that the compound was detected above the laboratory method detection limit.

Shaded cells indicate that the compound was detected at a concentration greater than the MTCA Method A cleanup level.

a Analyzed by NWTPH-Gx.

b Analyzed by NWTPH-Dx/Dx Extended

c Analyzed by EPA Method 8260C.

d Model Toxics Control Act (MTCA) Method A Cleanup Levels for Groundwater, Table 720-1, Washington Administrative Code (WAC) 173-340-900.

e MTCA Method A Groundwater Cleanup Level is 800 μg/L when benzene is present in the sample and 1,000 μg/L when benzene is not detected. -- Not analyzed

Compounds:

e e i i p e a i a e i	
GRO	Gasoline-range organics
DRO	Diesel-range organics
ORO	Oil-range organics
BTEX	Benzene, toluene, ethylbenzene and total xylenes
Qualifier:	
Е	Reported result is an estimate because it exceeds the calibration range.

Table 4BSE Soil Analytical Data - Excavation and BoringsBud Clary Subaru961 Commerce Avenue, Longview, WA

Sample Location	Sample Date	Sample Number	Sample Depth (ft)	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	Methyl tert- Butyl Ether (MTBE)	Ethylene Dibromide (EDB)	1,2-Dichloro ethane (EDC)	cPAHs	Lead
М	TCA Method A C	leanup Level	units: mg/kg	20	000	30/100	0.03	7	6	9	0.1	0.005	480†	0.1^	250
Excavation	08/22/18	EX CTR West	12	480	74,000	-	-	-	-	-					-
Excavation	08/22/18	EX NE Floor	12	<50	8,300	-	-	-	-	-					-
Excavation	08/22/18	EX SE Floor	12	60	66,000	-	-	-	-	-					-
Excavation	08/22/18	EX East Floor	12	540	81,000	-	-	-	-	-					-
Excavation	08/22/18	EX East Sidewall	10	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
B1	08/29/18	B1-10	10	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B1-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B2	08/29/18	B2-10 B2-15	10 15	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B2-15 (Dup)	15	-	-	<10	<0.02	0.53	0.12	0.61					-
B3	08/29/18	B3-10	10	<50	<100	<10	<0.02	< 0.05	< 0.05	<0.15					<5
	08/29/18	B3-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B4	08/29/18	B4-10	10	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					<5
	08/29/18	B4-15 B4-15 (Dup)	15 15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW/ 1/P6	00/23/10	B4-15 (Ddp)	15	<50	<100	-10	-0.02	<0.05	-0.05	-0.15					-
	04/29/19	B0-10	15	< 30	270.000	< TO	<0.02	< 0.05	<0.03	<0.15 E 9					-
IVIVV-2/D7	04/29/19 04/29/19	B7-13 B7-15	13	210	370,000	5,700 11	0.09	0.48	<0.05	5.8 <0.15					-
MW-3/B8	04/29/19	B8-11	11	4,200	210,000	5,900	<0.02	<0.05	< 0.05	<0.15					-
	04/29/19	B8-15	15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW-4/B9	04/29/19	B9-11	11	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
MW-5/B10	04/29/19	B10-15	15	<50	<100	<10	<0.02	< 0.05	<0.05	<0.15					-
B11	04/15/21	B-11-13	13	<50	6,000	48	<0.02	< 0.05	<0.05	<0.15					-
	04/15/21	B-11-17	17	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B12	04/15/21	B-12-13	13	<50	5,200	420	< 0.02	0.05	0.21	1.2					-
D10	04/15/21	B-12-17	17	<00	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B13	04/29/24 04/29/24	B-13-8 B-13-13	8 13	- <50	- <250	- <5	- <0.002	- <0.002	-<0.002	- <0.004	- <0.002	- <0.005	- <0.003	- <0.02	4.1
	04/29/24	B-13-15	15	<50	<250	<5	< 0.002	< 0.002	<0.002	< 0.004	< 0.002	<0.005	< 0.003	< 0.02	1.2
B14	04/29/24	B-14-10	10	-	-	-	-	-	-	-	-	-	-	-	-
	04/29/24	B-14-13	13	<50	<250	<5	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.005	< 0.003	< 0.02	1.7
MALO	04/29/24	D-14-15	10	<00	<200	<>	<0.002	<0.002	<0.002	<0.004	<0.002	<0.005	<0.003	<0.02	1.3
0- 1/1/1	04/29/24 04/29/24	WW-6-10 MW-6-13	10	- <50	- <250	- <5	- <0.002	- <0.002	- <0.002	- <0.004	- <0.002	- <0.005	- <0.003	- <0.02	1.8
	04/29/24	MW-6-15	15	<50	<250	<5	<0.002	<0.002	<0.002	<0.004	<0.002	< 0.005	<0.003	<0.02	1.1

Notes:

- Contaminant not analyzed

<0.20 Shaded number, concentration less than laboratory method detection limit.

5.9 Bold number(s) indicate contaminant detected below MTCA Method A Cleanup Level

31 Bold and red number(s) indicate concentration exceeds MTCA Method A cleanup level

† CLARC Method B Soil direct contact noncancer

Table 5aBSE Groundwater Analytical DataBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	МТВЕ	EDB	EDC	Lead	cPAH (1)	PCBs	Elevation TOC	Depth to Water	Water Table Elevation
							Laborato	ry Units Report	ed in µg/L		_	u 1	1			<i>(</i> 1)	
MTCA Metho	od A Cleanup	500	500	800	50	1000	700	1000	20	0.01	5	15	0.1	various	MSL	(ft)	(ft)
IVI VV-1	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<.1	< 1	<1	<0.1	-	16.95	8.94	8.01
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.65	7.30
	12/02/19	<200	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.30	7.59
	12/19/20	<100	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		9.19 7.07	8.08
	03/17/21	<50	<100	<100	<1	<1	<1	<3					_			7.97	9.02
	06/17/21	<100	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8 52	8.43
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	_	_	_	_	-		9.68	7.27
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.68	9.27
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.17	8.78
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.83	9.12
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.67	7.28
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.36	8.59
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.45	8.50
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.44	8.51
	09/21/23	<100	310	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		9.78	7.17
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02			7.79	9.16
MW-2	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.20	9.15	8.05
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.90	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.60	7.60
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.37	7.83
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.33	8.87
	03/17/21	<50	<100	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.01	9.19
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.68	8.52
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.89	7.31
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.88	9.32
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.35	8.85
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.00	9.20
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.90	7.30
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.57	8.63
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.64	8.56
	06/22/23	-	-	-	-	-	-	-	-	<0.01	-	-	-	-		8.00	8.54
	09/21/23	<100	200 560x	<100	<1	<1	<1	<0	-	-	-	<0.2	-0.02	-		10.00 9.01	7.20
	03/09/24	338	3007	<100	< 1	<1	< 1	< 3	-	-	-	<1.0	<0.02			8.01	9.19
MW-3	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.32	9.28	8.04
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		10.02	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.76	7.56
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.52	7.80
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.45	8.87
	06/17/21	<50	<100	<100	<1	< 1	<1	<0	-	-	-	-	-	-		0.20 8.80	9.12
	00/17/21	< 100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		0.00	7.34
	12/08/21	<250	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8.00	9.32
	03/31/22	<250	<250	<100	<1	<1	<1	<3	_	_	-	_	_	_		8 49	8.83
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	_	_	_	_	-		8 12	9.20
	09/28/22	-	-200	-	-	-	-	-	-	_	_	_	_	-		9.95	7.37
	12/12/22	-	-	-	-	_	-	-	-	-	-	-	-	-		8.68	8.64
	03/20/23	-	-	-	-	_	-	-	-	_	-	-	-	-		8.76	8.56
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.80	8.52
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		10.15	7.17
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	< 0.02			8.26	9.06
MW-4	06/27/10	<250	~250	~100	~1	~1	~1	~3	~1	~1	~1	~1	<i>~</i> ∩ 1	_	17 30	Q 2Q	<u>8</u> 01
	09/10/10	<250	<250	<100	~1	~1	~1	<3	-	-	-	-		<01	17.50	10.00	7.30
	12/02/19	<250	<250	<100	<1	<1	<1	<3	=	_	_	_	_	<0.1		9 73	7.57
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.56	7.74
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.38	8.92

Table 5a BSE Groundwater Analytical Data Bud Clary Subaru 961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	МТВЕ	EDB	EDC	Lead	cPAH (1)	PCBs	Elevation TOC	Depth to Water	Water Table Elevation
						1	Laborato	ry Units Reporte	ed in µg/L					-			
MTCA Metho	od A Cleanup	500	500	800	50	1000	700	1000	20	0.01	5	15	0.1	various	MSL	(ft)	(ft)
MW-4	03/17/21	<50	<100	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.35	8.95
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.87	8.43
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		10.02	7.28
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.05	9.25
	03/31/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.55	8.75
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.19	9.11
	09/28/22	-	-	-	-	-	-	-	-	-	-	-	-	-		9.98	7.32
	12/12/22	-	-	-	-	-	-	-	-	-	-	-	-	-		8.72	8.58
	03/20/23	-	-	-	-	-	-	-	-	-	-	-	-	-		8.80	8.50
	06/22/23	-	-	-	-	-	-	-	-	< 0.01	-	-	-	-		8.80	8.50
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	<0.2	-	-		10.14	7.16
	05/09/24	<50	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	< 0.02			8.23	9.07
MW-5	06/27/19	<250	<250	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	-	17.16	9.20	7,96
	09/10/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	_	<0.1		9.88	7.28
	12/02/19	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	<0.1		9.63	7.53
	09/25/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.42	7.74
	12/19/20	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.29	8.87
	03/17/21	<50	<100	<100	<1	<1	<1	<3	_	_	_	-	-	_		8.19	8.97
	06/17/21	<100	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.78	8.38
	09/21/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		9.93	7.23
	12/08/21	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		7.95	9.21
	03/31/22	<250	<250	140	<1	<1	<1	<3	-	-	-	-	-	-		8.47	8.69
	06/01/22	<250	<250	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.11	9.05
	09/28/22		-	-	-	-	-	-	-	-	-	-	-	-		9.90	7.26
	12/12/22	-	_	_	-	_	-	-	-	-	-	-	-	-		8.63	8.53
	03/20/23	-	_	<100	<1	<1	<1	<3	-	-	-	-	-	-		8.68	8.48
	06/22/23	-	_	-	-	-	-	-	-	< 0.01	-	-	-	-		8.71	8.45
	09/21/23	<100	<250	<100	<1	<1	<1	<3	-	-	-	< 0.2	-	-		10.05	7.11
	05/09/24	300x	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02			8.07	9.09
B-13 (g)	04/29/24	<50	<250	<100	< 0.35	<1	<1	<3	<1	<0.01	<0.2	3.4 /<1 ^D	<0.02		-	8.80	-
B-14 (g)	04/29/24	<50	<250	<100	< 0.35	<1	<1	<3	<1	<0.01	<0.2	<1'/<1"	<0.02		-	8.00	-
MW-6	05/09/24	130x	<250	<100	<1	<1	<1	<3	-	-	-	<1.0	<0.02		16.91	7.86	9.05

Notes:

Contaminant not analyzed

5.9 130x

Contaminant not analyzed Bold number(s) indicates contaminant detected Bold number with x indicates chromatogaphic pattern does not resemble fuel standard used for quantificaion Bold and red number(s) indicates concentration above MTCA Method A cleanup level Grab-groundwater sample from boring All seven cPAH compounds included in reported concentration Analysis for total metals Analysis for dissolved metals

31 (g) (1) T D

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-1	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	75	<0.10
	09/21/21	19.7	<0.10
	12/08/21	31.4	0.225
	03/31/22	45.1	0.37
	06/01/22	43.8	0.673
	09/28/22	28.3	0.108
	12/12/22	49.2	0.278
	03/20/23	63.4	1.12
	06/22/23	37.3	0.885
	09/21/23	14.9	0.109
	05/09/24	-	-
MW-2	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	460	0.31
	09/21/21	400	<0.10
	12/08/21	361	0.222
	03/31/22	198	<0.10
	06/01/22	141	0.116
	09/28/22	189	<0.025
	12/12/22	202	0.537
	03/20/23	264	0.188
	06/22/23	242	0.219
	09/21/23	42.4	<0.025
	05/09/24	-	-
MW-3	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	330	0.26
	09/21/21	790	<0.10

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-3	12/08/21	197	0.418
	03/31/22	122	<0.10
	06/01/22	52.9	0.228
	09/28/22	198	<0.025
	12/12/22	96.5	0.259
	03/20/23	98.8	0.259
	06/22/23	129	0.128
	09/21/23	387	0.217
	05/09/24	43.2	0.234
MW-4	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	10.5	0.41
	09/21/21	16.5	0.49
	12/08/21	6.66	0.693
	03/31/22	2.37	0.39
	06/01/22	2.64	0.465
	09/28/22	6.94	1.84
	12/12/22	1.39	0.344
	03/20/23	1.49	0.384
	06/22/23	2.57	0.836
	09/21/23	5.56	0.595
	05/09/24	-	-
MW-5	06/27/19	-	-
	09/10/19	-	-
	12/02/19	-	-
	03/17/21	-	-
	06/17/21	-	-
	09/21/21	760	<0.10
	12/08/21	113	<0.10
	03/31/22	119	<0.10
	06/01/22	133	< 0.050
	09/28/22	234	<0.025
	12/12/22	80.5	<0.25

Table 5bBSE Groundwater Analytical Data - Sulfate and NitrateBud Clary Subaru961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Sulfate (mg/L)	Nitrate (mg/L)
Water Q	uality 173-200	250	10
MW-5	03/20/23	95.8	0.026
	06/22/23	75.4	0.078
	09/21/23	139	0.584
	05/09/24	-	-

Notes:

 Contaminant not analyz 	ed
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5.9 Bold number(s) indicate contaminant detected

760 Bold and red number(s) indicate concentration above 173-200 WAC Water Quality Standards

<0.10 Less than laboratory reporting limit

Table 5c Bud Clary Subaru Groundwater Parameters (1)

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Blue Sage Environmental, Inc. Kennewick, WA (509) 947-4059

Well Number	Sample Date	Temperature (⁰C)	Conductivity (ms/cm ²)	Conductivity (µS/cm)	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	рН	Oxidation Reduction Potential				
	0/05/00	40.45	0.404	000	0.4	0.04	0.00	44.0				
14144-1	9/25/20	16.15	0.404	330	8.4	0.81	6.09	41.3				
	12/19/20	13.42	0.358	279	29.1	2.99	6.38	67.2				
	3/17/21	13.12	0.336		45.5	4.78	6.43	12.3				
	6/17/21	15 55	0 345	284	7.5	0.74	5.03	92.9				
	0/21/21	17.41	0.343	204	1.5	0.74	6.25	32.5				
	9/21/21	17.41	0.473			0.29	0.20	-37.0				
	12/8/21	13.24	0.364	282	9.2	0.95	6.45	-17.1				
	3/31/22	13.60		314	11.3	1.20	6.37	100.7				
	6/1/22	14 19	0 259	326	27.8	2.63	6.41	-15.2				
	0/20/22	10.01	0.200	255	4.0	2.00	0.40	15.0				
	9/26/22	13.01	0.324	255	4.0	0.50	0.12	-15.2				
	12/12/22	15.57	0.193	235.0	11.6	1.14		40.2				
	3/20/23	13.39	0.326	254	16.7	1.74	6.43	-69.7				
	6/22/23	14.18	0.240		2.5	0.25	6.39	90.7				
	9/21/23	16.05	0 100		33	0.37	6 35	55 1				
	5/21/25	10.00	0.133		0.0	0.07	0.00	140.0				
	5/9/24	13.09	0.274		40.4	4.19	6.18	110.6				
MW-2	9/25/20	18 24	1 878	16.0	6.6	0.68	6.57	-65.2				
	12/10/20	14.42	0.695	E49.0	17.1	1 74	6.45	00.2				
	12/19/20	14.42	0.000	346.0	17.1	1.74	0.45	02.9				
	3/17/21	13.00	1.071		11.9	1.25	6.34	13.0				
	6/17/21	17.07	1.307	1,109	18.8	1.82	5.98	97.5				
	9/21/21	19.70	1.810			0.38	6.63	-99.0				
	12/8/21	13.84	1 107	869	81	0.82	6.30	-8.9				
	2/21/22	12.00	1.107	506	17.0	1.04	6.00	112 5				
	3/31/22	13.90		290	17.0	1.04	6.20	112.5				
	6/1/22	14.77	0.394	491	19.8	1.95	6.18	15.9				
	9/28/22	14.54	1.296	1,037	3.4	0.35	6.49	-54.2				
	12/12/22	15.76	0.366	445	26.6	2.64		72.3				
	3/20/23	13 15	0.656	507	26.7	2.80	6 36	-67.2				
	0/20/20	10.10	0.050	507	20.7	2.00	0.00	-07.2				
	6/22/23	16.44	0.658		21.7	2.19	6.26	116.8				
	9/21/23	17.26	1.487		3.5	0.33	6.79	-142.8				
	5/9/24	15.14	0.562		94.7	9.51	6.23	106.6				
MA4/ 0	0/05/00	40.00	0.400	4 700	10.0	1.10	0.47	00.0				
10100-3	9/25/20	16.06	2.123	1,762	10.9	1.10	6.47	-28.3				
	12/19/20	13.36	0.601	468	20.1	2.00	6.47	63.6				
	3/17/21	11.63	0.879		90.6	9.84	6.21	65.1				
	6/17/21	15.10	0.754	611	50.2	5.01	5.97	96.7				
	9/21/21	18 18	1 760			0.13	6.54	-82.0				
	12/0/21	11 70	0.566	100	74	0.70	6.15	26.9				
	12/0/21	11.72	0.000	422	7.4	0.79	0.10	20.0				
	3/31/22	12.40		372	49.2	5.25	6.10	137.7				
	6/1/22	13.72	0.175	222	39.6	4.10	6.05	32.9				
	9/28/22	13.28	0.876	680	3.3	0.35	6.20	-26.7				
	12/12/22	13 40	0 199	266	41.2	4 31		81.9				
	2/20/22	11.70	0.100	200	40.2	5.05	C 10	66.0				
	3/20/23	11.70	0.319	230	49.3	5.35	0.10	-00.0				
	6/22/23	14.51	0.400		22.9	2.33	6.20	126.0				
	9/21/23	15.04	1.211		4.5	0.46	6.58	-105.4				
	5/9/24	13.47	0.195		61.8	6.43	5.93	132.0				
MW-4	9/25/20	15.81	0.813	672	18.1	1.96	6.20	13.6				
	12/19/20	12.40	0.147	111.0	53.1	5.69	6.71	30.9				
	3/17/21	10.46	0.145		92.8	10.44	6.61	58.7				
	6/17/21	14 64	0.085	68.0	48.4	4 92	6.32	70.4				
	0/21/21	18.33	0.1/2			3.22	6.17	24.0				
	3/21/21	10.55	0.142			5.22	0.17	24.0				
	12/8/21	9.74	0.088	62.0	47.1	5.33	6.51	28.6				
	3/31/22	10.7		44.1	66.2	7.34	6.69	118.2				
	6/1/22	12.09	0.038	51.0	57.0	6.12	6.57	41.0				
	9/28/22	13 35	0 103	80.0	29	0.30	6.21	-29.4				
	12/12/22	10.56	0.031	42.0	77 /	8 62		110.1				
	12/12/22	10.50	0.031	42.0	11.4	0.02		119.1				
	3/20/23	8.90	0.055	37.0	86.1	9.99	6.64	-71.3				
	6/22/23	13.00	0.058		3.6	0.38	6.48	129.1				
	9/21/23	15.11	0.104		9.1	0.92	6.29	-88.1				
	5/9/24	11.95	0.038		76.1	8 20	6.01	84 1				
	0/0/24	11.00	0.000		70.1	0.20	0.01	04.1				
MW-5	9/25/20	16.28	0.739	616	3.2	0.32	6.49	-72.0				
	12/19/20	13.60	0.625	489.0	16.9	1.79	6.49	97.5				
	3/17/21	12.98	1,636		32.4	3,39	6.59	-121.7				
	6/17/21	15 /6	1 505	1 220	5.2	0.52	6 20	31.0				
	0/11/21	10.40	1.000	1,230	J.2	0.52	0.20	31.0				
	9/21/21	16.90	1.380			0.01	0.37	-96.0				
	12/8/21	12.37	0.684	518	1.6	0.17	6.61	-115.3				
	3/31/22	13.00		661	1.8	0.18	6.62	-89.0				
	6/1/22	13.85	0 5/0	607	4.2	0.43	6.57	-85.6				
	0/1/22	10.00	0.343	574	7.4	0.45	0.57	-05.0				
	9/28/22	13.35	0.734	5/1	2.4	0.25	6.50	-83.7				
	12/12/22	14.55	0.361	451	7.3	0.74		-114.7				
	3/20/23	12.84	0.521	400	5.4	0.57	6.8	-154.2				
	6/22/23	14 01	0.593		2.3	0.23	6,69	-116.0				
	0/21/22	15.21	0.635		2.0	0.20	6.9	-133.9				
	5/21/23	10.21	0.000		2.3	0.23	0.0	-100.0				
	5/9/24	13.61	0.441		42.7	4.46	6.5	-111.7				
MW-6	5/9/24	13.61	0.309		8.5	0.85	6.2	-8 7				
-												

Notes:

(1)

Parameters at time of sample collection.

Table 6aBSE Soil-Gas Analytical DataBud Clary Subaru961 Commerce Avenue, Longview, WA

Boring / Location Identifier	Sample Date	Sample Name	Sample Depth (ft)	Temperature (F)/Barometric Pressure (in)	APH [EC5-8 aliphatics] Fraction	APH [EC9-12 aliphatics] Fraction	APH [EC9-10 aromatics] Fraction	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total Petroleum Hydrocarbons (TPH) (1)
Site-Specific Sub-Slab Screening Level						†	t	†	†	†	†	†	2,228 ⁽³⁾
MTCA Method B Sub-Slab Soil-Gas Screening Levels (2), Non cancer						†	t	46	460	76,000	15,000	1,500	1,500 ⁽²⁾
		MTCA Method B St	ub-Slab Soil-Gas Scree	ening Levels (2), Cancer	†	†	t	2.5	11	†	†	†	†
SV-1	4/20/2021	SV-1	5	61.5/30.18	460	190	<120	1.5	<1.5	<90	<2.1	<4.2	760
	6/18/2021	SV-1	5	69.9/30.09	<370	160	<120	<1.3	<1.6	<92	<2.1	10.8	464
	1/30/2024	SV-1	5	52/29.89	450	1,000	130	1.9	<1.6	<37	3.3	18	1,623
SV-2	4/20/2021	SV-2	5	61.5/30.18	550	200	<130	<1.4	<1.7	<100	<2.3	<4.7	870
	6/18/2021	SV-2	5	69.9/30.09	<400	220	<130	<1.4	<1.7	<100	3.5	5.9	546
	1/30/2024	SV-2	5	52/29.89	420	720	<130	1.5	<1.7	<39	2.4	12.9	1,242

Notes:

Analysis Methods: EPA TO-15 and MA-APH. See Laboratory reports for specifics.

(1) Sum of all analyzed petroleum compounds. For analytes with non-detects, half of the reporting limit was used for the Total TPH calculation.

(2) MTCA Method B Soil-Gas Screening Levels, for Sub-Slab samples collected beneath a building slab or samples shallower than 15 feet deep below ground surface. Screening levels taken from Ecology's February 2024 CLARC Tables.

(3) Site-Specific Screening Level calculated using the equation for Method B CUL for TPH from Washington Department of Ecology Guidance for Evaluating Vapor Intrusion in Washington State, March 2022
 -- Not Analyzed / Unknown

<0.02 Not Detected, concentration less than the laboratory method detection limit.

12 Bold Number(s) indicates contaminant detected.

33 Red Bold Number(s) and red text indicates cConcentrations exceeding Ecology's published Sub-Slab Soil Gas Screening Levels.

** Based on screening levels provided by PLIA

Table 6b

Site-Specific Indoor Air Method B Cleanup Level and Sub-Slab Screening Level Non-Carcinogenic Total Petroleum Hydrocarbons Bud Clary Subaru

961 Commerce Avenue, Longview, WA

	Concentration	Fi	Total	Fi/Non-C CUL	Site-Specific			
			Non-Cancer CUL		CUL			
	ug/m ³		ug/m ³		ug/m ³			
Aliphatic EC 5-8	450	0.27735	2720	0.000101967				
Aliphatic EC 9-12	1000	0.61633	46.4	0.013283035				
Aromatic EC 9-10	130	0.08012	182	0.000440238				
Napthalene	1.9	0.00117	1.38	0.000848574				
Benzene	0.8	0.00049	13.7	3.59902E-05				
Toluene	18.5	0.01140	2240	5.09025E-06				
Ethylbenzene	3.3	0.00203	458	4.44083E-06				
Xylenes	18	0.01109	46.4	0.000239095				
Total	1622.5	1.00000		0.01495843	67			
			Site specific CUL			67	ug/m ³	
			Site-Specific Sub-S	lab Screening Leve	1	2,228	ug/m ³	
Fi = fraction of to	tal concentration =	- measured con	centration/total sum	med concentraton o	f petroleum analy	tes		
Total Non-Cancer	Cleanup Level (CU	L) taken from V	Vashington Departme	ent of Ecology <i>Guida</i>	nce for Evaluatir	na Vapor Intrusi	ion in Washind	aton State.
March 2022	- F (,	0		,	5		,,
Site-Specific CUL :	= 1/Σ(F <i>i</i> /Non-C CU	L)						
Site-Specific Sub-S	Slab Screeing Level	= (site-specific	CUL/generic indoor a	air CUL)*generic sub-	slab screening lev	el		

APPENDIX I

Cross Sectional Figures

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



			Z	0	10 (FEET)	20
· • • • • • • • •	— • — • — • — • — • — •	· 0 0 0	-0000	GAS -	-999	
)	0					
_						
0						
)						<u>P</u>
		•••			_•_•_•	W
	•—• SS —•—•—•	- 0 0 0 0 0 0 0	— 0 — 0 — 0 — 0 — 0	- G	AS	
						ዊ
Section Lo	cations				Date: 06/17/24	Figure XS1



0	6									
3										
(FEET)										
Vertical Scale:	1"=6'									

<u>LEGEND</u>

x= <10 x= <mark>350</mark>	Gasoline (Gx) & Diesel (Dx) Range Total Petroleum Hydrocarbons per Northwest Method NWTPH-Gx & NWTPH-Dx; Units in parts per million (ppm) <10 or <250 = Not Detected
1W2	BSE May 2019 Soil Boring/ Monitoring Well Location and Identification Number
W1 🕤	Monitoring Well Location and Identification Number (By BSE 5/14/2019)
в1 🗙	BSE Aug. 2018 Soil Boring Location and Identification Number
NE 💽	BSE Aug. 2018 Test Pit Location and Identification Number (Grab Sample in Excavation)
в−33	Soil Boring Location and Identification Number (July 2018)

Figure

XS2







<u>LEGEND</u>

Gx= <10 Dx= 350	Gasoline (Gx) & Diesel (Dx) Range Total Petroleum Hydrocarbons per Northwest Method NWTPH-Gx & NWTPH-Dx; Units in parts per million (ppm) <10 or <250 = Not Detected
B7/MW2	BSE May 2019 Soil Boring/ Monitoring Well Location and Identification Number
MW1 🕤	Monitoring Well Location and Identification Number (By BSE 5/14/2019)
в1 🗙	BSE Aug. 2018 Soil Boring Location and Identification Number
NE 🔕	BSE Aug. 2018 Test Pit Location and Identification Number (Grab Sample in Excavation)
SB−33 (Soil Boring Location and Identification Number (July 2018)



Figure

XS3

APPENDIX II

2024 Boring Logs

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

1	bse-13	.vsd							_					-
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL DESCR	IPTIC	DN			Recovery %	nscs	PID (ppmv in headspace)	V O	VELL CONSTRUCTION	
0				0-1': FILL, (2-5': Poorly odor	gravel v gradeo	d sand, fine g	100	GP SP	0.0		Temporary Boring, Backfilled with Bentonite	Ó		
5			B-13-8	 5-10': .SILT (more.sanc	"Y.Sanc d at 8' to	– – – – – – ds, grey, wet, o. 10') Ground	no.odor. dwater @ 8	feet Z	100	SM	0.0			5
10				10-13': SIL	.TY Sar	nd, dark grey,	wet, no od		- - -	SM	0.0			10
	B-13-13 13-15': Poorly B-13-15 wet, no odor				orly grad	ded Sand, m	ed-course,	dark grey,	100	sp V				
								EOB at 15						
20									- 					20
25														25
									•					
30	Dept	h in fe		J					.L	L				30
	Drillin Drillin	g Metho g Compa	d: Direct Pus	sh thwest	Date: Weather	4/29/2024 r: Overcast, 1	rainy, mid 5	50s	Other In	formatio	n:			1
	Logge	d By:	Haley Carter	es	Page	of	<u> </u>							
	El	NVII KE	BLUE S RONME NNEWI	AGE NTAL I CK, WA	NC	Boring Bud C 961 Co Longv	g Log lary Su ommer view, W	ibaru ce Aven A	ue				B-13	

	bse-14.	.vsd														
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL DESCR	ΙΡΤΙΟ	N				Recovery %	SOSU	PID (ppmv in headspace)	y O	VELL	RUCTION	
0				0-1': FILL, c 2-5': Poorly odor	gravel gradec		grained, b	orown, dry	/, no		GP SM	0.0		Tempora Backfi Ben	ary Boring, lled with tonite	Ö
5			B-14-10		Y sand, I at 8' to	, grey, wet, 0.10')Grou	no odor ndwater @		⊻	100	SM	0.0				5
10			B-14-13	10-13': SIL	10-13': SILTY Sand, dark grey, wet, no odor 13-15': Poorly graded sand, med-course, dark grey						SM	0.0				10
15	B-14-15 				or			EOB at	t 15'		SP					15
20				·												
2 <mark>5</mark>																25
30	Dept	h in fe													·	
	Drilling Drilling Boring Logge	Depth in feet Drilling Method: Direct Push Drilling Company: ESN Northwest Boring Diameter: Two inches Logged By: Haley Carter			Date: 4/29/2024 Weather: Overcast, rainy, mid 50s Page 1					Other Inf	formation	1:				
	El	NVII KE	BLUE S RONME NNEWI	AGE NTAL II CK, WA	NC	Borin Bud 961 C Long	ng Log Clary S Comme view, N	Subaru erce A NA	ı venı	le				E	3-14	

1	nw-o b	oring lo	og.vsdx									
	BLOWS/6 inches	INTERVAL	SAMPLE NUMBER	SOIL	RIPTIC	DN		Recovery %	nscs	PID (ppmv in headspace)	WELL CONSTRUCTION	
ľ												
				Surface: As	sphalt						Concrete Seal	
j				0-5': No red	covery							1
											Сар	
								0			Bentonite	
											2" PVC	
		੶≜₽		5 10': 911 7							Blank	-
				no odor	i Sailt	a, medium course, grey, wet @	0.0,			0.0		
1								75	SM			
						Groundwater @ 8.8 feet						
		- ₽ ₽	_MW-6-10					L	L			_
1				10-13': SIL	TY Sar	nd, medium course, grey, wet, I	no		CM	0.0		
-				odor				75	5111		2" PVC Screen	
-			MW-6-13	13-15': SA	ND, me	edium-coarse, gray, wet, , no o	dor					
			MW-6-15						SP			
5						EOB a	t 15'				2" PVC	1
											Plug	
-												
ō		· _ 🛓										-
_												_
2												
1												
								$L_{}$				T
י	Dept	h in fe	et									3
ľ	Drillin	g Metho	d: Direct Pus	sh	Date:	4/29/2024		Other In	formatio	n:		
Drilling Company:HoloceneWeathBoring Diameter:2 inchesPage			Weathe	r: Overcast, rainy, mid 50s		DOE Well Tag Number: BPX 775			775			
			Page _	_1 of1								
	Logge	d By:	Haley Carter									
BLUE SAGE ENVIRONMENTAL INC KENNEWICK, WA				Boring Log Bud Clary Subar 961 Commerce A Longview, WA	u ven	ue			MW-6			

APPENDIX III

2024 Borings Lab Report Soil and Groundwater

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

May 8, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on May 1, 2024 from the Longview Subaru, F&BI 405012 project. There are 50 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 BSG0508R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2023 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 405012 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405012 -01	B-13-8
405012 -02	B-13-13
405012 -03	B-13-15
405012 -04	B-13-W
405012 -05	B-14-10
405012 -06	B-14-13
405012 -07	B-14-15
405012 -08	B-14-W
405012 -09	MW-6-10
405012 -10	MW-6-13
405012 -11	MW-6-15

Lead in the 6020B dissolved matrix spike and matrix spike duplicate did not meet the acceptance criteria. The laboratory control sample passed the acceptance criteria, therefore the results were due to matrix effect.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/02/24

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	Gasoline Range	Surrogate (<u>% Recovery)</u> (Limit 50-150)
B-13-W 405012-04	<100	91
B-14-W 405012-08	<100	89
Method Blank 04-872 MB	<100	87

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/02/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)	
B-13-13 405012-02	<5	93	
B-13-15 405012-03	<5	95	
B-14-13 405012-06	<5	96	
B-14-15 405012-07	<5	99	
MW-6-13 405012-10	<5	107	
MW-6-15 405012-11	<5	92	
Method Blank 04-873 MB	<5	93	

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/02/24 Date Analyzed: 05/02/24

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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-W 405012-04	<50	<250	106
B-14-W 405012-08	<50	<250	127
Method Blank 04-1051 MB	<50	<250	108

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 05/01/24 Date Analyzed: 05/01/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-13 405012-02	<50	<250	93
B-13-15 405012-03	<50	<250	90
B-14-13 405012-06	<50	<250	95
B-14-15 405012-07	<50	<250	88
MW-6-13 405012-10	<50	<250	94
MW-6-15 405012-11	<50	<250	97
Method Blank 04-1044 MB	<50	<250	90

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-W 05/01/24 05/03/24 05/03/24 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-04 050312.D GCMS11 IJL
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 101 104 96	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		
ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-W 05/01/24 05/03/24 05/03/24 Water ug/L (ppb)		Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-08 050313.D GCMS11 IJL
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 101 101 90	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Blan Not Applicab 05/03/24 05/03/24 Water ug/L (ppb)	k le	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 04-0994 mb 050309.D GCMS11 MD
Surrogates: 1,2-Dichloroethane- Toluene-d8 4-Bromofluorobenze	d4 ene	% Recovery: 102 101 91	Lower Limit: 78 84 72	Upper Limit: 126 115 130
Compounds:		Concentration ug/L (ppb)		
Methyl t-butyl ether 1,2-Dichloroethane Benzene Toluene 1,2-Dibromoethane Ethylbenzene m,p-Xylene o-Xylene	r (MTBE) (EDC) (EDB)	<1 <0.2 <0.35 <1 <0.01 <1 <2 <1		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-02 1/0.5 050611.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	97	84	120
Toluene-d8		95	73	128
4-Bromofluorobenz	ene	98	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	er (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppm	ı) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-03 1/0.5 050612.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	110	84	120
Toluene-d8		104	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		
o-Xylene		< 0.002		

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-06 1/0.5 050613.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	104	84	120
Toluene-d8		107	73	128
4-Bromofluorobenz	ene	101	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	er (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppr	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-07 1/0.5 050614.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane	-d4	103	84	120
Toluene-d8		104	73	128
4-Bromofluorobenz	ene	101	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	er (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	e (EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-13 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppm	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-10 1/0.5 050615.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	107	84	120
Toluene-d8		106	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ether	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-15 05/01/24 05/06/24 05/06/24 Soil mg/kg (ppn	n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-11 1/0.5 050616.D GCMS13 IJL
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	d4	101	84	120
Toluene-d8		104	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition LL

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	Method Bla Not Applica 05/06/24 05/06/24 Soil mg/kg (ppn	nnk able n) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 04-0997 mb 1/0.5 050609.D GCMS13 MD
			Lower	Upper
Surrogates:		% Recovery:	Limit:	Limit:
1,2-Dichloroethane-	·d4	107	84	120
Toluene-d8		106	73	128
4-Bromofluorobenze	ene	100	57	146
		Concentration		
Compounds:		mg/kg (ppm)		
Methyl t-butyl ethe	r (MTBE)	< 0.002		
1,2-Dichloroethane	(EDC)	< 0.003		
Benzene		< 0.002		
Toluene		< 0.002		
1,2-Dibromoethane	(EDB)	< 0.005		
Ethylbenzene		< 0.002		
m,p-Xylene		< 0.004		

< 0.002

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-13-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-04
Date Analyzed:	05/02/24		Data File:	050216.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 91	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-14-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-08
Date Analyzed:	05/02/24		Data File:	050217.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 97	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Bla	nk	Client:	Blue Sage Environmental
Date Received:	Not Applica	ble	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	04-1050 mb
Date Analyzed:	05/02/24		Data File:	050209.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 92	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	B-13-13		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24		Lab ID:	405012-02 1/5
Date Analyzed:	05/03/24		Data File:	050321.D
Matrix:	Soil		Instrument:	GCMS9
Units:	mg/kg (ppm) Dry	v Weight	Operator:	VM
Surrogates: Terphenyl-d14	%]	Recovery: 76	Lower Limit: 50	Upper Limit: 124
Compounds:	Con- mg	centration /kg (ppm)		
Benz(a)anthracene		< 0.01		
Chrysene		< 0.01		
Benzo(a)pyrene		< 0.01		
Benzo(b)fluoranther	ne	< 0.01		
Benzo(k)fluoranther	ne	< 0.01		
Indeno(1,2,3-cd)pyre	ene	< 0.01		
Dibenz(a,h)anthrace	ene	< 0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-13-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-03 1/5 050322.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 95	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-13 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-06 1/5 050323.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 96	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)	L	
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	B-14-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-07 1/5 050324.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 95	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentratio mg/kg (ppm)	n)	
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-13 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-10 1/5 050325.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 87	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix: Units:	MW-6-15 05/01/24 05/01/24 05/03/24 Soil mg/kg (ppm) Dry Weight	Client: Project: Lab ID: Data File: Instrument: Operator:	Blue Sage Environmental Longview Subaru, F&BI 405012 405012-11 1/5 050326.D GCMS9 VM
Surrogates: Terphenyl-d14	% Recovery: 96	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	Not Applicable	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	04-1046 mb 1/5
Date Analyzed:	05/03/24	Data File:	050310.D
Matrix:	Soil	Instrument:	GCMS9
Units:	mg/kg (ppm) Dry Weight	Operator:	VM
Surrogates: Terphenyl-d14	% Recovery: 107	Lower Limit: 50	Upper Limit: 124
Compounds:	Concentration mg/kg (ppm)		
Benz(a)anthracene	< 0.01		
Chrysene	< 0.01		
Benzo(a)pyrene	< 0.01		
Benzo(b)fluoranther	ne <0.01		
Benzo(k)fluoranther	ne <0.01		
Indeno(1,2,3-cd)pyre	ene <0.01		
Dibenz(a,h)anthrace	ene <0.01		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-04 x2
Date Analyzed:	05/03/24	Data File:	405012-04 x2.146
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	3.4		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-08
Date Analyzed:	05/02/24	Data File:	405012-08.077
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentrat	tion	
Analyte:	ug/L (ppl	b)	
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	I4-353 mb2
Date Analyzed:	05/02/24	Data File:	I4-353 mb2.062
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B-13-W	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	405012-04
Date Analyzed:	05/02/24	Data File:	405012-04.193
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	B-14-W		Client:	Blue Sage Environmental
Date Received:	05/01/24		Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24		Lab ID:	405012-08
Date Analyzed:	05/02/24		Data File:	405012-08.194
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		
Lead		<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/02/24	Lab ID:	I4-358 mb
Date Analyzed:	05/02/24	Data File:	I4-358 mb.145
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-02
Date Analyzed:	05/01/24	Data File:	405012-02.141
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-13-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-03
Date Analyzed:	05/01/24	Data File:	405012-03.142
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-06
Date Analyzed:	05/01/24	Data File:	405012-06.153
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	1.7		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	B-14-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID: $D \neq F'$	405012-07
Date Analyzed:	05/01/24	Data File:	405012-07.154
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-13	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-10
Date Analyzed:	05/01/24	Data File:	405012-10.155
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
	Concentration		
Analyte:	mg/kg (ppm)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6-15	Client:	Blue Sage Environmental
Date Received:	05/01/24	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	405012-11
Date Analyzed:	05/01/24	Data File:	405012-11.166
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	1.1		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Longview Subaru, F&BI 405012
Date Extracted:	05/01/24	Lab ID:	I4-354 mb
Date Analyzed:	05/01/24	Data File:	I4-354 mb.121
Matrix:	Soil	Instrument:	ICPMS2
Units:	mg/kg (ppm) Dry Weight	Operator:	SP
Analyte:	Concentration mg/kg (ppm)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 404435-02 (Duplicate)							
	Reporting	Samp	le Duj	olicate	RPD		
Analyte	Units	Resul	lt R	esult	(Limit 20)		
Gasoline	ug/L (ppb)	<100) <	:100	nm		
Laboratory Code: Laboratory Control Sample Percent							
	Reporting	Spike	Recovery	Acceptance			
Analyte	Units	Level	LCS	Criteria			
Gasoline	ug/L (ppb)	1,000	95	70-130	-		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 40	04485-01 (Duplic	eate)			
		Samp	ole Du	plicate	
	Reporting	Resu	lt F	Result	RPD
Analyte	Units	(Wet V	Wt) (W	Vet Wt)	(Limit 20)
Gasoline	mg/kg (ppm)	<5		<5	nm
Laboratory Code: L	aboratory Contro	ol Sample	e		
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Gasoline	mg/kg (ppm)	40	100	70-130	_

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: Laboratory Control Sample

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	80	88	65 - 151	10

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code:	405012-02 (Matrix	x Spike)	(Wot wt)	Porcont	Porcont		
Analyte	Reporting Units	Spike Level	Sample Result	Recovery MS	Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	98	108	64-136	10
Laboratory Code: Laboratory Control Sample Percent							
	Reporting	Spike	Recovery	y Accepta	ance		
Analyte	Units	Level	LCS	Criter	ria		
Diesel Extended	mg/kg (ppm)	5,000	102	78-12	21		

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ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405066-01 (Matrix Spike)

-				Percent	
	Reporting	Spike	Sample	Recovery	Acceptance
Analyte	Units	Level	Result	MS	Criteria
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	<1	102	50 - 150
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	< 0.2	103	50 - 150
Benzene	ug/L (ppb)	10	< 0.35	96	50 - 150
Toluene	ug/L (ppb)	10	<1	94	50 - 150
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	< 0.01	99	50 - 150
Ethylbenzene	ug/L (ppb)	10	<1	97	50 - 150
m,p-Xylene	ug/L (ppb)	20	<2	97	50 - 150
o-Xylene	ug/L (ppb)	10	<1	97	50 - 150

Laboratory Code: Laboratory Control Sample

	-	~	Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Methyl t-butyl ether (MTBE)	ug/L (ppb)	10	102	103	70-130	1
1,2-Dichloroethane (EDC)	ug/L (ppb)	10	103	103	70-130	0
Benzene	ug/L (ppb)	10	96	97	70-130	1
Toluene	ug/L (ppb)	10	97	97	70-130	0
1,2-Dibromoethane (EDB)	ug/L (ppb)	10	102	102	70-130	0
Ethylbenzene	ug/L (ppb)	10	101	101	70-130	0
m,p-Xylene	ug/L (ppb)	20	101	101	70-130	0
o-Xylene	ug/L (ppb)	10	99	99	70-130	0

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405051-01 (Matrix Spike)

pince)						
		Sample	Percent	Percent		
Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Units	Level	(Wet wt)	\mathbf{MS}	MSD	Criteria	(Limit 20)
mg/kg (ppm)	2	< 0.05	90	89	21 - 145	1
mg/kg (ppm)	2	< 0.05	89	89	12 - 160	0
mg/kg (ppm)	2	< 0.03	90	89	29 - 129	1
mg/kg (ppm)	2	< 0.05	89	87	35 - 130	2
mg/kg (ppm)	2	< 0.05	91	92	28 - 142	1
mg/kg (ppm)	2	< 0.05	92	92	32 - 137	0
mg/kg (ppm)	4	< 0.1	95	93	34 - 136	2
mg/kg (ppm)	2	< 0.05	95	96	33 - 134	1
	Reporting Units mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm)	Reporting UnitsSpike Levelmg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)2mg/kg (ppm)4mg/kg (ppm)2	Reporting Units Spike Level Sample Result mg/kg (ppm) 2 <0.05	Reporting Units Spike Level Sample Result Percent Recovery mg/kg (ppm) 2 <0.05	Reporting Units Spike Level Sample Result Percent Recovery Percent Recovery mg/kg (ppm) 2 <0.05	Reporting Units Sample Spike Percent Result Percent Recovery Percent Recovery Acceptance Criteria mg/kg (ppm) 2 <0.05

	I I I I I I I		Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Methyl t-butyl ether (MTBE)	mg/kg (ppm)	2	85	60-123
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2	87	56 - 135
Benzene	mg/kg (ppm)	2	89	65 - 136
Toluene	mg/kg (ppm)	2	86	66 - 126
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2	95	66 - 129
Ethylbenzene	mg/kg (ppm)	2	91	64-123
m,p-Xylene	mg/kg (ppm)	4	91	68 - 128
o-Xylene	mg/kg (ppm)	2	91	67 - 129

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code. Laboratory Co	Sintoi Sampi	le	Percent	Percent		
Analyte	Reporting Units	Spike Level	Recovery LCS	Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	ug/L (ppb)	10	99	100	66-131	1
Chrysene	ug/L (ppb)	10	96	96	66-129	0
Benzo(a)pyrene	ug/L (ppb)	10	102	104	66-129	2
Benzo(b)fluoranthene	ug/L (ppb)	10	105	107	55 - 144	2
Benzo(k)fluoranthene	ug/L (ppb)	10	103	102	58-139	1
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	91	94	62-136	3
Dibenz(a,h)anthracene	ug/L (ppb)	10	86	90	55 - 146	5

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405011-02 1/5 (Matrix Spike)

Laboratory Code:	405011-02 1/5 (Mat	rix Spik	e)				
Analyte	Reporting Units	Spike Level	Sample Result (Wet wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Benz(a)anthracene	mg/kg (ppm)	0.83	< 0.01	83	101	50-150	20
Chrysene	mg/kg (ppm)	0.83	< 0.01	81	84	50 - 150	4
Benzo(a)pyrene	mg/kg (ppm)	0.83	< 0.01	86	90	50 - 150	5
Benzo(b)fluoranthene	mg/kg (ppm)	0.83	< 0.01	88	91	50 - 150	3
Benzo(k)fluoranthene	mg/kg (ppm)	0.83	< 0.01	88	92	50 - 150	4
Indeno(1,2,3-cd)pyrene	mg/kg (ppm)	0.83	< 0.01	77	82	40-140	6
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	< 0.01	76	81	41-136	6

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benz(a)anthracene Chrysene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(k)fluoranthene Indeno(1,2,3-cd)pyrene	mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm) mg/kg (ppm)	0.83 0.83 0.83 0.83 0.83 0.83 0.83	$95 \\ 94 \\ 101 \\ 98 \\ 104 \\ 110$	$\begin{array}{c} 70\text{-}130\\ 70\text{-}130\\ 68\text{-}120\\ 67\text{-}128\\ 70\text{-}130\\ 67\text{-}129\end{array}$
Dibenz(a,h)anthracene	mg/kg (ppm)	0.83	110	67-128

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code	: 405004-01	(Matrix Sp	ike)				
	Reporting	Spike	Sample	Percent Recovery	Percent Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	95	97	75-125	2

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	97	80-120

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405010-01 x10 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<10	67 vo	66 vo	75 - 125	2

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	97	80-120

ENVIRONMENTAL CHEMISTS

Date of Report: 05/08/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 405023-01 x5 (Matrix Spike)

			Sample	Percent	Percent		
	Reporting	Spike	Result	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	(Wet wt)	MS	MSD	Criteria	(Limit 20)
Lead	mg/kg (ppm)	50	<5	98	98	75 - 125	0

Laboratory O	de. Laboratory Com	and Sample	Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	mg/kg (ppm)	$\overline{50}$	99	80-120

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

	1 16. (200) 200-0202	Friedman & Bruya, Inc.		MW-6-13	MW-6-10	B-14-W	B-14-15	B-14-13	13-14-10	8-13-60	B-13-15	8-13-13	B-13-8	Sample ID		PhoneEm	City, State, ZIP	Address	Company RUE SAG	405012 Report To AlEX With
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		Ŕ												VOCs EPA 8260 PAHs EPA 8270	ANALYSI	C (CHAN	INVOICE		P0 #	051
Sample	FSB	LUE SA	COMI	X		\geq	X	X		X			,	PCBs EPA 8082 CPAHS	ES REQUE		TO Share			he/10,
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Friedman & Bruya, Inc. Reli Ph. (206) 285-8282 Rec Rec			MW-6-15	Sample ID		City, State, ZIP PhoneEmail	405012 Report To ATEX Much Company BLUE SAGTE Address
inquished by.			11 A.E	Lab ID		4 hoch 196	
MATURE			 4/29/24	Date Sampled		72 Elemandic	
			1245	Time Sampled		REMARK	SAMPLE SAMPLE PROJECT
HAC			 S	Sample # Type J.		S ecific RLs? -	CHAIN O RS (signatur RS (signatur RS (signatur Subar)
VHPHA			 X	NWTPH-Dx NWTPH-Gx	1	Yes / No	F CUSTO
			X	BTEX EPA 8021 NWTPH-HCID VOCs EPA 8260	ANA	Longu En (Clary)	DY
Samp			×	РАНѕ ЕРА 8270 РСВѕ ЕРА 8082 СРАН5	LYSES REQU	Subaru	0570 00#
IPANY Α 67 ξ β los receive			X	MTBÉ, ÉD B , EX. Lesd	ESTED	SAN Archive Other_ Default:	Page Page TUR TUR Rush char
DATE T $G/\psi/c/ q$ $\sigma s/\sigma l/24 Q'$				Notes		MPLE DISPOSAL samples Dispose after 30	$\frac{W \mathcal{L}}{F \mathcal{L}} = \frac{F \mathcal{L}}{of}$
11ME 35 7:35						days	Ky Pr 82

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SAMPLE CONDITION UPON RECEIPT C	HECKLIS	ST	
PROJECT # 405012 CLIENT BST	INITIA DATE:	LS/ AP OS/C	1/24
If custody seals are present on cooler, are they intact?	Ø NA	□ YES	
Cooler/Sample temperature		(Ø_∘c
Were samples received on ice/cold nacks?	The	rmometer ID: Fl	<u>uke 9631291'</u>
How did samples arrive? How did samples arrive? Directed up by F&BI FedEx/UPS/GSO		Ø YES	□ NC
Number of days samples have been sitting prior to receipt at	t laborate	ory 2	days
Is there a Chain-of-Custody* (COC)? *or other representative documents, letters, and/or shipping memos		Ø YES	o NO
Are the samples clearly identified? (explain "no" answer below)		Ø YES	🗆 NO
Is the following information provided on the COC*? (explain "m	o" answer b	/	
Sample ID'sYesNo# of ContainersYesDate SampledYesNoRelinquishedYesTime SampledYesNoRequested analysisYes	B □ No B □ No B □ No		
Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)		& YES	o NO
Were appropriate sample containers used?	□ NC) 🗆 Un	known
If custody seals are present on samples, are they intact?	NA	□ YES	□ NO
Are samples requiring no headspace, headspace free?	D NA	ø YES	D NO
Air Samples: Were any additional canisters/tubes received? If Yes: Number of unused TO15 canisters Number of unuse	. I NA ed TO17 t	□ YES	o NO
Explain "no" items from above (use the back i	f needed)		

FRIEDMAN & BRUYA, INC./FORMS/CHECKIN/5500 SAMPLECONDITION.doc

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

June 25, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the additional results from the testing of material submitted on May 1, 2024 from the Longview Subaru, F&BI 405012 project. There are 6 pages included in this report.

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 BSG0625R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 1, 2023 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 405012 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405012 -01	B-13-8
405012 -02	B-13-13
405012 -03	B-13-15
405012 -04	B-13-W
405012 -05	B-14-10
405012 -06	B-14-13
405012 -07	B-14-15
405012 -08	B-14-W
405012 -09	MW-6-10
405012 -10	MW-6-13
405012 -11	MW-6-15

The samples were received in good condition at 0 degrees Celsius. The samples for NWTPH-Dx were placed in a refrigerator and maintained at <4 degrees Celsius and samples for NWTPH-Gx were frozen to <-10 degrees Celsius prior to extraction. The NWTPH-Gx and NWTPH-Dx tests were requested outside of the holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 06/24/24 Date Analyzed: 06/24/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	<u>Gasoline Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)
B-13-8 ht 405012-01	<5	91
B-14-10 ht 405012-05	<5	92
MW-6-10 ht 405012-09	<5	99
Method Blank 04-1363 MB	<5	98

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012 Date Extracted: 06/21/24 Date Analyzed: 06/21/24

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

Results Reported on a Dry Weight Basis Results Reported as mg/kg (ppm)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 50-150)
B-13-8 ht 405012-01	<50	<250	95
B-14-10 ht 405012-05	<50	<250	92
MW-6-10 ht 405012-09	<50	<250	99
Method Blank 04-1438 MB	<50	<250	95

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code: 4	05012-01 (Duplic	eate)			
		Samp	ole Du	plicate	
	Reporting	Resu	lt F	Result	RPD
Analyte	Units	(Wet V	Wt) (W	Vet Wt)	(Limit 20)
Gasoline	mg/kg (ppm)	<5		<5	nm
Laboratory Code: L	aboratory Contro	ol Sample	e		
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
Gasoline	mg/kg (ppm)	40	95	70-130	

ENVIRONMENTAL CHEMISTS

Date of Report: 06/25/24 Date Received: 05/01/24 Project: Longview Subaru, F&BI 405012

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

Laboratory Code:	406279-02 (Matri	x Spike)		_	_		
	Reporting	Snike	(Wet wt) Sample	Percent Recovery	Percent Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	104	64-136	0
Laboratory Code:	Laboratory Contr	ol Sampl	e				
	Bonorting	Sniko	Percent	7 Accort	neo		
Analyte	Units	Level	LCS	Crite	ria		
Diesel Extended	mg/kg (ppm)	5,000	94	78-12	21		

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ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

Rec	F11. (200) 200-0202 Rec	Friedman & Bruya, Inc. Rel		MW-6-13	MW-6-10	B-14-6J	B-14-15	B-14-15	13-14-10	8-13-6	B-13-15	8-13-13	B-13-8	Sample ID		PhoneEmail_	City, State, ZIP	Address	Company RUE SAGE	405012 Report To AlEx High
reived by:	eived by:	inquished by	dr.	10 1	DA A-E	7- 4 80	T to	06	65AJE	CH A-F	03 1	20	OI A-E	Lab ID		Alboch 1967				
		Mul	NATIRE	Ç									4/29/24	Date Sampled		2 Og mail com			8	
	W			1240	1235	<u>1</u> [30	1115	1110	1105	1040	1025	020	105	Time Sampled		Project spe	REMARK	Longvie	PROJECT	SAMPLE (
	AN	HALEY	p	\bigcirc	S	3	E	-	S	3	6		S	Sample #0 Type Ja		eific RLs? -	20	W Subarc	NAME	SHAIN OI
	HPHAN	CARTER	RINT NAMI	XX	A A	X	X	X	A A	X	X	X	A A	NWTPH-Dx NWTPH-Gx		Yes / No				CUSTO
									\					BTEX EPA-6021 NWTPH-HCID VOCs EPA 8260	ANAL	() ()	INVOI		PC	0 V DY
Samp	F\$	Biue S	COM	X					7				,	PAHS EPA 8270 PCBS EPA 8082 CPAHS	YSES REQU	her	ICE TO) #	5/01/24
les receive	В	AGE	IPANY	XX		X								M7BE, ED BEDC	ESTED	Default:	2 Archive	Rush cha	□ RUSH_	L VW2
d at	05/01/2	9/36/24	DATE			Total+		5. 5.		Total+1				A-per A 06/21/24 No		Dispose afte	9 samples	rges authorize	rd turnaround	,# For K
	409:53	256	TIME			Dissilved	-			XSSON deal	-			F ME		r 30 days	SAL	d by:		TWE DY

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Friedman & Bruya, Inc. Reli Ph. (206) 285-8282 Rec Rec			MW-6-15	Sample ID		City, State, ZIP PhoneEmail	405012 Report To ATEX Much Company BLUE SAGTE Address
inquished by.			11 A.E	Lab ID		4 hoch 196	
MATURE			 4/29/24	Date Sampled		72 Elemandic	
			1245	Time Sampled		REMARK	SAMPLE SAMPLE PROJECT
HAC			 S	Sample # Type J.		S ecific RLs? -	CHAIN O RS (signatur RS (signatur RS (signatur Subar)
VHPHA			 X	NWTPH-Dx NWTPH-Gx	1	Yes / No	F CUSTO
			X	BTEX EPA 8021 NWTPH-HCID VOCs EPA 8260	ANA	Longu En (Clary)	DY
Samp			×	РАНѕ ЕРА 8270 РСВѕ ЕРА 8082 СРАН5	LYSES REQU	Subaru	0570 00#
IPANY Α 67 ξ β los receive			X	MTBÉ, ÉD B , EX. Lesd	ESTED	SAN Archive Other_ Default:	Page Page TUR TUR Rush char
DATE T $G/\psi/c/ q$ $\sigma s/\sigma l/24 Q'$				Notes		MPLE DISPOSAL samples Dispose after 30	$\frac{W \mathcal{L}}{F \mathcal{L}} = \frac{F \mathcal{L}}{of}$
11ME 35 7:35						days	Ky Pr 82

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SAMPLE CONDITION UPON RECEIPT C	HECKLIS	ST	
PROJECT # 405012 CLIENT BST	INITIA DATE:	LS/ AP OS/C	1/24
If custody seals are present on cooler, are they intact?	Ø NA	□ YES	N(
Cooler/Sample temperature		(Ø_∘c
Were samples received on ice/cold nacks?	The	rmometer ID: Fl	<u>uke 9631291'</u>
How did samples arrive? How did samples arrive? Directed up by F&BI FedEx/UPS/GSO		Ø YES	□ NC
Number of days samples have been sitting prior to receipt at	t laborate	ory 2	days
Is there a Chain-of-Custody* (COC)? *or other representative documents, letters, and/or shipping memos		Ø YES	o NO
Are the samples clearly identified? (explain "no" answer below)		Ø YES	🗆 NO
Is the following information provided on the COC*? (explain "m	o" answer b	/	
Sample ID'sYesNo# of ContainersYesDate SampledYesNoRelinquishedYesTime SampledYesNoRequested analysisYes	B □ No B □ No B □ No		
Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below)		& YES	o NO
Were appropriate sample containers used?	□ NC) 🗆 Un	known
If custody seals are present on samples, are they intact?	NA	□ YES	□ NO
Are samples requiring no headspace, headspace free?	D NA	ø YES	D NO
Air Samples: Were any additional canisters/tubes received? If Yes: Number of unused TO15 canisters Number of unuse		□ YES	o NO
Explain "no" items from above (use the back i	f needed)		

FRIEDMAN & BRUYA, INC./FORMS/CHECKIN/5500 SAMPLECONDITION.doc

File :P:\Proc_GC13\06-21-24\062124.D
Operator : IJL
Acquired : 21 Jun 2024 05:07 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-01
Misc Info :
Vial Number: 24



File :P:\Proc_GC13\06-21-24\062125.D
Operator : IJL
Acquired : 21 Jun 2024 05:18 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-05
Misc Info :
Vial Number: 25



File :P:\Proc_GC13\06-21-24\062126.D
Operator : IJL
Acquired : 21 Jun 2024 05:30 pm using AcqMethod Dx.M
Instrument : GC13
Sample Name: 405012-09
Misc Info :
Vial Number: 26



File :P:\Proc_GC13\06-21-24\062105.D
Operator : TL
Acquired : 21 Jun 2024 08:36 am using AcqMethod Dx.M
Instrument : GC13
Sample Name: 04-1438 mb
Misc Info :
Vial Number: 7



File :P:\Proc_GC13\06-21-24\062128.D Operator : IJL Acquired : 21 Jun 2024 05:53 pm using AcqMethod Dx.M Instrument : GC13 Sample Name: 500 Dx 71-152C Misc Info : Vial Number: 3

ERR



Time

File :U:\GC15\GC15_DATA\06-24-24\062409.D Operator : al Acquired : 24 Jun 2024 09:57 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 405012-01 Misc Info : Vial Number: 8

Response_

Signal: 062409.D\F1D1A.ch



Time

File :U:\GC15\GC15_DATA\06-24-24\062410.D Operator : al Acquired : 24 Jun 2024 10:16 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 405012-05 Misc Info : Vial Number: 9

Response_

Signal: 062410.D\FID1A.ch

ID: B-14-10



File :U:\GC15\GC15_DATA\06-24-24\062411.D
Operator : al
Acquired : 24 Jun 2024 10:34 am using AcqMethod Gx.M
Instrument : GC15
Sample Name: 405012-09
Misc Info :
Vial Number: 10



Time

File :U:\GC15\GC15_DATA\06-24-24\062407.D Operator : al Acquired : 24 Jun 2024 09:20 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 04-1363 mb Misc Info : Vial Number: 6

Response_

Signal: 062407.D\FID1A.ch Method Blank NWTPH-Gx

7.00

8.00

9.00

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700000

500000

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300000

100000

0.00

2.00

1.00

3.00

4.00

5.00

6.00

600000

200000

Time

10.00 11.00 12.00 13.00 14.00 15.00



File :U:\GC15\GC15_DATA\06-24-24\062403.D Operator : al Acquired : 24 Jun 2024 08:05 am using AcqMethod Gx.M Instrument : GC15 Sample Name: 1000 Gx 72-179C #1 Misc Info : Vial Number: 2



APPENDIX IV

2024 Groundwater Monitoring Laboratory Report

Bud Clary Subaru 961 Commerce Avenue Longview, Washington

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

May 20, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on May 10, 2024 from the Subaru Longview, F&BI 405182 project. There are 30 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 BSG0520R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on May 10, 2024 by Friedman & Bruya, Inc. from the Blue Sage Environmental Subaru Longview, F&BI 405182 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
405182 -01	MW-1
405182 -02	MW-2
405182 -03	MW-3
405182 -04	MW-4
405182 -05	MW-5
405182 -06	MW-6
405182 -07	Trip Blank

Sample MW-3 were sent to Fremont Analytical for nitrate and sulfate analyses. The report is enclosed.

The 6020B total lead calibration standard exceeded the acceptance criteria. The metal was not detected, therefore this did not represent an out of control condition, and the results are not considered estimates.

All other quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182 Date Extracted: 05/15/24 Date Analyzed: 05/16/24

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	Ethyl <u>Benzene</u>	Total <u>Xylenes</u>	Gasoline <u>Range</u>	Surrogate (<u>% Recovery</u>) (Limit 50-150)
MW-1 405182-01	<1	<1	<1	<3	<100	94
MW-2 405182-02	<1	<1	<1	<3	<100	96
MW-3 405182-03	<1	<1	<1	<3	<100	90
MW-4 405182-04	<1	<1	<1	<3	<100	83
MW-5 405182-05	<1	<1	<1	<3	<100	94
MW-6 405182-06	<1	<1	<1	<3	<100	92
Method Blank 04-893 MB	<1	<1	<1	<3	<100	84

Results Reported as ug/L (ppb)

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182 Date Extracted: 05/15/24 Date Analyzed: 05/15/24

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)

<u>Sample ID</u> Laboratory ID	Diesel Range (C10-C25)	Motor Oil Range (C25-C36)	Surrogate <u>(% Recovery)</u> (Limit 41-152)
MW-1 405182-01	<50	<250	85
MW-2 405182-02	99 x	560 x	85
MW-3 405182-03	<50	<250	81
MW-4 405182-04	<50	<250	87
MW-5 405182-05	300 x	<250	92
MW-6 405182-06	130 x	<250	88
Method Blank 04-1155 MB	<50	<250	93
ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-1 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-01 051618.D GCMS9
Units:	ug/L (ppb)		Operator:	VIVI
Surrogates: Terphenyl-d14		% Recovery: 103	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-2 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-02 051619.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 102	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-3 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-03 051620.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 98	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-4 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-04 051621.D GCMS9
Units:	ug/L (ppb)		Operator:	V IVI
Surrogates: Terphenyl-d14		% Recovery: 95	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-5 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-05 051622.D GCMS9
Units:	ug/L (ppb)		Operator:	VIVI
Surrogates: Terphenyl-d14		% Recovery: 101	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Extracted: Date Analyzed: Matrix:	MW-6 05/10/24 05/16/24 05/16/24 Water		Client: Project: Lab ID: Data File: Instrument:	Blue Sage Environmental Subaru Longview, F&BI 405182 405182-06 051623.D GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 97	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyr	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Bla	nk	Client:	Blue Sage Environmental
Date Received:	Not Applica	ble	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/16/24		Lab ID:	04-1152 mb
Date Analyzed:	05/16/24		Data File:	051612.D
Matrix:	Water		Instrument:	GCMS9
Units:	ug/L (ppb)		Operator:	VM
Surrogates: Terphenyl-d14		% Recovery: 101	Lower Limit: 41	Upper Limit: 138
Compounds:		Concentration ug/L (ppb)		
Benz(a)anthracene		< 0.02		
Chrysene		< 0.02		
Benzo(a)pyrene		< 0.02		
Benzo(b)fluoranther	ne	< 0.02		
Benzo(k)fluoranther	ne	< 0.02		
Indeno(1,2,3-cd)pyre	ene	< 0.02		
Dibenz(a,h)anthrace	ene	< 0.02		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-1	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-01
Date Analyzed:	05/16/24	Data File:	405182-01.288
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

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ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-2	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-02
Date Analyzed:	05/16/24	Data File:	405182-02.279
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-3	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-03
Date Analyzed:	05/16/24	Data File:	405182-03.280
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-4		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24		Lab ID:	405182-04
Date Analyzed:	05/16/24		Data File:	405182-04.281
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

<1 k

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-5		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24		Lab ID:	405182-05
Date Analyzed:	05/16/24		Data File:	405182-05.282
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

<1 k

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	MW-6	Client:	Blue Sage Environmental
Date Received:	05/10/24	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	405182-06
Date Analyzed:	05/16/24	Data File:	405182-06.283
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1 k		

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/15/24	Lab ID:	I4-398 mb
Date Analyzed:	05/15/24	Data File:	I4-398 mb.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

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Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-2		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-02
Date Analyzed:	05/13/24		Data File:	405182-02.099
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-3		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-03
Date Analyzed:	05/13/24		Data File:	405182-03.100
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-4		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-04
Date Analyzed:	05/13/24		Data File:	405182-04.101
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-5		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-05
Date Analyzed:	05/13/24		Data File:	405182-05.102
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	MW-6		Client:	Blue Sage Environmental
Date Received:	05/10/24		Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24		Lab ID:	405182-06
Date Analyzed:	05/13/24		Data File:	405182-06.108
Matrix:	Water		Instrument:	ICPMS2
Units:	ug/L (ppb)		Operator:	SP
		Concentration		
Analyte:		ug/L (ppb)		

Lead

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 6020B

Client ID:	Method Blank	Client:	Blue Sage Environmental
Date Received:	NA	Project:	Subaru Longview, F&BI 405182
Date Extracted:	05/13/24	Lab ID:	I4-390 mb
Date Analyzed:	05/13/24	Data File:	I4-390 mb.074
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP
	Concentration		
Analyte:	ug/L (ppb)		
Lead	<1		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code:	405234-01 (Duplie	cate)		
	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

		Percent				
	Reporting	Spike	Recovery	Acceptance		
Analyte	Units	Level	LCS	Criteria		
Benzene	ug/L (ppb)	50	102	70-130		
Toluene	ug/L (ppb)	50	98	70-130		
Ethylbenzene	ug/L (ppb)	50	104	70-130		
Xylenes	ug/L (ppb)	150	87	70-130		
Gasoline	ug/L (ppb)	1,000	89	70-130		

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

			Percent	Percent		
	Reporting	Spike	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	LCS	LCSD	Criteria	(Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	100	72-139	4

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Percent Percent Reporting Spike Recovery Acceptance RPD											
Analyte	Ūnits –	Level	LCS	LCSD	Criteria	(Limit 20)					
Benz(a)anthracene	ug/L (ppb)	10	88	93	70-130	6					
Chrysene	ug/L (ppb)	10	90	95	70-130	5					
Benzo(a)pyrene	ug/L (ppb)	10	94	100	70-130	6					
Benzo(b)fluoranthene	ug/L (ppb)	10	93	97	70-130	4					
Benzo(k)fluoranthene	ug/L (ppb)	10	90	99	70-130	10					
Indeno(1,2,3-cd)pyrene	ug/L (ppb)	10	90	95	70-130	5					
Dibenz(a,h)anthracene	ug/L (ppb)	10	89	98	70-130	10					

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Laboratory Code: 405241-09 x10 (Matrix Spike)

				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<10	102	95	75 - 125	7

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	98	80-120

ENVIRONMENTAL CHEMISTS

Date of Report: 05/20/24 Date Received: 05/10/24 Project: Subaru Longview, F&BI 405182

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

Laboratory Code	: 405182-01 ((Matrix Sp	ike)				
				Percent	Percent		
	Reporting	Spike	Sample	Recovery	Recovery	Acceptance	RPD
Analyte	Units	Level	Result	MS	MSD	Criteria	(Limit 20)
Lead	ug/L (ppb)	10	<1	93	89	75 - 125	4

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Lead	ug/L (ppb)	10	98	80-120

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

SAMPLE CHAIN OF CUSTODY MC 05 -10 - 2.4 SAMPLESS (signature) PROJECT NAME PROJECT N	Friedman & Bruya, Inc. Ph. (206) 285-8282		Trip Blank	MW-6	5- W.W	M(W)-4	MW -3	MW-2	$M(\omega) - 1$	Sample ID		PhoneEmai	City. State, ZIP	Address	Report To <u>HEX 11001</u>	HOSI82
SAMPLE CHAIN OF CUSTODY SAMPLERS (signature) PO # PROJECT NAME PO # REMARKS Date Sampled Time Sampled	telinquished by: teceived by: telinquished by: teceived by:		OT AS	06	25	OY A.6	03A.H	07 (01 A-6	Lab ID		1 ahoch 196				-
SAMPLE CHAIN OF CUSTODY SAMPLERS (signature) PROJECT NAME PROJECT NAME Supplet specific RLs? - Yes / No Time Sampled Time Samplet 12(5) 12(GNATURE		1					5/9/24	5/9/24	Date Sampled		12 algonally				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
CHAIN OF CUSTODY MC 65-10-24 IV IV RS (signature) All U PO# TUBNAROUND TME TUBNAROUND TME INVOICE TO INVOICE TO Rush charges authorized by: Standard turnaround Rush IV LO GU 4 Standard turnaround Rush Rush Rush Sample # of LO GU 4 Standard turnaround Rush Sample # of LO GU 4 Standard turnaround INVOICE TO Sample INVOICE TO Core Anti-Standard turnaround Rush charges authorized by: Sample # of LO GU 4 Samples Other Invoice Sample # of NWTPH-IACX Date Default: Dispose after 30 dars Sample NWTPH-IACX NWTPH-I-HCID Other Invoice Sample NWTPH-IACX NWTPH-I-HCID Other Notes Sample NWTPH-I-HCID Notes Sample Notes Sample NWTPH-I-HCID Notes Sample Notes Sample NWTPH-I-HCID Sattrp:lds receitred at Sattrp:lds receitred at Sattrp:lds receitred at WdHar Sattrp:lds receitred at O c Satrp:lds receitred at Sattrp:lds receitred at	and the	2	1	1245	1345	Sici	1215	115	3511	Time Sampled		Project sp	REMARF	Suber	PROJEC	SAMPLE
OF CUSTODY ME OS - 10 - 2.4 TURNAROUND TIME KI Standard turnaround PO# TURNAROUND TIME KI Standard turnaround PO# TURNAROUND TIME KI NUCCE TO NUCCE TEA 8260 NUCCE TEA 8082 NUCCE TEA 80	HACZ		Water					3	0	Sample Type		pecific RLs	S	sol n	F NAME	CHAIN RS (signat
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Invoice To Turnaround Turnaround Me ANALYSES REQUESTED ANALYSES REQUESTED Standard turnaround P ANALYSES REQUESTED Anchive samples Other Default: Dispose after 30 days ANALYSES REQUESTED Archive samples Notes ANALYSES REQUESTED Anchive samples Notes ANALYSES REQUESTED Archive samples Notes ANALYSES REQUESTED Archive samples Notes Analyse Archive samples Notes Analyse Archive samples Notes Analyse Archive samples Notes Analyse Archive samples Notes And decd ct lab Archive sate Archive sate And decd ct lab Archive sate Archive sate Bulle Sates Sliolar Archive sate Bulle Sates Sliolar Archive sate	AN			È					X	BTEX EPA 8021		0				ODY
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SA	MPLE CONDI	TION UPON RECE	IPT CHEC	KLIST		
PROJECT # 40518	CLIENT	BST		NITIALS	S AP 05/10,	124
If custody seals are	present on co	oler, are they intact	; ?	V/NA	D YES	🗆 NO
Cooler/Sample temp	perature			Therm	ometer ID: Flu	°C ke 96312917
Were samples receiv	ved on ice/cold	l packs?			Ø YES	🗆 NO
How did samples ar	rive? he Counter	□ Picked up by F&B	Ι 🗆	FedEx/	UPS/GSO	
Is there a Chain-of- *or other representative do	Custody* (CO(ocuments, letters, a	C) ? Ind/or shipping memos			LYES	🗆 NO
Number of days sam	nples have bee	n sitting prior to re	ceipt at la	borato	ry/	_days
Are the samples clea	arly identified	? (explain "no" answer bel	low)		-YES	□ NO
Were all sample con leaking etc.)? (explain	tainers receiv "no" answer below	ed intact (i.e. not b)	roken,		U YES	□ NO
Were appropriate sa	ample contain	ers used?	DYES	o NC) 🗆 U	nknown
If custody seals are	present on sa	nples, are they inta	ct?	NA	□ YES	□ NO
Are samples requiri	ng no headspa	ace, headspace free?	? [) NA	I YES	□ NO
Is the following info (explain "no" answer below	ormation prov	ided on the COC, an	nd does it i	match t	he sampl	e label?
Sample ID's	🛛 Yes 🗆 No					
Date Sampled	🛛 Yes 🗆 No			0	Not on CC	C/label
Time Sampled	☑ Yes □ No	54 - L.		0	Not on CC	C/label
# of Containers	□ Yes Ø No				Not on CC	C/Parbel
Relinquished	☑ Yes □ No	Jold				
Requested analysis		1010				
Other comments (us	e a separate pa	ge if needed)				
Air Samples: Were a Number of unused 7	ny additional FO15 canisters	canisters/tubes rec	eived? 🍃 of unused	7 NA TO17 t	□ YES	□ NO



3600 Fremont Ave N Seattle, WA 98103 T: (206) 352-3790 F: (206) 352-7178 info@fremontanalytical.com

Friedman & Bruya Michael Erdahl 5500 4th Ave S Seattle, WA 98108

RE: 405182, E-191 Work Order Number: 2405214

May 17, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 1 sample(s) on 5/10/2024 for the analyses presented in the following report.

Ion Chromatography by EPA 300.0

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910





www.fremontanalytical.com

Date: 05/17/2024



CLIENT: Project: Work Order: Lab Sample ID 2405214-001	Friedman & Bruya 405182 2405214	Work Order S	Sample Summary
Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2405214-001	MW-3	05/09/2024 12:15 PM	05/10/2024 12:45 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



WO#: **2405214** Date: **5/17/2024**

CLIENT:Friedman & BruyaProject:405182

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers & Acronyms



WO#: 2405214 Date Reported: 5/17/2024

Qualifiers:

- * Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

Acronyms:

%Rec - Percent Recovery **CCB** - Continued Calibration Blank **CCV** - Continued Calibration Verification **DF** - Dilution Factor **DUP - Sample Duplicate** HEM - Hexane Extractable Material ICV - Initial Calibration Verification LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate MCL - Maximum Contaminant Level MB or MBLANK - Method Blank MDL - Method Detection Limit MS/MSD - Matrix Spike / Matrix Spike Duplicate PDS - Post Digestion Spike Ref Val - Reference Value **REP - Sample Replicate RL** - Reporting Limit **RPD** - Relative Percent Difference SD - Serial Dilution SGT - Silica Gel Treatment SPK - Spike Surr - Surrogate



Analytical Report

 Work Order:
 2405214

 Date Reported:
 5/17/2024

Project: 405182

Lab ID: 2405214-001 Client Sample ID: MW-3	2405214-001 Collection Date: 5/9/2024 12:15:00 PM nple ID: MW-3 Matrix: Water						
Analyses	Result	RL Q	ual	Units	DF	Date Analyzed	
Ion Chromatography by EPA 300.0				Batcl	h ID: 43	868 Analyst: FG	
Nitrate (as N)	0.234	0.200		mg/L	1	5/11/2024 6:22:00 AM	
Sulfate	43.2	10.0	D	mg/L	10	5/15/2024 10:48:00 PM	



Work Order: CLIENT: Project:	2405214 Friedman & E 405182	Bruya						QC S	SUMMAI matograph	RY REF	PORT A 300.0
Sample ID: LCS-4	13868	SampType: LCS			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	620	
Client ID: LCSW	1	Batch ID: 43868	3				Analysis Date: 5/10/2	2024	SeqNo: 191	1131	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N) Sulfate		0.736 3.55	0.200 1.00	0.7500 3.750	0 0	98.1 94.7	90 110 90 110				
Sample ID: MB-43	3868	SampType: MBL	(Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	520	
Client ID: MBLK	Ŵ	Batch ID: 43868	3				Analysis Date: 5/10/2	2024	SeqNo: 191	1133	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		ND	0.200								
Sulfate		ND	1.00								
Sample ID: 24052	11-003BDUP	SampType: DUP			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	520	
Client ID: BATC	н	Batch ID: 43868	3				Analysis Date: 5/11/2	2024	SeqNo: 191	1142	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		ND	0.200					0		20	
Sulfate		6.94	1.00					6.912	0.447	20	
Sample ID: 24052	11-003BMS	SampType: MS			Units: mg/L		Prep Date: 5/10/2	2024	RunNo: 916	620	
Client ID: BATC	н	Batch ID: 43868	3				Analysis Date: 5/11/2	2024	SeqNo: 191	1143	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)		0.745	0.200	0.7500	0	99.3	80 120)			
Sulfate		10.7	1.00	3.750	6.912	102	80 120				



Client Name:	FB	Work Order Num	ber: 2405214	
Logged by:	Morgan Wilson	Date Received:	5/10/2024	12:45:00 PM
Chain of Cust	tody			
1. Is Chain of C	Custody complete?	Yes 🖌	No 🗌	Not Present
2. How was the	e sample delivered?	Courier		
<u>Log In</u>				
3. Custody Sea (Refer to com	Is present on shipping container/cooler? nments for Custody Seals not intact)	Yes	No 🗌	Not Present 🗹
4. Was an atter	npt made to cool the samples?	Yes 🖌	No 🗌	NA 🗌
5. Were all item	ns received at a temperature of >2°C to 6°C *	Yes 🖌	No 🗌	
6. Sample(s) in	proper container(s)?	Yes 🖌	No 🗌	
7. Sufficient sar	mple volume for indicated test(s)?	Yes 🖌	No 🗌	
8. Are samples	properly preserved?	Yes 🖌	No 🗌	
9. Was preserv	ative added to bottles?	Yes	No 🗹	NA 🗌
10. Is there head	Ispace in the VOA vials?	Yes	No 🗌	NA 🔽
11. Did all sampl	es containers arrive in good condition(unbroken)?	Yes 🗹	No 🗌	
12. Does paperw	vork match bottle labels?	Yes 🗹	No 🗌	
13. Are matrices	correctly identified on Chain of Custody?	Yes 🖌	No 🗌	
14. Is it clear what	at analyses were requested?	Yes 🖌	No 🗌	
15. Were all hold be met?	times (except field parameters, pH e.g.) able to	Yes 🗹	No 🗌	
<u>Special Hand</u>	<u>lling (if applicable)</u>			
16. Was client r	notified of all discrepancies with this order?	Yes	No 🗌	NA 🗹
Persor	n Notified: Date			
By Wh	nom: Via:	🗌 eMail 🗌 Pł	none 🗌 Fax	In Person
Regard	ding:			
Client	Instructions:			
17. Additional re	emarks:			

Item Information

Item #	Temp ⁰C
Sample	0.6

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C
Seattle, WA 98119-20. Ph. (206) 285-8282 Fax (206) 283-5044	3012 16th Avenue Wes	Friedman & Bruya, In							MW-3	Sample ID		Phone #(206) 285-82	City, State, ZIP Seat	Address 5500	Company Frie	Send Report To Mic
3	3 %	ic.								Lab ID		282 m	tle, W	0 4th A	dman	hael E
Relfinquished by: Received by:	Relinquished by:	S							5/9/2024	Date Sampled		erdahl@friedr	A 98108	ve S	and Bruya, Ir	rdahl
	rec	IGNATURE							1215	Time Sampled		nanandbruya.			1C.	
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10/24	-/24	DATE								Note		instruction	2 DISPOSA 30 days 98	thorized b		OUND TIN
ats	8011	TIME								ß		18	F	y:		Æ

Page 8 of 8

SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2405:214

APPENDIX V

2024 Soil Vapor Laboratory Report

Bud Clary Subaru 961 Commerce Avenue Longview, Washington



April 28, 2021

Mr. Alex Koch Blue Sage Environmental 198007 East 30th Ave, Kennewick WA 99337

Dear Alex,

Please find enclosed analytical data report for PROJECT: **Subaru Longview** located in Longview, WA. Two soil vapor samples were analyzed for TO-15 BTEX and APH on April 21, 2021.

The results of the analyses are summarized and included on this report. Applicable detection limits and QA/QC data are included.

ESN Analytical appreciates the opportunity to have provided services for this project. If you have any further questions about the data report, please give us a call at 425-207-8345.

Thank you so much and it was a pleasure working with your company on this project. We are looking forward to the next opportunity to work together.

Sincerely,

Dely Grace Agoy

Senior Chemist 425-207-8345 delygrace.agoy@esnanalytical.com



ANALYTICAL DATA REPORT Project: Subaru Longview

Location: Longview, WA

Submitted to: BLUE SAGE ENVIRONMENTAL

Project Manager: Alex Koch

Sample Collector: Haley Carter

Sample Matrix: Soil Vapor



CONTENTS

1.	SAMPLE INFORMATION	.1
2.	TEST RESULTS	.2
3.	CHAIN OF CUSTODY	.3



SAMPLE INFORMATION

SAMPLE ID	ESN Analytical Project Number	SAMPLING DATE	SAMPLING TIME	Mat rix	Analysis
SV-1	S210420.R1	04/20/21	Initial Time 1015 Final Time 1035	SV	TO-15 BTEX, APH
SV-2	S210420.R1	04/20/21	Initial Time 1040 Final Time 1050	SV	TO-15 BTEX, APH



TEST RESULTS

Sampling date: April 20, 2021

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 21, 2021 by Friedman & Bruya, Inc. from the ESN NW Bud Clary Subaru, F&BI 104370 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	ESN NW
104370 -01	SV-1
104370 -02	SV-2

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.



ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	SV-1	Client:		ESN NW
Date Received: 04/21/21		Proje	ct:	Bud Clary Subaru, F&BI 104370
Date Collected:	04/20/21	Lab I	D:	104370-01 1/4.8
Date Analyzed:	04/21/21	Data	File:	042121.D
Matrix:	Air	Instru	ament:	GCMS7
Units:	ug/m3	Opera	ator:	bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 94	Lower Limit: 70	Upper Limit: 130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 alipha	tics 460			
APH EC9-12 alipha	atics 190			
APH EC9-10 arom	atics <120			

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Clien Projec Lab I Data Instru Opera	t: ct: D: File: ument: ator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 93	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 aliph	tics 550 atics 200			

APH EC9-10 aromatics <130



ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 04/21/21 Air ug/m3	Cli Pre La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 01-823 MB 042116.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	Recovery	% Lower y: Limit: 2 70	Upper Limit: 130	
Compounds:	Concentratio ug/m	n 3		
APH EC5-8 alipha APH EC9-12 aliph APH EC9-10 arom	tics <7 atics <2 atics <2	5 5 5		



ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-1 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pro La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-01 1/4.8 042121.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	Recover ene g	% Lower y: Limit: 5 70	Upper Limit: 130	
	Conc	entration		
Compounds:	ug/m	3 ppbv		
Benzene	<1	5 <0.48		
Toluene	<5	0 <24		
Ethylbenzene	<2	1 <0.48		
m,p-Xylene	<4	2 <0.96		
o-Xylene	<2	1 <0.48		
Naphthalene	1	5 0.28		
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pre La Da Ins Op	ent: oject: b ID: ta File: strument: erator:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pr La Da Ins Op % Lower	ient: oject: b ID: ta File: strument: erator: Upper	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates:	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3	Cli Pr La Da Ins Op % Lower 7: Limit:	ient: oject: b ID: ta File: strument: erator: Upper Limit:	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
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Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover, ene \$ Conc ug/m	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1.	Cli Pr La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 7</td <td>ent: oject: b ID: ta File: strument: erator: Upper Limit: 130</td> <td>ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat</td>	ent: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene	SV-2 04/21/21 04/20/21 Air ug/m3 Recover ene S Conc ug/m <1 <10 <2	Cli Pr- La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54	ent: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene m p. Yulene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1 <10 <2	Cli Pr- La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54 7 <1	eent: oject: b ID: tta File: strument: eerator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenzed Compounds: Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1. <10 <2. <4.	Cli Pr- La Da Ins Op % Lower 7: Limit: 4 70 entration 3 ppbv 7 <0.54 0 <27 3 <0.54 7 <1.1 3 <0.54	eent: oject: b ID: ta File: strument: eerator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat
Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units: Surrogates: 4-Bromofluorobenze Compounds: Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene Nanbthalene	SV-2 04/21/21 04/20/21 04/21/21 Air ug/m3 Recover ene \$ Conc ug/m <1. <10 <2 <4. <2 <1.	Cli Pr La Da M (197 Cli Cli Cli Cli Cli Cli Cli Cli Cli Cli	ient: oject: b ID: ta File: strument: erator: Upper Limit: 130	ESN NW Bud Clary Subaru, F&BI 104370 104370-02 1/5.4 042123.D GCMS7 bat



ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Clien	t:	ESN NW
Date Received:	Not Applicable	Project:		Bud Clary Subaru, F&BI 104370
Date Collected:	Not Applicable	Lab I	D:	01-823 MB
Date Analyzed:	04/21/21	Data	File:	042116.D
Matrix:	Air	Instr	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenze	ene 93	70	130	
	Concent	tration		
Compounds:	ug/m3	ppbv		
Benzene	< 0.32	< 0.1		
Toluene	<19	<5		
Ethylbenzene	< 0.43	< 0.1		
m,p-Xylene	< 0.87	< 0.2		
o-Xylene	< 0.43	< 0.1		
Naphthalene	< 0.26	< 0.05		



ENVIRONMENTAL CHEMISTS

Date of Report: 04/27/21 Date Received: 04/21/21 Project: Bud Clary Subaru, F&BI 104370

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 104370-01 1/4.8 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	460	500	8
APH EC9-12 aliphatics	ug/m3	190	200	5
APH EC9-10 aromatics	ug/m3	<120	<120	nm

Laboratory Code: Laboratory Control Sample

			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
APH EC5-8 aliphatics	ug/m3	67	99	70-130
APH EC9-12 aliphatics	ug/m3	67	122	70-130
APH EC9-10 aromatics	ug/m3	67	104	70-130



ENVIRONMENTAL CHEMISTS

Date of Report: 04/27/21 Date Received: 04/21/21 Project: Bud Clary Subaru, F&BI 104370

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

Laboratory Code: 104370-01 1/4.8 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.5	<1.5	nm
Toluene	ug/m3	<90	<90	nm
Ethylbenzene	ug/m3	<2.1	<2.1	nm
m,p-Xylene	ug/m3	<4.2	<4.2	nm
o-Xylene	ug/m3	<2.1	<2.1	nm
Naphthalene	ug/m3	1.5	1.5	0

Laboratory Code: Laboratory Control Sample

	rercent					
	Reporting	Spike	Recovery	Acceptance		
Analyte	Units	Level	LCS	Criteria		
Benzene	ug/m3	43	96	70-130		
Toluene	ug/m3	51	102	70-130		
Ethylbenzene	ug/m3	59	93	70-130		
m,p-Xylene	ug/m3	120	97	70-130		
o-Xylene	ug/m3	59	101	70-130		
Naphthalene	ug/m3	71	101	70-130		



ENVIRONMENTAL CHEMISTS

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.

 ${\rm d}$ - 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.

 ${\bf J}$ - 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.



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3155 NE Sunset Blvd, Suite A Renton, WA 98056 Phone: 425.207.8345 Email: <u>lab@esnanalytical.com</u> Web: www.esnanalytical.com

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Arina Podnozova, B.S. Eric Young, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282 fbi@isomedia.com www.friedmanandbruya.com

June 28, 2021

Dely Grace Agoy, Project Manager ESN Analytical 3155 NE Sunset Blvd, Suite A Renton, WA 98056

Dear Ms Agoy:

Included are the results from the testing of material submitted on June 18, 2021 from the Subaru Longview, F&BI 106323 project. There are 10 pages included in this report.

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: Alex Koch ESN0628R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on June 18, 2020 by Friedman & Bruya, Inc. from the ESN Analytical Subaru Longview project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	ESN Analytical
106323 -01	SV-2
106323 -02	SV-1

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-2	Client	t:	ESN Analytical
Date Received:	06/18/21	Projec	et:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	Lab I	D:	106323-01 1/5.3
Date Analyzed:	06/21/21	Data	File:	062127.D
Matrix:	Air	Instru	ament:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphat	tics <400			
APH EC9-12 alipha	atics 220			
APH EC9-10 aroma	atics <130			

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-1	Clien	t:	ESN Analytical
Date Received:	06/18/21	Proje	ct:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	Lab I	D:	106323-02 1/4.9
Date Analyzed:	06/21/21	Data	File:	062128.D
Matrix:	Air	Instru	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphat	tics <370			
APH EC9-12 alipha	atics 160			
APH EC9-10 aroma	atics <120			

ENVIRONMENTAL CHEMISTS

Client Sample ID:	Method Blank	Clien	t:	ESN Analytical
Date Received:	Not Applicable	Projec	et:	Subaru Longview, F&BI 106323
Date Collected:	Not Applicable	Lab I	D:	01-1226 MB
Date Analyzed:	06/21/21	Data	File:	062121.D
Matrix:	Air	Instru	ument:	GCMS7
Units:	ug/m3	Operator:		bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	ene 90	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 aliphat	tics <75			
APH EC9-12 alipha	atics <25			
APH EC9-10 aroma	atics <25			

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2 06/18/21 06/17/21 06/21/21 Air ug/m3		Clier Proje Lab I Data Instr Oper	at: act: D: File: ument: ator:	ESN Analytical Subaru Longview, F&BI 106323 106323-01 1/5.3 062127.D GCMS7 bat
	0		- 1		
		%	Lower	Upper	
Surrogates:	Recover	y:	Limit:	Limit:	
4-Bromofluorobenze	ene g)1	70	130	
	Cond	entra	ation		
Compounds:	ug/n	13	ppbv		
Benzene	<1	.7	< 0.53		
Toluene	<10	00	<26		
Ethylbenzene	3	.5	0.81		
m,p-Xylene	-	.6	3.7		
o-Xylene	5	.9	1.4		
Naphthalene	<1	.4	< 0.26		

ENVIRONMENTAL CHEMISTS

Client Sample ID:	SV-1	Cl	ient:	ESN Analytical
Date Received:	06/18/21	Pr	oject:	Subaru Longview, F&BI 106323
Date Collected:	06/17/21	La	ab ID:	106323-02 1/4.9
Date Analyzed:	06/21/21	Da	ata File:	062128.D
Matrix:	Air	In	strument:	GCMS7
Units:	ug/m3	Ol	perator:	bat
	0/		. Unner	
Surrogatos:	Recovery	· Limit	Limit:	
A-Bromofluorohenze	ana 91	. בחוות. 70	130	
4-Diomondorobenze	5110 51		/ 150	
	Conce	ntration		
Compounds:	ug/mä	8 ppbv	7	
Benzene	<1.6	6 < 0.49)	
Toluene	<92	2 <24	Į	
Ethylbenzene	<2.1	< 0.49)	
m,p-Xylene	7.9) 1.8	3	
o-Xylene	2.9	0.67	7	
Naphthalene	<1.5	3 < 0.24	Ļ	

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 06/21/21 Air ug/m3	Clier Proje Lab Data Instr	nt: ect: ID: File: rument:	ESN Analytical Subaru Longview, F&BI 106323 01-1226 MB 062121.D GCMS7 bat
Onits.	ug/III5	Oper	ator.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 91	Lower Limit: 70	Upper Limit: 130	
	Concen	tration		
Compounds:	ug/m3	ppbv		
Benzene	< 0.32	< 0.1		
Toluene	<19	<5		
Ethylbenzene	< 0.43	< 0.1		
m,p-Xylene	< 0.87	< 0.2		
o-Xylene	< 0.43	< 0.1		
Naphthalene	< 0.26	< 0.05		

ENVIRONMENTAL CHEMISTS

Date of Report: 06/28/21 Date Received: 06/18/21 Project: Subaru Longview, F&BI 106323

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 106322-01 1/5 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	<370	<370	nm
APH EC9-12 aliphatics	ug/m3	<120	<120	nm
APH EC9-10 aromatics	ug/m3	<120	<120	nm

Laboratory Code: Laboratory Control Sample

Baseratory coact Baseratory	onor or wampio			
			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
APH EC5-8 aliphatics	ug/m3	67	84	70-130
APH EC9-12 aliphatics	ug/m3	67	103	70-130
APH EC9-10 aromatics	ug/m3	67	95	70-130

ENVIRONMENTAL CHEMISTS

Date of Report: 06/28/21 Date Received: 06/18/21 Project: Subaru Longview, F&BI 106323

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

Laboratory Code: 106322-01 1/5 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.6	<1.6	nm
Toluene	ug/m3	<94	<94	nm
Ethylbenzene	ug/m3	<2.2	<2.2	nm
m,p-Xylene	ug/m3	<4.3	<4.3	nm
o-Xylene	ug/m3	<2.2	<2.2	nm
Naphthalene	ug/m3	<1.3	<1.3	nm

Laboratory Code: Laboratory Control Sample

Baseratory could Baseratory	compro Sampro			
			Percent	
	Reporting	Spike	Recovery	Acceptance
Analyte	Units	Level	LCS	Criteria
Benzene	ug/m3	43	80	70-130
Toluene	ug/m3	51	83	70-130
Ethylbenzene	ug/m3	59	74	70-130
m,p-Xylene	ug/m3	120	79	70-130
o-Xylene	ug/m3	59	81	70-130
Naphthalene	ug/m3	71	86	70-130

ENVIRONMENTAL CHEMISTS

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.

 ${\rm J}$ - 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.

Fax (206) 283-5044 Forms\coc\cocto-is.doc	Ph. (206) 285-8282	Seattle, WA 98119-2029	3012 16th Avenue West	Friedman & Brilling								1. NS	Sample Name		Phone	Address City, State, ZIP	Company BSE	Reprit To Suber
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Nhan Phan	- War Enr	HALEY CARTER	PRINT NAME		Ğ	Ğ	Ğ	SC	SG	SG	0 w/ 20 1/1/1/9 05	E- Col 08-12/17/ 08	ting el: or Air 1 Gas Date One) Sampled ("Hg) Time ("Hg			Subaru Longuize	PROJECT NAME & ADDRESS	SAMPLE CHAIN OF CUSTOD
F-LBT 6/18/21 1	EN 6/18/21 9	BSE 61181219	COMPANY DATE		Samples received at $\frac{1}{2}$						UID XX III	on XX eell	TO15 Full Scan TO15 Full Scan TO15 BTEXN TO15 cVOCs APH Helium	ANALYSIS REQUESTED	Show Lord with Disk Doch Lord with Default Clean after Archive (Fee may a	TATUOTOD TO	PO# PURNAROUN	NE 06/18/21 Page # -
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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Yelena Aravkina, M.S. Michael Erdahl, B.S. Vineta Mills, M.S. Eric Young, B.S. 5500 4th Ave South Seattle, WA 98108-2419 (206) 285-8282 office@friedmanandbruya.com www.friedmanandbruya.com

February 13, 2024

Alex Koch, Project Manager Blue Sage Environmental 198007 E 30th Ave Kennewick, WA 99337

Dear Mr Koch:

Included are the results from the testing of material submitted on January 31, 2024 from the Subaru Longview, F&BI 401405 project. There are 10 pages included in this report.

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 BSG0213R.DOC

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 31, 2024 by Friedman & Bruya, Inc. from the Blue Sage Environmental Subaru Longview, F&BI 401405 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
401405 -01	SV-1-20240130
401405 -02	SV-2-20240130

All quality control requirements were acceptable.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-1-20240130 01/31/24 01/30/24 02/01/24 Air ug/m3	Client: Project: Lab ID: Data File: Instrument: Operator:		Blue Sage Environmental Subaru Longview, F&BI 401405 401405-01 1/4.9 020114.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: sene 96	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 alipha	tics 450 atics 1,000			

APH EC9-10 aromatics 130

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	SV-2-20240130 01/31/24 01/30/24 02/01/24 Air ug/m3	Client: Project: Lab ID: Data File: Instrument: Operator:		Blue Sage Environmental Subaru Longview, F&BI 401405 401405-02 1/5.2 020115.D GCMS7 bat
Surrogates: 4-Bromofluorobenz	% Recovery: zene 95	Lower Limit: 70	Upper Limit: 130	
Compounds:	Concentration ug/m3			
APH EC5-8 alipha APH EC9-12 aliph APH EC9-10 arom	tics 420 atics 720 atics <130			

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	lient Sample ID: Method Blank		t:	Blue Sage Environmental
Date Received:	Not Applicable	Projec	et:	Subaru Longview, F&BI 401405
Date Collected:	Not Applicable	Lab II	D:	04-0248 MB
Date Analyzed:	02/01/24	Data	File:	020112.D
Matrix:	Air	Instru	ument:	GCMS7
Units:	ug/m3	Opera	ator:	bat
	%	Lower	Upper	
Surrogates:	Recovery:	Limit:	Limit:	
4-Bromofluorobenz	aene 92	70	130	
	Concentration			
Compounds:	ug/m3			
APH EC5-8 alipha	tics <75			
APH EC9-12 aliph	atics <25			

APH EC9-10 aromatics <25

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix:	SV-1-20240130 01/31/24 01/30/24 02/01/24 Air	Client: Project: Lab ID: Data File: Instrument: Operator:		Blue Sage Environmental Subaru Longview, F&BI 401405 401405-01 1/4.9 020114.D GCMS7 bat
Units.	ug/III0	Oper	at01.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 100	Lower Limit: 70	Upper Limit: 130	
	Conce	ntration		
Compounds:	ug/m3	ppbv		
Benzene	<1.6	< 0.49		
Toluene	<37	<9.8		
Ethylbenzene	3.3	0.77		
m,p-Xylene	14	3.2		
o-Xylene	4.0	0.91		
Naphthalene	1.9	0.37		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Unito:	SV-2-20240130 01/31/24 01/30/24 02/01/24 Air yg/m ²	Client: Project: Lab ID: Data File: Instrument: Operator:		Blue Sage Environmental Subaru Longview, F&BI 401405 401405-02 1/5.2 020115.D GCMS7 bat
Units.	ug/m5	Ope	14101.	bat
Surrogates: 4-Bromofluorobenze	% Recovery: ene 99	Lower Limit: 70	Upper Limit: 130	
	Conce	ntration		
Compounds:	ug/m3	ppbv		
Benzene	<1.7	< 0.52		
Toluene	<39	<10		
Ethylbenzene	2.4	0.55		
m,p-Xylene	10	2.3		
o-Xylene	2.9	0.66		
Naphthalene	1.5	0.28		

ENVIRONMENTAL CHEMISTS

Client Sample ID: Date Received: Date Collected: Date Analyzed: Matrix: Units:	Method Blank Not Applicable 02/01/24 Air ug/m3	Client: Project: Lab ID: Data File: Instrument: Operator:		Blue Sage Environmental Subaru Longview, F&BI 401405 04-0248 MB 020112.D GCMS7 hat
Surrogates: 4-Bromofluorobenze	Recovery: ene 96	Lower Limit: 70	Upper Limit: 130	
Compounds:	Conce ug/m3	ntration ppbv		
Benzene Toluene Ethylbenzene m,p-Xylene o-Xylene	<0.32 <7.5 <0.43 <0.87 <0.43	<0.1 <2 <0.1 <0.2 <0.1		

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/24 Date Received: 01/31/24 Project: Subaru Longview, F&BI 401405

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 401405-01 1/4.9 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
APH EC5-8 aliphatics	ug/m3	450	530	16
APH EC9-12 aliphatics	ug/m3	1,000	960	4
APH EC9-10 aromatics	ug/m3	130	120	8

Laboratory Code: Laboratory Control Sample

assilatory coust according c	oner or wampie				
			Percent		
	Reporting	Spike	Recovery	Acceptance	
Analyte	Units	Level	LCS	Criteria	
APH EC5-8 aliphatics	ug/m3	67	83	70-130	
APH EC9-12 aliphatics	ug/m3	67	107	70-130	
APH EC9-10 aromatics	ug/m3	67	98	70-130	
FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/24 Date Received: 01/31/24 Project: Subaru Longview, F&BI 401405

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

Laboratory Code: 401405-01 1/4.9 (Duplicate)

	Reporting	Sample	Duplicate	RPD
Analyte	Units	Result	Result	(Limit 30)
Benzene	ug/m3	<1.6	<1.6	nm
Toluene	ug/m3	<37	<37	nm
Ethylbenzene	ug/m3	3.3	3.3	0
m,p-Xylene	ug/m3	14	14	0
o-Xylene	ug/m3	4.0	3.9	3
Naphthalene	ug/m3	1.9	1.7	11

Laboratory Code: Laboratory Control Sample

	-	Percent						
Arealasta	Reporting	Spike	Recovery	Acceptance				
Analyte	Units	Level	LUS	Uriteria				
Benzene	ug/m3	43	103	70 - 130				
Toluene	ug/m3	51	109	70-130				
Ethylbenzene	ug/m3	59	106	70-130				
m,p-Xylene	ug/m3	120	109	70-130				
o-Xylene	ug/m3	59	109	70-130				
Naphthalene	ug/m3	71	100	70-130				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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 below the standard reporting limit. The value reported is an estimate.

 ${\rm J}$ - 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.

 $k-\mbox{The calibration results}$ 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.

 $\rm pc$ - 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.

FORMS\COC\COCTO-15.DOC	Fax (206) 283-5044	Ph. (206) 285-8282	Seattle, WA 98108	5500 4th Avenue South	Friedman & Bruya, Inc.							SV-2-2040130	SN-1-20410130	Sample Name	SAMPLE INFORMATION	PhoneEr	City, State, ZIP	Company BLUE SALT	Report To AIEX 1600	401 AOS
Γ	Receiv	Relinq	Receiv	Relinq			-					02	01	Lab ID		nail A		60	2	
	red by:	uished by:	ed by: H	uished by:	SIC							9748	8529	Canister ID		hochig				
		\wedge	D'		NATU									Flow Cont. ID		6726				
) .	R	F	RE	IA / SG	IA / SG	IA / SG	IA / SG	IA / SG	IA / SG	IA / SQ	IA / SG	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)		Jama I. Low	NOTES	Suba	- SAMPL	SAMPLI
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