

BLUE SAGE ENVIRONMENTAL, INC.
Environmental Project Management

May 1, 2025

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

RE: Additional Groundwater Monitoring
Bud Clary Subaru FSID: 34656
961 Commerce Avenue CSID: 14902
Longview, WA VCP ID: SW1706

Dear Mr. Kasperski:

Ecology's opinion letter, dated October 4, 2024, requested additional groundwater monitoring data from the six Site monitoring wells to demonstrate compliance with MTCA requirements. This report details groundwater analytical data from these wells.

1.0 Introduction

This report is for the Bud Clary Subaru Dealership in Longview, Washington (**Figure 1**). The Site has undergone the following Interim Remedial Cleanup Actions:

- Excavation and disposal of petroleum hydrocarbon contaminated soils (Aug 2018)
- In-situ biological remediation by injection of BOS 200® solution (Aug 2018)
- Groundwater and soil analytical characterization (2018-2025)

Ecology reviewed Site historical groundwater analysis data and recommended additional groundwater sampling be completed for two quarters starting in 2024.

2.0 Groundwater Monitoring

Five groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) were installed in April 2019. A sixth monitoring well, MW-6 was installed next to Fir Street in April 2024 (**Figure 2**). These wells were sampled per Ecology's request.

2.1 Groundwater Monitoring Sampling

The six Site monitoring wells were sampled in October 2024, January 2025, and March 2025. Groundwater samples were analyzed for diesel/lube oil range organics (NWTPH-Dx), gasoline range organics (NWTPH-Gx) and BTEX (Method 8260). Diesel extended (C10-C36) analyses were also reported for these samples in January and March 2025. Samples that detected elevated concentrations of diesel/lube oil range organics (DRO) above MTCA Method A cleanup levels (CUL) were additionally analyzed following silica gel (SG) cleanup.

2.2 Analytical Results

In October 2024, monitoring well MW-2 detected DRO above the CUL. Analysis following SG did not detect either diesel or lube oil above the laboratory reporting limits. The total concentration for both diesel and lube oil portions of the analysis were added together. This combined value (3,050 µg/L) had the SG reporting limit of 250 µg/L subtracted from it. The adjusted value represents the concentration of polar organics (metabolites) remaining in groundwater. This value (2,800 µg/L) was above the Ecology cleanup level of 500 µg/L for metabolites.

In January 2025, groundwater samples were analyzed for diesel extended (C10-C36) using method NWTPH-Dx. Monitoring wells MW-2 and MW-6 detected elevated concentrations above the CUL. Following SG cleanup, the diesel extended concentration in both monitoring wells was less than the laboratory reporting limit. Only monitoring well MW-6 (620 µg/L) had a metabolite value above CUL.

In March 2025, none of the six Site monitoring wells detected a diesel extended concentration above CUL. Groundwater analytical results are summarized in **Table 1**. Laboratory reports can be found in **Appendix I**.

2.3 Groundwater Flow Direction

In October 2024, groundwater flow direction across the Site was to the west. In January and March 2025, groundwater flow direction was to the north-northwest. Water contour figures can be found in **Appendix II**.

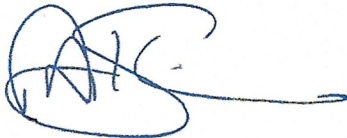
3.0 Summary and Conclusions

Monitoring wells MW-2 had elevated concentrations of metabolites in October 2024 and MW-6 in January 2025. All Site monitoring wells had Diesel Extended concentrations below CUL in March.

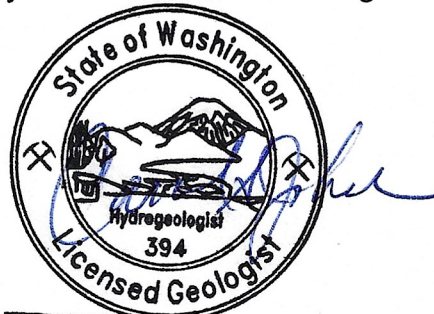
Soil samples from the boring B7 (monitoring well MW-2) detected elevated concentrations of gasoline and diesel/lube oil in soil between 13 to 15 feet. Soil samples from boring B8 (monitoring well MW-3) detected elevated concentrations of gasoline and diesel/lube oil in soil at 11 feet. Sample results from 15 feet in this boring did not detect any DRO, gasoline/BTEX concentrations above the laboratory reporting limits (**Figure 3**). Soil sample analytical results are summarized in **Table 3**.

Groundwater flow direction across the Site is generally in the direction of monitoring well MW-6. The pumping action of groundwater seasonally rising and falling around monitoring wells MW-2 and MW-3 occasionally dissolves remaining DRO in soil into solution. It appears that this is the source of occasional detections of fuel range petroleum hydrocarbons in monitoring well MW-6.

Sincerely,
Blue Sage Environmental, Inc.



Alexander H. Koch
Project Manager
(509) 947-4059



Carol A. Johnston
Carol A. Johnston
Senior Hydrogeologist

Attachments:
Figures
Tables
Appendices

FIGURES

Bud Clary Subaru
961 Commerce Avenue
Longview, Washington 98632



**BLUE SAGE
ENVIRONMENTAL INC
KENNEWICK, WA**

Site Location Maps
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington

**Figure
1**

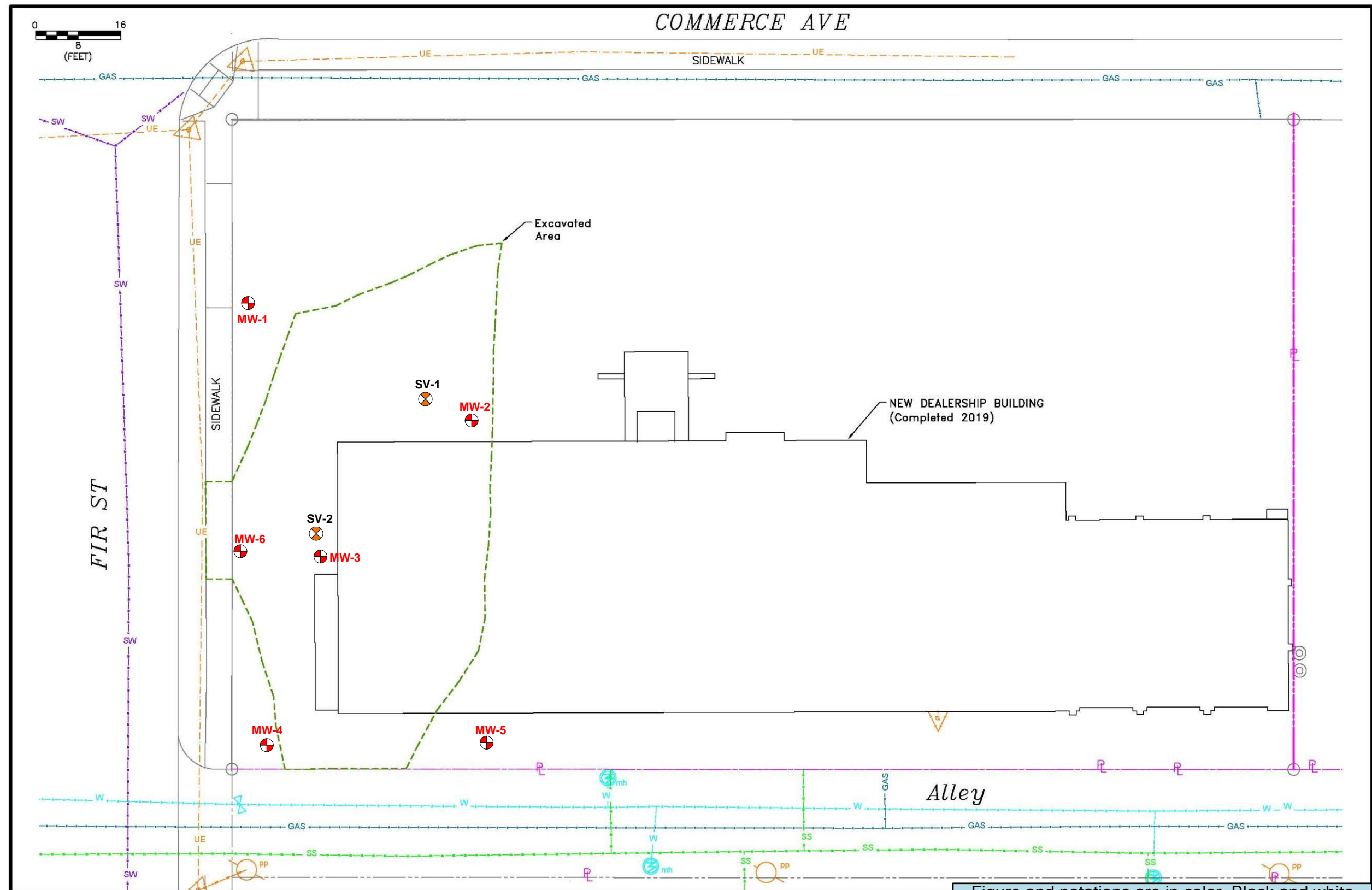


Figure and notations are in color. Black and white copies may not be suitable for use.

Legend

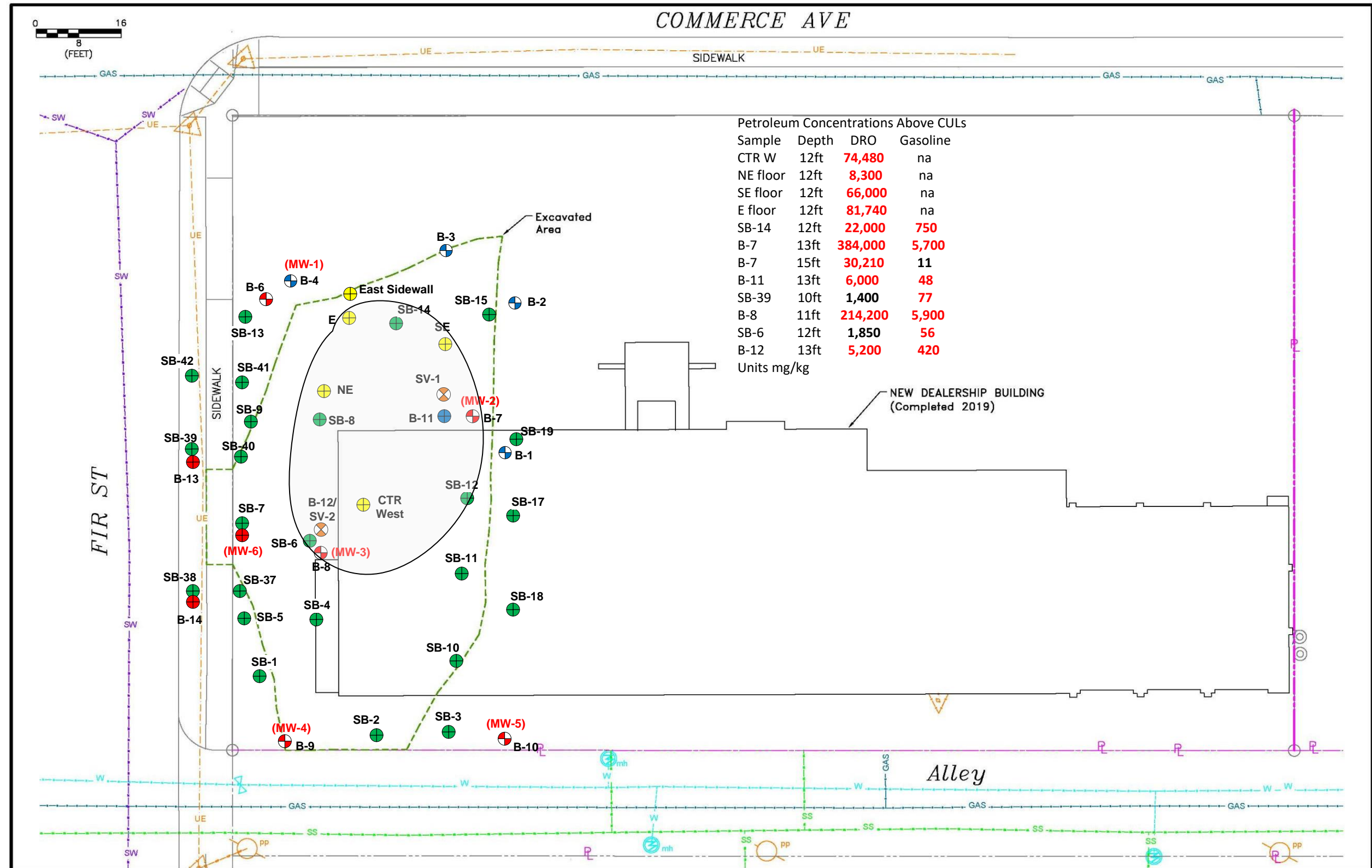
- Monitoring Wells
- Soil Vapor Wells

**Blue Sage
Environmental INC
Kennewick, WA**

**BSE Groundwater and Soil Vapor Monitoring Wells
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington**

Date: 5/30/23

**Figure
2**



Legend

- 2018 Excavation Floor
- BSE 2018 Borings
- 2021 Borings
- 2021 Soil Vapor Wells
- EPI 2018 Boring
- BSE 2019 Boring/Monitoring Wells
- 2024 Borings/Monitoring Wells

**Blue Sage
Environmental INC
Kennewick, WA**

**Petroleum Hydrocarbon Contamination In Soil
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington**

Figure and notations are in color. Black and white copies may not be suitable for use.

Date: 5/1/25

**Figure
3**

TABLES

Bud Clary Subaru
961 Commerce Avenue
Longview, Washington 98632

Table 1 - Groundwater Analytical Data
Bud Clary Subaru
961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Diesel Extended (C10-C36)	Polar Organics (Metabolites)	Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Lead	cPAHs	Elevation TOC	Depth to Water	Water Table Elevation
		Laboratory Units Reported in µg/L																
MTCA Method A Cleanup Level		500		500	500	800	50	1000	700	1000	20	0.01	5	15	various	MSL	(ft)	(ft)
MW-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	-	-	-	-	-		9.65	7.30
	12/02/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.36	7.59
	09/25/20	<100	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.19	7.76
	12/19/20	<100	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.97	8.98
	03/17/21	<50	<100	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.93	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 ^T / ^D <1	<0.02		7.79	9.16
	10/15/24	<50	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.45	7.50
	01/08/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.41	9.54
	03/25/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.50	9.45
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	-	-	-	-	-		9.90	7.30
	12/02/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		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	-	-	-		8.66	8.54
	09/21/23	<100	280	-	-	<100	<1	<1	<1	<3	-	-	-	<0.2	-		10.00	7.20
	05/09/24	99x	560x	-	409	<100	<1	<1	<1	<3	-	-	-	<1 ^T / ^D <1	<0.02		8.01	9.19
	10/15/24	2,600 /<50 S	450x /<250 S	-	2,800	<100	<1	<1	<1	<3	-	-	-	-	-		9.70	7.50
	01/08/25	-	-	540x /<250 S	290	<100	<1	<1	<1	<3	-	-	-	-	-		7.65	9.55
	03/25/25	-	-	360x	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.74	9.46
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	-	-	-	-	-		10.02	7.30
	12/02/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.76	7.56

Table 1 - Groundwater Analytical Data
Bud Clary Subaru
961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Diesel Extended (C10-C36)	Polar Organics (Metabolites)	Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Lead	cPAHs	Elevation TOC	Depth to Water	Water Table Elevation
		Laboratory Units Reported in µg/L																
MTCA Method A Cleanup Level		500		500	500	800	50	1000	700	1000	20	0.01	5	15	various	MSL	(ft)	(ft)
MW-3	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
	03/17/21	<50	<100	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		8.20	9.12
	06/17/21	<100	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		8.80	8.52
	09/21/21	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.98	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-		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 <1 ^T / <1 ^D	-		10.15	7.17
	05/09/24	<50	<250	-	-	<100	<1	<1	<1	<3	-	-	-	<1 ^T / <1 ^D	<0.02		8.26	9.06
	10/15/24	430x	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.76	7.56
	01/08/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.78	9.54
	03/25/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.85	9.47
MW-4	06/27/19	<250	<250	-	-	<100	<1	<1	<1	<3	<1	<1	<1	<1	<0.1	17.30	9.29	8.01
	09/10/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		10.00	7.30
	12/02/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		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
	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 <1 ^T / <1 ^D	-		10.14	7.16
	05/09/24	<50	<250	-	-	<100	<1	<1	<1	<3	-	-	-	<1 ^T / <1 ^D	<0.02		8.23	9.07
	10/15/24	<50	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.79	7.51
	01/08/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.81	9.49
	03/25/25	-	-	<250	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.87	9.43
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	-	-	-	-	-		9.88	7.28
	12/02/19	<250	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		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

Table 1 - Groundwater Analytical Data
Bud Clary Subaru
961 Commerce Avenue, Longview, WA

Monitoring Well	Sample Date	Diesel	Lube Oil	Diesel Extended (C10-C36)	Polar Organics (Metabolites)	Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Lead	cPAHs	Elevation TOC	Depth to Water	Water Table Elevation
		Laboratory Units Reported in µg/L																
MTCA Method A Cleanup Level		500		500	500	800	50	1000	700	1000	20	0.01	5	15	various	MSL	(ft)	(ft)
MW-5	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 ^T / ^D <1 ^D	<0.02		8.07	9.09
	10/15/24	90x	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.70	7.46
	01/08/25	-	-	430x	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.77	9.39
	03/25/25	-	-	270x	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.80	9.36
B-13	04/29/24 (g)	<50	<250	-	-	<100	<0.35	<1	<1	<2	<1	<0.01	<0.2	3.4 ^T / ^D <1 ^D	<0.02	-	-	-
B-14	04/29/24 (g)	<50	<250	-	-	<100	<0.35	<1	<1	<2	<1	<0.01	<0.2	<1 ^T / ^D <1 ^D	<0.02	-	-	-
MW-6	05/09/24	130x	<250	-	-	<100	<1	<1	<1	<3	-	-	-	<1 ^T / ^D <1 ^D	<0.02	16.91	7.86	9.05
	10/15/24	89x	<250	-	-	<100	<1	<1	<1	<3	-	-	-	-	-		9.58	7.33
	01/08/25	-	-	870x /<250 S	620	<100	<1	<1	<1	<3	-	-	-	-	-		7.59	9.32
	03/25/25	-	-	400x	-	<100	<1	<1	<1	<3	-	-	-	-	-		7.62	9.29

Notes:

- Contaminant not analyzed
- 5.9 Bold number(s) indicate contaminant detected
- 31 Bold and red number(s) indicate concentration above MTCA Method A cleanup level
- g Grab-groundwater sample
- (1) Analytes not listed were not detected above the laboratory reporting limit.
- T Analysis for total metals
- D Analysis for dissolved metals
- x The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
- S Diesel and lube oil results after sample extracts passed through a Silica Gel column prior to analysis

Table 2
BSE Soil Analytical Data - Excavation and Borings
Bud Clary Subaru
961 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-Dichloroethane (EDC)	cPAHs	Lead
MTCA Method A Cleanup Level units: mg/kg				2000		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	10	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					<5
	08/29/18	B2-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
	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	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
	08/29/18	B4-15 (Dup)	15	<50	<100	-	-	-	-	-					-
MW-1/B6	04/29/19	B6-15	15	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
MW-2/B7	04/29/19	B7-13	13	14,000	370,000	5,700	0.09	0.48	1.4	5.8					-
	04/29/19	B7-15	15	210	30,000	11	0.08	0.05	<0.05	<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					-
	04/15/21	B-12-17	17	<50	<100	<10	<0.02	<0.05	<0.05	<0.15					-
B13	04/29/24	B-13-8	8	<50 ht	<250 ht	<5 ht	-	-	-	-	-	-	-	-	-
	04/29/24	B-13-13	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	<50 ht	<250 ht	<5 ht	-	-	-	-	-	-	-	-	-
	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
	04/29/24	B-14-15	15	<50	<250	<5	<0.002	<0.002	<0.002	<0.004	<0.002	<0.005	<0.003	<0.02	1.3
MW-6	04/29/24	MW-6-10	10	<50 ht	<250 ht	<5 ht	-	-	-	-	-	-	-	-	-
	04/29/24	MW-6-13	13	<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 Red number(s) indicate concentration exceeds MTCA Method A cleanup level
- ht Analysis outside method required holding time

APPENDIX I

Laboratory Reports

**Bud Clary Subaru
961 Commerce Avenue
Longview, Washington 98632**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

March 18, 2025

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 October 16, 2024 from the Longview Subaru, F&BI 410315 project. There are 8 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
BSG0318R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on October 16, 2024 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 410315 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
410315 -01	MW-1
410315 -02	MW-2
410315 -03	MW-3
410315 -04	MW-4
410315 -05	MW-5
410315 -06	MW-6

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

Date Extracted: 10/17/24

Date Analyzed: 10/17/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-D_x
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
MW-1 410315-01	<50	<250	74
MW-2 410315-02	2,600	450 x	88
MW-3 410315-03	430 x	<250	84
MW-4 410315-04	<50	<250	74
MW-5 410315-05	90 x	<250	89
MW-6 410315-06	89 x	<250	77
Method Blank 04-2570 MB	<50	<250	80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

Date Extracted: 10/17/24

Date Analyzed: 10/17/24

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

Extended to Include Motor Oil Range Compounds

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Extended</u> (C ₁₀ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-1 410315-01	<250	74
MW-2 410315-02	3,000	88
MW-3 410315-03	590	84
MW-4 410315-04	<250	74
MW-5 410315-05	<250	89
MW-6 410315-06	<250	77
Method Blank 04-2570 MB	<250	80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

Date Extracted: 10/17/24

Date Analyzed: 10/24/24

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx
Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)**

<u>Sample ID</u>	<u>Diesel Range</u>	<u>Motor Oil Range</u>	<u>Surrogate</u>
Laboratory ID	(C ₁₀ -C ₂₅)	(C ₂₅ -C ₃₆)	(% Recovery)
			(Limit 41-152)
MW-2	<50	<250	73
410315-02			
Method Blank	<50	<250	84
04-2570 MB			

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

Date Extracted: 10/17/24

Date Analyzed: 10/24/24

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

Extended to Include Motor Oil Range Compounds

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis**

Results Reported as ug/L (ppb)

<u>Sample ID</u>	<u>Diesel Extended</u>	<u>Surrogate</u>
Laboratory ID	(C ₁₀ -C ₃₆)	(% Recovery)
		(Limit 41-152)
MW-2	<250	73
410315-02		
Method Blank	<250	84
04-2570 MB		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

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

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	100	86	65-151	15

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 10/16/24

Project: Longview Subaru, F&BI 410315

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	100	84	72-139	17

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.

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

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

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

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

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

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

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

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

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

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

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

SAMPLE CHAIN OF CUSTODY

$$u_{\alpha 1} z / c_2$$

SAMPLERS (signature)

PROJECT NAME

W. Lawrence Schar

PO #

INVOICE TO

Project specific RLS? - Yes / No

○

Default: Dispose after 30 days

SAMPLE DISPOSAL

☒ Standard turnaround
☐ RUSH _____
 Rush charges authorized by: _____

TURNAROUND TIME

TIME

SAMPLE DI



☐ Archive samples

☐ Other _____

Default: Dispose after 30 days

[illegible]

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
	ALAN CARTER	BUS STONE	10/16/24	9:15
Received by: 	Anh Phan	FBI	10/16/24	09:15
Relinquished by:				
Received by:		Samples received at	00	

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 410315 CLIENT Blue Sage INITIALS/ AP
DATE: 10/16/24

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

Cooler/Sample temperature 0 °C
Thermometer ID: Fluke 96312917

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

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

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials (ND) 10/16
*or other representative documents, letters, and/or shipping memos Date: 10/16

Number of days samples have been sitting prior to receipt at laboratory 1 days

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

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

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

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

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

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

Sample ID's	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Date Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Time Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
# of Containers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Relinquished	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Requested analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold	

Other comments (use a separate page if needed)

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

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

March 18, 2025

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 January 9, 2025 from the Longview Subaru, F&BI 501089 project. There are 8 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
BSG0318R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on January 9, 2025 from the Blue Sage Environmental, Longview Subaru, F&BI 501089 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
501089 -01	MW-1
501089 -02	MW-2
501089 -03	MW-3
501089 -04	MW-4
501089 -05	MW-5
501089 -06	MW-6

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

Date Extracted: 01/10/25

Date Analyzed: 01/10/25

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

Extended to Include Motor Oil Range Compounds

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Extended</u> (C ₁₀ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-1 501089-01	<250	86
MW-2 501089-02	540 x	108
MW-3 501089-03	<250	82
MW-4 501089-04	<250	106
MW-5 501089-05	430	115
MW-6 501089-06	870 x	109
Method Blank 05-130	<250	83

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

Date Extracted: 01/10/25

Date Analyzed: 01/10/25

**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	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
MW-1 501089-01	<50	<250	86
MW-2 501089-02	100 x	540 x	108
MW-3 501089-03	57 x	<250	82
MW-4 501089-04	<50	<250	106
MW-5 501089-05	380 x	<250	115
MW-6 501089-06	420 x	670 x	109
Method Blank 05-130 mb	<50	<250	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

Date Extracted: 01/10/25

Date Analyzed: 01/21/25

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

Extended to Include Motor Oil Range Compounds

**Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis**

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Extended</u> (C ₁₀ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-2 501089-02	<250	119
MW-6 501089-06	<250	125
Method Blank 05-130 MB	<250	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

Date Extracted: 01/10/25

Date Analyzed: 01/21/25

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL PETROLEUM HYDROCARBONS AS
DIESEL AND MOTOR OIL
USING METHOD NWTPH-Dx
Sample Extracts Passed Through a
Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)**

<u>Sample ID</u> Laboratory ID	<u>Diesel Range</u> (C ₁₀ -C ₂₅)	<u>Motor Oil Range</u> (C ₂₅ -C ₃₆)	<u>Surrogate</u> <u>(% Recovery)</u> (Limit 41-152)
MW-2 501089-02	<50	<250	119
MW-6 501089-06	<50	<250	125
Method Blank 05-130 mb	<50	<250	112

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	104	72-139	0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 03/18/25

Date Received: 01/09/25

Project: Longview Subaru, F&BI 501089

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

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	112	65-151	7

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

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

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

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

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

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

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

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

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

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

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

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

$$J_1/vw_2/c_2$$

Page # _____

Phone _____ Email _____

2

TURNAROUND TIME

☒ Standard turnaround

☐ RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

archive samples

phers

Default: Dispose after 30 days

ANALYSES REQUESTED														
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars AP 01/04	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Nitrate + Sulfate	Notes
MW-1	01 A-E	11/8/25	1145	C	5	X	X	X					X	✓-see HC 9/1/17
MW-2	02		1215			X	X	X						✓
MW-3	03		1315			X	X	X						
MW-4	04		1345			X	X	X						
MW-5	05		1415			X	X	X						
MW-6	06		1245			X	X	X					X	✓

Friedman & Bruya, Inc.
5500 4th Ave S.
Seattle WA 98108
(206) 285-8282
office@friedmanandbruya.com

SIGNATURE

PRINT NAME

COMPANY

DATE _____

TIME

Relinquished by:

03-0000

RUKCA/as

$$\frac{1}{55}$$

BB

Received by:

1101

Fr

1991

09.45

Relinquished by:

五

Received by:

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501089 CLIENT Blue Sage INITIALS/ AP
DATE: 01/09/25

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

Cooler/Sample temperature 8 °C
Thermometer ID: Fluke 96312917

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

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

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ AP
*or other representative documents, letters, and/or shipping memos Date: 01/09/25

Number of days samples have been sitting prior to receipt at laboratory 1 days

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

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

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

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

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

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

Sample ID's	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Date Sampled	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Time Sampled	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
# of Containers	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Relinquished	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Requested analysis	<input type="checkbox"/> Yes <input type="checkbox"/> On Hold	

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☒ NA ☐ YES ☐ NO
Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 501089 CLIENT Blue Sage INITIALS/ AP
DATE: 01/09/25

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

Cooler/Sample temperature 8 °C
Thermometer ID: Fluke 96312917

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

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

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ AP
*or other representative documents, letters, and/or shipping memos Date: 01/09/25

Number of days samples have been sitting prior to receipt at laboratory 1 days

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

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

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

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

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

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

Sample ID's	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Date Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
Time Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Not on COC/label
# of Containers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Relinquished	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Requested analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold	

Other comments (use a separate page if needed)

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

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



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: 501089,
Work Order Number: 2501164

January 16, 2025

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 6 sample(s) on 1/9/2025 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.

Alliance Technical Group is committed to accuracy, speed, and customer service. Thank you for choosing Alliance Technical Group's Seattle laboratory team for your analytical needs. We appreciate this opportunity to serve you!

Sincerely,

A handwritten signature in blue ink that reads "Kelley Lovejoy". The signature is written in a cursive, flowing style.

Kelley Lovejoy
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*

Original



www.fremontanalytical.com

CLIENT: Friedman & Bruya
Project: 501089
Work Order: 2501164

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2501164-001	MW-1	01/08/2025 11:45 AM	01/09/2025 12:09 PM
2501164-002	MW-2	01/08/2025 12:15 PM	01/09/2025 12:09 PM
2501164-003	MW-3	01/08/2025 1:15 PM	01/09/2025 12:09 PM
2501164-004	MW-4	01/08/2025 1:45 PM	01/09/2025 12:09 PM
2501164-005	MW-5	01/08/2025 2:15 PM	01/09/2025 12:09 PM
2501164-006	MW-6	01/08/2025 12:45 PM	01/09/2025 12:09 PM

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

CLIENT: Friedman & Bruya

Project: 501089

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:

- * - 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

CLIENT: Friedman & Bruya
Project: 501089

Lab ID: 2501164-001
Client Sample ID: MW-1

Collection Date: 1/8/2025 11:45:00 AM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	0.411	0.200		mg/L	1	1/9/2025 10:00:00 PM
Sulfate	34.8	2.00	D	mg/L	2	1/10/2025 1:49:00 PM

Lab ID: 2501164-002
Client Sample ID: MW-2

Collection Date: 1/8/2025 12:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	0.953	0.200		mg/L	1	1/9/2025 11:10:00 PM
Sulfate	172	10.0	D	mg/L	10	1/10/2025 2:12:00 PM

Lab ID: 2501164-003
Client Sample ID: MW-3

Collection Date: 1/8/2025 1:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	0.379	0.200		mg/L	1	1/9/2025 11:33:00 PM
Sulfate	97.2	10.0	D	mg/L	10	1/10/2025 2:35:00 PM

Lab ID: 2501164-004
Client Sample ID: MW-4

Collection Date: 1/8/2025 1:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	0.325	0.200		mg/L	1	1/9/2025 11:56:00 PM
Sulfate	1.34	1.00		mg/L	1	1/9/2025 11:56:00 PM

CLIENT: Friedman & Bruya
Project: 501089

Lab ID: 2501164-005
Client Sample ID: MW-5

Collection Date: 1/8/2025 2:15:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	ND	0.400	D	mg/L	2	1/10/2025 12:19:00 AM
Sulfate	69.8	5.00	D	mg/L	5	1/10/2025 2:58:00 PM

Lab ID: 2501164-006
Client Sample ID: MW-6

Collection Date: 1/8/2025 12:45:00 PM
Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Ion Chromatography by EPA 300.0

Batch ID: 46413 Analyst: OP

Nitrate (as N)	ND	0.200		mg/L	1	1/10/2025 12:43:00 AM
Sulfate	101	10.0	D	mg/L	10	1/10/2025 3:21:00 PM

Work Order: 2501164
CLIENT: Friedman & Bruya
Project: 501089

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: LCS-46413	SampType: LCS	Units: mg/L				Prep Date: 1/9/2025			RunNo: 96996		
Client ID: LCSW	Batch ID: 46413					Analysis Date: 1/9/2025			SeqNo: 2022513		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.753	0.200	0.7500	0	100	90	110				
Sulfate	3.78	1.00	3.750	0	101	90	110				

Sample ID: MB-46413	SampType: MBLK	Units: mg/L			Prep Date: 1/9/2025				RunNo: 96996		
Client ID: MBLKW	Batch ID: 46413	Analysis Date: 1/9/2025				SeqNo: 2022515					
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: 2501144-002GDUP	SampType: DUP	Units: mg/L			Prep Date: 1/9/2025			RunNo: 96996			
Client ID: BATCH	Batch ID: 46413				Analysis Date: 1/9/2025			SeqNo: 2022519			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	2.06	0.200						2.064	0.0969	20	
Sulfate	21.5	1.00						21.87	1.53	20	

Sample ID: 2501144-002GMS	SampType: MS	Units: mg/L				Prep Date: 1/9/2025			RunNo: 96996		
Client ID: BATCH	Batch ID: 46413					Analysis Date: 1/9/2025			SeqNo: 2022520		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	2.87	0.200	0.7500	2.064	108	80	120				
Sulfate	25.7	1.00	3.750	21.87	103	80	120				

Sample ID: 2501144-002GMSD		SampType: MSD			Units: mg/L		Prep Date: 1/9/2025		RunNo: 96996		
Client ID: BATCH		Batch ID: 46413			Analysis Date: 1/9/2025				SeqNo: 2022521		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	2.86	0.200	0.7500	2.064	105	80	120	2.872	0.594	20	
Sulfate	25.7	1.00	3.750	21.87	102	80	120	25.72	0.117	20	

Work Order: 2501164
CLIENT: Friedman & Bruya
Project: 501089

QC SUMMARY REPORT

Ion Chromatography by EPA 300.0

Sample ID: 2501144-002GMSD	SampType: MSD	Units: mg/L			Prep Date: 1/9/2025			RunNo: 96996			
Client ID: BATCH	Batch ID: 46413				Analysis Date: 1/9/2025			SeqNo: 2022521			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 2501164-001ADUP	SampType: DUP	Units: mg/L			Prep Date: 1/9/2025			RunNo: 96996			
Client ID: MW-1	Batch ID: 46413				Analysis Date: 1/9/2025			SeqNo: 2022529			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	0.408	0.200						0.4110	0.733	20	
Sulfate	30.9	1.00						30.94	0.265	20	E

Sample ID: 2501164-001AMS	SampType: MS	Units: mg/L			Prep Date: 1/9/2025			RunNo: 96996			
Client ID: MW-1	Batch ID: 46413				Analysis Date: 1/9/2025			SeqNo: 2022530			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrate (as N)	1.20	0.200	0.7500	0.4110	105	80	120				
Sulfate	34.7	1.00	3.750	30.94	101	80	120				E

Client Name: FB

Work Order Number: 2501164

Logged by: Morgan Wilson

Date Received: 1/9/2025 12:09:00 PM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Custody Seals present on shipping container/cooler?
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	3.8

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

April 1, 2025

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 March 26, 2025 from the Longview Subaru, F&BI 503397 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

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

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
c: Haley Carter
BSG0401R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 26, 2025 by Friedman & Bruya, Inc. from the Blue Sage Environmental Longview Subaru, F&BI 503397 project. Samples were logged in under the laboratory ID's listed below.

<u>Laboratory ID</u>	<u>Blue Sage Environmental</u>
503397 -01	MW-1
503397 -02	MW-2
503397 -03	MW-3
503397 -04	MW-4
503397 -05	MW-5
503397 -06	MW-6
503397 -07	Trip Blank

All quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/25

Date Received: 03/26/25

Project: Longview Subaru, F&BI 503397

Date Extracted: 03/28/24

Date Analyzed: 03/28/24

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

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl Benzene</u>	<u>Total Xylenes</u>	<u>Gasoline Range</u>	<u>Surrogate (% Recovery)</u> (Limit 50-150)
MW-1 503397-01	<1	<1	<1	<3	<100	65
MW-2 503397-02	<1	<1	<1	<3	<100	68
MW-3 503397-03	<1	<1	<1	<3	<100	68
MW-4 503397-04	<1	<1	<1	<3	<100	73
MW-5 503397-05	<1	<1	<1	<3	<100	67
MW-6 503397-06	<1	<1	<1	<3	<100	71
Method Blank 05-654 MB	<1	<1	<1	<3	<100	66

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/25

Date Received: 03/26/25

Project: Longview Subaru, F&BI 503397

Date Extracted: 03/27/25

Date Analyzed: 03/27/25

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

Extended to Include Motor Oil Range Compounds

Results Reported as ug/L (ppb)

<u>Sample ID</u> Laboratory ID	<u>Diesel Extended</u> (C ₁₀ -C ₃₆)	<u>Surrogate</u> (% Recovery) (Limit 41-152)
MW-1 503397-01	<250	131
MW-2 503397-02	360 x	117
MW-3 503397-03	<250	115
MW-4 503397-04	<250	118
MW-5 503397-05	270 x	128
MW-6 503397-06	400 x	130
Method Blank 05-795 MB	<250	139

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/25

Date Received: 03/26/25

Project: Longview Subaru, F&BI 503397

**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: 503397-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent	Acceptance Criteria
			Recovery LCS	
Benzene	ug/L (ppb)	50	94	70-130
Toluene	ug/L (ppb)	50	86	70-130
Ethylbenzene	ug/L (ppb)	50	82	70-130
Xylenes	ug/L (ppb)	150	87	70-130
Gasoline	ug/L (ppb)	1,000	110	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/01/25

Date Received: 03/26/25

Project: Longview Subaru, F&BI 503397

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

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	104	104	65-151	0

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

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

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

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

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

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

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

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

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

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

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

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

503397

Report To Alex HochCompany Blue Sage

Address _____

City, State, ZIP _____

Phone _____ Email AlexHoch1967@gmail.com

SAMPLE CHAIN OF CUSTODY

03/26/25

SAMPLERS (signature) Alex Hoch

PROJECT NAME

Longview Subur

PO #

REMARKS

Run 5.1.22 gels on samples
w/ Dx > 500 ug/L

INVOICE TO

Clary SuburPage # 1 of 1 131VW3

TURNAROUND TIME

☒ Standard turnaround☐ RUSH

Rush charges authorized by: _____

SAMPLE DISPOSAL

☐ Archive samples☐ Other _____

Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Notes
MU-1	01A-D	3/25/25	1:50	C	4	X	X	X					Dx extended
MU-2	02		12:30										
MU-3	03		1:30										
MU-4	04		1:40										
MU-5	05		1:30										
MU-6	06		1:30										
Trip Blank	07A-B				2								Added at lab 3/25/25

SIGNATURE

PRINT NAME

COMPANY

DATE

TIME

Relinquished by:

Received by:

Relinquished by:

Received by:

Friedman & Bruya, Inc.

5500 4th Ave S.

Seattle WA 98108

(206) 285-8282

office@friedmanandbruya.com

Haley CarterBlue Sage3/26/251:30Alan PhanFeb 13/26/251:30Samples received at 4 °C

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # _____ CLIENT Bluestone INITIALS/ (NP) 3/26/25
DATE: _____

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

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

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

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

Is there a Chain-of-Custody* (COC)? ☒ YES ☐ NO Initials/ AWB 3/26
*or other representative documents, letters, and/or shipping memos Date: _____

Number of days samples have been sitting prior to receipt at laboratory 1 days

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

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

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

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

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

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

Sample ID's	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	_____	<input type="checkbox"/> Not on COC/label
Date Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	_____	<input type="checkbox"/> Not on COC/label
Time Sampled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	_____	<input type="checkbox"/> Not on COC/label
# of Containers	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	_____	
Relinquished	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	_____	
Requested analysis	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> On Hold	_____	

Other comments (use a separate page if needed)
Trip Blank added to COC at lab

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

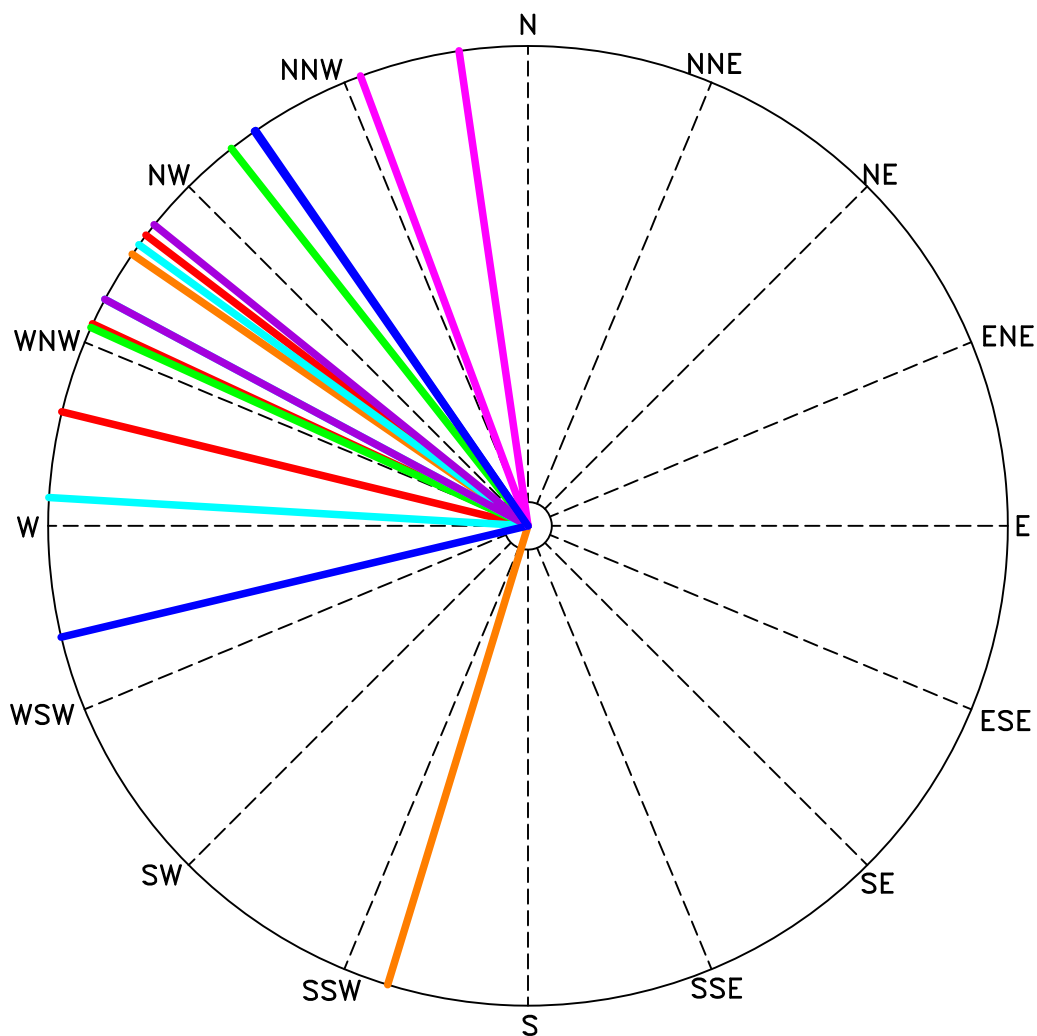
Number of unused TO15 canisters** _____ Number of unused TO17 tubes _____

**Fill out Green manifolds billing sheet

APPENDIX II

Water Contour Figures

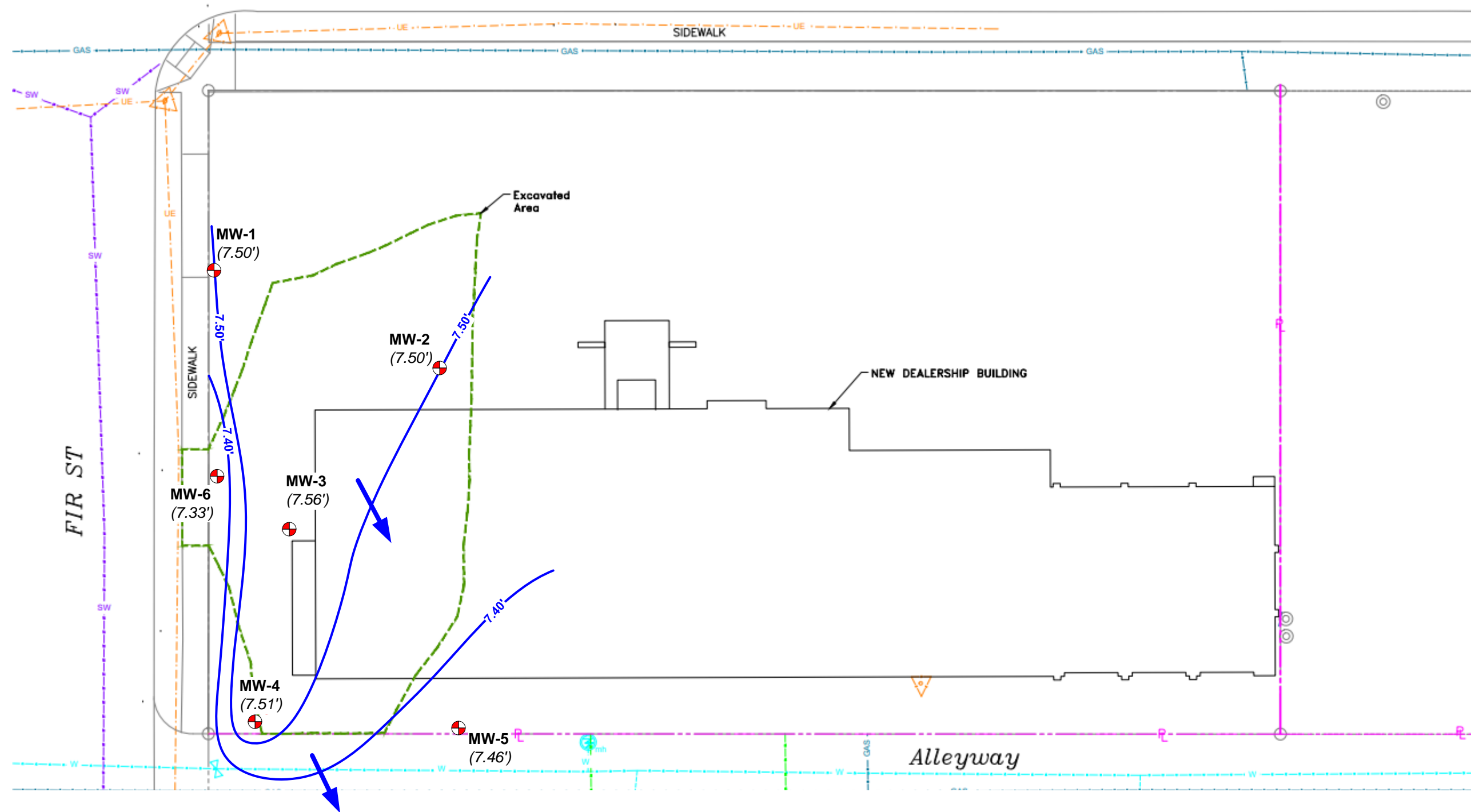
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington 98632



LEGEND

- 2019 Groundwater Gradient Directional Leaders
- 2020 Groundwater Gradient Directional Leaders
- 2021 Groundwater Gradient Directional Leaders
- 2022 Groundwater Gradient Directional Leaders
- 2023 Groundwater Gradient Directional Leaders
- 2024 Groundwater Gradient Directional Leaders
- 2025 Groundwater Gradient Directional Leaders

COMMERCE AVE



Contour Legend



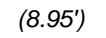
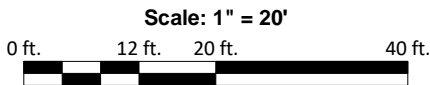
-  Interpreted Groundwater Flow Direction
-  Interpreted Groundwater Contour Line
-  Approximate Groundwater Elevation

Figure and notations are in color. Black and white copies may not be suitable for use.



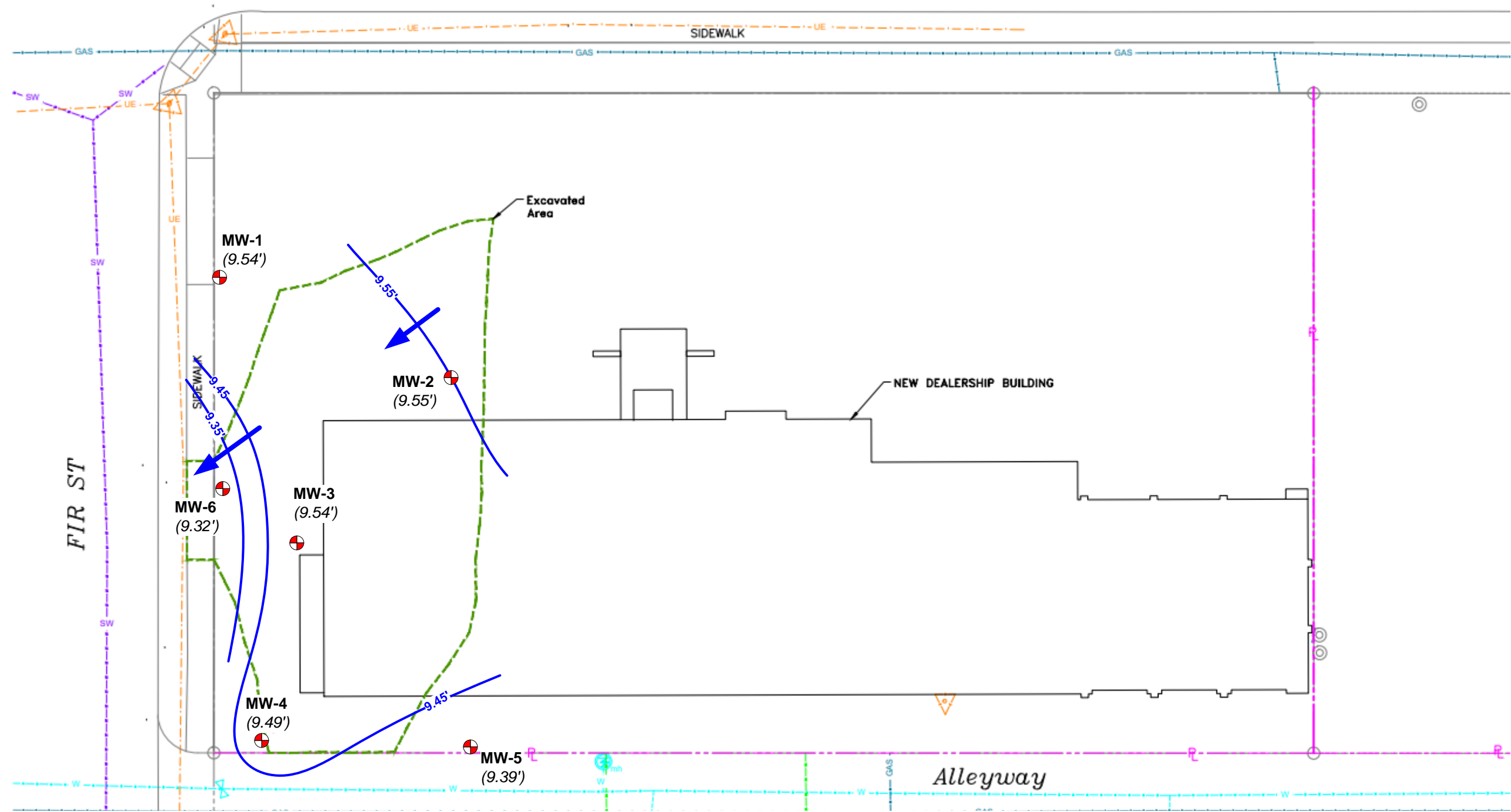
**Blue Sage
Environmental INC
Kennewick, WA**

GROUNDWATER ELEVATION CONTOUR MAP, October 15, 2024
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington

Date: 4/28/2025

**Figure
WC-18**

COMMERCE AVE



Contour Legend



-  Interpreted Groundwater Flow Direction
-  Interpreted Groundwater Contour Line
- (8.95') Approximate Groundwater Elevation

Figure and notations are in color. Black and white copies may not be suitable for use.

Scale: 1" = 20'
0 ft. 12 ft. 20 ft. 40 ft.

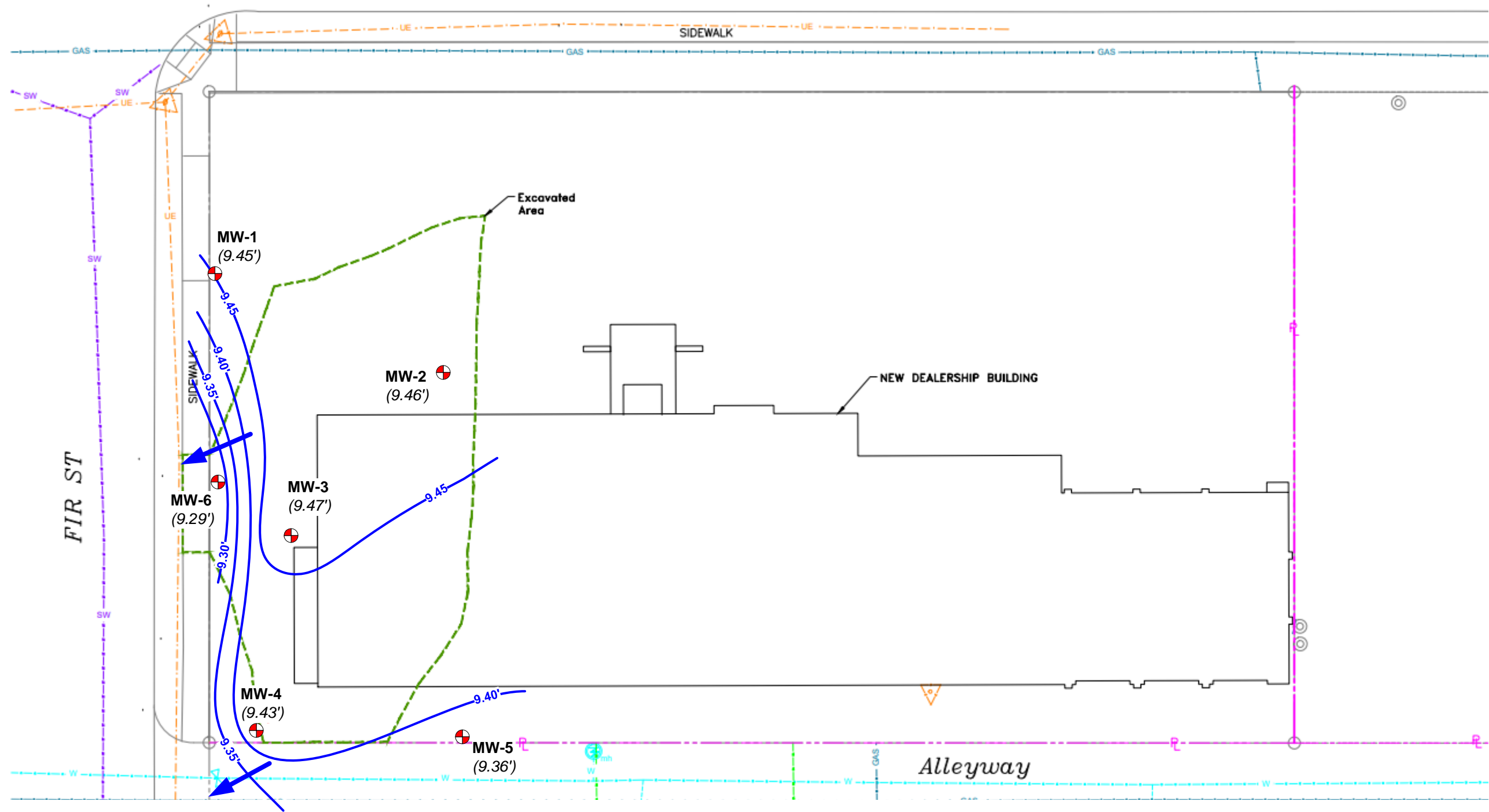
**Blue Sage
Environmental INC
Kennewick, WA**

GROUNDWATER ELEVATION CONTOUR MAP, January 08, 2025
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington

Date: 4/28/2025

**Figure
WC-19**

COMMERCE AVE



Contour Legend



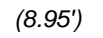
-  Interpreted Groundwater Flow Direction
-  Interpreted Groundwater Contour Line
-  Approximate Groundwater Elevation

Figure and notations are in color. Black and white copies may not be suitable for use.

Scale: 1" = 20'
0 ft. 12 ft. 20 ft. 40 ft.

**Blue Sage
Environmental INC
Kennewick, WA**

GROUNDWATER ELEVATION CONTOUR MAP, March 25, 2025
Bud Clary Subaru
961 Commerce Avenue
Longview, Washington

Date: 4/28/2025

**Figure
WC-20**