March 12, 2025

Clary Auburn RE, LLC
Mr. Bryce Clary
P.O. Box 127
Longview, WA 98632

**Subject:** **Draft Remedial Investigation Report**
**Project Number: BE-0107-E**
**Auburn Volkswagen Dealership Property**
**3109 Auburn Way North**
**Auburn, WA 98002**

Dear Mr. Clary:

Bluestone Environmental NW (Bluestone) is pleased to present this Draft Remedial Investigation report. This report documents the discovery and characterization of subsurface contaminants on the subject property. Please contact us with any questions you may have regarding the findings of this report.

Sincerely,
Bluestone Environmental NW

Dan Hatch
President

Haley Carter, LG
Project Geologist

**Draft Remedial Investigation**
**Report Version: Draft V-2**
**Auburn Volkswagen Dealership Property**
**Auburn, WA**

March 12, 2025

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# 1 EXECUTIVE SUMMARY

Bluestone Environmental NW (Bluestone) has conducted five investigation events at the Auburn Volkswagen Dealership in Auburn, Washington and compiled them into this Remedial Investigation report. This report has been prepared in anticipation of entering the Washington Department of Ecology's Voluntary Cleanup Program, with the goal of obtaining a No Further Action determination for the site.

The Auburn Volkswagen property was historically used as a farm and a single-family home until the early 1960s, when it was developed for commercial use, including modular trailer home sales and car sales. Since then, the property has primarily remained a car dealership. Environmental investigations and cleanup efforts were conducted on the Auburn VW property and the adjacent Subaru of Auburn property between 1989 and 2019. In 2019, the Pollution Liability Insurance Agency issued a No Further Action determination for these properties.

In April 2022, Bluestone completed a Phase I Environmental Site Assessment (2022 ESA) for the Auburn VW property. The ESA recommended subsurface investigations, leading to three environmental investigations in 2022, followed by groundwater monitoring through 2023 and 2024. In December 2024, Bluestone completed a fifth site characterization effort, which included advancing 34 soil borings, analyzing 32 soil samples, and the installation, development, and sampling of 20 groundwater monitoring wells.

The contaminants of concern included petroleum constituents and fuel additives, polycyclic aromatic hydrocarbons (PAHs), and metals. Findings from the investigation include:

- **Soil:** Gasoline-range organics were detected in soil in the northern portion of the Auburn VW property. Small (de minimis) amounts of diesel-range organics (DRO) and carcinogenic PAHs were detected beneath the western portion of the Auburn VW service shop. Arsenic in soil was not found to be a significant concern.

- **Groundwater:** Gasoline-range organics were detected in groundwater in the northern portion of the Auburn VW property. These impacts are attributed to contamination from the adjoining Coastal Gas cleanup site to the north and are therefore not considered the responsibility of the Auburn VW property.

- **Arsenic:** Elevated arsenic concentrations in groundwater (9.41 µg/L to 66.4 µg/L) were identified as an area issue, rather than being caused by any onsite activities or releases. Specifically, an area of a five mile radius was reviewed for this assessment. Additionally, site data indicate consistent reduced groundwater conditions, elevated dissolved organic solids, and a near-flat groundwater gradient.

Based on the findings of Bluestone's site characterization efforts, no further investigation or remediation is warranted for the Site. Accordingly, the Auburn VW Site is eligible to request a No Further Action determination from the Washington Department of Ecology.

# 2 INTRODUCTION

Bluestone Environmental NW (Bluestone) is pleased to present this Remedial Investigation (RI) report for the Auburn Volkswagen Dealership property located at 3109 Auburn Way North, Auburn, Washington 98002. The location of the subject property (Property) is shown on Figure 1. The Property is currently developed as an automobile dealership, including sales and automotive-service operations.

This RI report has been prepared on behalf of the current Property owner, Clary Auburn RE, LLC (Clary), to document the completed characterization efforts at the subject property. Additionally, this report has been prepared in anticipation of entering the Washington Department of Ecology's (Ecology) Voluntary Cleanup Program (VCP), necessary to obtain technical assistance from Ecology in the ongoing pursuit of obtaining a No Further Action (NFA) determination from Ecology.

For this report, the term 'Property' refers to the Auburn VW property addressed as 3109 Auburn Way N and owned by Clary Auburn RE, LLC. The term 'Site' refers to the extent of contamination migration, be it on or off the Property. This report has been prepared for the Auburn VW Site.

This report and the completed efforts are understood to comply with the requirements of the Model Toxics Control Act (MTCA), RCW 70.105D, and its implementing regulations (Washington Administrative Code [WAC] 173-340). Accordingly, this RI report was prepared in general accordance with WAC 173-340-350(7) using Ecology's RI Checklist.

## 2.1 Site Information

The Auburn VW Site is listed on Ecology's Cleanup and Tank Search webpage as Facility Site number 57361549 with a status of "Awaiting Cleanup." Ecology's Cleanup Site Details lists Petroleum-Diesel and polycyclic aromatic hydrocarbons contamination present in soil and arsenic and petroleum-diesel contamination present in groundwater.

The following is a summary of general information for the Site.

| | |
|---|---|
| Site Name | Auburn VW |
| Site Address | 3109 Auburn Way North, Auburn, WA 98002 |
| Facility Site ID | 57361549 |
| Cleanup Site ID | 16877 |
| Property Parcel Tax ID No. | 000400-0041 (King County) |
| Zoning | C3 (Commercial / Light Industries) |
| Quarter, Section, Township, Range | SW, 6, 21, 5 |
| Site Legal Description | JONES H H-D C #39 PCL B OF AUBURN LLA #LLA-02-0025 REC #20030422002872 SD LLA BEING LOCATED IN POR OF N 1/2 OF SW 1/4 OF SEC 6-21-5 LY WLY OF AUBURN WY & ELY OF "C" ST NE, PLat Block:, Plat Lot: POR |
| Site Latitude/Longitude | 47.33572, -122.22460 |

# 3 PROPERTY DESCRIPTION AND BACKGROUND

Based on historical tax records obtained from the Washington State Archive Puget Sound Branch, the Property was historically part of a much larger 'parent' tax parcel, which included portions of the current north- and south-adjoining properties. Based on historical tax records and aerial photography, the parent tax-parcel property was first developed in the early 1900s with a farm and a single-family home and some out-buildings. Historical aerial photographs indicate that the home was removed in the early 1960s and replaced with sales offices used for modular trailer homes and car sales on the eastern portion of the Property.

To assist with presenting the background of the Property, historical aerial photographs from 1936 to 2017 have been annotated and are provided in Appendix A. Additionally, understanding the impact that both the north and south adjoining properties have had or are currently having on the Property is important for the information presented in this report. Accordingly, to assist in distinguishing between the three properties and/or sites, they are identified in this report as follows:

- Coastal Gas, the north adjoining property, addressed at 3317 Auburn Way North
- Auburn VW, the Property considered for this report, addressed at 3109 Auburn Way North
- Subaru of Auburn, the south adjoining property, addressed at 3025 Auburn Way North

## 3.1 Historical Subject Property Uses (3109 Auburn Way North)

As shown on the aerial photographs, the Property was historically addressed as 3205 Auburn Way North from the mid-1960s until the early 2000s. Specifically, reverse telephone directories list the following occupants at 3205 Auburn Way North until 2005.

- 1968 Directory: Green River Motors, Used Cars.
- 1972 and 1977 Directories: Doxon Motors.
- 1981 and 1986 Directories: Leisure Homes.
- 1995 and 2000 Directories: Detrays Pacific Housing.

From the mid-2000s forward the Property address was changed to 3109 Auburn Way North and has remained a listing of Auburn Volkswagen.

Note, Leisure Homes and Detrays were modular home companies that sold modular homes on the Property. Manufacturing of the modular homes does not appear to have

occurred on the Property. Although no clear documentation exists, it is believed that car repair and maintenance activities were conducted in connection with the car dealerships that operated on the Property from the 1960s to the 1980s.

## 3.2 Historical North Adjoining Property Uses (3317 Auburn Way North)

Based on a historical document review consisting of tax records, aerial photographs, and reverse telephone directories, the Coastal Gas property was first developed in the 1970s with the “Coastal Oil and U Pump” gas station. In the mid to late 1980s the use of the property converted to automobile sales and has remained of similar use to the present.

## 3.3 Historical South Adjoining Property Uses (3025 Auburn Way)

In the early 1970s, a large automobile dealership building with multiple service bays was constructed on the Subaru of Auburn property for the Mazda of Auburn dealership. Based on Bluestone’s 2022 ESA, portions of the Subaru of Auburn 1970s-era building and/or its associated components were located near or on the southern portion of the Property. These components of the 1970s-era building are understood to include the following features.

- Service bays equipped with up to 14 hydraulic hoists.
- A 550-gallon waste-oil underground storage tank (UST), reportedly located north of the building/service bays.

In the early 2000s, the Auburn VW property and the Subaru of Auburn property were redeveloped to accommodate the existing car dealerships, specifically, the Subaru of Auburn and Auburn Volkswagen dealerships.

## 3.4 Regulatory Background

The characterization and remediation of hazardous substances in Washington State is regulated under MTCA. MTCA establishes administrative processes and standards to identify, investigate, and cleanup facilities where hazardous substances have come to be located (WAC 173-340-100). The MTCA regulations that relate to petroleum releases from USTs are administered by Ecology and Washington State Pollution Liability Insurance Agency (PLIA).

### 3.4.1 Regulatory & Contaminant Definitions

The term ‘contaminant’ refers to the presence of petroleum and/or other hazardous substances that do not occur naturally or which are found at concentrations greater than

what occur naturally. The term ‘contamination’ refers to the presence of petroleum and/or other hazardous substances that are at concentrations greater than established Cleanup Level.

For this report, ‘cleanup levels’ refer to the MTCA Method A Cleanup Levels (CULs).

# 4 PREVIOUS ENVIRONMENTAL ASSESSMENTS AND ACTIONS

Previous environmental assessments conducted on the Property (3109 Auburn Way North, Auburn VW) and the south-adjoining property (3025 Auburn Way North, Subaru of Auburn) are discussed below. Note, the south adjoining property is discussed here to address the previously completed investigation and cleanup efforts that were completed simultaneously on both properties. The properties received an NFA from PLIA in 2019 (PLIA, 2019).

## 4.1 1989 to 1992, (Subaru of Auburn Property)

In 1989 a 550-gallon waste-oil UST was removed from the Auburn Subaru property by Joe Hall Construction. In January 1991, Ecology requested payment of fees from B&B Motors/Auburn Subaru for the waste-oil tank removal. A City of Auburn building inspection receipt dated September 30, 1992 documents the removal of an “oil waste tank”.

## 4.2 2002 to 2014 (Subaru of Auburn Property)

This Section discusses environmental efforts conducted between 2002 and 2014 for the Subaru of Auburn property.

### 4.2.1 2002 GeoEngineers

In March 2002, GeoEngineers consultants observed and collected soil samples from two remedial excavations (GeoEngineers, 2002. The remedial excavations were based on a Phase II Environmental Site Assessment completed by GeoEngineers in July 2001. The Phase II was performed to evaluate the potential for petroleum-contaminated soil and groundwater that may have originated from 14 hydraulic hoists that were removed from the Subaru of Auburn property. GeoEngineers completed nine shallow soil borings for the Phase II. GeoEngineers reported that diesel-range organic (DRO) and oil-range organic (ORO) hydrocarbons were not detected in ground water samples collected from the nine borings.

The GeoEngineers March 2002 excavation soil samples identified DRO and ORO in confirmation soil samples at concentrations below the CUL of 2,000 milligrams per kilogram (mg/kg). GeoEngineers concluded that DRO and ORO contaminated soil had been successfully removed from the site by the hoist removal contractor. Note, the GeoEngineers' soil analysis incorporated the use of the silica-gel cleanup (SGC) method. The GeoEngineers 2002 report did not clearly identify the location of their excavations, only indicating that the excavations occurred at the north end of the "Former Building, " which is understood to have been on or near the current property line of the Subaru of Auburn and Auburn VW property boundaries.

### 4.2.2 2012 Stemen (3025 and 3109 Auburn Way Properties)

In 2012, Stemen Environmental Inc. (Stemen) completed a Phase II investigation (Stemen, 2012) for the Subaru of Auburn and Auburn VW properties. The Stemen Phase II investigation was conducted on behalf of the Auburn Subaru Dealership.

The Stemen investigation completed three soil borings on the Auburn VW property on December 12, 2012. One soil sample was collected and analyzed from each boring, along with one reconnaissance (grab) groundwater sample. Stemen reported that two of the three soil samples showed no detectable concentrations of gasoline, diesel fuel, or lube oil-range hydrocarbons. However, one soil sample from the Auburn VW property contained gasoline range organics (GRO) and ORO at concentrations exceeding the CULs. The groundwater sample collected from the Subaru of Auburn property reportedly did not contain detectable concentrations of GRO, DRO, or ORO.

The discovery of contaminated soil by Stemen on the 3109 Auburn Way property was reported to Ecology under ERTS #638341 on December 20, 2012.

### 4.2.3 Stemen Remedial Actions 2014, 2015, and 2016 (3025 and 3109 Auburn Way Properties)

Following the Stemen Phase II investigation, Stemen conducted an in-situ bioremediation project (injections) to treat petroleum-contaminated soils and groundwater in the area of the shared property line between the Subaru of Auburn and Auburn VW properties. The injection events took place on December 16, 2014, April 6, 2015, and June 3 and 6, 2016.

Approximately one year later, Stemen conducted a soil sampling event using direct-push drilling methods on June 6, 2017. Soil samples collected and analyzed from the five borings completed by Stemen did not contain detectable concentrations of GRO. However, DRO and ORO were detected in two of the five borings using SGC, but at

concentrations below the CULs. In 2017, Stemen analyzed all soil and/or groundwater samples using SGC.

## 4.3 2015 to 2019 (Subaru of Auburn and Auburn VW Properties)

This Section discusses environmental efforts conducted between 2015 and 2019, on both the Subaru of Auburn and Auburn VW properties.

### 4.3.1 2015 Early Notice Letter

The Auburn VW property received an Early Notice Letter from Ecology, dated March 2, 2015. The Early Notice Letter formalized the reporting of contamination by Stemen in 2012 (Ecology, 2015).

### 4.3.2 2017 to 2019 G-Logics Efforts

In 2017, G-Logics conducted a Phase I ESA, soil and groundwater sampling, and a remedial excavation. The Phase I ESA was completed for the 3109 Auburn Way property, while soil and groundwater sampling and remedial excavation efforts took place on both the 3025 and 3109 Auburn Way properties (Figure 2a).

According to the G-Logics Additional Soil and Groundwater Sampling report, dated August 13, 2017 (GLI, 2017a), soil and groundwater sampling identified ORO in soil at concentrations exceeding CULs at three locations on the 3025 Auburn Way property. Grab groundwater samples also contained DRO and ORO above CULs at one location, as well as ORO exceeding CULs n groundwater at two additional locations on the 3025 Auburn Way property. SGC was applied to these three grab groundwater samples, but the detected DRO and ORO concentrations remained above CULs.

Remedial excavation efforts were conducted in November 2017 along the boundary line between the 3025 and 3109 Auburn Way properties. These efforts were documented in the G-Logics EMMR (GLI, 2017b). During the excavation, dimensional lumber, old car parts, and abandoned concrete pipes were discovered. According to the G-Logics EMMR, contaminated soil was observed within the excavation at depths of approximately 5 to 10 feet below ground surface (bgs), with groundwater encountered at approximately 8 feet bgs. The excavation is stated to have been completed "*until sidewall and bottom confirmation-soil samples exhibited petroleum concentrations below MTCA Method A Cleanup Levels*."

In total, approximately 384 tons of petroleum contaminated soil were removed and disposed of off-site. The G-Logics EMMR concluded that confirmation soil samples indicated "*all petroleum contaminated soils*" had been removed from the area of the

excavation. Before backfilling, G-Logics placed approximately 200 pounds of ORC into the open excavation to assist in the degradation of residual petroleum impacts in groundwater.

Following the 2017 remedial excavation, G-Logics prepared a workplan, dated January 2, 2018 (GLI, 2018a) for additional site characterization, including groundwater monitoring. This workplan was submitted to PLIA for review and comment, and the Site[1] was entered into PLIA's technical assistance program. The January 2, 2018 workplan proposed drilling three additional borings for groundwater-monitoring well installation. Once installed, groundwater samples were to be collected from both existing and new monitoring wells.

The workplan was revised and updated with a date of February 13, 2018 and was again submitted to PLIA. On February 21, 2018, PLIA provided two approval letters (PLIA 2018a and 2018b) regarding G-Logics' proposed work:

1. The first approval letter provided comments and approval for the February 13, 2018 workplan.

2. The second approval letter stated, *"Yes, PLIA concurs that the proposed Work Plan is sufficient to define the lateral and vertical extents of petroleum impacts at this site, set points of compliance, and develop a conceptual site model (CSM) to support a feasibility study (FS) / cleanup action plan (CAP) towards a No Further Action (NFA) determination at this site."*

After the November 2017 remedial excavation and the completion of the three additional monitoring wells, G-Logics prepared a *Well Installation and Groundwater Sampling* report, dated April 12, 2018 (GLI, 2018b). The report concluded that based on the use of SGC on the groundwater samples, "*The additional sampling, conducted during this March 2018 investigation…, …has confirmed that the petroleum contamination "(understood to be associated with the former used-oil UST)" has been successfully removed and did not migrate beyond the remedial-excavation boundaries*." However, the issue of elevated arsenic concentrations in groundwater and native soil remained to be addressed.

To address the arsenic in groundwater, G-Logics argued that:

[1] The term 'Site' refers to the extent of contamination migration, be it on or off a property as defined by MTCA. The Site in this case belongs to both the 3025 and 3109 Auburn Way properties.

- The site had no history of commercial or industrial activities that could have contributed to arsenic contamination.
- The site was within the Asarco area-wide smelter plume.
- The site likely contained volcanic deposits from the Osceola mudflow, a natural source of arsenic.
- Historical agricultural practices in the region may have also contributed to area-wide arsenic contamination.
- Arsenic concentrations increased at depths of 5-8 feet bgs, suggesting contamination was associated with native soils rather than imported structural-fill materials.

G-Logics submitted its April 12, 2018, report to PLIA for review and comment. PLIA responded to G-Logics April 12, 2018 report with a "Further Action" letter, dated May 31, 2018, indicating that additional remedial actions were required. A second Further Action letter, dated July 13, 2018, was issued, apparently in response to the same report. It is unclear what communication occurred between PLIA and G-Logics that prompted the second Further Action letter. The second Further Action letter, dated July 13, 2018, reiterated that *"PLIA has determined that further remedial action is necessary to clean up contamination at the Site."*

Following the November 2017 G-Logics remedial excavation, four consecutive quarters of groundwater sampling were completed. The results of each quarterly event were provided in separate monitoring reports. A final groundwater monitoring report prepared by G-Logics, titled Groundwater Sampling Report, December 2018, dated February 5, 2019 (GLI, 2019) documented their fourth quarter groundwater sampling event and concluded that:

> "*Based on the information gathered over the last four quarters of groundwater sampling, all detected DRO and ORO groundwater concentrations remained below cleanup levels when using silica-gel methods*."

Regarding the arsenic issue, G-Logics concluded that:

> "*Dissolved arsenic also now appears to be below the cleanup level in all wells except GL-MW-2*."

The conclusions of the February 5, 2019 Groundwater Sampling report went on to state that:

> "*Analytical data shows ORO slightly exceeds the Method A cleanup level in groundwater found in GL-MW-4 and GL-MW-6. Furthermore, the use of silica-gel*

*for samples collected from these wells indicate ORO is not present above the cleanup level*."

G-Logics submitted the Groundwater Sampling report to PLIA, requesting a NFA determination. PLIA responded to G-Logics' February 5, 2019 report with an unrestricted NFA opinion letter, dated May 6, 2019.

# 5 AUBURN VW PROPERTY REMEDIAL INVESTIGATIONS

In April 2022, Bluestone completed a Phase I ESA for the Property. The Phase I ESA recommended conducting subsurface investigation in the service shop area, specifically, the western portion of the Auburn Volkswagen building. A total of three separate environmental investigations were completed by Bluestone in 2022 as discussed below.

Ultimately, Bluestone completed 34 soil borings, installed 20 groundwater monitoring wells, and analyzed approximately 80 soil samples and 60 groundwater samples. The potential contaminants of concern (PCOC) for these efforts included the following constituents.

- Gasoline range organics
- Diesel range organics
- Oil range organics
- Fuel additives and volatile organic compounds
- Semi-volatile and Polycyclic Aromatic Hydrocarbons (PAHs)
- Metals (RCRA 8)
- And included the assessment of total organic carbon, total dissolved solids, and total suspended solids in groundwater.

Soil analytical data is provided on Tables 1a through 1d. Groundwater analytical data is provided on Tables 2a and 2b. Exploration locations and data from the Bluestone efforts are presented on Figures 2a through 5d.

## 5.1 Initial Subsurface Investigation, April 2022

On April 24, 2022, Bluestone completed an initial subsurface investigation on the Property. Bluestone retained Holocene Drilling, Inc. (Holocene) to complete six soil borings (B-1 through B-6) to depths of 15 feet bgs and the collect grab groundwater samples from five of the six borings (B-1, B-2, B-4, B-5, and B-6).

The soil analytical results from the initial investigation indicated that with the exception of carcinogenic PAHs (cPAHs), the PCOCs listed above were not an issue for the Site soils when compared to the CULs. Regarding the cPAHs, shallow soil samples from boring B-2 detected cPAHs at concentrations exceeding the CUL after performing the Total Toxic Equivalent (TEQ) factor, as shown in Table 1d. Specifically, boring B-2 detected a concentration of 3.243 mg/kg cPAHs at a depth of five feet bgs.

Analytical results from grab-groundwater samples collected in five of the open borings identified the presence of DRO, arsenic, and chromium at concentrations above the CULs. Specifically, DRO and chromium were detected above the CULs in B-4 while arsenic was detected above the CUL in the five analyzed groundwater samples (Tables 2a and 2b). Because the contaminants detected in groundwater were not necessarily present in the analyzed soil samples, the source of contamination in groundwater was unclear.

## 5.2 Subsurface Exploration, May 2022

On May 23, 2022, Bluestone conducted a follow-up subsurface investigation on the Property. Holocene was again retained to advance five additional soil-probe borings to depths of 17 feet bgs, which were subsequently completed as monitoring wells (MW-1 through MW-5).

Soil analysis from this second investigation indicated that PAHs and MTCA 5 metals were detected at concentrations below their respective CULs. However, ORO was detected in soil sample MW-4-3 at a concentration of 2,900 mg/kg, exceeding the CUL of 2,000 mg/kg.

Groundwater samples were collected on May 26, 2022, from the five newly installed monitoring wells. DRO, specifically DRO extended ($C_{10}$-$C_{36}$), was detected in groundwater collected from the five monitoring wells, but at concentrations below the CUL.

Arsenic (total) was detected above the CUL in the groundwater samples collected from MW-1, MW-4, and MW-5. The reported concentrations of arsenic in the groundwater samples collected from monitoring wells MW-2 and MW-3 were below the CUL.

Chromium (total) was detected in groundwater from MW-3 at a concentration below CUL, while no detectable levels of chromium were observed in samples from the other monitoring wells. Lead, cadmium, and mercury were not detected above laboratory reporting limits in any of the samples analyzed from the developed monitoring wells.

## 5.3 Subsurface Investigation, August 2022

To refine the extent of shallow soil contamination and assess arsenic concentrations in groundwater using total and dissolved analysis methods, Bluestone conducted a third subsurface characterization effort. On July 20, 2022, eight additional direct-push borings (B-7 through B-14) were advanced to depths of 15-feet bgs.

Four of these borings (B-9 through B-12) were specifically completed to define the lateral boundaries of benzo(a)pyrene contamination initially detected in boring B-2. Soil samples collected at depths of 3, 5, and 6 feet bgs from these four borings did not show cPAH concentrations exceeding laboratory reporting limits, except for sample B-12-5, which detected cPAHs at concentrations below the CUL. However, the sum of cPAHs, expressed as Total Equivalent Concentrations (TEQ), exceeded the CUL in soil B-12-5 (Table 1d).

During the July 20, 2022 sampling effort, pieces of asphalt were observed in borings B-10 and B-12 between the depths of 3 and 5 feet bgs. Based on these observations, Bluestone concluded that the benzo(a)pyrene detected in borings B-2 and B-12 likely originated from asphalt material used during backfill and grading activities conducted in 2001 for the construction of the current building. Furthermore, the Phase I ESA did not identify any past business operations on the property that would have used or produced arsenic or cPAH waste or releases.

DRO and ORO were not detected above laboratory reporting limits in any of the analyzed samples.

On July 26, 2022, Bluestone collected groundwater samples for a second time from the five previously installed monitoring wells. DRO extended ($C_{10}$-$C_{36}$), was detected above the CUL in four of the five monitoring wells (MW-1 through MW-4). DRO was also detected in MW-5 at a concentration below the CUL.

Arsenic (both total and dissolved) exceeded the CUL in the five monitoring wells during the July 26, 2022 sampling event.

Based on findings from the three subsurface investigations, Bluestone recommended additional site characterization efforts. The proposed actions included further soil borings and the installation and sampling of additional groundwater monitoring wells. These efforts aimed to:

- Identify the source of the DRO contaminants in groundwater,

- Evaluate the effectiveness of the SGC method for groundwater sample preparation, and
- Collect additional data to address the detected DRO and arsenic concentrations in groundwater at the property.

## 5.4 Groundwater Assessments, 2023

Bluestone conducted additional groundwater sampling to evaluate the effectiveness of SGC in preparing groundwater samples for analysis and to refine filtering methods addressing arsenic concentrations in groundwater at this site. Groundwater sampling events were conducted in January, May, and August 2023, as well as May 2024, to monitor contaminant conditions over time.

Arsenic (total and dissolved) was detected in the five groundwater monitoring wells during one or more of the four sampling events. DRO without the use of SGC was detected in the five monitoring wells but at concentrations below the CUL. Additionally, following the SGC analysis method, DRO concentrations were not detected in any of the groundwater samples above the laboratory reporting limit.

To enhance the understanding of SGC and field-filtering methods for groundwater, Mr. Kurt Johnson of Apex Laboratories reviewed the January, May, and August 2023 sampling events. Mr. Johnson's assessment is discussed below.

## 5.5 Apex Laboratory Forensic Assessment, 2023

As mentioned above, the use of SGC and field-filtering methods for metals for assessing petroleum and arsenic concentrations in groundwater was evaluated with the assistance of Mr. Kurt Johnson from Apex Forensics Laboratory. Based on the analytical results of the collected groundwater samples, Mr. Johnson prepared a report, dated April 9, 2024, documenting his findings and interpretations from the May 4, 2023, groundwater sampling event. His conclusions regarding the use of SGC at the site are summarized below.

> *"Review of the NWTPH-Dx results generated before silica gel column cleanup (SGCC) shows that the level of diesel range hydrocarbons quantified in the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP was between 130 ug/L and 230 ug/L. After SGCC was employed, diesel range hydrocarbons were not identified in these samples at or above the analytical reporting limit. The reduction in the level of diesel range hydrocarbons after SGCC indicates that the material present in*

*these samples is polar/semipolar in origin and below MTCA A cleanup levels."*

Mr. Johnson's findings for the field-filtration methods used in the analysis of metal in groundwater are as follows.

*" A summary of the total and field filtered dissolved arsenic results for the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP is provided in Table 1. The samples MW-2 and MW-5 were also filtered in the laboratory using 0.45 um and 0.22 um filters. The dissolved arsenic results after lab filtration are also provided in Table 1.*

**Table 1.** Total and Dissolved Arsenic in Water Samples (ug/L)

| | Total As | Dissolved As Field Filter | Dissolved As 0.45 um Filter | Dissolved As 0.22 um Filter |
|---|---|---|---|---|
| MW-1 | 62 | 65 | - | - |
| MW-2 | 86 | 90 | 3.7 | <3.5 |
| MW-3 | 25 | 25 | - | - |
| MW-4 | 8.4 | 9.2 | - | - |
| MW-5 | 49 | 51 | 3.3 | <3.0 |
| MW-DUP | 26 | 26 | - | - |

*Review of Table 1 shows that the level of total arsenic and dissolved arsenic after field filtration in the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP was approximately the same. However, the level of dissolved arsenic was significantly reduced in the samples MW-2 and MW-5 after the 0.45 um and 0.22 um lab filters were used. This indicates that the filters used in the field did not effectively remove particles greater than or equal to 0.45 um in the samples and the arsenic quantifications in Table 1 after field filtering should not be relied upon.*

*Based on the above we recommend changing the type of field filters used at this Site. The current data indicates that if filters that provide an absolute, as opposed to average, removal of particles greater than 0.45 um in size are used, it will likely result in arsenic quantifications below the current MTCA A cleanup level of 8 ppb."*

The April 9, 2024, Apex report, as well as laboratory reports and chromatographs reviewed by Mr. Johnson, are included in Appendix B.

## 5.6 Subsurface Exploration, December 2024

Between December 10 and 13, 2024, Bluestone conducted an additional follow-up investigation to further characterize the Site. Holocene was retained to advance 15

additional soil-probe borings to depths of 15 feet bgs. The borings were subsequently completed as monitoring wells, designated MW-6 through MW-20. Additionally, a surface soil sample was collected from the stormwater pond located on the west side of the Property. A total of 24 soil samples were analyzed from the 15 soil borings.

GRO was the only petroleum contaminant detected above the CUL, specifically, in boring MW-6. Boring MW-6 is located near the Property's north boundary line south of an existing cleanup site registered with Ecology as the Coastal Gas Site, specifically, Cleanup Site ID: 16683. The Coastal Gas Site is known as a GRO contaminated site.

As shown on Figure 2a and others, MW-6 is situated approximately 20-feet south of the Coastal Gas Site's (Coastal Gas) groundwater monitoring well MW-11. Based on the lack of GRO detections in soil samples from other borings on the Property and the proximity of MW-6 to the Coastal Gas Site, the detection of GRO in MW-6 is understood to have migrated from and to be associated with Coastal Gas and not the Auburn VW Site, specifically, the Property (Figure 6).

DRO and ORO were detected borings MW-6, MW-13, and in sample SWP (the surface soil sample from the stormwater pond). but at concentrations below the CUL. MW-13 is located on the east Property boundary adjacent to the Auburn Way North street. The stormwater pond is located along the entire western Property boundary, adjacent to the Auburn Municipal Airport.

Metals, including arsenic, barium, chromium, copper, and lead, were detected in many of the analyzed soil samples, but the detections were below their respective CULs. Cadmium, mercury, selenium, and silver were not detected above the laboratory reporting limit in any of the analyzed sample.

Between December 17 and 19, 2024, groundwater samples were collected from the 15 newly installed monitoring wells and the five existing wells. Note, during shipment of the samples to the laboratory, a cooler containing groundwater samples from MW-2, MW-15, and MW-16 was lost. Resampling for these three wells was conducted on January 10, 2025.

GRO was detected in the groundwater sample from MW-6 that exceeded the CUL, while DRO and naphthalene were detected at concentrations below their respective CULs in the MW-6 groundwater sample. Petroleum and/or fuel additives/VOCs were not detected above laboratory reporting limits in the remain 19 groundwater samples collected during the December 2024/January 2025 subsurface investigation efforts.

Arsenic was detected above the CUL in groundwater samples from 17 of the 20 monitoring wells and above the background[2] concentration of 14 of the 20 monitoring wells for both total and dissolved arsenic. No other metal analytes were detected above their respective CULs in groundwater.

Total organic carbon (TOC) was analyzed in six groundwater samples and total suspended solids (TSS) was analyzed in eight groundwater samples during the December 2024/January 2025 subsurface investigation efforts.

| **Excerpt from Table 2b, Laboratory Analytical Results: Metals in Groundwater** | | |
|---|---|---|
| **Sample Name -/- Date** | **Total Organic Carbon (µg/L)** | **Total Suspended Solids (µg/L)** |
| MW-2 -/- 12/17/24 | Not Analyzed | 68,000 |
| MW-3 -/- 12/17/24 | 72,000 | 134,000 |
| MW-5 -/- 12/17/24 | 22,400 | <5,000 |
| MW-6 -/- 12/18/24 | 4,200 | 26,000 |
| MW-13 -/- 12/19/24 | 1,200 | <5,000 |
| MW-16 -/- 1/10/25 | Not Analyzed | 178,000 |
| MW-19 -/- 12/18/24 | 30,000 | 80,000 |
| MW-20 -/- 12/18 | 32,800 | 126,000 |

## 5.7 Sample Analysis Methods

Soil and groundwater samples have been analyzed by two different laboratories at varies times throughout the site characterization efforts, specifically, Friedman & Bruya and Apex for the following analyses.

- Petroleum hydrocarbons (GRO, DRO, ORO): NWTPH-Gx and -Dx.
- Metal: EPA-6020.

[2] This is referring the Ecology publication on natural background concentrations of arsenic in Washington State, dated January 2022, Publication No. 14-09-044.

- VOCs: EPA-8260.
- PAHs: EPA-8270 SIM.
- Total Organic Carbon: SM 5310C
- Total Suspended Solids: SM 2540D

## 5.8 Quality Assurance/Quality Control

Procedures for Quality Assurance/Quality Control (QA/QC) were observed for the completed efforts, including generally accepted procedures for sample collection, storage, tracking, and documentation. Collected samples were labeled with a sample number, date, time, and samplers name, recorded on a chain-of-custody document, and were placed in a cooler to be kept chill and kept at least 4-degress Celsius before delivery to the laboratory for analysis. Details regarding field methodologies and sampling protocols are provided in Appendix C.

# 6 REMEDIAL INVESTIGATION FINDINGS

The findings of our investigation efforts for the remedial investigation are provided below.

## 6.1 Analytical Results

This Section provides a summary of the analytical findings for soil and groundwater. Laboratory Analytical reports are attached in Appendix F.

### 6.1.1 Soil Analytical Findings

Selected soil samples from the borings were submitted for laboratory analysis as shown on Tables 1a through Table 1d. A summary of the analytical results is discussed below by contaminant. Note, NWTHP-HCID analysis was completed on the soil samples prior to completing a NWTPH-Gx or NWTPH-Dx analysis when an HCID detection was reported. This Section summarizes the analytical results from the December 2024 exploration efforts.

#### *6.1.1.1 GRO Analytical Results*

GRO in soil was only found above the CUL in boring MW-6. Specifically, GRO was detected in boring MW-6 at a concentration of 347 mg/kg at a depth of 7-feet bgs. GRO was also detected in boring MW-6 at a depth of 12-feet bgs, but at a concentration below the CUL.

#### 6.1.1.1 DRO/ORO Analytical Results

ORO was only detected above the CUL (2,900 mg/kg) in soil sample from boring MW-4 at a depth of 3-feet bgs. ORO was not detected above the laboratory reporting limit in the soil sample collected at a deeper depth of 5-feet bgs in boring MW-4. MW-4 is located inside the service shop.

DRO was detected in a soil sample from boring MW-6 at a depth of 7-feet bgs at a concentration below the CUL (109 mg/kg). A soil sample collected from MW-6 at a depth of 12-feet bgs did not contain a detection of DRO above the laboratory reporting limits. Soil samples at shallower depths than 7-feet bgs in MW-6 were not analyzed.

ORO was detected in a soil sample from boring MW-13 at a depth of 12-feet bgs at a concentration below the CUL (102 mg/kg). Soil samples at shallower and/or deeper depths in MW-13 were not analyzed.

ORO was detected in the soil sample collected from the stormwater pond, sample SWP at a depth 6-inches bgs, but at concentrations well below the CUL (56.5 mg/kg).

#### 6.1.1.2 VOC Analytical Results

Vinyl chloride and xylenes were detected at concentrations below the CULs in soil samples collected from B-1 and MW-6, respectively. Boring B-1 is located near the oil/water separator on the north side of the service shop.

Naphthalene and/or 1- / 2-methylnaphthalene were detected in soil samples collected from B-1, B-2, B-9, B-10, MW-5, and MW-6 and were at concentrations below the CULs. VOCs were not detected above the laboratory reporting limits in any of the other analyzed soil samples.

#### 6.1.1.3 cPAH Analytical Results

The only individual cPAH detected above the CULs was benzo(a)pyrene in a soil sample from B-2 (samples B-2-5 at a concentration of 2.6 mg/kg). However, after completing total toxic equivalent (TEQ) calculations, soil samples from borings B-2 and B-12 reported the sum of the TEQ above the CUL. The TEQ for sample B-2-5 was 3.243 mg/kg and the TEQ for sample B-12-3 was 0.1115 mg/kg. The deeper analyzed soil sample from B-2, at a depth of 10-feet bgs reported a TEQ sum of 0.0076, below the CUL. A deeper soil sample from B-12 was not analyzed.

#### *6.1.1.4 Metals Analytical Results*

Arsenic, barium, chromium, copper, and lead were detected in various soil samples at concentrations below the respective CULs. There were no detections of metals, specifically arsenic, above the CUL.

### 6.1.2 Groundwater Analytical Findings

This Section summarizes the results of the groundwater assessments completed by Bluestone since 2022. Since April 2022, groundwater has been sampled on the Site eight times. Specifically, grab-groundwater samples were collected from the open soil borings in April 2022, and groundwater samples from permanent groundwater monitoring wells were collected in May and July 2022, January, May, and August 2023, and May and December 2024. Groundwater samples were submitted for laboratory analysis as shown on Tables 2a and 2b. The analytical results are discussed below.

Well construction and groundwater depth information are presented in Table 3. Groundwater parameters at the time of sample collection are presented in Table 4. As with the soil samples, an HCID analysis was completed on the groundwater samples prior to the application of NWTPH-Gx or -Dx analytical methods.

#### *6.1.2.1 GRO Analytical Results*

GRO was detected in monitoring well MW-6 during the December 2024 sampling event at a concentration of 1,440 µg/L, exceeding the CUL of 1,000 µg/L[3]. As discussed in Section 6.1.1.1, MW-6 is located immediately south and down-gradient of the Coastal Gas site. GRO has not/was not detected in any other monitoring well in previous or the most recent sampling event(s).

#### *6.1.2.2 DRO and ORO Analytical Results*

DRO was detected above the CUL in the grab-groundwater sample (B-4-W) during the initial subsurface investigation event in April 2022. Following the installation of permanent groundwater wells during the May 2022 efforts, DRO extended ($C_{10}$-$C_{36}$) was detected above the CUL in monitoring wells MW-1, MW-2, MW-3, and MW-4 during the July 2022 sampling event.

During the May 2023 groundwater sampling event DRO was detected in the five monitoring wells MW-1 through MW-5 at concentrations below the CUL. SGC used on

[3] Benzene has not detected in any groundwater sampling event. Accordingly, the higher CUL of 1,000 µg/L has been identified an appropriate CUL.

the May 2023 detections to experiment with the findings of the SGC application. There were no detections of DRO after the use SGC during the May 2023 sampling event.

After the July 2022 sampling event, there have not been detections of DRO/ORO or DRO-extended ($C_{10}$-$C_{36}$) greater than the CUL. With the exception of MW-6, DRO/ORO or DRO-extended were not detected above the laboratory reporting limits in the 19 groundwater monitoring wells during the December 2024/January 2025 sampling event for the Auburn VW Site. Again, any detections of contaminants in MW-6 are considered to be associated with and from the Coastal Gas site on the north adjoining property (Figure 6).

#### *6.1.2.3 PAH Analytical Results*

PAHs, including cPAHs, have not been detected above the CUL in any of the analyzed samples. Specifically, only phenanthrene (from grab-groundwater sample B-4-W) was detected above the laboratory reporting limit. Accordingly, PAH/cPAHs in groundwater are not considered to be a COC for the Site.

#### *6.1.2.4 VOC Analytical Results*

With the exception of a detection of naphthalene in MW-6, VOCs and/or fuel additives have not been detected in groundwater at the Site. Accordingly, VOCs and/or fuel additives in groundwater are not considered to be a COC for the Site.

#### *6.1.2.5 Metals Analytical Results*

Total chromium was detected above the CUL in the grab-groundwater sample collected from B-4 (B-4-W). However, both total and dissolved chromium were not detected above the CUL in any of the analyzed groundwater samples from the permanent monitoring wells. Barium and lead have also been detected in several sampling locations but at concentrations below the CUL.

Cadmium, mercury, selenium, and silver were not detected above the laboratory reporting limit in any of the analyzed groundwater samples.

However, total and dissolved arsenic concentrations have continuously been detected above the CUL and natural background[4] level from many of the monitoring wells since 2022. The arsenic in groundwater issue at the Site is discussed further in Section 6.1.2.6 and 6.3 below.

[4] This is referring the Ecology publication on natural background concentrations of arsenic in Washington State, dated January 2022, Publication No. 14-09-044

#### *6.1.2.6 Groundwater Parameters and Conditions*

To assist in assessing the cause of the elevated detections of total and dissolved arsenic, field parameters measured at the time of sample collection as well as analysis of total organic carbon (TOC), total suspended solids (TSS), and total dissolved solids (TDS) were recorded and performed.

As shown on Table 4, the recorded oxidation reduction potential (ORP) values are well into a negative condition. Likewise, the dissolved oxygen levels are shown to be low to extremely low conditions for groundwater. These negative ORP and low DO conditions are understood to show that groundwater at the Site is at a reduced condition. As shown on Table 2b, the TOC analysis demonstrate that the organic carbon concentrations in water are high to very high. Likewise, both TSS and TDS concentrations are both shown to be high to very high ranging from approximate averages of 45,500 µg/L and 130,000 µg/L, respectively. However, when turbidity is measured, the results show very low turbidity readings with NTU results ranging from 0.4 to 6.71 at the highest recorded measurement (Table 4). With these parameters and conditions, groundwater is understood to be high in organic content with a majority of dissolved particles being less than 2 microns[5] in size.

## 6.2 Arsenic in Soil Discussion

The historical review of the Property did not identify any commercial or industrial uses or sources of arsenic from the prior or current automobile operations on the Property. Additionally, arsenic was not detected above the CUL or natural/background concentrations in any of the analyzed soil samples.

## 6.3 Arsenic in Groundwater Discussion

Field parameters recorded during groundwater sampling including oxidation-reduction potential (ORP) and DO suggest a reductive environment. ORP readings typically range from -400 mV to 800 mV, with lower values indicating reducing conditions and higher values suggesting oxidation. Arsenic levels tend to increase in low ORP conditions and decrease in high ORP conditions. During the most recent sampling event (December 2024), ORP readings at the Site ranged from 60.9 mV at MW-14 (where arsenic was below the CUL) to -140.9 mV at MW-20 (where total arsenic was detected at 53.8 µg/L, well above the CUL). Please see Graph 1 for a comparison of ORP to arsenic concentrations at the Site.

[5] 2 Microns being the size of the particle that distinguishes between TSS and TDS.

Additionally, DO levels are a key factor in the release of arsenic from soil. Lower DO environments contribute to a greater release of arsenic compared to high DO environments. Under low DO conditions, the combined effects of ion exchange and anaerobic reduction result in the most significant release of arsenic. In the U.S. Geological Survey article *Factors Affecting Temporal Variability of Arsenic in Groundwater Used for Drinking Water Supply in the United States*, measurements of DO at the time of sample collection showed that increases in arsenic concentrations corresponded to decreases in DO levels. Specifically, DO values among samples from the same well ranged from 7.6 to 1.6 mg/L. At the Site, DO can generally be considered low, with field readings from the most recent sampling event ranging from 3.88 mg/L in MW-3 to 0.05 mg/L in MW-11 and MW-12 (Table 4).

Additionally, as shown on Figure 4, Bluestone compared the EIM data from five other cleanup sites within a five-mile radius of the Site. The five sites have arsenic in groundwater at concentrations greater than the CUL and natural background concentration.

Based on the groundwater parameter and condition data discussed above, the elevated arsenic detections in groundwater at sites throughout the Auburn/Kent valley, the arsenic in groundwater is understood to be the result of naturally occurring organic and reduced groundwater conditions and not the result of contaminant release at the Site.

This conclusion is supported by Ecology's Natural Background Groundwater Arsenic Concentrations in Washington State study, dated January 2022 (Ecology, 2022). As presented in Section 6 of Ecology's 2022 arsenic in groundwater guidance document:

*"In summary, the results of this natural background groundwater arsenic study are consistent with similar studies. In terms of higher naturally occurring arsenic levels, the key variables are typically: 1) groundwater geochemistry (reduced conditions), and 2) increased soil organic matter / content. If the groundwater is geochemically reduced (less than 50 mV oxidation- reduction potential), then it will oxidize the soil organic matter. This geochemical trigger results in the release of arsenic from iron oxides (reductive desorption and dissolution). Low- lying topography, with flat groundwater gradients, may also result in higher arsenic (i.e., not enough dilution; Smedley and Kinniburgh 2002)."*

The subsurface and groundwater conditions and parameters Ecology discuss in Section 6 are identical to those found on the Auburn VW.

# 7 CONCEPTUAL SITE MODEL

Our interpretation of the Conceptual Site Model (CSM) is presented below. The CSM is based on the available data and RI findings and conclusions. The CSM identifies current and potential future exposure pathways for human and ecological receptors. The CSM therefore forms the basis for cleanup level development and selection.

The Property and properties to the east and west along Auburn Way North are zoned for heavy commercial. These zoning stipulations are expected to continue as such in the future.

## 7.1 Current and Future Site Use Considerations

Bluestone understands that Clary intends to continue operating the property as an automobile dealership, including sales and service operations.

## 7.2 Site Setting and Geologic Overview

The Property is located in the Green River Valley. Prior to the 20th Century, the Green River was considered a tributary to the White River, which flowed north to join the Black River in Renton and from the Duwamish River. In 1906 a large flood redirected the White River into the Stuck River and subsequent engineering projects permanently rerouted the flow.

In the area of the Property, floodplain deposits cover the drift plain forming a broad, fertile area. The valley floor is described as the White River Alluvium (Qaw)[6]: dark reddish-gray pebble-cobble gravel and sand derived largely from Mt. Rainier, with a thickness generally less than 30 feet in the White River Valley and probably more than 200 feet in course fan deposits in Auburn. Postglacial deposits include peat, the Osceola mudflow, mass-wasting debris, and alluvial flood-plain deposits from the White, Green and Cedar Rivers[7].

Borings on the Property that were completed to 20 feet bgs encountered the following general stratigraphy: asphalt cover, loose brown sandy gravel, medium to fine sand, and moderately dense gray clayey silt with fine-grained sand.

[6] De Mullineaux, 1965, Geologic Map of the Auburn Quadrangle, King and Pierce Counties, Washington, USGS Geological Quadrangle Map GQ-406.
[7] Luzier, 1969, Geology and ground-water resources of southwestern King County, Washington, Washington Department of Water Resources Water Supply Bulletin 28.

### 7.2.1 Groundwater

Groundwater flow conditions at the Site were evaluated by measuring depth to water in the on-property monitoring wells (MW-1 through MW-20) and extrapolating to groundwater table elevations from survey benchmarks. The net direction of shallow groundwater flow at the Site is interpreted to be toward the west/southwest. However, in localized areas groundwater elevation and flow appear to be perturbed by the influence of the on-property building. The groundwater table elevation also fluctuates seasonally due to variations in rainfall and recharge. Specifically, the depth to groundwater at the Site varies approximately 2.5 feet throughout the year.

Groundwater elevation contours and interpreted flow directions for each monitoring event are shown on Figures 5a through 5d.

### 7.2.2 Surface Water Assessment

The nearest body of water is the Green River, approximately 0.42 miles to the east of the Site.

## 7.3 Contaminants of Concern

Based on the completed site characterization efforts, the identified contaminants of concern (COC) for the Auburn VW Site are as follows.

- Soil: ORO and cPAHs
- Groundwater: arsenic

## 7.4 Cleanup Standards

The following sections present the regulatory framework and an evaluation of remedial alternatives for mitigating the contaminated media and potential exposure pathways present at the Site.

As defined in WAC 173-340-700, cleanup standards consist of cleanup levels and the points of compliance at which the cleanup levels are to be attained. The cleanup standards for the Site have been established in accordance with WAC 173-340-700 through 173-340-760 to be protective of human health and the environment.

### 7.4.1 Soil Cleanup Levels

The selected cleanup levels for COC in soil are the MTCA Method A Soil CULs for Unrestricted Land Uses (Table 740-1 in WAC 173-340-900), as follows:

- ORO, 2,000.0 mg/kg
- Benzo(a)pyrene / cPAHs TEQ, 0.10 mg/kg

### 7.4.2 Groundwater Cleanup Levels

The selected cleanup levels for COCs in groundwater are the MTCA Method A Cleanup Levels for Ground Water (Table 720-1 in WAC 173-340-900), as follows:

- Arsenic, 5.0 µg/L

## 7.5 Fate and Transport

This Section discusses the physical and chemical processes that affect contaminant migration in soil and groundwater at the Site.

### 7.5.1 GRO

Concentrations of GRO in soil and groundwater are present in the area of monitoring well MW-6 near the Property's north boarder line that is shared with the Coastal Gas site. Historical on-Property practices and business operations that could have caused a release of gasoline on this area of the Property do not appear to have occurred. The recorded groundwater flow directions recorded during the December 2024 sampling efforts show that groundwater is flowing in a south/southwestern direction in this area of the Property. Accordingly, the detections of petroleum related contaminants in this area of the Property are assumed to have migrated onto the Property from the Coastal Gas site (Figure 6). Based on the lack of detection of benzene and other fuel additives in soil and groundwater, the detections of GRO at the location of MW-6 appear to be a degradated and likely weathered.

### 7.5.2 DRO/ORO

A detection of ORO above the CUL was detected in a soil sample from boring MW-4, which is located in the western area of the service shop on the Property. Based on the multiple borings/analyzed soil samples surrounding MW-4 (Figure 2b) the extent of this ORO contamination is limited to this area. Specifically, the detection of ORO was found at 3-feet bgs but was not detected at a depth 5-feet bgs in MW-4. The boring B-4 was completed within 2-feet of MW-4 and did not show[8] or have a detection of ORO. Likewise, borings B-3, B-13, and B-14 did not show or have a detection of ORO.

[8] There were no field conditions observed in B-4 indicative of petroleum contamination.

Multiple detections DRO, ORO, or the combined DRO-extended (c10-c36) were detected in groundwater samples collected in 2022 and 2023. Initially, the detected concentrations of DRO-extended were above the CUL in monitoring wells MW-1 through MW-4 in the July 2022 sampling event. However, continued groundwater sampling efforts, specifically, five monitoring events of the course of 18-months, have failed to reproduce the detections of DRO, ORO, or the combined DRO-extended at concentrations above the CUL. Additionally, the exception of MW-6, DRO or ORO were not detected above the laboratory reporting limits in any of the other 19 monitoring wells at the Site in the December 2024 sampling event.

### 7.5.3 cPAHs

Detections of cPAHs, specifically the TEQ results for cPAHs, have been detected in two borings, B-2 and B-12. These two borings are within 10-feet of each other (Figure 2b). Based on soil analysis, the vertical profile of the detected cPAHs are within soils near the surface and do not extend to a depth of 10-feet bgs, terminated vertically somewhere between the depths of 5- and 10-feet bgs. As noted in Section 5.3, asphalt debris was observed to be in the borings, likely in the fill material used as backfill during the construction of the building. cPAHs have not been detected in groundwater samples.

### 7.5.4 Arsenic

Based on the extensive soil data, arsenic in soil is not a consideration nor a source of contamination at the Site. As discussed in Section 6.3, the detections of arsenic in groundwater are considered to be from natural occurring conditions and not from a release at or near the Site. Based on this information, the detections of arsenic in groundwater at the Site are not a contamination issue and do not warrant further consideration for the Site.

## 7.6 Exposure Pathways

Several potential exposure scenarios must be considered relative to the contaminated soil and shallow groundwater at the Site. The remedial alternative selected must mitigate the following exposure pathways.

- Direct contact (human dermal contact and/or ingestion) with impacted soil (petroleum hydrocarbons) down to depths of 15 feet (standard point of compliance).
- The leaching of contaminants from soil to groundwater (petroleum hydrocarbons) and potential exposure scenarios related to shallow groundwater contamination beneath the Site.
- Inhalation of vapors released from soil and/or groundwater to ambient air or building interiors.
- Ingestion of groundwater (metals, PAHs, and petroleum hydrocarbons).

### 7.6.1 Terrestrial Ecological Evaluation

In accordance with WAC 173-340-7490, a terrestrial ecological evaluation (TEE) was performed for the Site to determine if it poses a threat to the terrestrial environment. The Site is fully capped and located within a developed urban area of Seattle. Based on the TEE performed, the Site qualifies for the following TEE exclusions:

- WAC 173-340-7491(1)(c), which states: “For sites contaminated with hazardous substances other than those specified in (c)(ii) of this subsection, there is less than 1.5 acres of contiguous undeveloped land on the site or within 500 feet of any area of the site”

Therefore, terrestrial ecological exposures do not require further consideration. The Site is covered by an automobile dealership building with asphalt pavement surrounding the building and is bounded by roadways, commercial properties, and a stormwater retention pond that is smaller than 1.5 acres. There are no parks or other areas of natural habitat adjacent to the Site. Ecology’s Terrestrial Ecological Evaluation Form is attached is Appendix G.

## 7.7 Receptors

Potential receptors for direct contact to contaminated soils are construction workers if excavating in contaminated areas. As the groundwater at the Site is not a current source of drinking water and is not a practicable source of future drinking water, drinking

water receptors are not a concern. Surface water or sediments are not a concern because there are no nearby points of entry of groundwater into surface water.

Workers/mechanics performing automobile repairs and maintenance in the shop areas where the contamination in the subsurface has been identified are working with petroleum products throughout the workday. Accordingly, the service shop area is not appropriate to include for the vapor intrusion pathway. However, areas within the building used for offices, sales and parts activities are appropriate to consider for Indoor Air quality.

## 7.8 Points of Compliance

Points of compliance (POC) are the locations at which cleanup levels for the COCs must be attained to meet the requirements of MTCA.

| Contaminant of Concern / Media | MTCA Method A CUL |
|---|---|
| ORO / Soil | 2,000 mg/kg |
| cPAHs / Soil | 0.1 mg/kg |
| Arsenic / Groundwater | 5.00 µg/L |

The points of compliance for the Site are as follows:

- In accordance with WAC 173-340-740(6), the point of compliance for soil is defined as soil at the Site where COCs have been detected at concentrations exceeding MTCA soil cleanup levels. Accordingly, the POC for soil at this Site is at locations that the COCs listed above do not exceed MTCA Method A cleanup levels.
- In accordance with WAC 173-340-720(8), the point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth at the Site that potentially could be impacted by COCs. Accordingly, the POC for groundwater at this Site shall be the extent of where the COCs listed above do not exceed MTCA Method A cleanup levels.

# 8 CONCLUSIONS AND OPINONS

The findings of the site characterization efforts are summarized below by media and contaminant.

## 8.1 Petroleum in Soil

The Site was assessed for GRO, fuel additivities, DRO, and ORO in soil. ORO was detected at concentrations above the CUL in soil at one location at a depth of three feet bgs (MW-4) that was located within the service shop area of the building. GRO was also detected at concentrations above the CUL on the northern portion of the Property and is understood to have migrated onto the Property from the Coastal Gas site that is located on the north adjoining property.

Based on the 6 soil borings and 16 analyzed soil samples surrounding MW-4, the extent of the discovered ORO contamination in soil in MW-4 is de-minimis in nature and does not warrant further consideration for the Auburn VW Site. Additionally, based on the understanding that the detected concentration of GRO in soil in MW-6 is contamination migrating from the neighboring Coastal Gas site and not from a source on the Property, GRO in soil is not an issue for the Auburn VW Site (Figure 6).

## 8.2 Metals in Soil

Arsenic, barium, chromium, copper, and/or lead were detected in the majority of the analyzed soil samples. However, the detected concentrations are below the respective CULs for these metals. Accordingly, metals in soil are not a concern for the Auburn VW Site.

## 8.3 PAHs in Soil

Detections of cPAHs in soil above CULs were discovered in two locations within the service shop area of the building. The two locations do not appear to be related to the detection of DRO found in MW-4. Rather, based on observations of asphalt particles in the borings it appears that the source of the discovered cPAHs is asphalt debris that was found in the borings B-2 and B-12. Based on this data, the extent of the cPAH contamination is considered to be de-minimis in nature and does not warrant further consideration for the Site.

## 8.4 Petroleum in Groundwater

The Site was assessed for GRO, fuel additivities, DRO, and ORO in groundwater. Multiple detections DRO, ORO, and/or DRO-extended were detected in groundwater

samples collected in 2022 and 2023. However, continued groundwater monitoring efforts have demonstrated that the DRO, ORO, or DRO-extended are not a contaminant issue in groundwater at the Auburn VW site.

As with soil, GRO contamination in groundwater found in MW-6 are understood to be from migrating contamination from the neighboring Coastal Gas site. Accordingly, GRO in groundwater is not an issue for the Auburn VW Site.

## 8.5 Metals in Groundwater

Arsenic, barium, chromium, copper, lead, and/or other select metals were analyzed for in the many groundwater samples. Only arsenic was found to have a consistent detection above the CUL in groundwater for the Auburn VW Site. However, as presented throughout this RI, a source for arsenic contamination to have been released or generated on the Property did not occur, groundwater is consistently at a reduced state, high in organic matter with elevated dissolved solids, and little to no gradient. Additionally, multiple sites within a five mile radius show similar arsenic in groundwater issues.

Accordingly, the elevated detected concentrations of arsenic in groundwater across the Auburn VW Site are being created by natural occurring phenomena and should not be considered as a cleanup action issue to be undertaken for the Auburn VW Site.

## 8.6 PAHs in Groundwater

Detections of PAHs, particularly cPAHs, in groundwater were either not detected at the laboratory reporting limits or were detected at insignificant concentrations. Accordingly, PAHs and/or cPAHs are not an issued and do not warrant further investigation for the Auburn VW Site.

# 9 OPINION REQUEST

Based on the findings of the five completed site characterization efforts for the Auburn VW Site we request Ecology's opinions on the following matters.

- The Site is eligible to entry the VCP.
- Petroleum in soil and groundwater is not an issue for the Auburn VW Site.
- Arsenic in soil is not an issue for the Auburn VW Site.
- PAHs/cPAHs in soil and groundwater are not an issue for the Auburn VW Site.
- Arsenic in groundwater is an area or regional issue that has not been created by anthropogenic activities on the Property. Accordingly, arsenic in groundwater does not require cleanup action to receive an NFA from Ecology.
- The Site is eligible for a NFA determination.

# 10 LIMITATIONS

The completed site assessment services were designed to provide an evaluation of subsurface contamination conditions on the Property. This assessment was not designed to find or identify all potential issues or eliminate all risks that could be associated with contaminants on the Properties. Even the most carefully performed environmental assessments are not likely to identify all contaminant conditions existing at a Site.

Our opinions and interpretations presented in this report may change as new information is made available. This may be obtained during additional explorations, remediation actions, or redevelopment of the Property. Additionally, regulations often change that may affect the findings of our work. Accordingly, our opinions, findings, and recommendations are only valid up to the date of this report.

This report has been prepared and is intended for sole use by the client, Clary Auburn RE, LLC. Others may not use or rely on this report. 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 expressed or implied.

To the extent that the preparation of this RI Report required the application of best professional judgment and the application of scientific principles, certain results of this effort were based on subjective interpretation. Bluestone makes no warranties, express or implied, including and without limitation warranties as to merchantability or fitness for a particular purpose. The information provided in this report is not to be construed as legal advice.

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# Attachments

# Tables

BLUESTONE ENVIRONMENTAL, NW

**Table 1a**

**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Soil [(1)]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Gasoline Range Organics | Diesel Range Organics | Heavy/ Lube Oil Range Organics | Benzene | Toluene | Ethyl-benzene | Xylenes | Vinyl chloride | 2-Methylnaphthalene | 1-Methylnaphthalene | Naphthalene | Other Polycyclic Aromatic Hydrocarbons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | | | | | | | | | PAHs |
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | |
| | | | Method A Cleanup Levels | | 30/100* | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | † | † | † | 5 | various |
| **B-1** | 4/24/22 | B-1-5 | 5 | 0.0 | -- | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.01 | <0.01 | **0.032** | (2) |
| | 4/24/22 | B-1-10 | 10 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | **0.073** | -- | -- | -- | -- |
| | 4/24/22 | B-1-13 | 13 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-1-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-2** | 4/24/22 | B-2-5 | 5 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | **0.17** | **0.17** | **0.074** | -- |
| | 4/24/22 | B-2-10 | 10 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-2-13 | 13 | 0.0 | -- | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | -- | -- | -- | -- |
| | 4/24/22 | B-2-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-3** | 4/24/22 | B-3-5 | 5 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.05 | <0.05 | <0.05 | (2) |
| | 4/24/22 | B-3-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-12 | 12 | 0.2 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | -- | -- | -- | -- |
| | 4/24/22 | B-3-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-4** | 4/24/22 | B-4-5 | 5 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | <0.05 | <0.05 | <0.05 | (2) |
| | 4/24/22 | B-4-10 | 10 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | -- | -- | -- | -- |
| | 4/24/22 | B-4-14 | 14 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-4-15 | 15 | 0.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-5** | 4/24/22 | B-5-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-10 | 10 | 0.0 | -- | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-5-12 | 12 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-15 | 15 | 0.3 | -- | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | -- | -- | -- | -- |
| **B-6** | 4/24/22 | B-6-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-6-10 | 10 | 0.0 | -- | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | -- | -- | -- | -- |
| | 4/24/22 | B-6-13 | 13 | 0.0 | <5 | <50 | <250 | <0.03 | <0.05 | <0.05 | <0.1 | <0.05 | <0.01 | <0.01 | <0.01 | (2) |
| | 4/24/22 | B-6-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-7** | 7/20/22 | B-7-3 | 3 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-7-5 | 5 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-7-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1a**

**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Soil [(1)]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Gasoline Range Organics | Diesel Range Organics | Heavy/ Lube Oil Range Organics | Benzene | Toluene | Ethyl-benzene | Xylenes | Vinyl chloride | 2-Methylnaphthalene | 1-Methylnaphthalene | Naphthalene | Other Polycyclic Aromatic Hydrocarbons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | | | | | | | | | PAHs |
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | |
| | | | Method A Cleanup Levels | | 30/100* | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | † | † | † | 5 | various |
| **B-8** | 7/20/22 | B-8-3 | 3 | 0.1 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-8-5 | 5 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-8-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-9** | 7/20/22 | B-9-3 | 3 | 0.1 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-9-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | **0.014** | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-9-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-10** | 7/20/22 | B-10-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-10-5 | 5 | 4.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-6 | 6 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | **0.042** | **0.029** | **0.013** | (2) |
| | 7/20/22 | B-10-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-11** | 7/20/22 | B-11-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-11-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-11-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-12** | 7/20/22 | B-12-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 7/20/22 | B-12-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | <0.01 | <0.01 | <0.01 | **0.336** |
| | 7/20/22 | B-12-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-13** | 7/20/22 | B-13-3 | 3 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-13-5 | 5 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-13-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-14** | 7/20/22 | B-14-3 | 3 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-14-5 | 5 | 0.0 | -- | <50 | <250 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-14-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-1** | 5/23/22 | MW-1-5 | 5 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-7 | 7 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 5/23/22 | MW-1-12 | 12 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1a**

**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Soil [(1)]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Gasoline Range Organics | Diesel Range Organics | Heavy/ Lube Oil Range Organics | Benzene | Toluene | Ethyl-benzene | Xylenes | Vinyl chloride | 2-Methylnaphthalene | 1-Methylnaphthalene | Naphthalene | Other Polycyclic Aromatic Hydrocarbons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | | | | | | | | | PAHs |
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | |
| | | | Method A Cleanup Levels | | 30/100* | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | † | † | † | 5 | various |
| **MW-2** | 5/23/22 | MW-2-5 | 5 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-8 | 8 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | <0.01 | <0.01 | <0.01 | (2) |
| | 5/23/22 | MW-2-12 | 12 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-3** | 5/23/22 | MW-3-3 | 3 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | <0.05 | <0.01 | <0.01 | <0.01 | (2) |
| | 5/23/22 | MW-3-5 | 5 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-10 | 10 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-15 | 15 | 0.0 | -- | -- | -- | -- | | -- | -- | -- | -- | -- | -- | -- |
| **MW-4** | 5/23/22 | MW-4-3 | 3 | 0.6 | <5 | <50 | **2,900** | <0.02 | <0.02 | <0.02 | <0.06 | <0.05 | <0.2 | <0.2 | <0.2 | (2) |
| | 5/23/22 | MW-4-5 | 5 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-10 | 10 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-5** | 5/23/22 | MW-5-3 | 3 | 0.5 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | <0.05 | **0.038** | **0.028** | **0.014** | (2) |
| | 5/23/22 | MW-5-5 | 5 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-10 | 10 | 0.0 | <5 | <50 | <250 | <0.02 | <0.02 | <0.02 | <0.06 | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-6** | 12/10/24 | MW-6-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-6-7 | 7 | 57.4 | **347** | **109** | <46.9 | <0.0156 | <0.0778 | <0.0389 | <0.0778 | <0.0389 | -- | -- | **0.730** | -- |
| | 12/10/24 | MW-6-12 | 12 | 0.0 | **38.4** | <25.5 | <51.0 | <0.0162 | <0.0811 | <0.0406 | **0.0892** | <0.0406 | -- | -- | **1.55** | -- |
| | 12/10/24 | MW-6-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-7** | 12/10/24 | MW-7-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-7-7 | 7 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-7-10 | 10 | 0.0 | <25.2 | <63.1 | <126 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-8** | 12/10/24 | MW-8-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-8-10 | 10 | 0.0 | <25.0 | <62.4 | <125 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-8-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1a**

**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Soil [(1)]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Gasoline Range Organics | Diesel Range Organics | Heavy/ Lube Oil Range Organics | Benzene | Toluene | Ethyl-benzene | Xylenes | Vinyl chloride | 2-Methylnaphthalene | 1-Methylnaphthalene | Naphthalene | Other Polycyclic Aromatic Hydrocarbons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | | | | | | | | | PAHs |
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | |
| | | | Method A Cleanup Levels | | 30/100* | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | † | † | † | 5 | various |
| **MW-9** | 12/10/24 | MW-9-5 | 5 | 0.0 | -- | -- | -- | | | | | | -- | -- | -- | -- |
| | 12/10/24 | MW-9-10 | 10 | 0.0 | <26.0 | <64.9 | <130 | <0.0144 | <0.0722 | <0.0361 | <0.0722 | <0.0361 | -- | -- | <0.144 | -- |
| | 12/10/24 | MW-9-15 | 15 | 0.0 | -- | -- | -- | | | | | | -- | -- | -- | -- |
| **MW-10** | 12/11/24 | MW-10-5 | 5 | 0.0 | -- | -- | -- | | | | | | -- | -- | -- | -- |
| | 12/11/24 | MW-10-8 | 8 | 0.0 | <27.3 | <61.4 | <123 | <0.0136 | <0.0680 | <0.0340 | <0.0680 | <0.0340 | -- | -- | <0.136 | -- |
| | 12/11/24 | MW-10-10 | 10 | 0.0 | -- | -- | -- | | | | | | -- | -- | -- | -- |
| | 12/11/24 | MW-10-15 | 15 | 0.0 | -- | -- | -- | | | | | | -- | -- | -- | -- |
| **MW-11** | 12/11/24 | MW-11-6 | 6 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-11-10 | 10 | 0.0 | <24.5 | <61.4 | <123 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-11-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-12** | 12/11/24 | MW-12-6 | 6 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-12-10 | 10 | 0.0 | <25.3 | <63.4 | <127 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-12-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-13** | 12/11/24 | MW-13-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-13-12 | 12 | 0.0 | <23.7 | <59.2 | **102** | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-13-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-14** | 12/12/24 | MW-14-6 | 6 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-14-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-14-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-15** | 12/12/24 | MW-15-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-15-11 | 11 | 0.0 | <28.5 | <71.3 | <143 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-15-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1a**

**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Soil (1)**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Gasoline Range Organics | Diesel Range Organics | Heavy/ Lube Oil Range Organics | Benzene | Toluene | Ethyl-benzene | Xylenes | Vinyl chloride | 2-Methylnaphthalene | 1-Methylnaphthalene | Naphthalene | Other Polycyclic Aromatic Hydrocarbons |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | GRO | DRO | ORO | | | | | | | | | PAHs |
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | |
| | | | Method A Cleanup Levels | | 30/100* | 2,000 | 2,000 | 0.03 | 7 | 6 | 9 | † | † | † | 5 | various |
| **MW-16** | 12/12/24 | MW-16-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-16-10 | 10 | 0.0 | <27.1 | <67.6 | <135 | <0.0144 | <0.0720 | <0.0360 | <0.0720 | <0.0360 | -- | -- | <0.144 | -- |
| | 12/12/24 | MW-16-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-17** | 12/12/24 | MW-17-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-17-10 | 10 | 0.0 | <26.5 | <66.2 | <132 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-17-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-18** | 12/13/24 | MW-18-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-18-10 | 10 | 0.0 | <23.1 | <57.7 | <115 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-18-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-19** | 12/13/24 | MW-19-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-19-10 | 10 | 0.0 | <25.6 | <64.0 | <128 | <0.0215 | <0.107 | <0.0537 | <0.107 | <0.0537 | -- | -- | <0.215 | -- |
| | 12/13/24 | MW-19-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-20** | 12/13/24 | MW-20-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-20-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-20-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Stormwater Pond** | 12/13/24 | SWP | 0.5 | -- | -- | <23.7 | **56.5** | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes:
Analysis Methods: NWTPH-Gx & Dx, EPA 5035A/8260C. See Laboratory reports for specifics.
(1) Summary Table of most common analytes. See Laboratory Analytical Report for full list of analyzed compounds.
(2) Analytes not listed were not detected above laboratory reporting limits.
* GRO Cleanup Level: 30 when benzene is present at the Site, 100 when benzene is not present.
† Method (A or B) Cleanup Level has not been established for this constituent.
-- Not Analyzed / Unknown
<0.02 Not detected, concentration less than the laboratory method detection limit.
**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.
**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.
mg/kg Milligram per kilogram

**Table 1b**
**Laboratory Analytical Results: Metals in Soil**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| | | | Method A Cleanup Levels | | 20 | † | 2.0 | 2,000 | † | 250 | 2.0 | † | † |
| **B-1** | 4/24/22 | B-1-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-1-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-1-13 | 13 | 0.0 | **2.14** | -- | <1 | **11.8** | -- | **2.89** | <1 | -- | -- |
| | 4/24/22 | B-1-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-2** | 4/24/22 | B-2-5 | 5 | 0.0 | **4.22** | -- | <1 | **10.8** | -- | **4.73** | <1 | -- | -- |
| | 4/24/22 | B-2-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-2-13 | 13 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-2-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-3** | 4/24/22 | B-3-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-12 | 12 | 0.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-4** | 4/24/22 | B-4-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-4-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-4-14 | 14 | 0.0 | **3.15** | -- | <1 | **9.17** | -- | **1.82** | <1 | -- | -- |
| | 4/24/22 | B-4-15 | 15 | 0.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-5** | 4/24/22 | B-5-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-12 | 12 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-15 | 15 | 0.3 | **1.27** | -- | <1 | **8.95** | -- | **1.27** | <1 | -- | -- |
| **B-6** | 4/24/22 | B-6-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-6-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-6-13 | 13 | 0.0 | **3.27** | -- | <1 | **9.23** | -- | **1.99** | <1 | -- | -- |
| | 4/24/22 | B-6-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1b**
**Laboratory Analytical Results: Metals in Soil**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| | | Method A Cleanup Levels | | | 20 | † | 2.0 | 2,000 | † | 250 | 2.0 | † | † |
| B-7 | 7/20/22 | B-7-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-7-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-7-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-8 | 7/20/22 | B-8-3 | 3 | 0.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-8-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-8-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-9 | 7/20/22 | B-9-3 | 3 | 0.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-9-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-9-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-10 | 7/20/22 | B-10-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-5 | 5 | 4.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-6 | 6 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-11 | 7/20/22 | B-11-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-11-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-11-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-12 | 7/20/22 | B-12-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-12-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-12-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-13 | 7/20/22 | B-13-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-13-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-13-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| B-14 | 7/20/22 | B-14-3 | 3 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-14-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-14-8 | 8 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1b**
**Laboratory Analytical Results: Metals in Soil**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| | | | | Method A Cleanup Levels | 20 | † | 2.0 | 2,000 | † | 250 | 2.0 | † | † |
| **MW-1** | 5/23/22 | MW-1-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-7 | 7 | 0.0 | **13.4** | -- | <1 | **12.0** | -- | **10.3** | <1 | -- | -- |
| | 5/23/22 | MW-1-12 | 12 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-2** | 5/23/22 | MW-2-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-8 | 8 | 0.0 | **11.0** | -- | <1 | **18.8** | -- | **4.6** | <1 | -- | -- |
| | 5/23/22 | MW-2-12 | 12 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-3** | 5/23/22 | MW-3-3 | 3 | 0.0 | **2.96** | -- | <1 | **9.05** | -- | **6.38** | <1 | -- | -- |
| | 5/23/22 | MW-3-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-4** | 5/23/22 | MW-4-3 | 3 | 0.6 | **2.33** | -- | <1 | **7.46** | -- | **2.88** | <1 | -- | -- |
| | 5/23/22 | MW-4-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-5** | 5/23/22 | MW-5-3 | 3 | 0.5 | **5.56** | -- | <1 | **10.4** | -- | **5.86** | <1 | -- | -- |
| | 5/23/22 | MW-5-5 | 5 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-6** | 12/10/24 | MW-6-5 | 5 | 0.0 | **8.29** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-6-7 | 7 | 57.4 | **3.53** | **48.5** | <0.292 | **12.2** | -- | **3.01** | <0.117 | <1.46 | <0.292 |
| | 12/10/24 | MW-6-12 | 12 | 0.0 | **4.29** | **52.3** | <0.302 | **13.3** | -- | **3.16** | <0.121 | <1.51 | <0.302 |
| | 12/10/24 | MW-6-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1b**
**Laboratory Analytical Results: Metals in Soil**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| | | | | Method A Cleanup Levels | 20 | † | 2.0 | 2,000 | † | 250 | 2.0 | † | † |
| **MW-7** | 12/10/24 | MW-7-5 | 5 | 0.0 | **10.8** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-7-7 | 7 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-7-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-8** | 12/10/24 | MW-8-5 | 5 | 0.0 | **11.9** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-8-10 | 10 | 0.0 | **5.17** | **52.4** | <0.270 | **13.0** | **24.1** | **3.29** | <0.108 | <1.35 | <0.270 |
| | 12/10/24 | MW-8-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-9** | 12/10/24 | MW-9-5 | 5 | 0.0 | **5.71** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/10/24 | MW-9-10 | 10 | 0.0 | **2.43** | **67.9** | <0.262 | **14.3** | -- | **3.38** | <0.105 | <1.31 | <0.262 |
| | 12/10/24 | MW-9-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-10** | 12/11/24 | MW-10-5 | 5 | 0.0 | **11.5** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-10-8 | 8 | 0.0 | **6.11** | **77.6** | <0.289 | **16.2** | -- | **5.12** | <0.116 | <1.44 | <0.289 |
| | 12/11/24 | MW-10-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-10-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-11** | 12/11/24 | MW-11-6 | 6 | 0.0 | **4.28** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-11-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-11-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-12** | 12/11/24 | MW-12-6 | 6 | 0.0 | **3.51** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-12-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-12-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-13** | 12/11/24 | MW-13-5 | 5 | 0.0 | **16.1** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/11/24 | MW-13-12 | 12 | 0.0 | **1.40** | **18.2** | <0.242 | **7.4** | **9.16** | **1.74** | <0.0967 | <1.21 | <0.242 |
| | 12/11/24 | MW-13-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-14** | 12/12/24 | MW-14-6 | 6 | 0.0 | **9.52** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-14-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-14-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1b**
**Laboratory Analytical Results: Metals in Soil**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Sample Depth (ft) | PID Readings (PPM) | Arsenic | Barium | Cadmium | Chromium | Copper | Lead | Mercury | Selenium | Silver |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| | | | Method A Cleanup Levels | | 20 | † | 2.0 | 2,000 | † | 250 | 2.0 | † | † |
| **MW-15** | 12/12/24 | MW-15-5 | 5 | 0.0 | **4.76** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-15-11 | 11 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-15-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-16** | 12/12/24 | MW-16-5 | 5 | 0.0 | **4.33** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-16-10 | 10 | 0.0 | **3.17** | **69.8** | <0.306 | **18.1** | **32.7** | **4.25** | <0.123 | <1.53 | <0.306 |
| | 12/12/24 | MW-16-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-17** | 12/12/24 | MW-17-5 | 5 | 0.0 | **3.03** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-17-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/12/24 | MW-17-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-18** | 12/13/24 | MW-18-5 | 5 | 0.0 | **4.70** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-18-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-18-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-19** | 12/13/24 | MW-19-5 | 5 | 0.0 | **5.44** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-19-10 | 10 | 0.0 | **7.85** | **91.5** | <0.287 | **16.2** | **30.8** | **4.78** | <0.115 | <1.43 | <0.287 |
| | 12/13/24 | MW-19-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-20** | 12/13/24 | MW-20-5 | 5 | 0.0 | **4.81** | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-20-10 | 10 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 12/13/24 | MW-20-15 | 15 | 0.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **Stormwater Pond** | 12/13/24 | SWP | 0.5 | -- | **3.63** | **63.0** | <0.286 | **13.2** | -- | **7.93** | <0.114 | <1.43 | <0.286 |

Notes:
Analysis Methods: EPA 6020B. See Laboratory reports for specifics.
† Method (A or B) Cleanup Level has not been established for this constituent.
-- Not Analyzed / Unknown
<0.02 Not detected, concentration less than the laboratory method detection limit.
**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.
**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.
mg/kg Milligram per kilogram

BLUESTONE ENVIRONMENTAL, NW

**Table 1c**

**Laboratory Analytical Results: Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) in Soil[(1)]**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Benz(a)-anthracene | Chrysene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Indeno(1,2,3-cd)pyrene | Dibenz(a,h)anthracene | Dibenz(a,h)anthracene | Total Toxic Equivalent [a] Concentration |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Sum TEQ |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| Method A Cleanup Levels | | | † | † | 0.1 | † | † | † | † | † | 0.1[c] |
| Method B Cleanup Levels (Cancer) | | | † | † | 0.19 | † | † | † | † | † | 0.023 |
| | | | † | † | 0.88 | † | † | † | † | † | 0.88 |
| **B-1** | 4/24/22 | B-1-5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-1-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-1-13 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-1-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-2** | 4/24/22 | B-2-5 | **2.1** | **2.0** | **2.60** | **2.3** | **0.72** | **0.94** | **0.17** | **0.17** | **3.243** |
| | 4/24/22 | B-2-10 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-2-13 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-2-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-3** | 4/24/22 | B-3-5 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | **0.0076** |
| | 4/24/22 | B-3-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-4** | 4/24/22 | B-4-5 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | <0.05 | **0.0076** |
| | 4/24/22 | B-4-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-4-14 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-4-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-5** | 4/24/22 | B-5-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-10 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-5-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1c**

**Laboratory Analytical Results: Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) in Soil[(1)]**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Boring / Location Identifier | Sample Date | Sample Name | Benz(a)-anthracene | Chrysene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Indeno(1,2,3-cd)pyrene | Dibenz(a,h)anthracene | Dibenz(a,h)anthracene | Total Toxic Equivalent [a] Concentration |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Sum TEQ |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| Method A Cleanup Levels | | | † | † | **0.1** | † | † | † | † | † | **0.1**[c/] |
| Method B Cleanup Levels (Cancer) | | | † | † | **0.19** | † | † | † | † | † | **0.023** |
| | | | † | † | **0.88** | † | † | † | † | † | **0.88** |
| **B-6** | 4/24/22 | B-6-5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-6-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-6-13 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 4/24/22 | B-6-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-1** | 5/23/22 | MW-1-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-7 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 5/23/22 | MW-1-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-2** | 5/23/22 | MW-2-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-8 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 5/23/22 | MW-2-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-3** | 5/23/22 | MW-3-3 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 5/23/22 | MW-3-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-4** | 5/23/22 | MW-4-3 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | **0.0076** |
| | 5/23/22 | MW-4-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 1c

## Laboratory Analytical Results: Carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs) in Soil[(1)]

## Auburn Volkswagen

## 3109 Auburn Way North, Auburn, WA

## Project No. BE-0107-E

| Boring / Location Identifier | Sample Date | Sample Name | Benz(a)-anthracene | Chrysene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Indeno(1,2,3-cd)pyrene | Dibenz(a,h)anthracene | Dibenz(a,h)anthracene | Total Toxic Equivalent [a] Concentration |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Sum TEQ |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | |
| Method A Cleanup Levels | | | † | † | **0.1** | † | † | † | † | † | **0.1**[c] |
| Method B Cleanup Levels (Cancer) | | | † | † | **0.19** | † | † | † | † | † | **0.023** |
| | | | † | † | **0.88** | † | † | † | † | † | **0.88** |
| **MW-5** | 5/23/22 | MW-5-3 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 5/23/22 | MW-5-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-9** | 7/20/22 | B-9-3 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 7/20/22 | B-9-5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 7/20/22 | B-9-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-10** | 7/20/22 | B-10-3 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 7/20/22 | B-10-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-6 | -- | -- | -- | -- | -- | -- | -- | -- | **0.0076** |
| | 7/20/22 | B-10-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-11** | 7/20/22 | B-11-3 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | <0.02 | **0.0076** |
| | 7/20/22 | B-11-5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | **0.0076** |
| | 7/20/22 | B-11-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-12** | 7/20/22 | B-12-3 | **0.068** | **0.069** | **0.090** | **0.075** | **0.027** | **0.033** | <0.01 | <0.01 | **0.1115** |
| | 7/20/22 | B-12-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-12-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes:
Analysis Methods: See Laboratory reports for specifics analysis methods.
(1) Only boring locations with at least one sample analyzed for cPAHs are included on this table. See Table 1a for full list of analyzed samples.
*a* Total TEQ represents the sum of the individual cPAH TEQs to evaluate the Human Health Toxicity of a cPAH mixture. See Table 1d.
† Method (A or B) Cleanup Level has not been established for this constituent.
-- Not Analyzed / Unknown
<0.02 Not detected, concentration less than the laboratory method detection limit.
**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.
**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.
mg/kg Milligram per kilogram

**Table 1d**

**cPAH[1] Toxicity Equivalency Factors (TEF) and Total Toxic Equivalent (TEQ) Concentration for Soil[2]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring Location Identifier | Sample Date | Sample Name | Benzo(a)-pyrene | TEQ | Benz(a)-anthracene | TEQ | Chrysene | TEQ | Benzo(b)-fluoranthene | TEQ | Benzo(k)-fluoranthene | TEQ | Indeno(1,2,3-cd) pyrene | TEQ | Dibenz(a,h) anthracene | TEQ | Total Toxic Equivalent [b] Concentration Sum TEQ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Toxicity Equivalency Factor (TEF)[a] *unitless* | | | 1 | | 0.1 | | 0.01 | | 0.1 | | 0.1 | | 0.1 | | 0.1 | | |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | | | | |
| Method A Cleanup Levels | | | 0.10 | | † | | † | | † | | † | | † | | † | | 0.1[cl] |
| Method B Cleanup Levels (Cancer) | | | 0.023 | | † | | † | | † | | † | | † | | † | | 0.023 |
| Method C Cleanup Levels (Cancer) | | | 0.88 | | † | | † | | † | | † | | † | | † | | 0.88 |
| **B-1** | 4/24/22 | B-1-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-1-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-1-13 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-1-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-2** | 4/24/22 | B-2-5 | **2.6** | **2.6** | **2.1** | **0.21** | **2** | **0.02** | **2.3** | **0.23** | **0.72** | **0.072** | **0.94** | **0.094** | **0.17** | **0.017** | **3.243** |
| | 4/24/22 | B-2-10 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-2-13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-2-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-3** | 4/24/22 | B-3-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-3-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-3-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-4** | 4/24/22 | B-4-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-4-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-4-14 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-4-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-5** | 4/24/22 | B-5-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-10 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-5-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-5-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1d**

**cPAH[1] Toxicity Equivalency Factors (TEF) and Total Toxic Equivalent (TEQ) Concentration for Soil[2]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring Location Identifier | Sample Date | Sample Name | Benzo(a)-pyrene | TEQ | Benz(a)-anthracene | TEQ | Chrysene | TEQ | Benzo(b)-fluoranthene | TEQ | Benzo(k)-fluoranthene | TEQ | Indeno(1,2,3-cd) pyrene | TEQ | Dibenz(a,h) anthracene | TEQ | Total Toxic Equivalent [b] Concentration Sum TEQ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Toxicity Equivalency Factor (TEF)[a] *unitless* | | | 1 | | 0.1 | | 0.01 | | 0.1 | | 0.1 | | 0.1 | | 0.1 | | |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | | | | |
| Method A Cleanup Levels | | | 0.10 | | † | | † | | † | | † | | † | | † | | 0.1[cl] |
| Method B Cleanup Levels (Cancer) | | | 0.023 | | † | | † | | † | | † | | † | | † | | 0.023 |
| Method C Cleanup Levels (Cancer) | | | 0.88 | | † | | † | | † | | † | | † | | † | | 0.88 |
| **B-6** | 4/24/22 | B-6-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-6-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 4/24/22 | B-6-13 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 4/24/22 | B-6-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-1** | 5/23/22 | MW-1-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-7 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 5/23/22 | MW-1-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-1-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-2** | 5/23/22 | MW-2-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-8 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 5/23/22 | MW-2-12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-2-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-3** | 5/23/22 | MW-3-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 5/23/22 | MW-3-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-3-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-4** | 5/23/22 | MW-4-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 5/23/22 | MW-4-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-4-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 1d**

**cPAH[1] Toxicity Equivalency Factors (TEF) and Total Toxic Equivalent (TEQ) Concentration for Soil[2]**

**Auburn Volkswagen**

**3109 Auburn Way North, Auburn, WA**

**Project No. BE-0107-E**

| Boring Location Identifier | Sample Date | Sample Name | Benzo(a)-pyrene | TEQ | Benz(a)-anthracene | TEQ | Chrysene | TEQ | Benzo(b)-fluoranthene | TEQ | Benzo(k)-fluoranthene | TEQ | Indeno(1,2,3-cd) pyrene | TEQ | Dibenz(a,h) anthracene | TEQ | Total Toxic Equivalent [b] Concentration Sum TEQ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Toxicity Equivalency Factor (TEF)[a] *unitless* | | | 1 | | 0.1 | | 0.01 | | 0.1 | | 0.1 | | 0.1 | | 0.1 | | |
| | | | Laboratory Units Reported in mg/kg | | | | | | | | | | | | | | |
| Method A Cleanup Levels | | | 0.10 | | † | | † | | † | | † | | † | | † | | 0.1[cl] |
| Method B Cleanup Levels (Cancer) | | | 0.023 | | † | | † | | † | | † | | † | | † | | 0.023 |
| Method C Cleanup Levels (Cancer) | | | 0.88 | | † | | † | | † | | † | | † | | † | | 0.88 |
| **MW-5** | 5/23/22 | MW-5-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 5/23/22 | MW-5-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 5/23/22 | MW-5-15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-9** | 7/20/22 | B-9-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-9-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-9-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-10** | 7/20/22 | B-10-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-10-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-10-6 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-10-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-11** | 7/20/22 | B-11-3 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-11-5 | 0.01 | 0.005 | 0.01 | 0.0005 | 0.01 | 0.00005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | 0.01 | 0.0005 | **0.0076** |
| | 7/20/22 | B-11-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| **B-12** | 7/20/22 | B-12-3 | **0.090** | **0.090** | **0.068** | **0.0068** | **0.069** | **0.00069** | **0.075** | **0.0075** | **0.027** | **0.0027** | **0.033** | **0.0033** | 0.01 | 0.0005 | **0.1115** |
| | 7/20/22 | B-12-5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 7/20/22 | B-12-8 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Notes: Analytical Method: EPA 8270SIM. See Laboratory reports for specifics.

*1* Carcinogenic Polycyclic Aromatic Hydrocarbons

*2* Only boring locations with at least one sample analyzed for cPAHs are included on this table. See Table 1a for full list of analyzed samples.

*a* TEF is an estimate of the toxicity of a chemical relative to that of a reference chemical. For mixtures of cPAHs, the reference chemical is benzo(a)pyrene.

*b* Total TEQ represents the sum of the individual cPAH TEQs to evaluate the Human Health Toxicity of a cPAH mixture.

*cl* Benzo(a)pyrene Cleanup Level used for Comparison, in accordance with Ecology Implementation Memo No. 10 (2015).

† Method (A or B) Cleanup Level has not been established for this constituent.

-- Not Analyzed / Unknown

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

**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.

**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.

mg/kg Milligram per kilogram

**Table 2a**
**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well / Location Identifier | TOC Elevation | Depth to Water | Groundwater Elevation (1) | Sample Date | Sample Name | Gasoline Range Organics | Diesel Range Organics | Heavy/Lube OilRange Organics | Diesel Range Extended (C10-C36) | Benzene | Toluene | Ethyl-benzene | Xylenes | Other Volatile Organic Compounds & Fuel Additives | Naphthalene | Other Semivolatile Compounds & Polycyclic Aromatic Hydrocarbons (PAHs) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | DRO | VOCs | | | | | PAHs | |
| | | | | | | Laboratory Units Reported in µg/L | | | | | | | | | | |
| | | | | | Method A Cleanup Levels | 800/1,000* | 500 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | various** | 160 | various** |
| B-1 | -- | -- | -- | 4/24/22 | B-1-W | <100 | **88x** | <200 | -- | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| B-2 | -- | -- | -- | 4/24/22 | B-2-W | <100 | **180x** | <200 | -- | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| B-4 | -- | -- | -- | 4/24/22 | B-4-W | <100 | **2,500x** | **370x** | -- | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| B-5 | -- | -- | -- | 4/24/22 | B-5-W | <100 | **240x** | <250 | -- | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| B-6 | -- | -- | -- | 4/24/22 | B-6-W | <100 | **110x** | <250 | -- | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| MW-1 | 57.16 | 8.17 | 48.99 | 5/26/22 | MW-1-W | <100 | -- | -- | **420x** | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| | | 9.42 | 47.74 | 7/26/22 | MW-1-W | -- | -- | -- | **960x** | -- | -- | -- | -- | -- | -- | -- |
| | | 8.17 | 48.99 | 1/10/23 | MW-1 | <100 | -- | -- | **270x** | <1 | <1 | <1 | <2 | -- | -- | -- |
| | | 8.34 | 48.82 | 5/4/23 | MW-1 | <100 | **230/**<76.9[s] | <154/<154[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 10.57 | 46.59 | 8/7/23 | MW-1 | <100 | **142** | <155 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 8.95 | 48.21 | 5/17/24 | MW-1 | <100 | -- | -- | **270x/**<250[s] | <1 | <1 | <1 | <3 | -- | -- | -- |
| | 57.26 | 8.92 | 48.34 | 12/17/24 | MW-1 | <96.2 | <240 | <240 | -- | -- | -- | -- | -- | -- | -- | |
| MW-2 | 56.41 | 7.44 | 48.97 | 5/26/22 | MW-2-W | <100 | -- | -- | **300x** | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| | | 9.85 | 46.56 | 7/26/22 | MW-2-W | -- | -- | -- | **940x** | -- | -- | -- | -- | -- | -- | -- |
| | | 7.43 | 48.98 | 1/10/23 | MW-2 | <100 | -- | -- | **420x** | <1 | <1 | <1 | <3 | -- | -- | -- |
| | | 7.61 | 48.80 | 5/4/23 | MW-2 | <100 | **229/**<76.9[s] | <154/<154[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 9.84 | 46.57 | 8/7/23 | MW-2 | <100 | **167** | <157 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 8.22 | 48.19 | 5/17/24 | MW-2 | <100 | -- | -- | **320x/**<250[s] | <1 | <1 | <1 | <3 | -- | -- | -- |
| | 56.51 | 8.06 | 48.45 | 1/10/25 | MW-2 | <147 | <245 | <245 | -- | -- | -- | -- | -- | -- | -- | |
| MW-3 | 57.08 | 8.10 | 48.98 | 5/26/22 | MW-3-W | <100 | -- | -- | **470x** | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| | | 9.38 | 47.70 | 7/26/22 | MW-3-W | -- | -- | -- | **670x** | -- | -- | -- | -- | -- | -- | -- |
| | | 8.09 | 48.99 | 1/10/23 | MW-3 | <100 | -- | -- | **280x** | <1 | <1 | <1 | <3 | -- | -- | -- |
| | | 8.26 | 48.82 | 5/4/23 | MW-3 | <100 | **205/**<76.9[s] | <154/<154[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 10.54 | 46.54 | 8/7/23 | MW-3 | <100 | **185** | <155 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 10.54 | 46.54 | 8/7/23 | DUP-W | <100 | **199** | <154 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 8.88 | 48.20 | 5/17/24 | MW-3 | <100 | -- | -- | **360x/**<250[s] | <1 | <1 | <1 | <3 | -- | -- | -- |
| | 57.20 | 8.86 | 48.34 | 12/17/24 | MW-3 | <94.3 | <236 | <236 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 2a**
**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well / Location Identifier | TOC Elevation | Depth to Water | Groundwater Elevation (1) | Sample Date | Sample Name | Gasoline Range Organics | Diesel Range Organics | Heavy/Lube OilRange Organics | Diesel Range Extended (C10-C36) | Benzene | Toluene | Ethyl-benzene | Xylenes | Other Volatile Organic Compounds & Fuel Additives | Naphthalene | Other Semivolatile Compounds & Polycyclic Aromatic Hydrocarbons (PAHs) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | DRO | VOCs | | | | | PAHs | |
| | | | | | | Laboratory Units Reported in µg/L | | | | | | | | | | |
| | | | | | Method A Cleanup Levels | 800/1,000* | 500 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | various** | 160 | various** |
| **MW-4** | 57.18 | 8.20 | 48.98 | 5/26/22 | MW-4-W | <100 | -- | -- | **290x** | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| | | 8.20 | 48.98 | 5/26/22 | MW-Dup | <100 | -- | -- | **330x** | <0.35 | <1 | <1 | <2 | (2) | -- | (2) |
| | | 9.48 | 47.70 | 7/26/22 | MW-4-W | -- | -- | -- | **550x** | -- | -- | -- | -- | -- | -- | -- |
| | | 9.48 | 47.70 | 7/26/22 | MW-Dup | -- | -- | -- | **510x** | -- | -- | -- | -- | -- | -- | -- |
| | | 8.18 | 49.00 | 1/10/23 | MW-4 | <100 | -- | -- | <250 | <1 | <1 | <1 | <3 | -- | -- | -- |
| | | 8.18 | 49.00 | 1/10/23 | DUP-W | <100 | -- | -- | <250 | <1 | <1 | <1 | <3 | -- | -- | -- |
| | | 8.38 | 48.80 | 5/4/23 | MW-4 | <100 | **129**/<77.7[s] | <154/<155[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 8.38 | 48.80 | 5/4/23 | DUP-4 | <100 | **208**/<76.9[s] | <154/<154[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 10.62 | 46.56 | 8/7/23 | MW-4 | <100 | **92.2** | <155 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 9.00 | 48.18 | 5/17/24 | MW-4 | <100 | -- | -- | <260 | <1 | <1 | <1 | <3 | -- | -- | -- |
| | 57.29 | 8.94 | 48.35 | 12/17/24 | MW-4 | <94.3 | <236 | <236 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-5** | 57.14 | 8.12 | 49.02 | 5/26/22 | MW-5-W | <100 | -- | -- | **310x** | <0.35 | <1 | <1 | <2 | (2) | <1 | (2) |
| | | 9.36 | 47.78 | 7/26/22 | MW-5-W | -- | -- | -- | **300x** | -- | -- | -- | -- | -- | -- | -- |
| | | 8.14 | 49.00 | 1/10/23 | MW-5 | <100 | -- | -- | <250 | <1 | <1 | <1 | <3 | -- | -- | -- |
| | | 8.32 | 48.82 | 5/4/23 | MW-5 | <100 | **137**/<76.9[s] | <154/<154[s] | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 10.56 | 46.58 | 8/7/23 | MW-5 | <100 | **102** | <152 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| | | 8.93 | 48.21 | 5/17/24 | MW-5 | <100 | -- | -- | <260 | <1 | <1 | <1 | <3 | -- | -- | -- |
| | 57.25 | 8.90 | 48.35 | 12/17/24 | MW-5 | <96.2 | <240 | <240 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-6** | 55.74 | 6.69 | 49.05 | 12/18/24 | MW-6 | **1,440** | **202** | <253 | -- | <0.200 | <1.00 | <0.500 | <1.50 | (2) | **8.76** | -- |
| **MW-7** | 55.67 | 7.25 | 48.42 | 12/18/24 | MW-7 | <97.1 | <243 | <243 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-8** | 55.30 | 6.78 | 48.52 | 12/19/24 | MW-8 | <97.1 | <243 | <243 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-9** | 56.90 | 8.47 | 48.43 | 12/18/24 | MW-9 | <94.3 | <236 | <236 | -- | <0.200 | <1.00 | <0.500 | <1.50 | (2) | <5.00 | -- |
| **MW-10** | 55.63 | 7.06 | 48.57 | 12/19/24 | MW-10 | <100 | <250 | <250 | -- | <0.200 | <1.00 | <0.500 | <1.50 | (2) | <5.00 | -- |
| **MW-11** | 55.44 | 6.87 | 48.57 | 12/19/24 | MW-11 | <99.0 | <248 | <248 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-12** | 54.85 | 6.29 | 48.56 | 12/19/24 | MW-12 | <97.1 | <243 | <243 | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 2a**
**Laboratory Analytical Results: Petroleum, VOCs, and PAHs in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well / Location Identifier | TOC Elevation | Depth to Water | Groundwater Elevation (1) | Sample Date | Sample Name | Gasoline Range Organics | Diesel Range Organics | Heavy/Lube OilRange Organics | Diesel Range Extended (C10-C36) | Benzene | Toluene | Ethyl-benzene | Xylenes | Other Volatile Organic Compounds & Fuel Additives | Naphthalene | Other Semivolatile Compounds & Polycyclic Aromatic Hydrocarbons (PAHs) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | GRO | DRO | ORO | DRO | VOCs | | | | | PAHs | |
| | | | | | | Laboratory Units Reported in µg/L | | | | | | | | | | |
| | | | | | Method A Cleanup Levels | 800/1,000* | 500 | 500 | 500 | 5 | 1,000 | 700 | 1,000 | various** | 160 | various** |
| **MW-13** | 55.05 | 6.50 | 48.55 | 12/19/24 | MW-13 | <98.0 | <245 | <245 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-14** | 56.54 | 7.92 | 48.62 | 12/19/24 | MW-14 | <97.1 | <243 | <243 | -- | <0.200 | <1.00 | <0.500 | <1.50 | (2) | <5.00 | -- |
| **MW-15** | 56.74 | 8.26 | 48.48 | 1/10/25 | MW-15 | <144 | <240 | <240 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-16** | 55.95 | 7.45 | 48.50 | 1/10/25 | MW-16 | <144 | <240 | <240 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-17** | 55.93 | 7.37 | 48.56 | 12/19/24 | MW-17 | <100 | <236 | <236 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| **MW-18** | 56.53 | 8.11 | 48.42 | 12/18/24 | MW-18 | <96.2 | <240 | <240 | -- | -- | -- | -- | -- | -- | -- | -- |
| **MW-19** | 55.48 | 7.33 | 48.15 | 12/18/24 | MW-19 | <100 | <243 | <243 | -- | <0.200 | <1.00 | <0.500 | <1.50 | -- | -- | -- |
| **MW-20** | 56.15 | 7.74 | 48.41 | 12/18/24 | MW-20 | <99.0 | <248 | <248 | -- | -- | -- | -- | -- | -- | -- | -- |

Notes: Analysis Methods: NWTPH-Gx & Dx, EPA 8260D/8270E/6020B. See Laboratory reports for specifics.
(1) Presented Elevations are based on elevation data based Pace Engineering survey dated January 2, 2025.
(2) Analytes not listed were not detected above laboratory reporting limits. See laboratory report for details.
* 800 when benzene is present at the Site, 1,000 when benzene is not present.
** Reported concentrations of analytes for listed method analysis were not detected at laboratory reporting limits except as noted in table. See laboratory report for details.
-- Not Analyzed / Unknown
<0.02 Not detected, concentration less than the laboratory method detection limit.
**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.
**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.
Dup Duplicate Sample for QA/QC.
s Silca-gel acid extract was used to remove polar compounds from the sample
**x** The sample chromatographic pattern does not resemble the fuel standard used for quantitation.
Shading indicates the most recent sampling event.
µg/L micrograms per liter

**Table 2b**
**Laboratory Analytical Results: Metals in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well / Location Identifier | TOC Elevation | Depth to Water | Groundwater Elevation (1) | Sample Date | Sample Name | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver | Total Organic Carbon | Total Dissolved Solids | Total Suspended Solids |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | TOC | TDS | TSS |
| | | | | | | Laboratory Units Reported in µg/L | | | | | | | | µg/L | µg/L | µg/L |
| | | | | | Method A Cleanup Levels | 5/8[a] | † | 5 | 50 | 15 | 2 | † | † | | | |
| B-1 | -- | -- | -- | 4/24/22 | B-1-W | 70.2 | -- | <1 | 5.64 | 1.37 | <1 | -- | -- | -- | -- | -- |
| B-2 | -- | -- | -- | 4/24/22 | B-2-W | 13.9 | -- | <1 | 7.57 | 1.82 | <1 | -- | -- | -- | -- | -- |
| B-4 | -- | -- | -- | 4/24/22 | B-4-W | 104 | -- | <1 | 77.7 | 9.27 | <1 | -- | -- | -- | -- | -- |
| B-5 | -- | -- | -- | 4/24/22 | B-5-W | 18.1 | -- | <1 | 22.9 | 3.27 | <1 | -- | -- | -- | -- | -- |
| B-6 | -- | -- | -- | 4/24/22 | B-6-W | 29.2 | -- | <1 | 7.02 | 1.27 | <1 | -- | -- | -- | -- | -- |
| MW-1 | 57.16 | 8.17 | 48.99 | 5/26/22 | MW-1-W | 11.8 | -- | <1 | <5 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 9.42 | 47.74 | 7/26/22 | MW-1-W | 20.0 (T) / 17.8 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 8.17 | 48.99 | 1/10/23 | MW-1 | 13.4 (T) / <1 (D) | -- | -- | -- | -- | -- | -- | -- | 68,200 | -- | -- |
| | | 8.34 | 48.82 | 5/4/23 | MW-1 | 62.2 (T) / 65.2 (D) | -- | <0.200 | 3.31 (T) / 3.05 (D) | <0.200 | <0.0800 | -- | -- | 93,500 | 718,000 | 225,000 |
| | | 10.57 | 46.59 | 8/7/23 | MW-1 | 55.1 (T) / 2.91 (D) | -- | -- | 3.16 (T) / <2.00 (D) | -- | -- | -- | -- | -- | -- | -- |
| | | 8.95 | 48.21 | 5/17/24 | MW-1 | 27 (T) / 29 (D) | -- | <2 (T) / <2 (D) | <10 (T) / <10 (D) | <2 (T) / <2 (D) | <2 (T) / <2 (D) | -- | -- | -- | -- | -- |
| | 57.26 | 8.92 | 48.34 | 12/17/24 | MW-1 | 20.8 (T) / 20.6 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | 56.41 | 7.44 | 48.97 | 5/26/22 | MW-2-W | 4.9 | -- | <1 | <5 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 9.85 | 46.56 | 7/26/22 | MW-2-W | 58.1 (T) / 55.6 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 7.43 | 48.98 | 1/10/23 | MW-2 | 110 (T) / 97.4 (D) | -- | -- | -- | -- | -- | -- | -- | 44,100 | -- | -- |
| | | 7.61 | 48.80 | 5/4/23 | MW-2 | 86.1 (T) / 90.2 (D)) | -- | <0.200 | 2.3 (T) / 2.19 (D) | <0.200 | <0.0800 | -- | -- | 47,000 | 379,000 | 190,000 |
| | | 9.84 | 46.57 | 8/7/23 | MW-2 | 53.5 (T) / 3.20 (D) | -- | -- | 2.32 (T) / <2.00 (D) | -- | -- | -- | -- | -- | -- | -- |
| | | 8.22 | 48.19 | 5/17/24 | MW-2 | 89 (T) / 96 (D) | -- | <2 (T) / <2 (D) | <10 (T) / <10 (D) | <2 (T) / <2 (D) | <2 (T) / <2 (D) | -- | -- | -- | -- | -- |
| | 56.51 | 8.06 | 48.45 | 1/10/25 | MW-2 | 66.4 (T) / 66.5 (D) | -- | -- | -- | -- | -- | -- | -- | | | 68,000 |
| MW-3 | 57.08 | 8.10 | 48.98 | 5/26/22 | MW-3-W | 3.33 | -- | <1 | 2.19 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 9.38 | 47.70 | 7/26/22 | MW-3-W | 14.3 (T) / 16.2 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 8.09 | 48.99 | 1/10/23 | MW-3 | 20.4 (T) / 17.2 (D) | -- | -- | -- | -- | -- | -- | -- | 70,100 | -- | -- |
| | | 8.26 | 48.82 | 5/4/23 | MW-3 | 25.0 (T) / 3.56 (D) | -- | <0.200 | 3.80 (T) / 3.56 (D) | <0.200 | <0.0800 | -- | -- | 88,800 | 914,000 | 179,000 |
| | | 10.54 | 46.54 | 8/7/23 | MW-3 | 21.4 (T) / 2.95 (D) | -- | -- | 3.18 (T) / 2.21 (D) | -- | -- | -- | -- | -- | -- | -- |
| | | 10.54 | 46.54 | 8/7/23 | DUP-W | 20.7 (T) / 2.68 (D) | -- | -- | 2.68 (T) / 2.07 (D) | -- | -- | -- | -- | -- | -- | -- |
| | | 8.88 | 48.20 | 5/17/24 | MW-3 | 49 (T) / 55 (D) | -- | <2 (T) / <2 (D) | <10 (T) / <10 (D) | <2 (T) / <2 (D) | <2 (T) / <2 (D) | -- | -- | -- | -- | -- |
| | 57.20 | 8.86 | 48.34 | 12/17/24 | MW-3 | 20.6 (T) / 21.7 (D) | -- | -- | -- | -- | -- | -- | -- | 72,000 | -- | 134,000 |
| MW-4 | 57.18 | 8.20 | 48.98 | 5/26/22 | MW-4-W | 7.15 | -- | <1 | <5 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 8.20 | 48.98 | 5/26/22 | MW-Dup | 6.96 | -- | <1 | <5 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 9.48 | 47.70 | 7/26/22 | MW-4-W | 11.4 (T) / 11.1 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 9.48 | 47.70 | 7/26/22 | MW-Dup | 11.5 (T) / 11.9 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 8.18 | 49.00 | 1/10/23 | MW-4 | 7.88 (T) / 8.04 (D) | -- | -- | -- | -- | -- | -- | -- | 19,500 | -- | -- |
| | | 8.18 | 49.00 | 1/10/23 | DUP-W | 7.82 (T) / 7.70 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 8.38 | 48.80 | 5/4/23 | MW-4 | 8.36 (T) / 9.24 (D) | -- | <0.200 | <2.00 (T) <2.00 (D) | <0.200 | <0.0800 | -- | -- | 25,400 | 410,000 | 60,000 |
| | | 8.38 | 48.80 | 5/4/23 | DUP-4 | 26.1 (T) / 26.2 (D) | -- | <0.200 | 3.88 (T) / 3.72 (D) | <0.200 | <0.0800 | -- | -- | 88,000 | 856,000 | 177,000 |
| | | 10.62 | 46.56 | 8/7/23 | MW-4 | 10.4 (T) / 1.02 (D) | -- | -- | <2.00 (T) / <2.00 (D) | -- | -- | -- | -- | -- | -- | -- |
| | | 9.00 | 48.18 | 5/17/24 | MW-4 | 11 (T) / 10 (D) | -- | <2 (T) / <2 (D) | <10 (T) / <10 (D) | <2 (T) / <2 (D) | <2 (T) / <2 (D) | -- | -- | -- | -- | -- |
| | 57.29 | 8.94 | 48.35 | 12/17/24 | MW-4 | 10.3 (T) / 10.1 (D) | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 2b**
**Laboratory Analytical Results: Metals in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well / Location Identifier | TOC Elevation | Depth to Water | Groundwater Elevation (1) | Sample Date | Sample Name | Arsenic | Barium | Cadmium | Chromium | Lead | Mercury | Selenium | Silver | Total Organic Carbon | Total Dissolved Solids | Total Suspended Solids |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | TOC | TDS | TSS |
| | | | | | | Laboratory Units Reported in µg/L | | | | | | | | µg/L | µg/L | µg/L |
| | | | | | Method A Cleanup Levels | 5/8[a] | † | 5 | 50 | 15 | 2 | † | † | | | |
| MW-5 | 57.14 | 8.12 | 49.02 | 5/26/22 | MW-5-W | **53.3** | -- | <1 | <5 | <1 | <1 | -- | -- | -- | -- | -- |
| | | 9.36 | 47.78 | 7/26/22 | MW-5-W | **35.4 (T) / 34.5 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | 8.14 | 49.00 | 1/10/23 | MW-5 | **26.3 (T) / 23.8 (D)** | -- | -- | -- | -- | -- | -- | -- | **26,200** | -- | -- |
| | | 8.32 | 48.82 | 5/4/23 | MW-5 | **49.4 (T) / 51.2 (D)** | -- | <0.200 | **3.70 (T) / 3.44 (D)** | <0.200 | <0.0800 | -- | -- | **40,600** | **394,000** | **118,000** |
| | | 10.56 | 46.58 | 8/7/23 | MW-5 | **29.8 (T) / 4.57 (D)** | -- | -- | **3.12 (T) /** <2.00 **(D)** | -- | -- | -- | -- | -- | -- | -- |
| | | 8.93 | 48.21 | 5/17/24 | MW-5 | **56 (T) / 48 (D)** | -- | <2 (T) / <2 (D) | <10 (T) / <10 (D) | <2 (T) / <2 (D) | <2 (T) / <2 (D) | -- | -- | -- | -- | -- |
| | 57.25 | 8.90 | 48.35 | 12/17/24 | MW-5 | **28 (T) / 26.8 (D)** | -- | -- | -- | -- | -- | -- | -- | **22,400** | -- | <5,000 |
| MW-6 | 55.74 | 6.69 | 49.05 | 12/18/24 | MW-6 | **24.2 (T) / 20.0 (D)** | **16.8 (T) / 10.6 (D)** | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | **0.584** | <0.0800 (T) / <0.0800 (D) | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | **4,200** | -- | **26,000** |
| MW-7 | 55.67 | 7.25 | 48.42 | 12/18/24 | MW-7 | **5.70 (T) / 5.30 (D)** | -- | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | -- | -- | -- | -- | -- |
| MW-8 | 55.30 | 6.78 | 48.52 | 12/19/24 | MW-8 | **18.4 (T) / 17.3 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-9 | 56.90 | 8.47 | 48.43 | 12/18/24 | MW-9 | **17.0 (T) / 15.2 (D)** | **35.6 (T) / 33.9 (D)** | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | -- | -- | -- |
| MW-10 | 55.63 | 7.06 | 48.57 | 12/19/24 | MW-10 | **9.06 (T) / 8.94 (D)** | **20.7 (T) / 18.1 (D)** | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | **0.210 (T)** / <0.200 (D) | <0.0800 (T) / <0.0800 | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | -- | -- | -- |
| MW-11 | 55.44 | 6.87 | 48.57 | 12/19/24 | MW-11 | **6.21 (T) / 5.39 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-12 | 54.85 | 6.29 | 48.56 | 12/19/24 | MW-12 | **10.0 (T) / 9.74 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-13 | 55.05 | 6.50 | 48.55 | 12/19/24 | MW-13 | <1.00 (T) / <1.00 (D) | **9.48 (T) / 8.85 (D)** | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | **1,200** | -- | <5,000 |
| MW-14 | 56.54 | 7.92 | 48.62 | 12/19/24 | MW-14 | **3.78 (T) / 3.39 (D)** | **11.8 (T) / 10.3 (D)** | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | -- | -- | -- |
| MW-15 | 56.74 | 8.26 | 48.48 | 1/10/25 | MW-15 | **9.41 (T) / 8.86 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-16 | 55.95 | 7.45 | 48.50 | 1/10/25 | MW-16 | **12.0 (T) / 10.2 (D)** | -- | <0.200 (T) / <0.200 (D) | **3.17 (T) / 2.79 (D)** | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | -- | -- | -- | -- | **178,000** |
| MW-17 | 55.93 | 7.37 | 48.56 | 12/19/24 | MW-17 | **26.2 (T) / 25.2 (D)** | -- | <0.200 (T) / <0.200 (D) | <2.00 (T) / <2.00 (D) | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | -- | -- | -- | -- | -- |
| MW-18 | 56.53 | 8.11 | 48.42 | 12/18/24 | MW-18 | **5.00 (T) / 4.54 (D)** | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-19 | 55.48 | 7.33 | 48.15 | 12/18/24 | MW-19 | **3.08 (T) / 2.69 (D)** | **39.4 (T) / 36.6 (D)** | <0.200 (T) / <0.200 (D) | **2.62 (T) / 3.44 (D)** | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | <1.00 (T) / <1.00 (D) | <0.200 (T) / <0.200 (D) | **30,000** | -- | **80,000** |
| MW-20 | 56.15 | 7.74 | 48.41 | 12/18/24 | MW-20 | **53.8 (T) / 52.0 (D)** | -- | <0.200 (T) / <0.200 (D) | **3.70 (T) / 2.77 (D)** | <0.200 (T) / <0.200 (D) | <0.0800 (T) / <0.0800 (D) | -- | -- | **32,800** | -- | **126,000** |

Notes:
Analysis Methods: 6020, See Laboratory reports for specifics.
(1) Presented Elevations are based on elevation data based Pace Engineering survey dated January 2, 2025.
** Reported concentrations of analytes for listed method analysis were not detected at laboratory reporting limits except as noted in table. See laboratory report for details.
† Method (A or B) Cleanup Level has not been established for this constituent.
a 8 µg/L is the natural background concentration for the Puget Sound Basin established in Ecology's January 2022 background study. Publication No. 14-09-044
-- Not Analyzed / Unknown
<0.02 Not detected, concentration less than the laboratory method detection limit.
**12** Contaminant detected at concentrations below MTCA Method A Cleanup Level.
**33** Contaminant concentration exceeds MTCA Method A Cleanup Level.
Dup Duplicate Sample for QA/QC.
Shading indicates the most recent sampling event.
µg/L micrograms per liter

**Table 3**
**Well Construction & Groundwater Depths**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well Identifier | Well Installation Date | Well Construction Material | Monument / Surface Elevation* | Top of Casing Elevation * | Length of Screen (ft.) | Bottom of Well | Well Diameter (in.) | Measurement Date | Depth to Water | Calculated Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 5/23/22 | PVC | 57.61 | 57.16 | 10 | 16.2 | 2 | 5/26/2022 | 8.17 | 48.99 |
| | | | | | | | | 7/26/2022 | 9.42 | 47.74 |
| | | | | | | | | 8/11/2022 | 9.88 | 47.28 |
| | | | | | | | | 1/10/2023 | 8.17 | 48.99 |
| | | | | | | | | 5/4/2023 | 8.34 | 48.82 |
| | | | | | | | | 8/7/2023 | 10.57 | 46.59 |
| | | | | | | | | 5/17/2024 | 8.95 | 48.21 |
| | | | 57.7 | 57.26 | | | | 12/17/2024 | 8.92 | 48.34 |
| | | | | | | | | 1/10/2025 | 8.01 | 49.25 |
| MW-2 | 5/23/22 | PVC | 56.91 | 56.41 | 10 | 17 | 2 | 5/26/2022 | 7.44 | 48.97 |
| | | | | | | | | 7/26/2022 | 9.85 | 46.56 |
| | | | | | | | | 8/11/2022 | 9.14 | 47.27 |
| | | | | | | | | 1/10/2023 | 7.43 | 48.98 |
| | | | | | | | | 5/4/2023 | 7.61 | 48.80 |
| | | | | | | | | 8/7/2023 | 9.84 | 46.57 |
| | | | | | | | | 5/17/2024 | 8.22 | 48.19 |
| | | | 57.0 | 56.51 | | | | 12/17/2024 | 8.06 | 48.45 |
| | | | | | | | | 1/10/2025 | 7.29 | 49.22 |
| MW-3 | 5/23/22 | PVC | 57.48 | 57.08 | 10 | 17 | 2 | 5/26/2022 | 8.10 | 48.98 |
| | | | | | | | | 7/26/2022 | 9.38 | 47.70 |
| | | | | | | | | 8/11/2022 | 9.83 | 47.25 |
| | | | | | | | | 1/10/2023 | 8.09 | 48.99 |
| | | | | | | | | 5/4/2023 | 8.26 | 48.82 |
| | | | | | | | | 8/7/2023 | 10.54 | 46.54 |
| | | | | | | | | 5/17/2024 | 8.88 | 48.20 |
| | | | 57.6 | 57.20 | | | | 12/17/2024 | 8.86 | 48.34 |
| | | | | | | | | 1/10/2025 | 7.96 | 49.24 |
| MW-4 | 5/23/22 | PVC | 57.56 | 57.18 | 10 | 17 | 2 | 5/26/2022 | 8.20 | 48.98 |
| | | | | | | | | 7/26/2022 | 9.48 | 47.70 |
| | | | | | | | | 8/11/2022 | 9.89 | 47.29 |
| | | | | | | | | 1/10/2023 | 8.18 | 49.00 |
| | | | | | | | | 5/4/2023 | 8.38 | 48.80 |
| | | | | | | | | 8/7/2023 | 10.62 | 46.56 |
| | | | | | | | | 5/17/2024 | 9.00 | 48.18 |
| | | | 57.7 | 57.29 | | | | 12/17/2024 | 8.94 | 48.35 |
| | | | | | | | | 1/10/2025 | 8.05 | 49.24 |
| MW-5 | 5/23/22 | PVC | 57.55 | 57.14 | 10 | 17 | 2 | 5/26/2022 | 8.12 | 49.02 |
| | | | | | | | | 7/26/2022 | 9.36 | 47.78 |
| | | | | | | | | 8/11/2022 | 9.85 | 47.29 |
| | | | | | | | | 1/10/2023 | 8.14 | 49.00 |
| | | | | | | | | 5/4/2023 | 8.32 | 48.82 |
| | | | | | | | | 8/7/2023 | 10.56 | 46.58 |
| | | | | | | | | 5/17/2024 | 8.93 | 48.21 |
| | | | 57.7 | 57.25 | | | | 12/17/2024 | 8.9 | 48.35 |
| | | | | | | | | 1/10/2025 | 8.01 | 49.24 |
| MW-6 | 12/10/24 | PVC | 56.2 | 55.74 | 5 | 15 | 2 | 12/17/2024 | 6.69 | 49.05 |
| | | | | | | | | 1/10/2025 | 6.24 | 49.50 |
| MW-7 | 12/10/24 | PVC | 56.0 | 55.67 | 5 | 15 | 2 | 12/17/2024 | 7.25 | 48.42 |
| | | | | | | | | 1/10/2025 | 6.31 | 49.36 |
| MW-8 | 12/10/24 | PVC | 55.6 | 55.30 | 5 | 15 | 2 | 12/17/2024 | 6.78 | 48.52 |
| | | | | | | | | 1/10/2025 | -- | -- |
| MW-9 | 12/10/24 | PVC | 57.3 | 56.90 | 5 | 15 | 2 | 12/17/2024 | 8.47 | 48.43 |
| | | | | | | | | 1/10/2025 | 7.67 | 49.23 |
| MW-10 | 12/11/24 | PVC | 56.0 | 55.63 | 5 | 15 | 2 | 12/17/2024 | 7.06 | 48.57 |
| | | | | | | | | 1/10/2025 | 6.35 | 49.28 |
| MW-11 | 12/11/24 | PVC | 55.7 | 55.44 | 5 | 15 | 2 | 12/17/2024 | 6.87 | 48.57 |
| | | | | | | | | 1/10/2025 | 6.16 | 49.28 |

**Table 3**
**Well Construction & Groundwater Depths**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**

| Well Identifier | Well Installation Date | Well Construction Material | Monument / Surface Elevation* | Top of Casing Elevation * | Length of Screen (ft.) | Bottom of Well | Well Diameter (in.) | Measurement Date | Depth to Water | Calculated Water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-12 | 12/11/24 | PVC | 55.2 | 54.85 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 6.29<br>5.55 | 48.56<br>49.30 |
| MW-13 | 12/11/24 | PVC | 55.4 | 55.05 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 6.5<br>5.77 | 48.55<br>49.28 |
| MW-14 | 12/12/24 | PVC | 56.9 | 56.54 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 7.92<br>7.27 | 48.62<br>49.27 |
| MW-15 | 12/12/24 | PVC | 57.1 | 56.74 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 8.26<br>7.49 | 48.48<br>49.25 |
| MW-16 | 12/12/24 | PVC | 56.3 | 55.95 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 7.45<br>6.88 | 48.50<br>49.07 |
| MW-17 | 12/12/24 | PVC | 56.3 | 55.93 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 7.37<br>6.68 | 48.56<br>49.25 |
| MW-18 | 12/13/24 | PVC | 56.9 | 56.53 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 8.11<br>7.33 | 48.42<br>49.20 |
| MW-19 | 12/13/24 | PVC | 55.9 | 55.48 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 7.33<br>6.27 | 48.15<br>49.21 |
| MW-20 | 12/13/24 | PVC | 56.6 | 56.15 | 5 | 15 | 2 | 12/17/2024<br>1/10/2025 | 7.74<br>6.96 | 48.41<br>49.19 |

Notes:

* Presented Elevations are based on elevation data based Pace Engineering survey dated January 2, 2025.

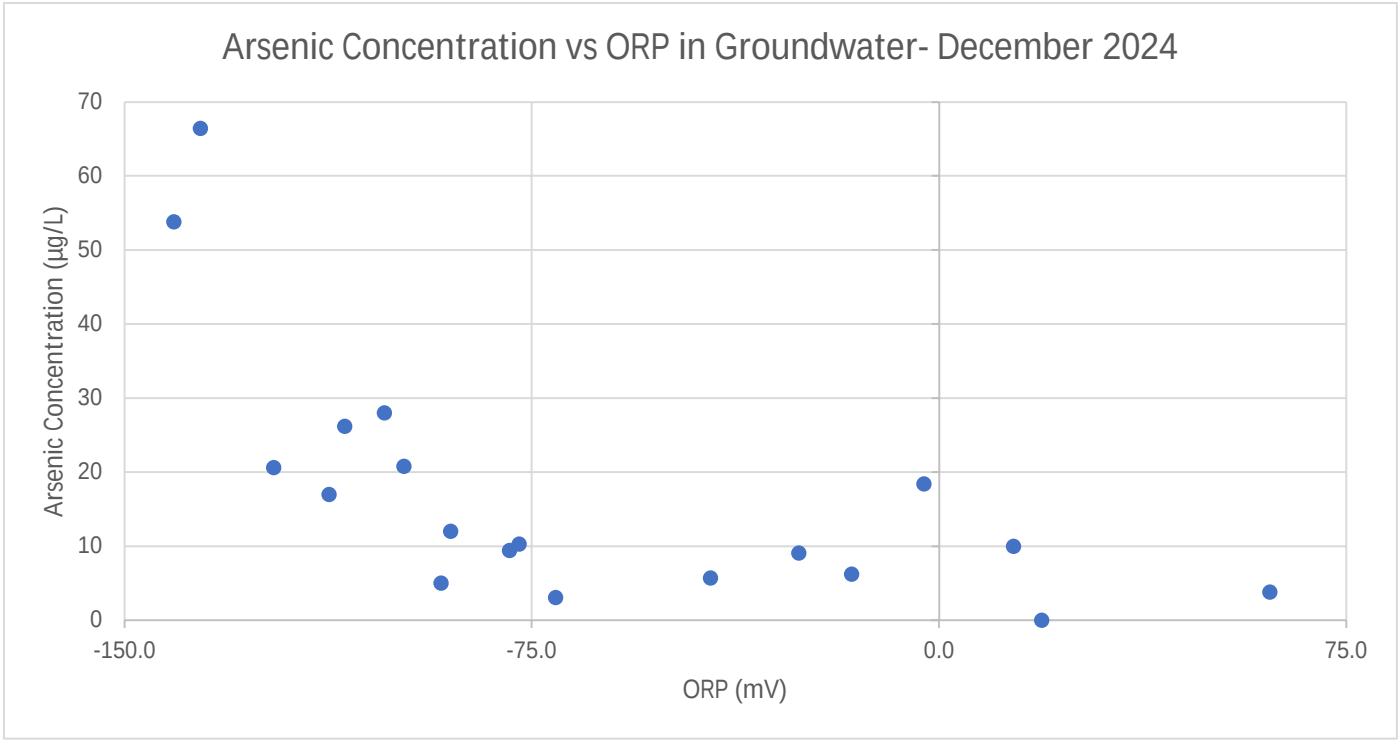
-- Not measured or not applicable

**Table 4**
**Groundwater Parameters (1)**
**Auburn Volkswagen**
**3109 Auburn Way North**
**Project No. BE-0107-E**

| Well Identifier | Measurement Date | Temperature (ºC) | Conductivity (µS/cm) | Conductivity ($ms/cm^2$) | Dissolved Oxygen (%) | Dissolved Oxygen (mg/L) | pH | Oxidation Reduction Potential (mV) | Turbidity (NTU) |
|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 5/26/22 | 15.37 | 997 | -- | 22.2 | 2.21 | 7.46 | -106.1 | -- |
| | 7/26/22 | 15.54 | 1,094 | -- | 11.1 | 1.10 | 6.76 | -129.2 | -- |
| | 1/10/23 | 16.15 | 1,194 | -- | 6.8 | 0.66 | 6.65 | -169.3 | 2.10 |
| | 5/4/23 | 15.35 | 3,014 | -- | 0.8 | 0.07 | 6.62 | -159.3 | 2.66 |
| | 8/7/23 | 15.94 | -- | 1.433 | 4.9 | 0.50 | 6.63 | -99.9 | -- |
| | 5/17/24 | 15.55 | -- | 1.080 | 53.8 | 5.34 | 6.60 | -117.3 | -- |
| | 12/17/24 | 16.80 | 1,015 | -- | 1.5 | 0.14 | 6.61 | -98.5 | -- |
| MW-2 | 5/26/22 | 14.12 | 698 | -- | 100 | 10.24 | 6.62 | -86.3 | -- |
| | 7/26/22 | 13.87 | 731 | -- | 22.9 | 2.30 | 6.74 | -136.8 | -- |
| | 1/10/23 | 14.64 | 907 | -- | 6.6 | 0.67 | 6.76 | -228.9 | 1.49 |
| | 5/4/23 | 14.30 | 1,695 | -- | 4.1 | 0.41 | 6.76 | -214.9 | 4.19 |
| | 8/7/23 | 14.53 | -- | 0.901 | 15.5 | 1.57 | 6.60 | -113.2 | -- |
| | 5/17/24 | 14.25 | -- | 0.703 | 20.7 | 2.12 | 6.68 | -159.2 | -- |
| | 12/18/24 | 15.80 | 786 | -- | 1.3 | 0.13 | 6.65 | -136.0 | -- |
| MW-3 | 5/26/22 | 16.70 | 1,259 | -- | 385 | 3.68 | 6.84 | -96.2 | -- |
| | 7/26/22 | 15.70 | 1,235 | -- | 5.7 | 0.56 | 5.71 | -136.8 | -- |
| | 1/10/23 | 17.27 | 1,405 | -- | 4.3 | 0.41 | 6.64 | -155.3 | 0.68 |
| | 5/4/23 | 17.50 | 3,425 | -- | 0.5 | 0.04 | 6.59 | -136.1 | 1.94 |
| | 8/7/23 | 16.46 | -- | 1.661 | 2.0 | 0.19 | 6.62 | -76.0 | -- |
| | 5/17/24 | 17.08 | -- | 1.373 | 3.7 | 0.36 | 6.46 | -107.9 | -- |
| | 12/17/24 | 17.30 | 1,520 | -- | 40.6 | 3.88 | 6.71 | -122.5 | -- |
| MW-4 | 5/26/22 | 16.65 | 665 | -- | 32.1 | 3.12 | 6.74 | -72.6 | -- |
| | 7/26/22 | 15.63 | 796 | -- | 5.6 | 0.55 | 6.66 | -97.6 | -- |
| | 1/10/23 | 16.99 | 607 | -- | 4.7 | 0.45 | 6.54 | -125.6 | 0.40 |
| | 5/4/23 | 17.10 | 1,556 | -- | 0.9 | 0.09 | 6.50 | -99.5 | 1.60 |
| | 8/7/23 | 15.94 | -- | 0.750 | 2.4 | 0.24 | 6.49 | -37.1 | -- |
| | 5/17/24 | 16.87 | -- | 0.735 | 3.8 | 0.37 | 6.30 | -67.2 | -- |
| | 12/17/24 | 17.10 | 614 | -- | 4.7 | 0.45 | 6.47 | -77.3 | -- |
| MW-5 | 5/26/22 | 16.80 | 896 | -- | 50.1 | 4.84 | 6.73 | -112.6 | -- |
| | 7/26/22 | 15.72 | 620 | -- | 7.8 | 0.76 | 6.71 | -123.7 | -- |
| | 1/10/23 | 17.03 | 649 | -- | 5.0 | 0.48 | 6.65 | -151.3 | 6.71 |
| | 5/4/23 | 17.30 | 2,004 | -- | 0.9 | 0.08 | 6.56 | -139.3 | 3.1 |
| | 8/7/23 | 16.08 | -- | 0.727 | 3.0 | 0.30 | 6.60 | -88.4 | -- |
| | 5/17/24 | 16.98 | -- | 0.749 | 3.7 | 0.35 | 6.41 | -132.1 | -- |
| | 12/17/24 | 17.10 | 603 | -- | 2.1 | 0.20 | 6.57 | -102.1 | -- |
| MW-6 | 12/18/24 | Pumped Dry | | | | | | | |
| MW-7 | 12/18/24 | 15.60 | 468 | -- | 2.1 | 0.21 | 6.35 | -42.1 | -- |
| MW-8 | 12/19/24 | 15.50 | 401 | -- | 1.0 | 0.10 | 6.06 | -2.8 | -- |
| MW-9 | 12/18/24 | 15.30 | 646 | -- | 4.4 | 0.44 | 6.61 | -112.3 | -- |
| MW-10 | 12/19/24 | 15.00 | 368 | -- | 0.6 | 0.06 | 6.70 | -25.8 | -- |
| MW-11 | 12/19/24 | 16.20 | 391 | -- | 0.5 | 0.05 | 6.53 | -16.1 | -- |
| MW-12 | 12/19/24 | 15.60 | 181 | -- | 0.5 | 0.05 | 6.18 | 13.7 | -- |
| MW-13 | 12/19/24 | 15.10 | 183 | -- | 0.8 | 0.08 | 5.87 | 18.9 | -- |
| MW-14 | 12/19/24 | 12.60 | 211 | -- | 2.9 | 0.31 | 5.97 | 60.9 | -- |
| MW-15 | 12/18/24 | 16.00 | 661 | -- | 0.7 | 0.07 | 6.52 | -79.1 | -- |
| MW-16 | 12/18/24 | 15.90 | 870 | -- | 1.2 | 0.12 | 6.51 | -89.9 | -- |
| MW-17 | 12/19/24 | 13.40 | 634 | -- | 2.0 | 0.21 | 6.70 | -109.4 | -- |
| MW-18 | 12/18/24 | 16.00 | 858 | -- | 2.3 | 0.22 | 6.37 | -91.7 | -- |
| MW-19 | 12/19/24 | 14.60 | 771 | -- | 1.0 | 0.10 | 6.47 | -70.6 | -- |
| MW-20 | 12/18/24 | 15.80 | 696 | -- | 2.3 | 0.23 | 6.66 | -140.9 | -- |

Notes:
(1) Parameters at time of sample collection.
$ms/cm^2$ Millisiemens per centimeter squared
mV Millivolts
NTU Nephelometric Turbidity unit
µS/cm Microsiemens per centimeter

**Graph 1**
**Arsenic Concentrations vs Oxidation-Reduction Potential (ORP) in Groundwater**
**Auburn Volkswagen**
**3109 Auburn Way North, Auburn, WA**
**Project No. BE-0107-E**



# Figures



BLUESTONE ENVIRONMENTAL, NW

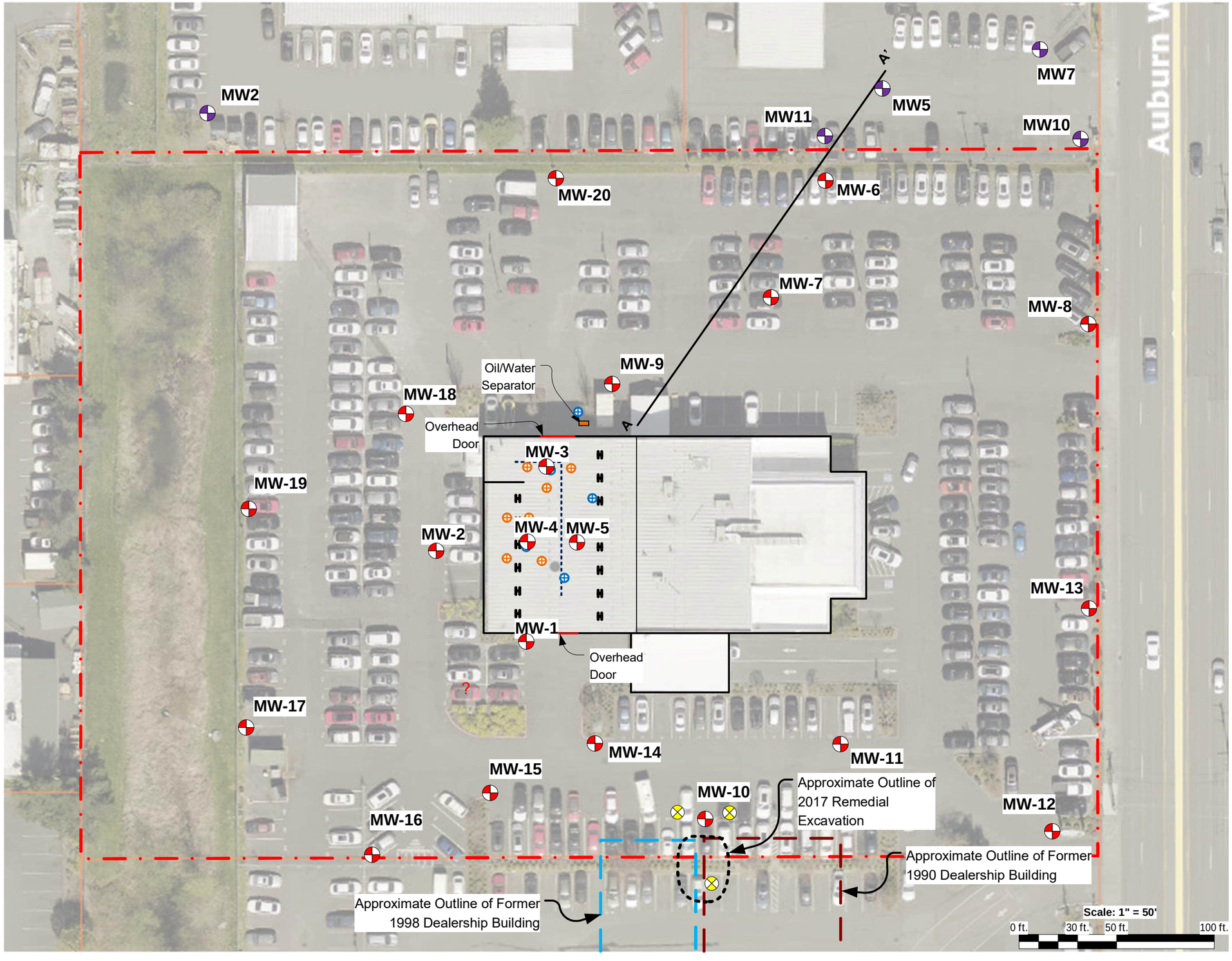
# Site Location Maps

Auburn Dealership
3109 Auburn Way North
Auburn, WA

Figure 1

Drawing References: Getty Image, King County iMaps

Project No. BE-0107-E F1.vsdx




## Legend

- Monitoring Wells Installed and Decommissioned by G-Logics
- Monitoring Wells installed by PIONEER Technologies Corporation (Coastal Gas)
- April 24, 2022 Soil Boring Location
- July 20, 2022 Soil Boring Location
- Groundwater Monitoring Well Locations
- H — Underground Hoist Location
- Trench Drain in Shop Floor
- Understood Property Boundary

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

**Drawing Date: 3/12/2025**

# Site Diagram and Exploration Locations

Auburn VW

3109 Auburn Way North

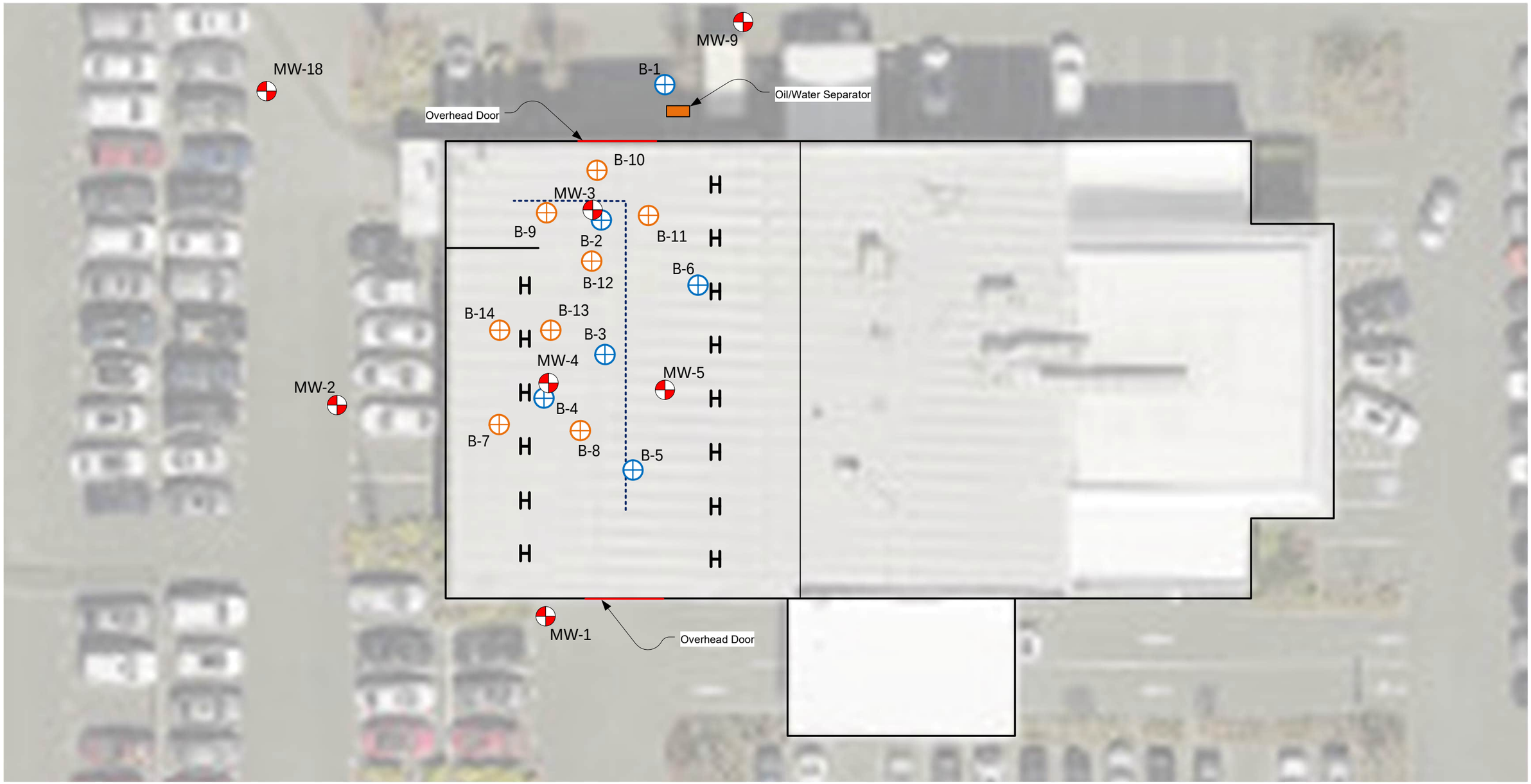
Auburn, WA 98002

# Figure 2a

BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F2a.vsdx

**Drawing References: King County iMaps, Bluestone Measurements**




## General Legend

- Building Outline
- Groundwater Monitoring Well Location (May 23, 2022)
- Trench Drain in Shop Floor
- July 20,2022 Soil Boring Location
- April 24, 2022 Soil Boring Location
- H — Underground Hoist Location

**Closeup of Interior Exploration Locations**

Auburn VW
3109 Auburn Way North, Auburn, WA

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

Figure 2b

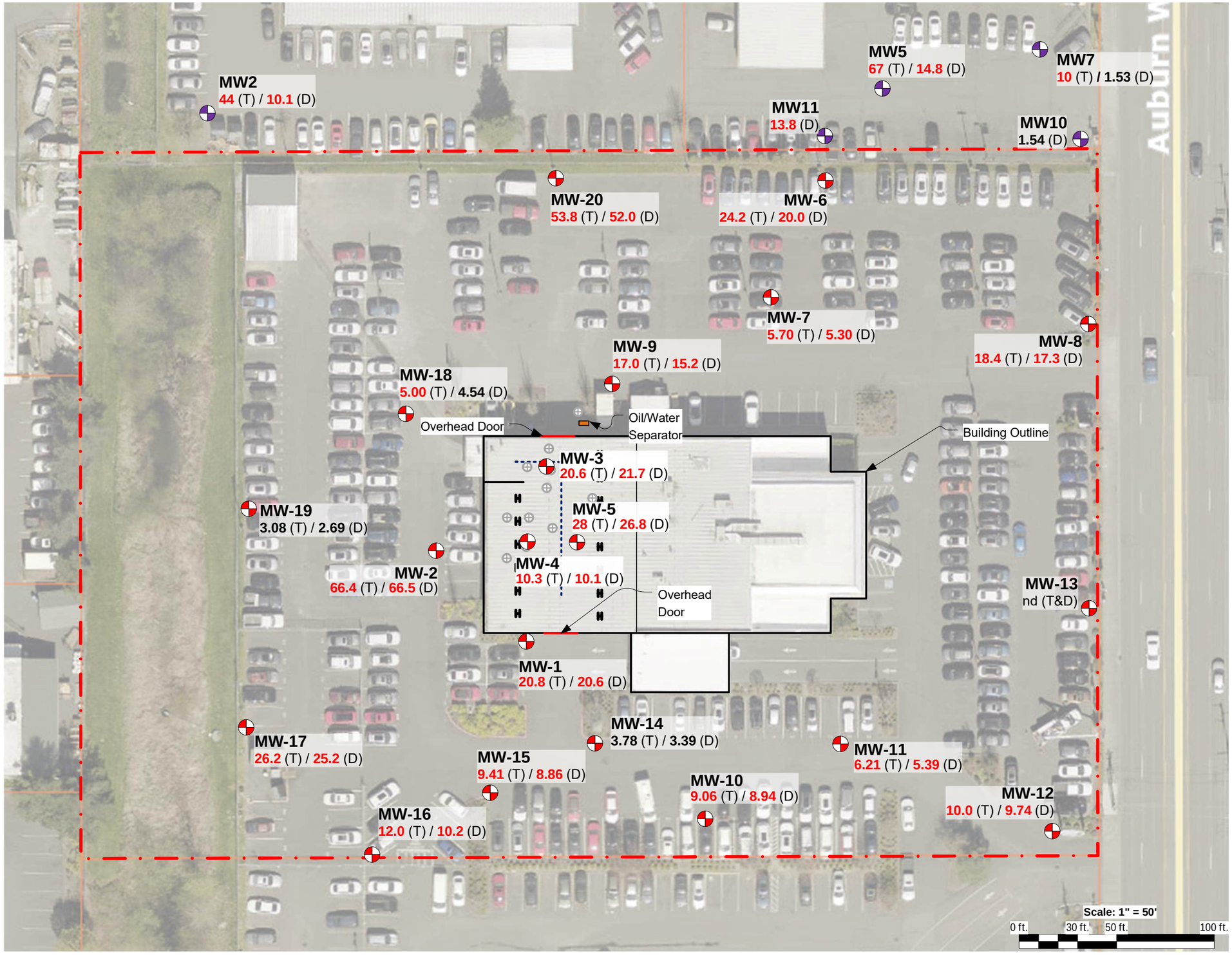
Scale: 1" = 20'
0 ft. 12 ft. 20 ft. 40 ft.

BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F2b.vsdx

Drawing Date: 3/12/2025

Drawing References: King County iMaps, Bluestone Measurements




## Legend

- Groundwater Monitoring Well Locations
- Monitoring Wells installed by PIONEER Technologies Corporation
- Soil Boring Location
- H — Underground Hoist Location
- Trench Drain in Shop Floor
- Understood Property Boundary
- MW-1 20.8 (T) / 20.6 (D) — Sample Identification; T (total arsenic); D (dissolved arsenic); Detected Concentration (µg/L)
- nd — Not Detected, concentration less than the laboratory method detection limit.
- **3.39** — Black Bold Number Indicates Detection Below MTCA Cleanup Level
- **18.4** — Red Bold Number Indicates Detection Above MTCA Cleanup Level (5 µg/L)

See Table 2 for full analytical results

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

**Drawing Date: 3/12/2025**

# Most Recent Arsenic Concentrations in Groundwater

Auburn VW

3109 Auburn Way North

Auburn, WA 98002

## Figure 3

BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F3 As GW.vsdx

**Drawing References: King County iMaps, Bluestone Measurements**


General Legend

Kipper & Sons — Site Name

**120** (T) — Highest Total Arsenic Concentration (µg/L)

**69** (D) — Highest Dissolved Arsenic Concentration (µg/L)

**Highest Arsenic Concentrations in Groundwater: Nearby Properties**

Auburn VW
3109 Auburn Way North, Auburn, WA

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

Figure 4

N

**Scale: 1" = 3,000'**

0 ft. 1800 ft. 3000 ft. 6000 ft.

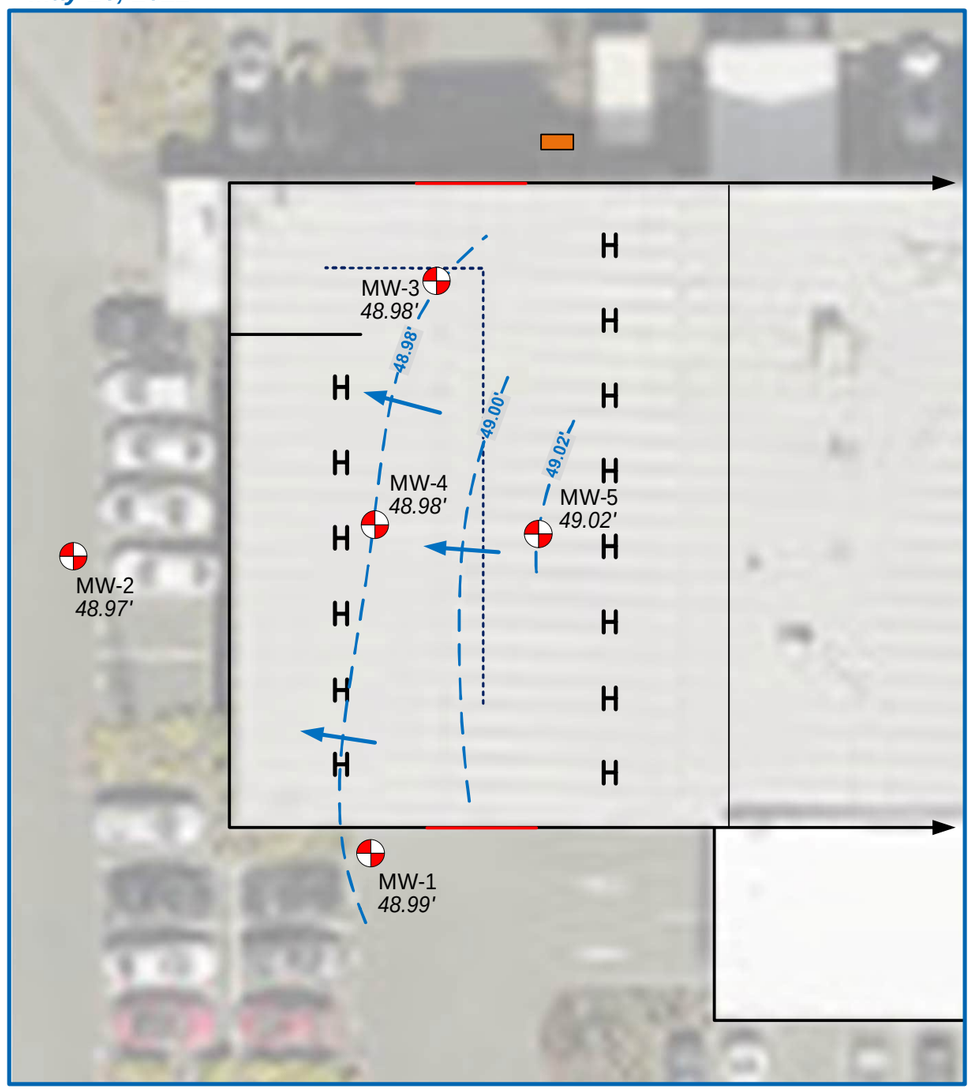
BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F4 Area As.vsdx

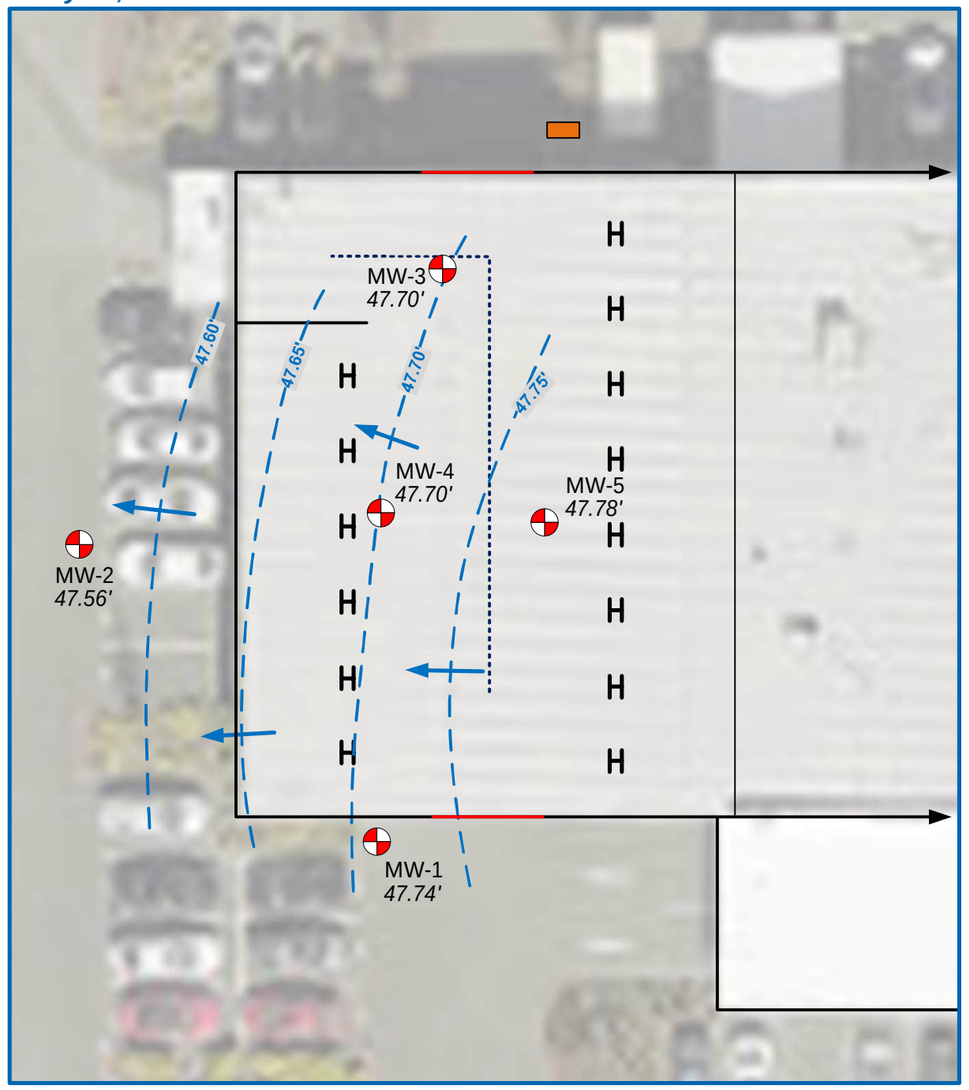
Drawing Date: 3/12/2025

**Drawing References: Google Earth Pro**

*May 26, 2022*




*July 26, 2022*




## General Legend

- Building Outline
- Interpreted General Groundwater Gradient
- Groundwater Monitoring Well Location with Groundwater Elevation (Bluestone)
- Inferred Groundwater Elevation Contour

The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

**Groundwater Elevations & Interpreted Gradient, May 2022 & July 2022**

Auburn VW
3109 Auburn Way North, Auburn, WA

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

Figure 5a

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

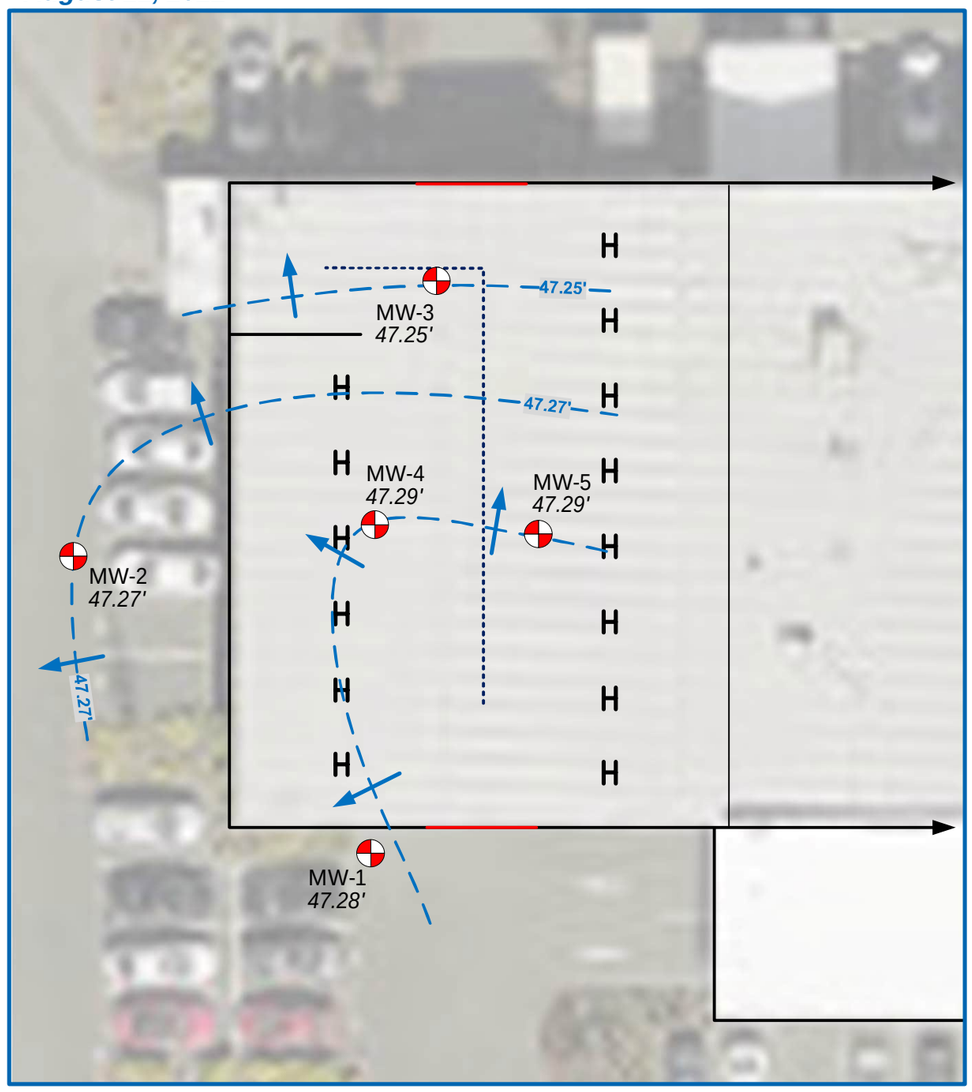
BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F5a GW Elev Contour.vsdx

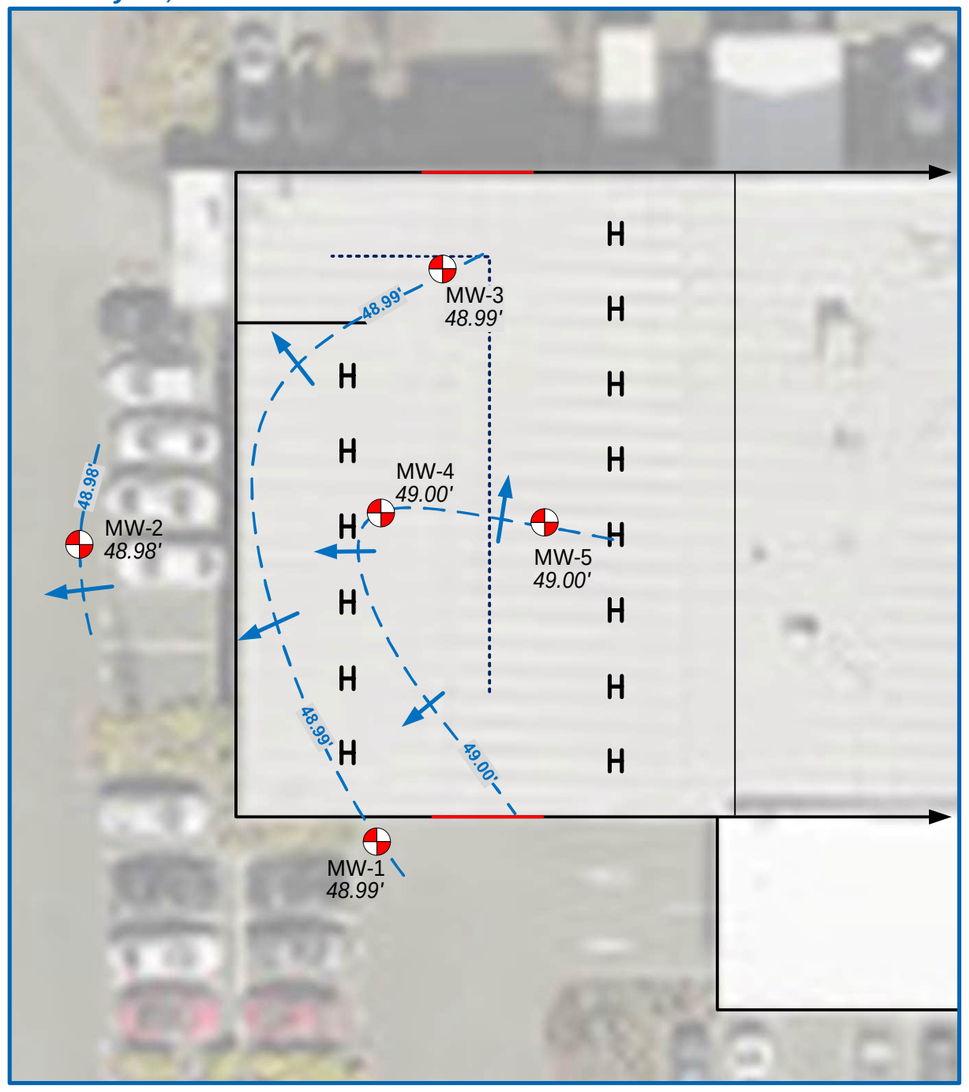
Drawing Date: 3/12/2025

Drawing References: King County iMap, Bluestone Site Measurements

## August 11, 2022




## January 10, 2023




General Legend

- Building Outline
- Interpreted General Groundwater Gradient
- Groundwater Monitoring Well Location with Groundwater Elevation (Bluestone)
- Inferred Groundwater Elevation Contour

The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

**Groundwater Elevations & Interpreted Gradient, August 2022 & January 2023**

Auburn VW
3109 Auburn Way North, Auburn, WA

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

Figure 5b

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

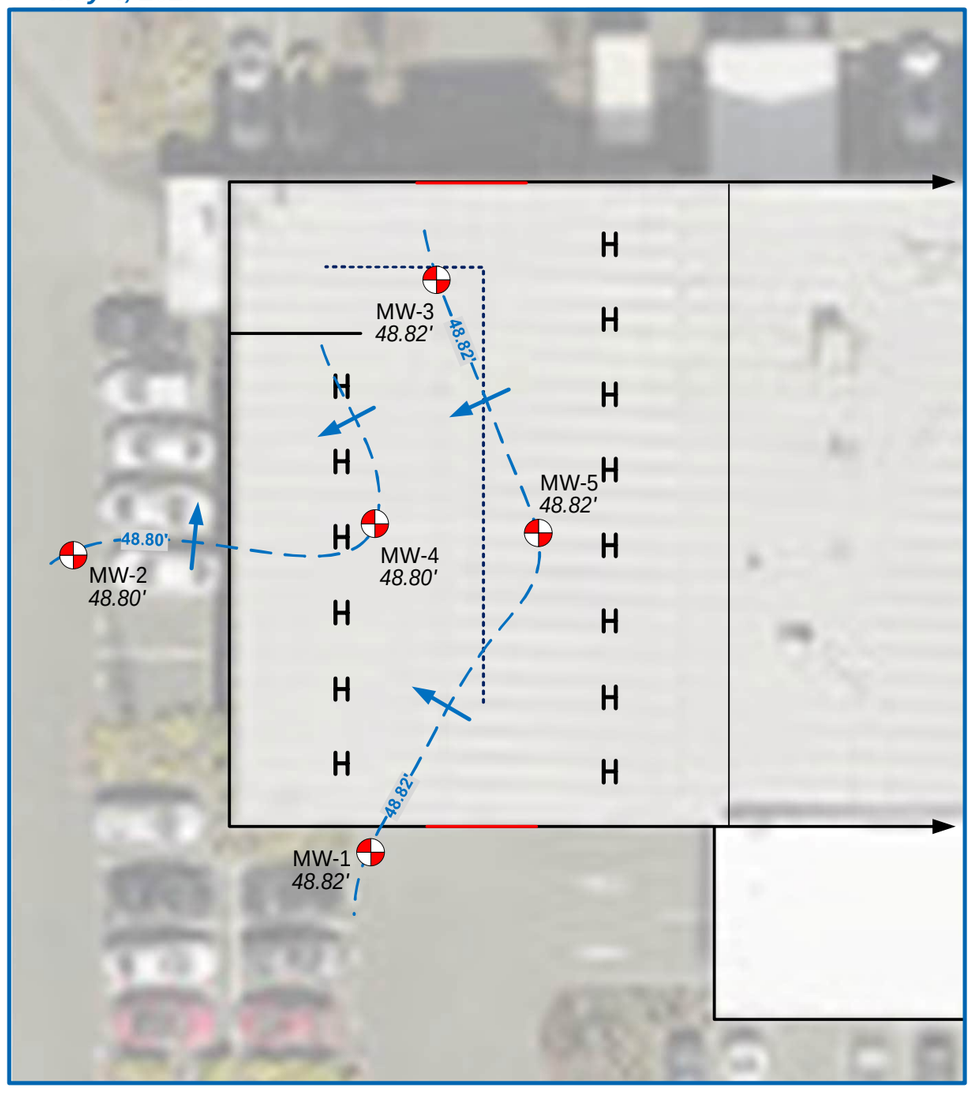
BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F5b GW Elev Contour.vsdx

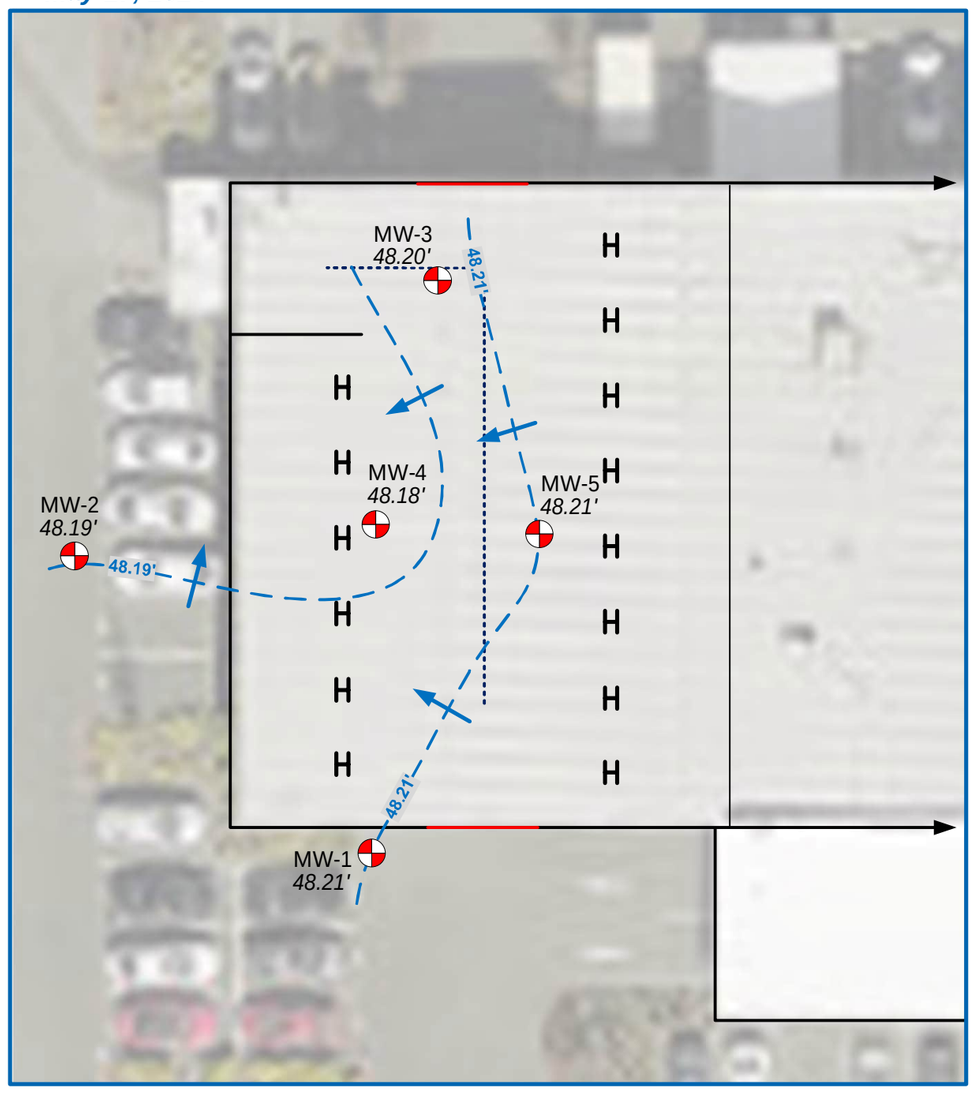
Drawing Date: 3/12/2025

Drawing References: King County iMap, Bluestone Site Measurements

*May 4, 2023*




*May 17, 2024*




General Legend

- Building Outline
- Interpreted General Groundwater Gradient
- Groundwater Monitoring Well Location with Groundwater Elevation (Bluestone)
- Inferred Groundwater Elevation Contour

The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

**Groundwater Elevations & Interpreted Gradient, May 2023 and May 2024**

Auburn VW
3109 Auburn Way North, Auburn, WA

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

Figure 5c

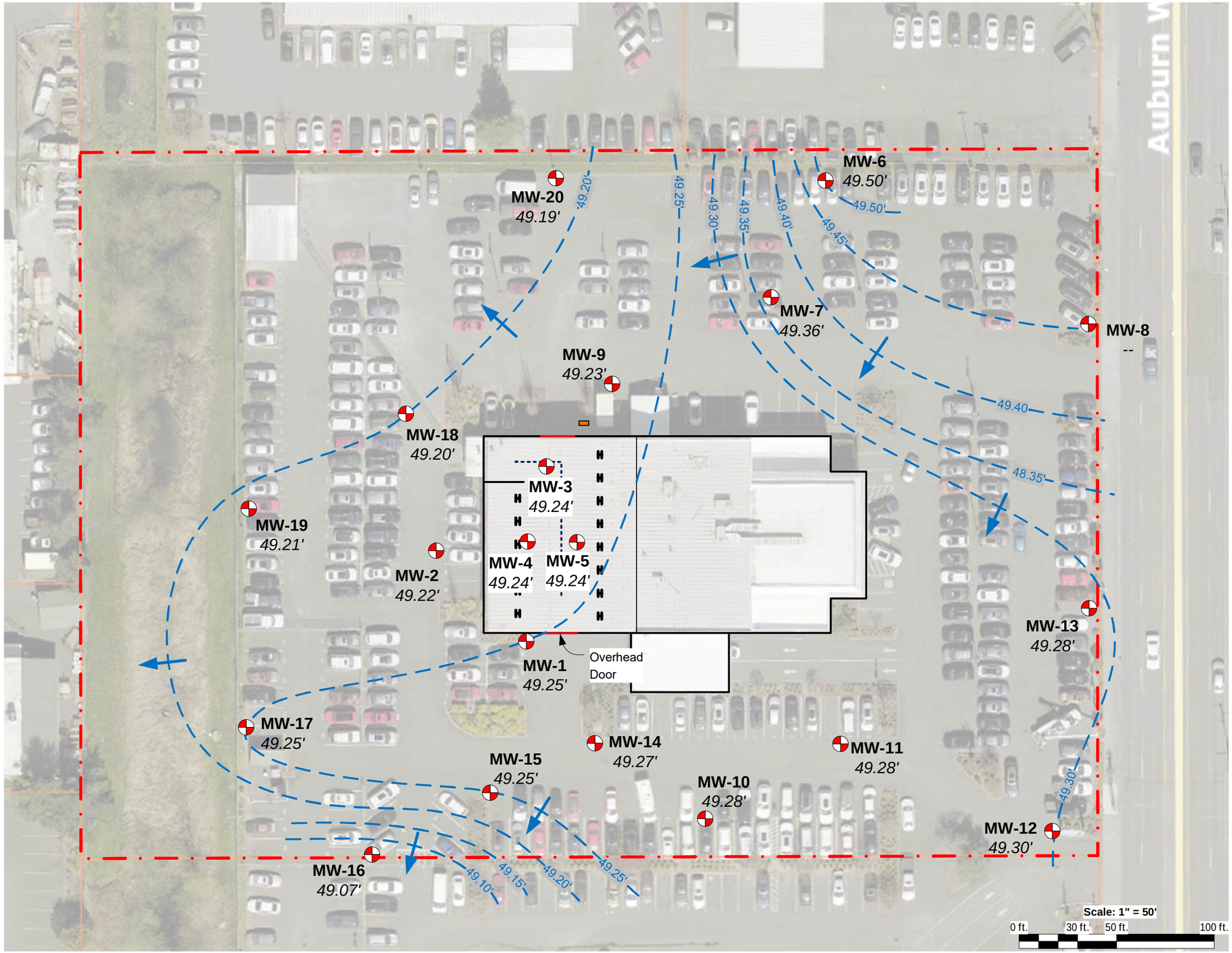
Scale: 1" = 20'
0 ft. 12 ft. 20 ft. 40 ft.

BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F5c GW Elev Contour.vsdx

Drawing Date: 3/12/2025

Drawing References: King County iMap, Bluestone Site Measurements




## Legend

- Groundwater Monitoring Well Locations
- Trench Drain in Shop Floor
- Understood Property Boundary
- 89.22' Groundwater Elevation
- Inferred Groundwater Elevation Contour
- Inferred Groundwater-Flow Direction

The contours represent an interpretation of available data, for the indicated date. Site groundwater contours may change with additional measurements and/or data points, weather changes, construction activities, and/or other influences.

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

**Drawing Date: 3/12/2025**

# Groundwater Elevation Contours January 2025

Auburn VW

3109 Auburn Way North

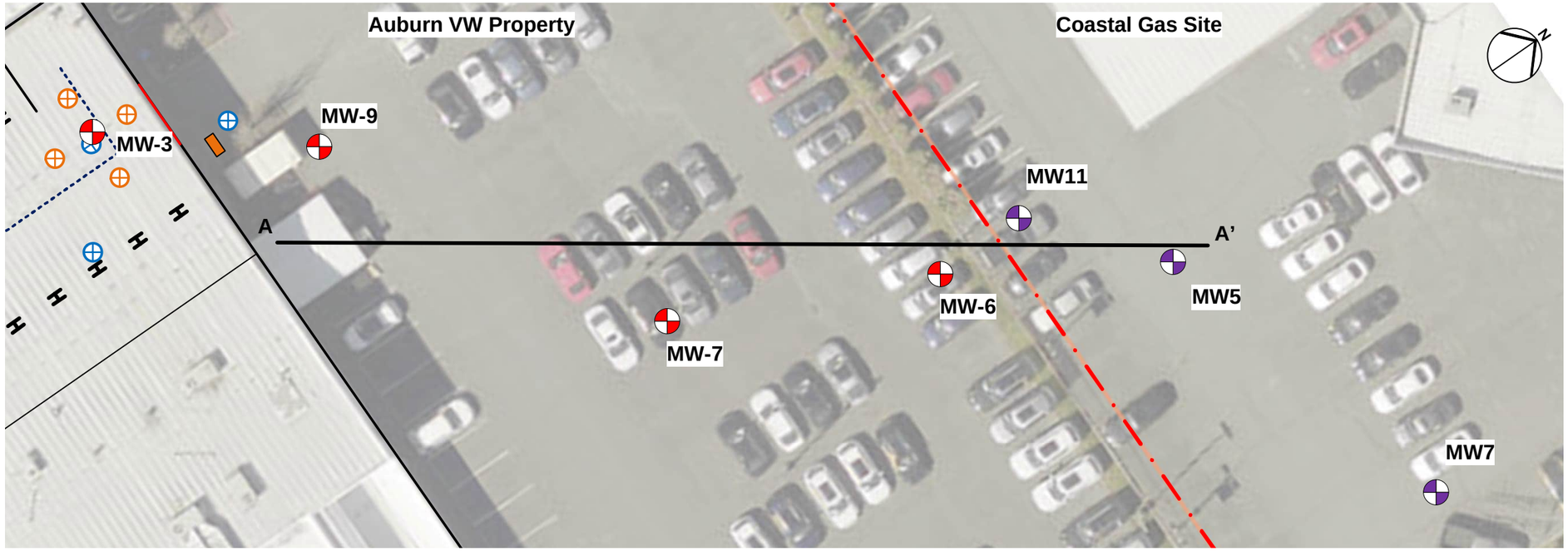
Auburn, WA 98002

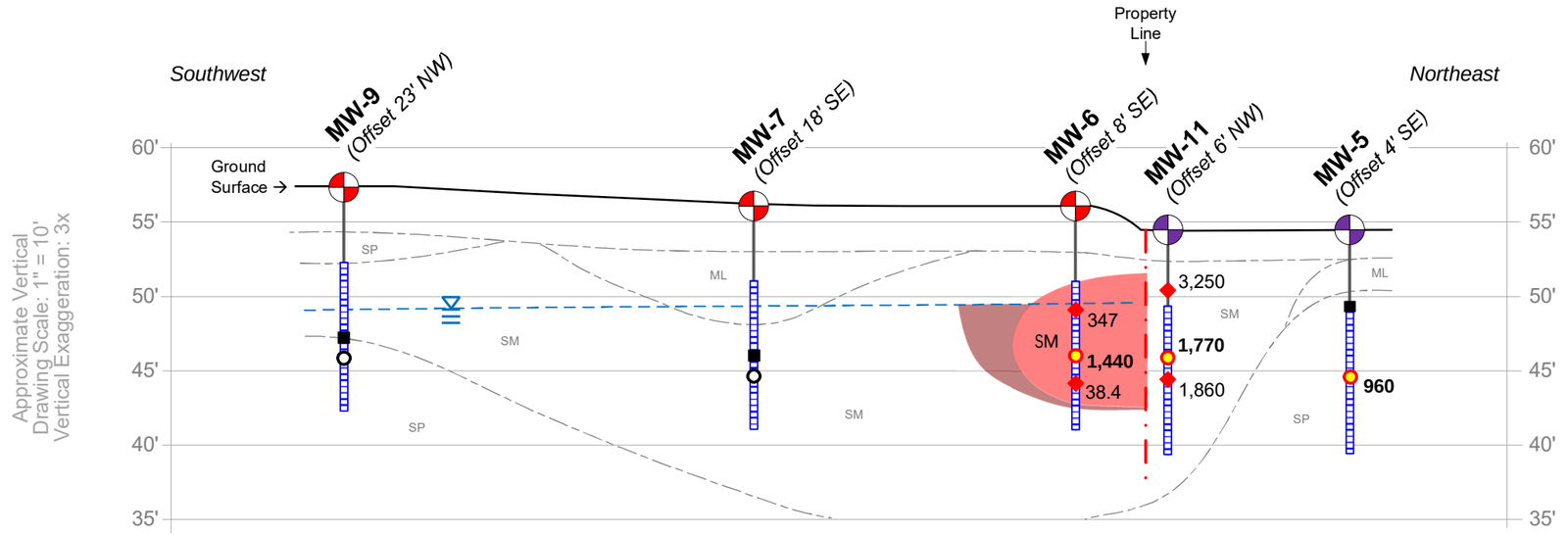
## Figure 5d

BLUESTONE ENVIRONMENTAL, NW

Project No. BE-0107-E F5d GW Elev Contour.vsdx

**Drawing References: King County iMaps, Bluestone Measurements**




## Legend

- Monitoring Wells installed by PIONEER Technologies Corporation (Coastal Gas)
- Groundwater Monitoring Well Locations
- Approximate Water Table Elevation (January, 2025)
- Approximate Geologic Contact Based on USCS Soil Classification (SM)
- Estimated area of GRO Contamination in Soil on Auburn VW Property
- Estimated area of GRO Contamination in Groundwater on Auburn VW Property
- A – A' Cross Section Line
- GRO not detected in soil
- GRO concentrations in soil below cleanup levels
- GRO concentrations in soil above cleanup levels (800 mg/kg)
- GRO not detected in groundwater
- GRO concentrations present but less than cleanup levels in groundwater
- GRO concentrations above MTCA cleanup levels in groundwater (500 µg/L)

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

**Drawing Date: 3/12/2025**

**Cross Section A-A'**

Auburn VW

3109 Auburn Way North

Auburn, WA 98002

**Figure 6**

BLUESTONE ENVIRONMENTAL, NW

Notes:
1) Groundwater and soil isocontours only interpreted on the Subject Property.
2) Ground elevations for Coastal Gas monitoring wells were not available. Ground elevation estimated based on TOC elevation.
3) Depth to water not available for Coastal Gas monitoring wells in January 2025.
4) See Tables 1a and 2a for complete list of GRO detections in soil and groundwater.
5) Coastal Gas data provided in the Interim Action Work Plan completed by PIONEER Technologies Co. (April 2024). The highest groundwater detection for GRO is shown on the cross section.

**Scale: 1" = 30'**

0 ft. 18 ft. 30 ft. 60 ft.

Project No. BE-0107-E F6 XSection.vsdx

**Drawing References: King County iMaps, Pace Monitoring Well Survey (1/2/2025), Bluestone Measurements, Interim Action Work Plan PIONEER Technologies Co. (April 2024)**

# Appendix A

**Auburn Volkswagen**

3109 and 3302 Auburn Way North

Auburn, WA 98002

Inquiry Number: 6887522.11

March 07, 2022

# The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

# EDR Aerial Photo Decade Package

03/07/22

**Site Name:**

Auburn Volkswagen
3109 and 3302 Auburn Way No
Auburn, WA 98002
EDR Inquiry # 6887522.11

**Client Name:**

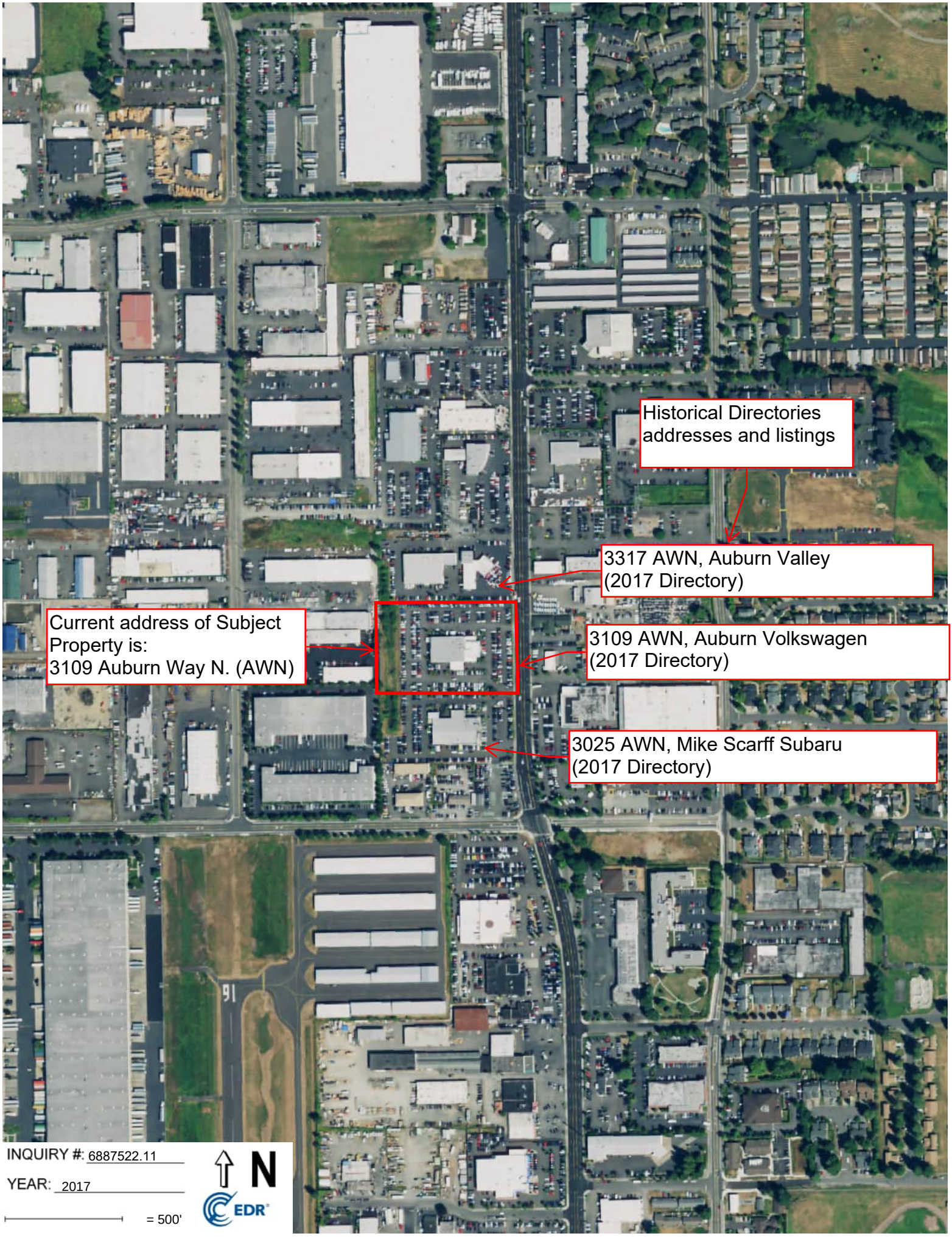
Bluestone Environmental
20204 SE 284th St
Kent, WA 98042
Contact: Dan Hatch

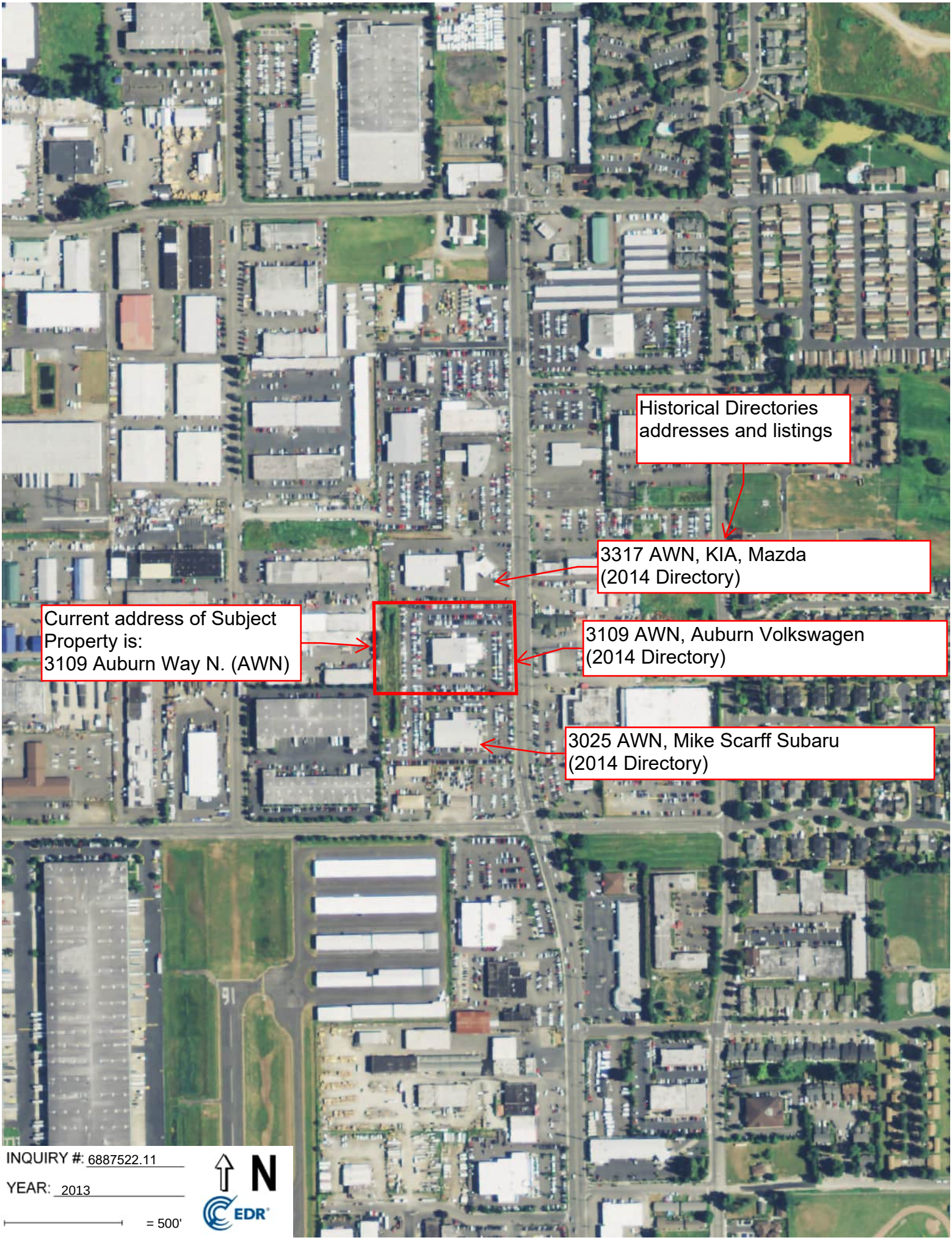
Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

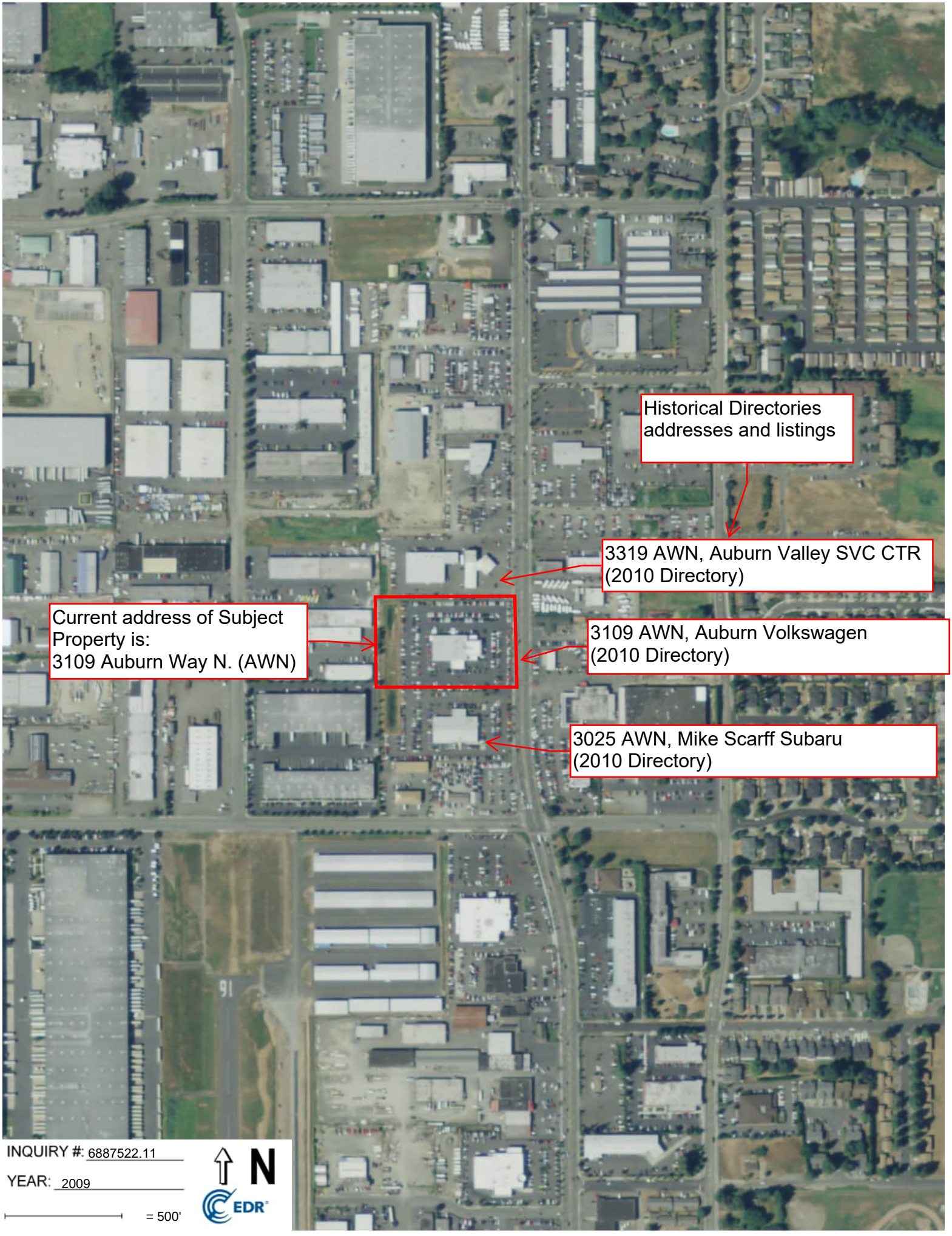
***Search Results:***

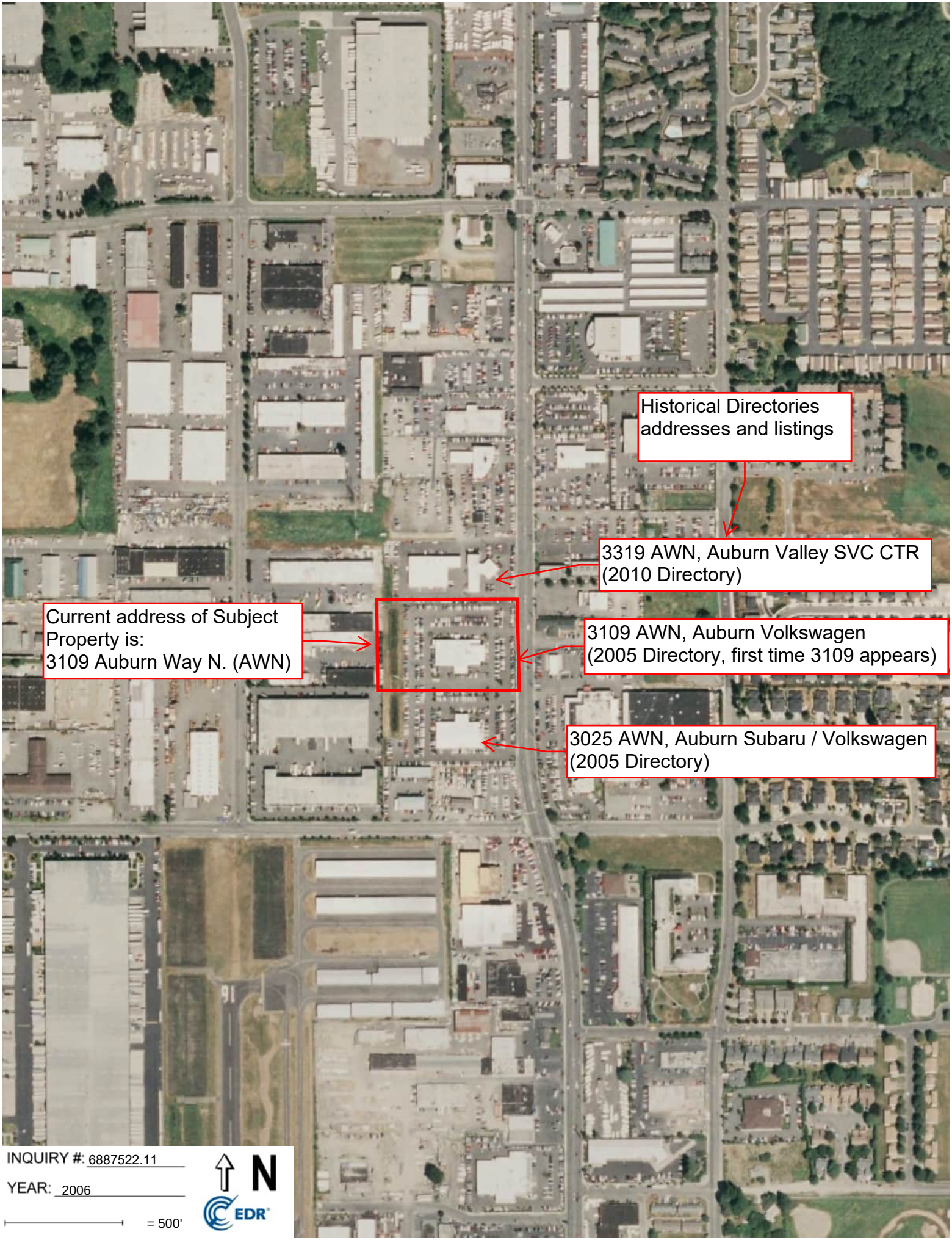
| Year | Scale | Details | Source |
|---|---|---|---|
| 2017 | 1"=500' | Flight Year: 2017 | USDA/NAIP |
| 2013 | 1"=500' | Flight Year: 2013 | USDA/NAIP |
| 2009 | 1"=500' | Flight Year: 2009 | USDA/NAIP |
| 2006 | 1"=500' | Flight Year: 2006 | USDA/NAIP |
| 1990 | 1"=500' | Acquisition Date: July 10, 1990 | USGS/DOQQ |
| 1985 | 1"=500' | Flight Date: May 23, 1985 | NRWA |
| 1980 | 1"=500' | Flight Date: July 27, 1980 | USDA |
| 1978 | 1"=500' | Flight Date: June 02, 1978 | NRWA |
| 1968 | 1"=500' | Flight Date: September 02, 1968 | USGS |
| 1965 | 1"=500' | Flight Date: June 30, 1965 | NRWA |
| 1957 | 1"=500' | Flight Date: May 28, 1957 | USGS |
| 1943 | 1"=500' | Flight Date: March 05, 1943 | DIA |

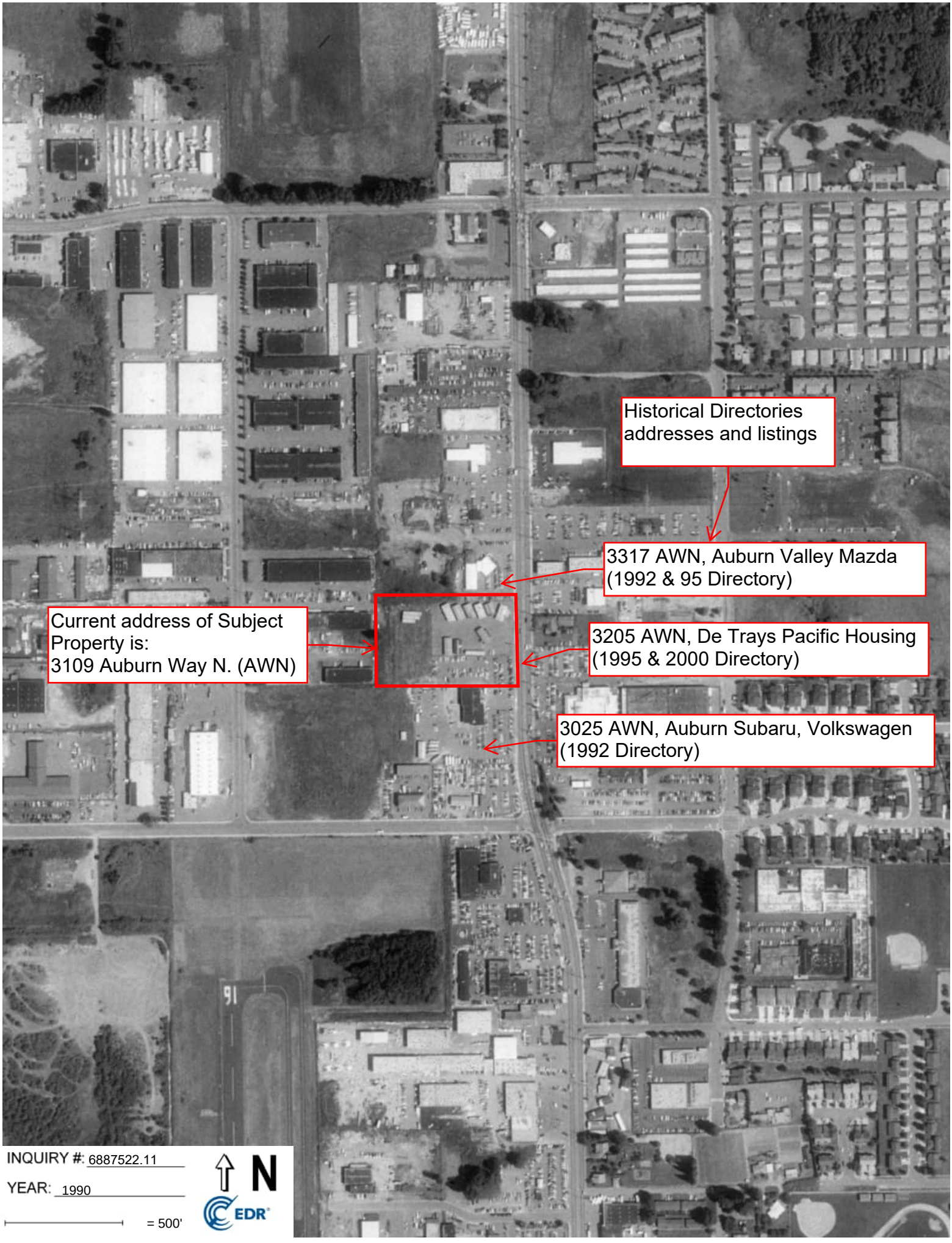
**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

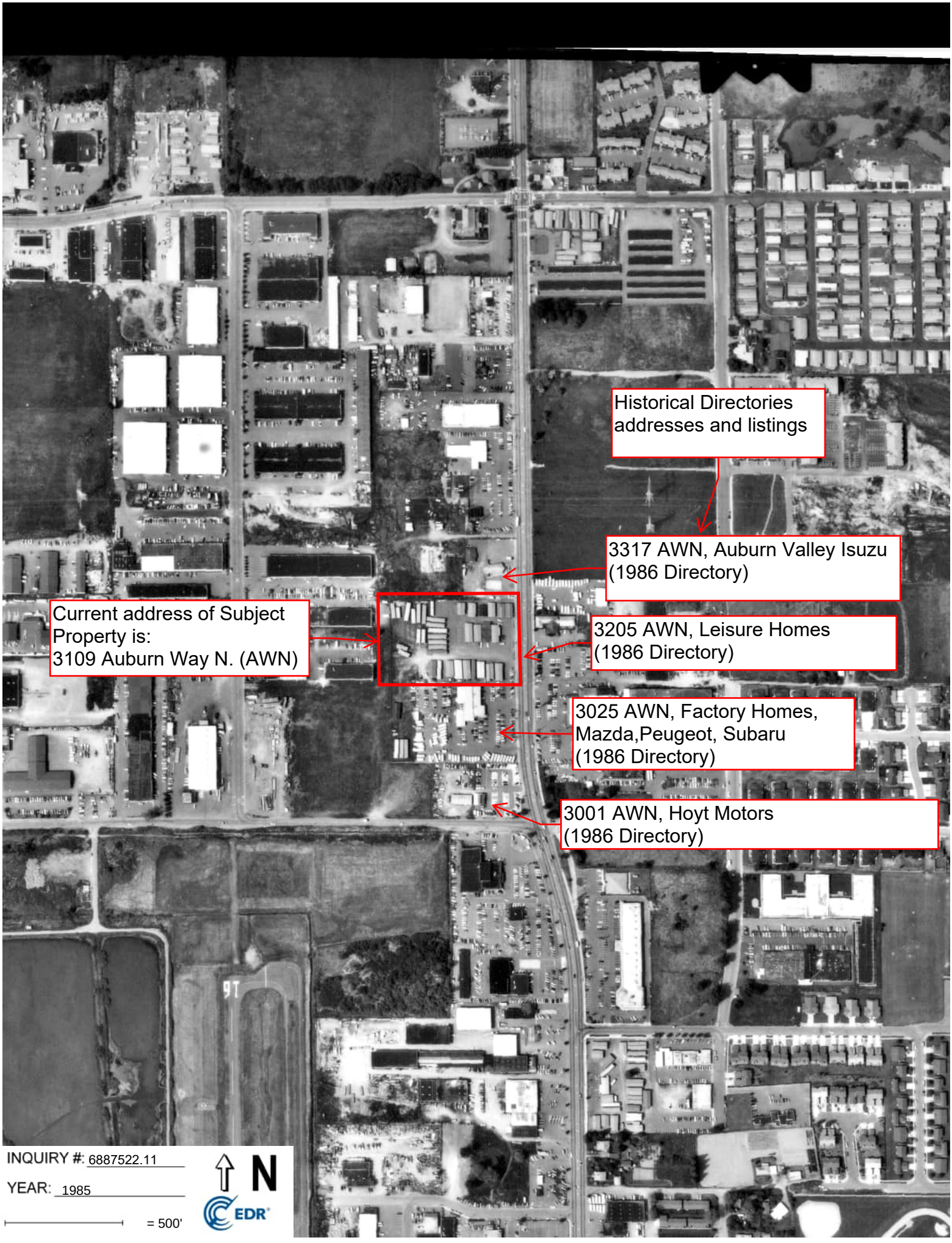

Historical Directories addresses and listings
3317 AWN, Auburn Valley (2017 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3109 AWN, Auburn Volkswagen (2017 Directory)
3025 AWN, Mike Scarff Subaru (2017 Directory)
INQUIRY #: 6887522.11
YEAR: 2017
= 500'
N
EDR

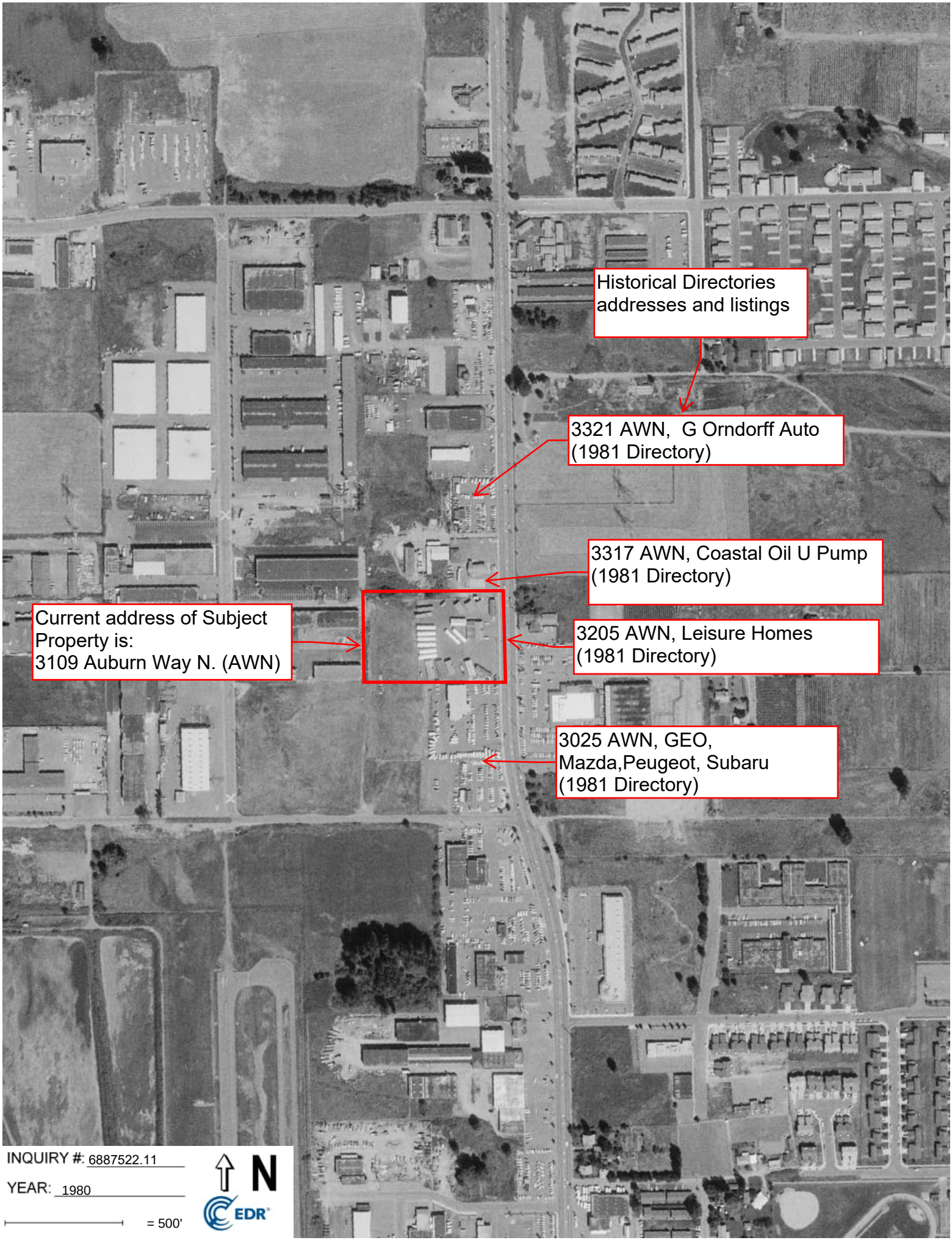

Historical Directories addresses and listings
3317 AWN, KIA, Mazda (2014 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3109 AWN, Auburn Volkswagen (2014 Directory)
3025 AWN, Mike Scarff Subaru (2014 Directory)
INQUIRY #: 6887522.11
YEAR: 2013
= 500'
N
EDR

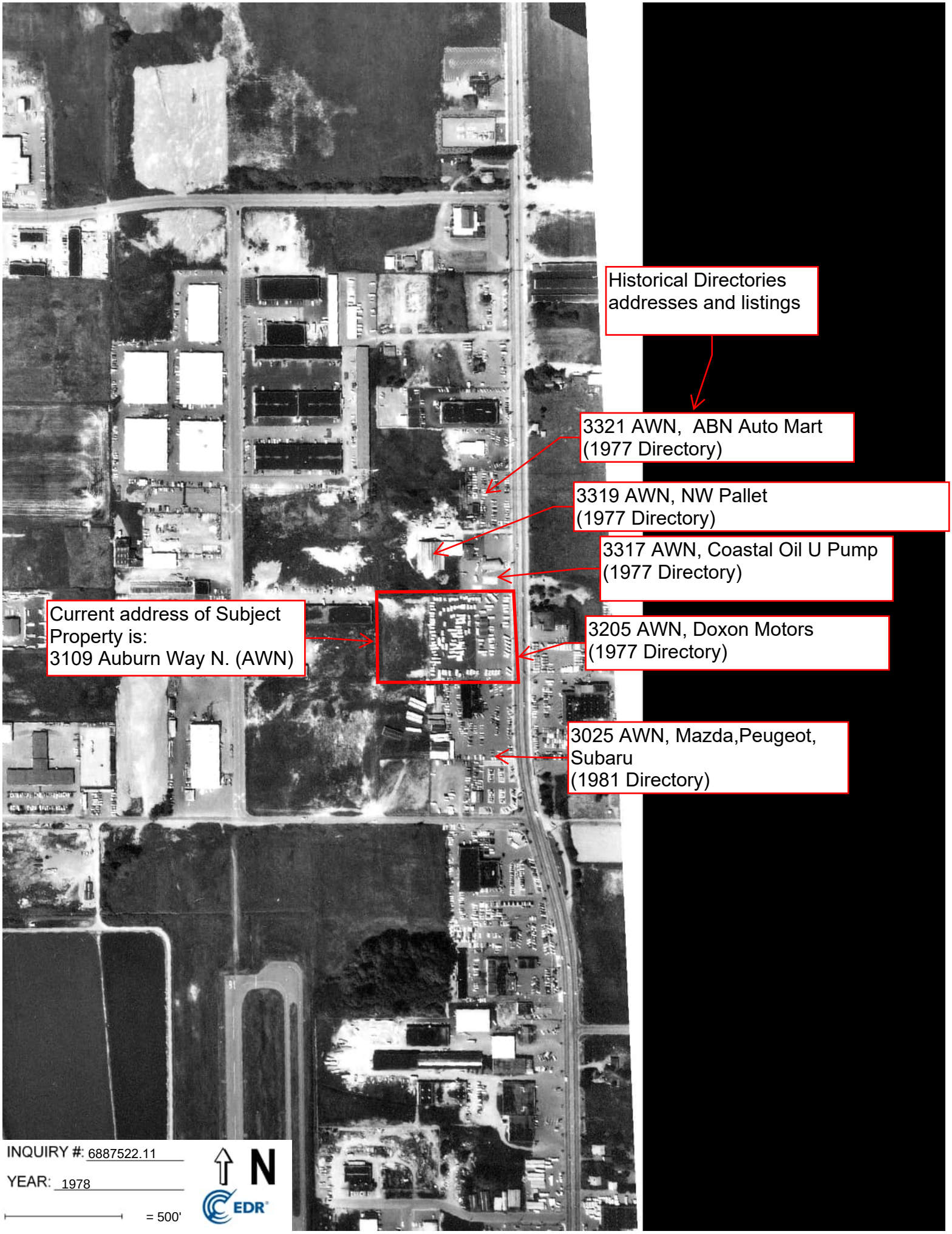

Historical Directories addresses and listings
3319 AWN, Auburn Valley SVC CTR (2010 Directory)
Current address of Subject Property is:
3109 Auburn Way N. (AWN)
3109 AWN, Auburn Volkswagen (2010 Directory)
3025 AWN, Mike Scarff Subaru (2010 Directory)
INQUIRY #: 6887522.11
YEAR: 2009
= 500'
N
EDR

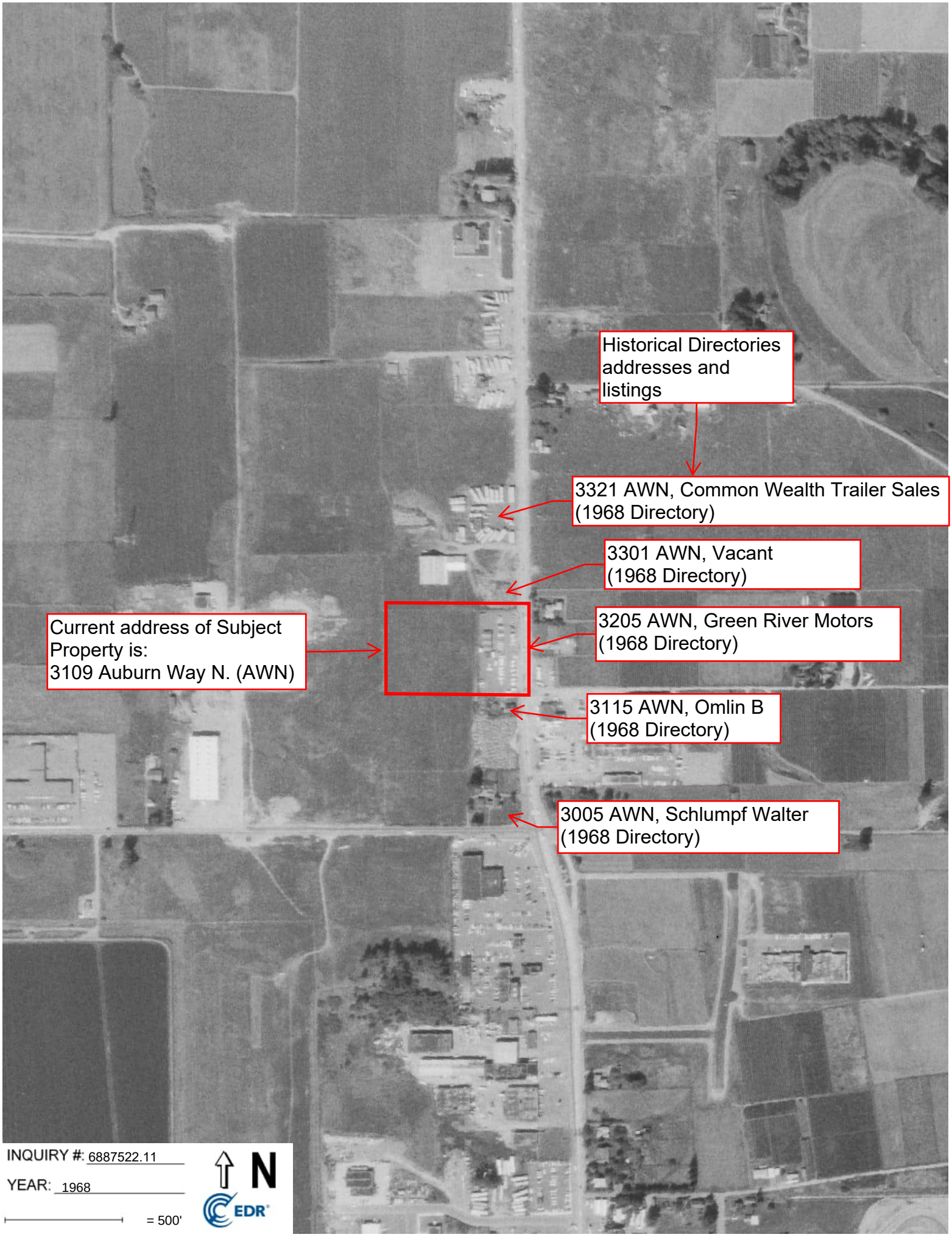

Historical Directories addresses and listings
3319 AWN, Auburn Valley SVC CTR (2010 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3109 AWN, Auburn Volkswagen (2005 Directory, first time 3109 appears)
3025 AWN, Auburn Subaru / Volkswagen (2005 Directory)
INQUIRY #: 6887522.11
YEAR: 2006
= 500'
N
EDR


Historical Directories addresses and listings
3317 AWN, Auburn Valley Mazda (1992 & 95 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3205 AWN, De Trays Pacific Housing (1995 & 2000 Directory)
3025 AWN, Auburn Subaru, Volkswagen (1992 Directory)
INQUIRY #: 6887522.11
YEAR: 1990
= 500'
N
EDR


Historical Directories addresses and listings
3317 AWN, Auburn Valley Isuzu (1986 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3205 AWN, Leisure Homes (1986 Directory)
3025 AWN, Factory Homes, Mazda,Peugeot, Subaru (1986 Directory)
3001 AWN, Hoyt Motors (1986 Directory)
INQUIRY #: 6887522.11
YEAR: 1985
= 500'
N
EDR


Historical Directories addresses and listings
3321 AWN, G Orndorff Auto (1981 Directory)
3317 AWN, Coastal Oil U Pump (1981 Directory)
Current address of Subject Property is:
3109 Auburn Way N. (AWN)
3205 AWN, Leisure Homes (1981 Directory)
3025 AWN, GEO, Mazda,Peugeot, Subaru (1981 Directory)
INQUIRY #: 6887522.11
YEAR: 1980
= 500'
N
EDR


Historical Directories addresses and listings
3321 AWN, ABN Auto Mart (1977 Directory)
3319 AWN, NW Pallet (1977 Directory)
3317 AWN, Coastal Oil U Pump (1977 Directory)
Current address of Subject Property is: 3109 Auburn Way N. (AWN)
3205 AWN, Doxon Motors (1977 Directory)
3025 AWN, Mazda,Peugeot, Subaru (1981 Directory)
INQUIRY #: 6887522.11
YEAR: 1978
= 500'
N
EDR


Historical Directories addresses and listings
3321 AWN, Common Wealth Trailer Sales (1968 Directory)
3301 AWN, Vacant (1968 Directory)
Current address of Subject Property is:
3109 Auburn Way N. (AWN)
3205 AWN, Green River Motors (1968 Directory)
3115 AWN, Omlin B (1968 Directory)
3005 AWN, Schlumpf Walter (1968 Directory)
INQUIRY #: 6887522.11
YEAR: 1968
= 500'
N
EDR


Understood to be used for mobile home trailer and car sales in early 1960s.
INQUIRY #: 6887522.11
YEAR: 1965
= 500'
N
EDR


INQUIRY #: 6887522.11
YEAR: 1957
= 500'
N
EDR

INQUIRY #: 6887522.11

YEAR: 1943

= 500'

N

EDR

# Appendix B

**DRAFT**

April 9, 2024

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

Dear Mr. Hatch:

As requested, we have reviewed the report issued by Apex Laboratories, LLC on May 26, 2023 for your Auburn VW, Apex WO A3E1138 project. This report included results from the testing of water samples collected at various locations at the site. The purpose of this review was to provide further information regarding the nature of the contamination present at this Site.

## WATER SAMPLE ANALYSIS SUMMARY

The analytical work completed at Apex included testing of the water samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP for diesel and oil range hydrocarbons with and without silica gel column cleanup (SGCC) using a gas chromatograph fitted with a flame ionization detector (GC/FID) following WDOE Method NWTPH-Dx. In addition, the samples were analyzed for total and dissolved arsenic using an inductively coupled plasma mass spectrometer (ICP-MS) following EPA Method 6020B. The results of this testing are provided in Appendix A.

## DISCUSSION OF WATER SAMPLE RESULTS

### NWTPH-Dx Results Before and After SGCC

Review of the NWTPH-Dx results generated before SGCC shows that the level of diesel range hydrocarbons quantified in the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP was between 130 ug/L and 230 ug/L. After SGCC was employed, diesel range hydrocarbons were not identified in these samples at or above the analytical reporting limit. The reduction in the level of diesel range hydrocarbons after SGCC indicates that the material present in these samples is polar/semipolar in origin and below MTCA A cleanup levels.

### Total and Dissolved Arsenic Results

A summary of the total and field filtered dissolved arsenic results for the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP is provided in Table 1. The samples MW-2 and

MW-5 were also filtered in the laboratory using 0.45 um and 0.22 um filters. The dissolved arsenic results after lab filtration are also provided in Table 1.

**Table 1.** Total and Dissolved Arsenic in Water Samples (ug/L)

| | **Total As** | **Dissolved As** Field Filter | **Dissolved As** 0.45 um Filter | **Dissolved As** 0.22 um Filter |
|---|---|---|---|---|
| MW-1 | 62 | 65 | - | - |
| MW-2 | 86 | 90 | 3.7 | <3.5 |
| MW-3 | 25 | 25 | - | - |
| MW-4 | 8.4 | 9.2 | - | - |
| MW-5 | 49 | 51 | 3.3 | <3.0 |
| MW-DUP | 26 | 26 | - | - |

Review of Table 1 shows that the level of total arsenic and dissolved arsenic after field filtration in the samples MW-1, MW-2, MW-3, MW-4, MW-5, and MW-DUP was approximately the same. However, the level of dissolved arsenic was significantly reduced in the samples MW-2 and MW-5 after the 0.45 um and 0.22 um lab filters were used. This indicates that the filters used in the field did not effectively remove particles greater than or equal to 0.45 um in the samples and the arsenic quantifications in Table 1 after field filtering should not be relied upon.

Based on the above we recommend changing the type of field filters used at this Site. The current data indicates that if filters that provide an absolute, as opposed to average, removal of particles greater than 0.45 um in size are used, it will likely result in arsenic quantifications below the current MTCA A cleanup level of 8 ppb.

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

Respectfully,

Kurt Johnson, Senior Chemist
Director of Forensic Services
Apex Laboratories, LLC

Enclosures

# APPENDIX A

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Friday, May 26, 2023

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A3E1138 - Auburn VW - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A3E1138, which was received by the laboratory on 5/5/2023 at 10:30:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

---

Cooler Receipt Information

(See Cooler Receipt Form for details)

| | | | |
|---|---|---|---|
| Cooler #1 | 1.2 degC | Cooler #2 | 1.7 degC |

---

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

---

Apex Laboratories

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-1 | A3E1138-01 | Water | 05/04/23 10:45 | 05/05/23 10:30 |
| MW-2 | A3E1138-02 | Water | 05/04/23 10:05 | 05/05/23 10:30 |
| MW-3 | A3E1138-03 | Water | 05/04/23 12:45 | 05/05/23 10:30 |
| MW-4 | A3E1138-04 | Water | 05/04/23 12:00 | 05/05/23 10:30 |
| MW-5 | A3E1138-05 | Water | 05/04/23 11:25 | 05/05/23 10:30 |
| MW-DUP | A3E1138-06 | Water | 05/04/23 12:50 | 05/05/23 10:30 |
| MW-2 (0.45 um) | A3E1138-07 | Water | 05/04/23 10:05 | 05/05/23 10:30 |
| MW-2 (0.22 um) | A3E1138-08 | Water | 05/04/23 10:05 | 05/05/23 10:30 |
| MW-5 (0.45 um) | A3E1138-09 | Water | 05/04/23 11:25 | 05/05/23 10:30 |
| MW-5 (0.22 um) | A3E1138-10 | Water | 05/04/23 11:25 | 05/05/23 10:30 |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **230** | --- | 76.9 | ug/L | 1 | 05/11/23 20:11 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 154 | ug/L | 1 | 05/11/23 20:11 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 86 %* | *Limits: 50-150 %* | | *1* | *05/11/23 20:11* | *NWTPH-Dx LL* | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **229** | --- | 76.9 | ug/L | 1 | 05/11/23 20:35 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 154 | ug/L | 1 | 05/11/23 20:35 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 82 %* | *Limits: 50-150 %* | | *1* | *05/11/23 20:35* | *NWTPH-Dx LL* | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **205** | --- | 76.9 | ug/L | 1 | 05/11/23 20:59 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 154 | ug/L | 1 | 05/11/23 20:59 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 94 %* | *Limits: 50-150 %* | | *1* | *05/11/23 20:59* | *NWTPH-Dx LL* | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **129** | --- | 77.7 | ug/L | 1 | 05/11/23 21:22 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 155 | ug/L | 1 | 05/11/23 21:22 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 94 %* | *Limits: 50-150 %* | | *1* | *05/11/23 21:22* | *NWTPH-Dx LL* | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **137** | --- | 76.9 | ug/L | 1 | 05/11/23 21:46 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 154 | ug/L | 1 | 05/11/23 21:46 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 81 %* | *Limits: 50-150 %* | | *1* | *05/11/23 21:46* | *NWTPH-Dx LL* | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | **Batch: 23E0480** | | |
| **Diesel** | **208** | --- | 76.9 | ug/L | 1 | 05/11/23 22:10 | NWTPH-Dx LL | **F-13** |
| Oil | ND | --- | 154 | ug/L | 1 | 05/11/23 22:10 | NWTPH-Dx LL | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 82 %* | *Limits: 50-150 %* | | *1* | *05/11/23 22:10* | *NWTPH-Dx LL* | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 76.9 | ug/L | 1 | 05/18/23 23:41 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 154 | ug/L | 1 | 05/18/23 23:41 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 79 %* | | *Limits: 50-150 %* | *1* | *05/18/23 23:41* | *NWTPH-Dx/SGC* | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 76.9 | ug/L | 1 | 05/19/23 00:05 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 154 | ug/L | 1 | 05/19/23 00:05 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 77 %* | | *Limits: 50-150 %* | *1* | *05/19/23 00:05* | *NWTPH-Dx/SGC* | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 76.9 | ug/L | 1 | 05/19/23 00:29 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 154 | ug/L | 1 | 05/19/23 00:29 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 91 %* | | *Limits: 50-150 %* | *1* | *05/19/23 00:29* | *NWTPH-Dx/SGC* | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 77.7 | ug/L | 1 | 05/19/23 00:52 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 155 | ug/L | 1 | 05/19/23 00:52 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 84 %* | | *Limits: 50-150 %* | *1* | *05/19/23 00:52* | *NWTPH-Dx/SGC* | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 76.9 | ug/L | 1 | 05/19/23 01:16 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 154 | ug/L | 1 | 05/19/23 01:16 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 86 %* | | *Limits: 50-150 %* | *1* | *05/19/23 01:16* | *NWTPH-Dx/SGC* | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | **Batch: 23E0826** | | |
| Diesel | ND | --- | 76.9 | ug/L | 1 | 05/19/23 01:39 | NWTPH-Dx/SGC | |
| Oil | ND | --- | 154 | ug/L | 1 | 05/19/23 01:39 | NWTPH-Dx/SGC | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 84 %* | | *Limits: 50-150 %* | *1* | *05/19/23 01:39* | *NWTPH-Dx/SGC* | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 14:33 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 95 %* | *Limits: 50-150 %* | *1* | *05/09/23 14:33* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *102 %* | *50-150 %* | *1* | *05/09/23 14:33* | *NWTPH-Gx (MS)* | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 14:56 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 97 %* | *Limits: 50-150 %* | *1* | *05/09/23 14:56* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *101 %* | *50-150 %* | *1* | *05/09/23 14:56* | *NWTPH-Gx (MS)* | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 16:25 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 96 %* | *Limits: 50-150 %* | *1* | *05/09/23 16:25* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *103 %* | *50-150 %* | *1* | *05/09/23 16:25* | *NWTPH-Gx (MS)* | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 15:18 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 93 %* | *Limits: 50-150 %* | *1* | *05/09/23 15:18* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *100 %* | *50-150 %* | *1* | *05/09/23 15:18* | *NWTPH-Gx (MS)* | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 15:40 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 93 %* | *Limits: 50-150 %* | *1* | *05/09/23 15:40* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *101 %* | *50-150 %* | *1* | *05/09/23 15:40* | *NWTPH-Gx (MS)* | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 05/09/23 16:03 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 99 %* | *Limits: 50-150 %* | *1* | *05/09/23 16:03* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *103 %* | *50-150 %* | *1* | *05/09/23 16:03* | *NWTPH-Gx (MS)* | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### BTEX Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 14:33 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 14:33 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 14:33 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 14:33 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *91 %* | *Limits:* *80-120 %* | *1* | *05/09/23 14:33* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *99 %* | *80-120 %* | *1* | *05/09/23 14:33* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *103 %* | *80-120 %* | *1* | *05/09/23 14:33* | *EPA 8260D* | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 14:56 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 14:56 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 14:56 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 14:56 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *90 %* | *Limits:* *80-120 %* | *1* | *05/09/23 14:56* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *100 %* | *80-120 %* | *1* | *05/09/23 14:56* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | *80-120 %* | *1* | *05/09/23 14:56* | *EPA 8260D* | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 16:25 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 16:25 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 16:25 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 16:25 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *90 %* | *Limits:* *80-120 %* | *1* | *05/09/23 16:25* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *101 %* | *80-120 %* | *1* | *05/09/23 16:25* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *102 %* | *80-120 %* | *1* | *05/09/23 16:25* | *EPA 8260D* | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 15:18 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 15:18 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 15:18 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 15:18 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *91 %* | *Limits:* *80-120 %* | *1* | *05/09/23 15:18* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *101 %* | *80-120 %* | *1* | *05/09/23 15:18* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *108 %* | *80-120 %* | *1* | *05/09/23 15:18* | *EPA 8260D* | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 15:40 | EPA 8260D | |

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### BTEX Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 15:40 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 15:40 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 15:40 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *89 %* | *Limits:* *80-120 %* | *1* | *05/09/23 15:40* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *100 %* | *80-120 %* | *1* | *05/09/23 15:40* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | *80-120 %* | *1* | *05/09/23 15:40* | *EPA 8260D* | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | **Batch: 23E0374** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 05/09/23 16:03 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 05/09/23 16:03 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 05/09/23 16:03 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 05/09/23 16:03 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *88 %* | *Limits:* *80-120 %* | *1* | *05/09/23 16:03* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *101 %* | *80-120 %* | *1* | *05/09/23 16:03* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *102 %* | *80-120 %* | *1* | *05/09/23 16:03* | *EPA 8260D* | |

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0456 | | | | | | | | |
| **Arsenic** | **62.2** | --- | 1.00 | ug/L | 1 | 05/10/23 18:39 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:39 | EPA 6020B | |
| **Chromium** | **3.31** | --- | 2.00 | ug/L | 1 | 05/10/23 18:39 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:39 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 18:39 | EPA 6020B | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0456 | | | | | | | | |
| **Arsenic** | **86.1** | --- | 1.00 | ug/L | 1 | 05/10/23 18:45 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:45 | EPA 6020B | |
| **Chromium** | **2.30** | --- | 2.00 | ug/L | 1 | 05/10/23 18:45 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:45 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 18:45 | EPA 6020B | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0456 | | | | | | | | |
| **Arsenic** | **25.0** | --- | 1.00 | ug/L | 1 | 05/10/23 18:50 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:50 | EPA 6020B | |
| **Chromium** | **3.80** | --- | 2.00 | ug/L | 1 | 05/10/23 18:50 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:50 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 18:50 | EPA 6020B | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0456 | | | | | | | | |
| **Arsenic** | **8.36** | --- | 1.00 | ug/L | 1 | 05/10/23 18:56 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:56 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 05/10/23 18:56 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 18:56 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 18:56 | EPA 6020B | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0456 | | | | | | | | |
| **Arsenic** | **49.4** | --- | 1.00 | ug/L | 1 | 05/10/23 19:02 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 19:02 | EPA 6020B | |
| **Chromium** | **3.70** | --- | 2.00 | ug/L | 1 | 05/10/23 19:02 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 19:02 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 19:02 | EPA 6020B | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

**MW-DUP (A3E1138-06)** — **Matrix: Water**

Batch: 23E0456

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **Arsenic** | **26.1** | --- | 1.00 | ug/L | 1 | 05/10/23 19:07 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/10/23 19:07 | EPA 6020B | |
| **Chromium** | **3.88** | --- | 2.00 | ug/L | 1 | 05/10/23 19:07 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/10/23 19:07 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/10/23 19:07 | EPA 6020B | |

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|---|---|---|
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| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **65.2** | --- | 1.00 | ug/L | 1 | 05/17/23 17:17 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:17 | EPA 6020B (Diss) | |
| **Chromium** | **3.05** | --- | 2.00 | ug/L | 1 | 05/17/23 17:17 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:17 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 17:17 | EPA 6020B (Diss) | Q-42 |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **90.2** | --- | 1.00 | ug/L | 1 | 05/17/23 17:32 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:32 | EPA 6020B (Diss) | |
| **Chromium** | **2.19** | --- | 2.00 | ug/L | 1 | 05/17/23 17:32 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:32 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 17:32 | EPA 6020B (Diss) | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **24.5** | --- | 1.00 | ug/L | 1 | 05/17/23 17:36 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:36 | EPA 6020B (Diss) | |
| **Chromium** | **3.56** | --- | 2.00 | ug/L | 1 | 05/17/23 17:36 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:36 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 17:36 | EPA 6020B (Diss) | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **9.24** | --- | 1.00 | ug/L | 1 | 05/17/23 17:41 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:41 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 05/17/23 17:41 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:41 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 17:41 | EPA 6020B (Diss) | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **51.2** | --- | 1.00 | ug/L | 1 | 05/17/23 17:46 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:46 | EPA 6020B (Diss) | |
| **Chromium** | **3.44** | --- | 2.00 | ug/L | 1 | 05/17/23 17:46 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 17:46 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 17:46 | EPA 6020B (Diss) | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0770 | | | | | | | | |
| **Arsenic** | **26.2** | --- | 1.00 | ug/L | 1 | 05/17/23 18:01 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 05/17/23 18:01 | EPA 6020B (Diss) | |
| **Chromium** | **3.72** | --- | 2.00 | ug/L | 1 | 05/17/23 18:01 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 05/17/23 18:01 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 05/17/23 18:01 | EPA 6020B (Diss) | |
| **MW-2 (0.45 um) (A3E1138-07)** | | | | **Matrix: Water** | | | | |
| Batch: 23E1110 | | | | | | | | |
| **Arsenic** | **3.72** | --- | 3.00 | ug/L | 1 | 05/25/23 19:49 | EPA 6020B (Diss) | **FILT1** |
| **MW-2 (0.22 um) (A3E1138-08)** | | | | **Matrix: Water** | | | | |
| Batch: 23E1112 | | | | | | | | |
| Arsenic | ND | --- | 3.46 | ug/L | 1 | 05/25/23 20:23 | EPA 6020B (Diss) | FILT1, R-03 |
| **MW-5 (0.45 um) (A3E1138-09)** | | | | **Matrix: Water** | | | | |
| Batch: 23E1110 | | | | | | | | |
| **Arsenic** | **3.33** | --- | 2.25 | ug/L | 1 | 05/25/23 19:58 | EPA 6020B (Diss) | **FILT1** |
| **MW-5 (0.22 um) (A3E1138-10)** | | | | **Matrix: Water** | | | | |
| Batch: 23E1112 | | | | | | | | |
| Arsenic | ND | --- | 3.00 | ug/L | 1 | 05/25/23 20:43 | EPA 6020B (Diss) | FILT1, R-03 |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **93500** | --- | 20000 | ug/L | 20 | 05/10/23 02:59 | SM 5310 C | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **47000** | --- | 10000 | ug/L | 10 | 05/10/23 03:29 | SM 5310 C | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **88800** | --- | 20000 | ug/L | 20 | 05/10/23 03:59 | SM 5310 C | |
| **MW-4 (A3E1138-04RE1)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **25400** | --- | 2000 | ug/L | 2 | 05/10/23 18:37 | SM 5310 C | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **40600** | --- | 10000 | ug/L | 10 | 05/10/23 04:59 | SM 5310 C | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | **Batch: 23E0387** | | |
| **Total Organic Carbon** | **88000** | --- | 20000 | ug/L | 20 | 05/10/23 05:29 | SM 5310 C | |

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ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## ANALYTICAL SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A3E1138-01)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0409 | | | | | | | | |
| **Total Dissolved Solids** | **718000** | --- | 10000 | ug/L | 1 | 05/09/23 18:10 | SM 2540 C | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **225000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| **MW-2 (A3E1138-02)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0409 | | | | | | | | |
| **Total Dissolved Solids** | **379000** | --- | 5000 | ug/L | 1 | 05/09/23 18:10 | SM 2540 C | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **190000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| **MW-3 (A3E1138-03)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **179000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| Batch: 23E0538 | | | | | | | | |
| **Total Dissolved Solids** | **914000** | --- | 10000 | ug/L | 1 | 05/11/23 18:49 | SM 2540 C | |
| **MW-4 (A3E1138-04)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **60000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| Batch: 23E0538 | | | | | | | | |
| **Total Dissolved Solids** | **410000** | --- | 5000 | ug/L | 1 | 05/11/23 18:49 | SM 2540 C | |
| **MW-5 (A3E1138-05)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **118000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| Batch: 23E0538 | | | | | | | | |
| **Total Dissolved Solids** | **394000** | --- | 5000 | ug/L | 1 | 05/11/23 18:49 | SM 2540 C | |
| **MW-DUP (A3E1138-06)** | | | | **Matrix: Water** | | | | |
| Batch: 23E0488 | | | | | | | | |
| **Total Suspended Solids** | **177000** | --- | 5000 | ug/L | 1 | 05/11/23 16:34 | SM 2540 D | |
| Batch: 23E0538 | | | | | | | | |
| **Total Dissolved Solids** | **856000** | --- | 10000 | ug/L | 1 | 05/11/23 18:49 | SM 2540 C | |

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|---|---|---|
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0480 - EPA 3510C (Fuels/Acid Ext.)** | | | | | | | | | | | | **Water** |
| **Blank (23E0480-BLK1)** | | | Prepared: 05/11/23 07:10 | | Analyzed: 05/11/23 18:11 | | | | | | | |
| NWTPH-Dx LL | | | | | | | | | | | | |
| Diesel | ND | --- | 80.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil | ND | --- | 160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 97 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | |
| **LCS (23E0480-BS1)** | | | Prepared: 05/11/23 07:10 | | Analyzed: 05/11/23 18:35 | | | | | | | |
| NWTPH-Dx LL | | | | | | | | | | | | |
| Diesel | 389 | --- | 80.0 | ug/L | 1 | 500 | --- | 78 | 36 - 132% | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 99 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | |
| **LCS Dup (23E0480-BSD1)** | | | Prepared: 05/11/23 07:10 | | Analyzed: 05/11/23 18:59 | | | | | | | **Q-19** |
| NWTPH-Dx LL | | | | | | | | | | | | |
| Diesel | 361 | --- | 80.0 | ug/L | 1 | 500 | --- | 72 | 36 - 132% | 8 | 30% | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 96 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | |

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0826 - EPA 3510C (Fuels/Acid Ext.) w/Silica Gel Column** | | | | | | | | | Water | | | |
| **Blank (23E0826-BLK1)** | | Prepared: 05/11/23 07:10 | | Analyzed: 05/18/23 22:30 | | | | | | | | |
| NWTPH-Dx/SGC | | | | | | | | | | | | |
| Diesel | ND | --- | 80.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil | ND | --- | 160 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 92 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS (23E0826-BS1)** | | Prepared: 05/11/23 07:10 | | Analyzed: 05/18/23 22:54 | | | | | | | | |
| NWTPH-Dx/SGC | | | | | | | | | | | | |
| Diesel | 418 | --- | 80.0 | ug/L | 1 | 500 | --- | 84 | 36 - 132% | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 88 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS Dup (23E0826-BSD1)** | | Prepared: 05/11/23 07:10 | | Analyzed: 05/18/23 23:18 | | | | | | | | **Q-19** |
| NWTPH-Dx/SGC | | | | | | | | | | | | |
| Diesel | 418 | --- | 80.0 | ug/L | 1 | 500 | --- | 84 | 36 - 132% | 0.07 | 30% | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 91 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0374 - EPA 5030C** | | | | | | | | | Water | | | |
| **Blank (23E0374-BLK1)** | | Prepared: 05/09/23 12:00 | | Analyzed: 05/09/23 13:00 | | | | | | | | |
| NWTPH-Gx (MS) | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 95 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | *102 %* | | *50-150 %* | | | *"* | | | | | |
| **LCS (23E0374-BS2)** | | Prepared: 05/09/23 12:00 | | Analyzed: 05/09/23 12:38 | | | | | | | | |
| NWTPH-Gx (MS) | | | | | | | | | | | | |
| Gasoline Range Organics | 521 | --- | 100 | ug/L | 1 | 500 | --- | 104 | 80 - 120% | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 102 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | *103 %* | | *50-150 %* | | | *"* | | | | | |

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ANALYTICAL REPORT

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### BTEX Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0374 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (23E0374-BLK1)** | | Prepared: 05/09/23 12:00 | | Analyzed: 05/09/23 13:00 | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 93 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *99 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *102 %* | | *80-120 %* | | | *"* | | | | | |
| **LCS (23E0374-BS1)** | | Prepared: 05/09/23 12:00 | | Analyzed: 05/09/23 12:16 | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Benzene | 17.3 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 86 | 80 - 120% | --- | --- | |
| Toluene | 18.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 92 | 80 - 120% | --- | --- | |
| Ethylbenzene | 20.5 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| Xylenes, total | 65.6 | --- | 1.50 | ug/L | 1 | 60.0 | --- | 109 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 92 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *97 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *92 %* | | *80-120 %* | | | *"* | | | | | |

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ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0456 - EPA 3015A** | | | | | | | | | | | | **Water** |
| **Blank (23E0456-BLK1)** | | Prepared: 05/10/23 11:26 | | Analyzed: 05/10/23 17:32 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (23E0456-BS1)** | | Prepared: 05/10/23 11:26 | | Analyzed: 05/10/23 17:38 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 55.7 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 100 | 80 - 120% | --- | --- | |
| Cadmium | 56.3 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 101 | 80 - 120% | --- | --- | |
| Chromium | 54.9 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 99 | 80 - 120% | --- | --- | |
| Lead | 58.7 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 106 | 80 - 120% | --- | --- | |
| Mercury | 1.01 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 91 | 80 - 120% | --- | --- | |

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| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0770 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (23E0770-BLK1)** | | Prepared: 05/17/23 12:42 | | Analyzed: 05/17/23 17:07 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (23E0770-BS1)** | | Prepared: 05/17/23 12:42 | | Analyzed: 05/17/23 17:12 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 51.4 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 92 | 80 - 120% | --- | --- | |
| Cadmium | 56.5 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 102 | 80 - 120% | --- | --- | |
| Chromium | 54.1 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Lead | 56.4 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 101 | 80 - 120% | --- | --- | |
| Mercury | 0.986 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 89 | 80 - 120% | --- | --- | |
| **Duplicate (23E0770-DUP1)** | | Prepared: 05/17/23 12:42 | | Analyzed: 05/17/23 17:22 | | | | | | | | |
| **QC Source Sample: MW-1 (A3E1138-01RE1)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | **66.1** | --- | 1.00 | ug/L | 1 | --- | 65.2 | --- | --- | 1 | 20% | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Chromium | **3.15** | --- | 2.00 | ug/L | 1 | --- | 3.05 | --- | --- | 3 | 20% | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| **Matrix Spike (23E0770-MS1)** | | Prepared: 05/17/23 12:42 | | Analyzed: 05/17/23 17:27 | | | | | | | | |
| **QC Source Sample: MW-1 (A3E1138-01RE1)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 127 | --- | 1.00 | ug/L | 1 | 55.6 | 65.2 | 112 | 75 - 125% | --- | --- | |
| Cadmium | 57.1 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 103 | 75 - 125% | --- | --- | |
| Chromium | 57.6 | --- | 2.00 | ug/L | 1 | 55.6 | 3.05 | 98 | 75 - 125% | --- | --- | |
| Lead | 53.7 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 97 | 75 - 125% | --- | --- | |
| Mercury | 0.660 | --- | 0.0800 | ug/L | 1 | 1.11 | ND | **59** | **75 - 125%** | --- | --- | Q-01 |

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ORELAP ID: **OR100062**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E1110 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (23E1110-BLK1)** | | Prepared: 05/25/23 16:38 | | Analyzed: 05/25/23 19:39 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | FILT3 |
| **LCS (23E1110-BS1)** | | Prepared: 05/25/23 16:38 | | Analyzed: 05/25/23 19:44 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 52.5 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 94 | 80 - 120% | --- | --- | |
| **Duplicate (23E1110-DUP1)** | | Prepared: 05/25/23 16:38 | | Analyzed: 05/25/23 19:54 | | | | | | | | |
| **QC Source Sample: MW-2 (0.45 um) (A3E1138-07)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | **3.74** | --- | 3.00 | ug/L | 1 | --- | 3.72 | --- | --- | 0.5 | 20% | FILT1 |
| **Matrix Spike (23E1110-MS1)** | | Prepared: 05/25/23 16:38 | | Analyzed: 05/25/23 20:03 | | | | | | | | |
| **QC Source Sample: MW-5 (0.45 um) (A3E1138-09)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 123 | --- | 2.25 | ug/L | 1 | 125 | 3.33 | 95 | 75 - 125% | --- | --- | FILT1 |

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| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E1112 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (23E1112-BLK1)** | | Prepared: 05/25/23 16:42 | | Analyzed: 05/25/23 20:13 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 3.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | FILT3a |
| **LCS (23E1112-BS1)** | | Prepared: 05/25/23 16:42 | | Analyzed: 05/25/23 20:18 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 156 | --- | 3.00 | ug/L | 1 | 167 | --- | 94 | 80 - 120% | --- | --- | |
| **Duplicate (23E1112-DUP1)** | | Prepared: 05/25/23 16:42 | | Analyzed: 05/25/23 20:38 | | | | | | | | |
| **QC Source Sample: MW-2 (0.22 um) (A3E1138-08)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 3.46 | ug/L | 1 | --- | 3.09 | --- | --- | *** | 20% | FILT1, R-03 |
| **Matrix Spike (23E1112-MS1)** | | Prepared: 05/25/23 16:42 | | Analyzed: 05/25/23 20:48 | | | | | | | | |
| **QC Source Sample: MW-5 (0.22 um) (A3E1138-10)** | | | | | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 164 | --- | 3.00 | ug/L | 1 | 167 | 1.71 | 97 | 75 - 125% | --- | --- | FILT1 |

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0387 - Method Prep: Aq** | | | | | | | **Water** | | | | | |
| **Blank (23E0387-BLK1)** | | Prepared: 05/09/23 11:01 | | Analyzed: 05/09/23 15:23 | | | | | | | | |
| SM 5310 C | | | | | | | | | | | | |
| Total Organic Carbon | ND | --- | 1000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (23E0387-BS1)** | | Prepared: 05/09/23 11:01 | | Analyzed: 05/09/23 15:53 | | | | | | | | |
| SM 5310 C | | | | | | | | | | | | |
| Total Organic Carbon | 10200 | --- | 1000 | ug/L | 1 | 10000 | --- | 102 | 90 - 114% | --- | --- | |

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ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0409 - Total Dissolved Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (23E0409-BLK1)** | | Prepared: 05/09/23 18:10 | | Analyzed: 05/09/23 18:10 | | | | | | | | |
| SM 2540 C | | | | | | | | | | | | |
| Total Dissolved Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (23E0409-SRM1)** | | Prepared: 05/09/23 18:10 | | Analyzed: 05/09/23 18:10 | | | | | | | | |
| SM 2540 C | | | | | | | | | | | | |
| Total Dissolved Solids | 2520 | --- | | mg/L | 1 | 2320 | | 109 | 81 - 119% | --- | --- | |

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ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0488 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (23E0488-BLK1)** | | Prepared: 05/11/23 16:34 | | Analyzed: 05/11/23 16:34 | | | | | | | | |
| SM 2540 D | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (23E0488-SRM1)** | | Prepared: 05/11/23 16:34 | | Analyzed: 05/11/23 16:34 | | | | | | | | |
| SM 2540 D | | | | | | | | | | | | |
| Total Suspended Solids | 890 | --- | | mg/L | 1 | 926 | | 96.1 | 85 - 116% | --- | --- | |

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 23E0538 - Total Dissolved Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (23E0538-BLK1)** | | Prepared: 05/11/23 18:49 | | Analyzed: 05/11/23 18:49 | | | | | | | | |
| SM 2540 C | | | | | | | | | | | | |
| Total Dissolved Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (23E0538-SRM1)** | | Prepared: 05/11/23 18:49 | | Analyzed: 05/11/23 18:49 | | | | | | | | |
| SM 2540 C | | | | | | | | | | | | |
| Total Dissolved Solids | 2480 | --- | | mg/L | 1 | 2340 | | 106 | 82 - 118% | --- | --- | |

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ANALYTICAL REPORT

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
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## SAMPLE PREPARATION INFORMATION

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0480 | | | | | | | |
| A3E1138-01 | Water | NWTPH-Dx LL | 05/04/23 10:45 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-02 | Water | NWTPH-Dx LL | 05/04/23 10:05 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-03 | Water | NWTPH-Dx LL | 05/04/23 12:45 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-04 | Water | NWTPH-Dx LL | 05/04/23 12:00 | 05/11/23 10:44 | 1030mL/2mL | 1000mL/2mL | 0.97 |
| A3E1138-05 | Water | NWTPH-Dx LL | 05/04/23 11:25 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-06 | Water | NWTPH-Dx LL | 05/04/23 12:50 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx with Silica Gel Column Cleanup

Prep: EPA 3510C (Fuels/Acid Ext.) w/Silica Gel Column

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0826 | | | | | | | |
| A3E1138-01 | Water | NWTPH-Dx/SGC | 05/04/23 10:45 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-02 | Water | NWTPH-Dx/SGC | 05/04/23 10:05 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-03 | Water | NWTPH-Dx/SGC | 05/04/23 12:45 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-04 | Water | NWTPH-Dx/SGC | 05/04/23 12:00 | 05/11/23 10:44 | 1030mL/2mL | 1000mL/2mL | 0.97 |
| A3E1138-05 | Water | NWTPH-Dx/SGC | 05/04/23 11:25 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |
| A3E1138-06 | Water | NWTPH-Dx/SGC | 05/04/23 12:50 | 05/11/23 10:44 | 1040mL/2mL | 1000mL/2mL | 0.96 |

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0374 | | | | | | | |
| A3E1138-01 | Water | NWTPH-Gx (MS) | 05/04/23 10:45 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-02 | Water | NWTPH-Gx (MS) | 05/04/23 10:05 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-03 | Water | NWTPH-Gx (MS) | 05/04/23 12:45 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-04 | Water | NWTPH-Gx (MS) | 05/04/23 12:00 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-05 | Water | NWTPH-Gx (MS) | 05/04/23 11:25 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-06 | Water | NWTPH-Gx (MS) | 05/04/23 12:50 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |

### BTEX Compounds by EPA 8260D

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0374 | | | | | | | |

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## SAMPLE PREPARATION INFORMATION

### BTEX Compounds by EPA 8260D

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A3E1138-01 | Water | EPA 8260D | 05/04/23 10:45 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-02 | Water | EPA 8260D | 05/04/23 10:05 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-03 | Water | EPA 8260D | 05/04/23 12:45 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-04 | Water | EPA 8260D | 05/04/23 12:00 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-05 | Water | EPA 8260D | 05/04/23 11:25 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A3E1138-06 | Water | EPA 8260D | 05/04/23 12:50 | 05/09/23 12:00 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0456 | | | | | | | |
| A3E1138-01 | Water | EPA 6020B | 05/04/23 10:45 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-02 | Water | EPA 6020B | 05/04/23 10:05 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-03 | Water | EPA 6020B | 05/04/23 12:45 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-04 | Water | EPA 6020B | 05/04/23 12:00 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-05 | Water | EPA 6020B | 05/04/23 11:25 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-06 | Water | EPA 6020B | 05/04/23 12:50 | 05/10/23 11:26 | 45mL/50mL | 45mL/50mL | 1.00 |

### Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0770 | | | | | | | |
| A3E1138-01RE1 | Water | EPA 6020B (Diss) | 05/04/23 10:45 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-02 | Water | EPA 6020B (Diss) | 05/04/23 10:05 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-03 | Water | EPA 6020B (Diss) | 05/04/23 12:45 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-04 | Water | EPA 6020B (Diss) | 05/04/23 12:00 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-05 | Water | EPA 6020B (Diss) | 05/04/23 11:25 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| A3E1138-06 | Water | EPA 6020B (Diss) | 05/04/23 12:50 | 05/17/23 12:42 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 23E1110 | | | | | | | |
| A3E1138-07 | Water | EPA 6020B (Diss) | 05/04/23 10:05 | 05/25/23 16:38 | 15mL/50mL | 45mL/50mL | 3.00 |
| A3E1138-09 | Water | EPA 6020B (Diss) | 05/04/23 11:25 | 05/25/23 16:38 | 20mL/50mL | 45mL/50mL | 2.25 |
| Batch: 23E1112 | | | | | | | |
| A3E1138-08 | Water | EPA 6020B (Diss) | 05/04/23 10:05 | 05/25/23 16:42 | 13mL/50mL | 45mL/50mL | 3.46 |
| A3E1138-10 | Water | EPA 6020B (Diss) | 05/04/23 11:25 | 05/25/23 16:42 | 15mL/50mL | 45mL/50mL | 3.00 |

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## SAMPLE PREPARATION INFORMATION

### Dissolved Metals by EPA 6020B (ICPMS)

### Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C

Prep: Method Prep: Aq

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0387 | | | | | | | |
| A3E1138-01 | Water | SM 5310 C | 05/04/23 10:45 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |
| A3E1138-02 | Water | SM 5310 C | 05/04/23 10:05 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |
| A3E1138-03 | Water | SM 5310 C | 05/04/23 12:45 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |
| A3E1138-04RE1 | Water | SM 5310 C | 05/04/23 12:00 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |
| A3E1138-05 | Water | SM 5310 C | 05/04/23 11:25 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |
| A3E1138-06 | Water | SM 5310 C | 05/04/23 12:50 | 05/09/23 11:01 | 40mL/40mL | 40mL/40mL | 1.00 |

### Solid and Moisture Determinations

Prep: Total Dissolved Solids - 2022

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0409 | | | | | | | |
| A3E1138-01 | Water | SM 2540 C | 05/04/23 10:45 | 05/09/23 18:10 | | | NA |
| A3E1138-02 | Water | SM 2540 C | 05/04/23 10:05 | 05/09/23 18:10 | | | NA |
| Batch: 23E0538 | | | | | | | |
| A3E1138-03 | Water | SM 2540 C | 05/04/23 12:45 | 05/11/23 18:49 | | | NA |
| A3E1138-04 | Water | SM 2540 C | 05/04/23 12:00 | 05/11/23 18:49 | | | NA |
| A3E1138-05 | Water | SM 2540 C | 05/04/23 11:25 | 05/11/23 18:49 | | | NA |
| A3E1138-06 | Water | SM 2540 C | 05/04/23 12:50 | 05/11/23 18:49 | | | NA |

Prep: Total Suspended Solids - 2022

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0488 | | | | | | | |
| A3E1138-01 | Water | SM 2540 D | 05/04/23 10:45 | 05/11/23 16:34 | | | NA |
| A3E1138-02 | Water | SM 2540 D | 05/04/23 10:05 | 05/11/23 16:34 | | | NA |
| A3E1138-03 | Water | SM 2540 D | 05/04/23 12:45 | 05/11/23 16:34 | | | NA |
| A3E1138-04 | Water | SM 2540 D | 05/04/23 12:00 | 05/11/23 16:34 | | | NA |
| A3E1138-05 | Water | SM 2540 D | 05/04/23 11:25 | 05/11/23 16:34 | | | NA |
| A3E1138-06 | Water | SM 2540 D | 05/04/23 12:50 | 05/11/23 16:34 | | | NA |

### Lab Filtration

Prep: Lab Filtration

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **[none]** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## SAMPLE PREPARATION INFORMATION

### Lab Filtration

Prep: Lab Filtration

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 23E0987 | | | | | | | |
| A3E1138-07 | Water | NA | 05/04/23 10:05 | 05/23/23 16:27 | 30mL/30mL | | NA |
| A3E1138-09 | Water | NA | 05/04/23 11:25 | 05/23/23 16:41 | 40mL/40mL | | NA |
| Batch: 23E0988 | | | | | | | |
| A3E1138-08 | Water | NA | 05/04/23 10:05 | 05/23/23 16:15 | 27mL/27mL | | NA |
| A3E1138-10 | Water | NA | 05/04/23 11:25 | 05/23/23 16:41 | 32mL/32mL | | NA |

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **F-13** | The chromatographic pattern does not resemble the fuel standard used for quantitation |
| **FILT1** | Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration. |
| **FILT3** | This is a laboratory filtration blank, associated with filtration batch 23E0987. See Prep page of report for associated samples. |
| **FILT3a** | This is a laboratory filtration blank, associated with filtration batch 23E0988. See Prep page of report for associated samples. |
| **H-06** | This sample was received, or the analysis requested, outside the recommended holding time. |
| **Q-01** | Spike recovery and/or RPD is outside acceptance limits. |
| **Q-19** | Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis. |
| **Q-42** | Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.) |
| **R-03** | Elevated Reporting Limits due to limited sample volume. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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|---|---|---|
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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A3E1138 - 05 26 23 1723** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Cameron O'Brien, Project Manager

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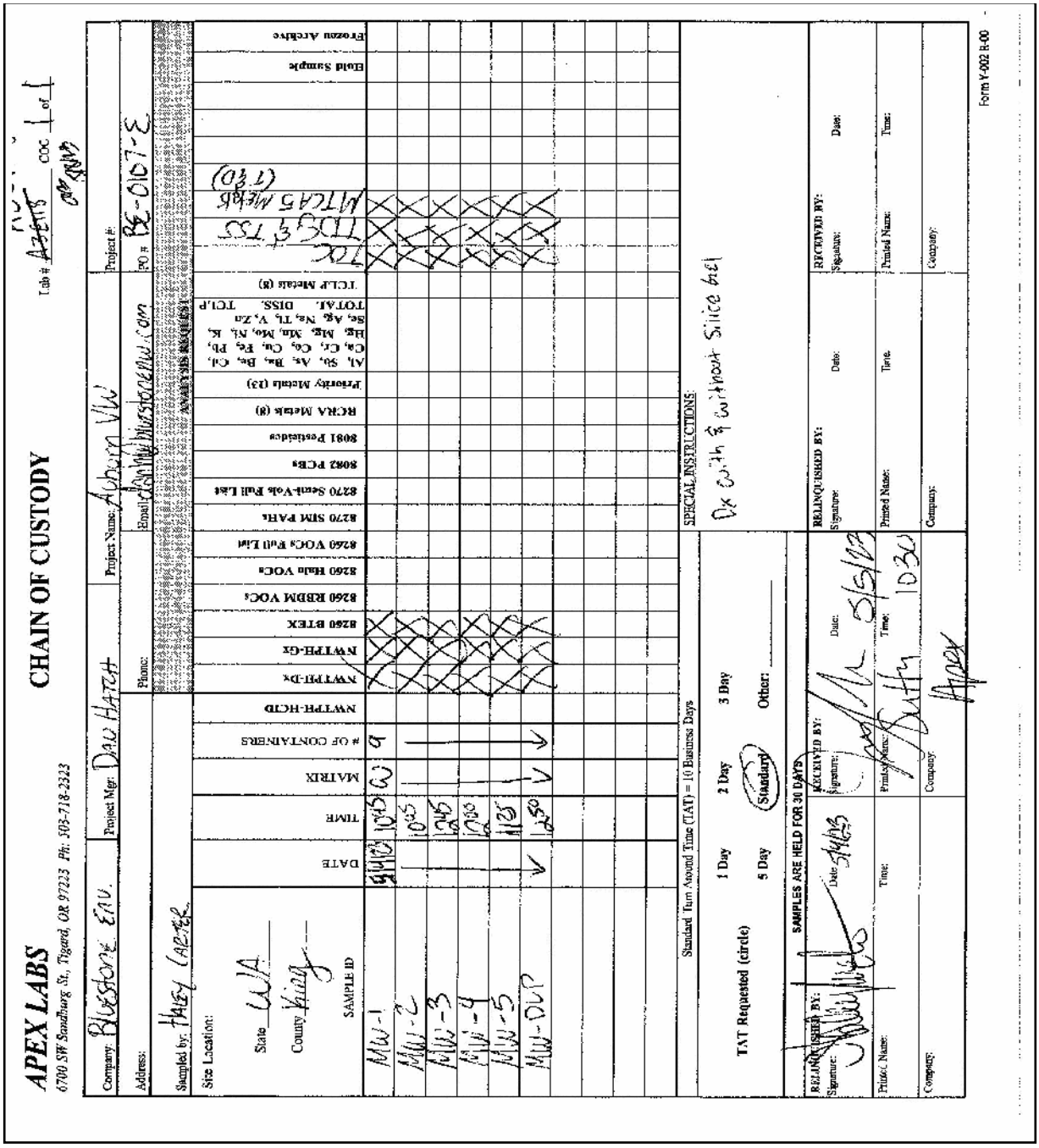


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## APEX LABS COOLER RECEIPT FORM

**Client:** Bluestone Env. Element WO#: A3E1138

**Project/Project #:** Auburn VW

**Delivery Info:**

Date/time received: 5/5/23 @ 1030 By: JS

Delivered by: Apex__Client__ESS__FedEx__UPS X Radio__Morgan__SDS__Evergreen__Other__

**Cooler Inspection** Date/time inspected: 5/5/23 @ 1033 By: JS

Chain of Custody included? Yes Y No

Signed/dated by client? Yes Y No

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 1.2 | 1.7 | | | | | |
| Custody seals? (Y/N) | N | N | | | | | |
| Received on ice? (Y/N) | Y | Y | | | | | |
| Temp. blanks? (Y/N) | Y | Y | | | | | |
| Ice type: (Gel/Real/Other) | Real | Real | | | | | |
| Condition (In/Out): | In | In | | | | | |

Cooler out of temp? (Y/(N)) Possible reason why:

Green dots applied to out of temperature samples? Yes (No)

Out of temperature samples form initiated? Yes (No)

**Sample Inspection:** Date/time inspected: 5.8.23 @ 1040 By: DJS

All samples intact? Yes X No __ Comments: 1/3 jars for MW-1 received broken

Bottle labels/COCs agree? Yes X No __ Comments:

COC/container discrepancies form initiated? Yes __ No X

Containers/volumes received appropriate for analysis? Yes X No __ Comments:

Do VOA vials have visible headspace? Yes X No __ NA __

Comments MW-1 = 1/2 HS, MW-3 = 2/3 HS, MW-4 = 2/3 HS, MW-5 = 1/3 HS, MW-DUP = 3/3 HS

Water samples: pH checked: Yes X No __ NA __ pH appropriate? Yes X No __ NA __

Comments:

Additional information: 12 X 17 ORNT 9947 7148

Labeled by: DJS Witness: JS Cooler Inspected by: DJS

Form Y-003 R-00

# Appendix C

BLUESTONE ENVIRONMENTAL, NW

# Appendix C

## FIELD EXPLORATION METHODS

Bluestone conducted the sampling in general accordance with Ecology's guidelines and regulations.

### Underground Utility Clearance

Before conducting subsurface exploration and excavation remediation, Bluestone 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 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 and stored inside a cooler/shipping container packed with ice or an ice substitute. 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 macro-core sampler. Inside the sampler is a disposable, PVC single-use sample tube. 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 Bluestone 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.

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

If installed, groundwater monitoring wells were completed 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 either 0.010 or 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 or slip 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 at a time, allowing for the resulting annular space around the well screen to be 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, Surge Block / Over Pumping

Well development efforts were completed on the newly installed groundwater monitoring well after a minimum of 24-hours. This allowed sufficient time for the well materials to cure before development procedures were initiated. The main purpose of developing new monitoring wells is to remove the residual materials remaining in the wells after installation has been completed, and to establish the natural hydraulic flow conditions of the formations which may have been disturbed by well construction. Each new 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 or an interface probe. 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 Strata-probe rod was washed between boring locations and new tubing was used between sampling locations.

## Monitoring Well Purging & Sampling

Purging and Sampling was completed in general accordance with Ecology's *Standard Operation Procedure EAP099, Version 1.*0, *Purging and Sampling Monitoring Wells for General Chemistry Parameters*, dated April 2018 and EPA's Region 4 Groundwater Sampling Operating Procedure, dated April 26, 2017.

Prior to purging, the cap(s) on the monitoring well(s) were removed, exposing the well(s) to the atmosphere, allowing the well to equilibrate for minimum of 5 to 10 minutes before collecting an initial depth to groundwater measurement and beginning purging activities.

The water-level meter or interface probe was slowly lowered into the well to assess the depth to water and/or depth to product. If product was present, the thickness was measure via the interface probe and recorded on the purge log.

### Purging Methods

The wells were purged using a low-flow purge method, in which minimal drawdown was achieved by low-flow rates. The tubing was centrally located within the screen interval or approximately in the position correlating to the top one-half to one-third of the water column. Water quality parameters were observed and recorded using a YSI-556 multiparameter instrument. Water quality parameters were measured until they were observed to stabilize, specifically within 5%~ for pH and 10%~ for other parameters, e.g., DO and conductivity, for three consecutive readings, adequately low turbidity was achieved, and the drawdown change in water level was stabilized.

During purging, sheen was assessed at each measurement interval by collecting a small quantity of purge water into a clean container.

### Sampling Methods

Groundwater sampled using a peristaltic pump was completed using the following protocol:

- The thickness 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.
- The tubing was located within the top one-half to one-third of screen interval or approximately in a position correlating to the top one-half to one-third of the water column if water was found below the top of the well screen.
- The contract laboratory prepared the sample containers to conform to EPA-recommended preservation techniques for the analytes of concern.
- Sample containers were open only as long as necessary to collect the samples.
- New tubing was slowly lowered into the water column.
- All purge water was collected for proper disposal (determined by analytical results).

Additionally, as a general practice, where applicable, sample containers for the more turbidity-sensitive analyses were filled first. Specifically, poly containers for metals analyses were filled first, followed by glass bottles for SVOCs, and finally40-ml VOAs for VOC analyses were filled last.

Purging and sampling equipment were cleaned/decontaminated between each sampling location/well using Alconox detergent in a water solution followed by rinsing in clean water.

## Monitoring Well Purging and Sampling, Low Yield Wells Sample Method

For wells that experience significant drawdown and/or run dry even while using low pumping rates, the following protocol was utilized:

- For this sampling event, a peristaltic pump was used to sample all on-site monitoring wells.
- Due to low yield conditions, samples were collected without prior purging.
- Sample containers were open only as long as necessary to collect the samples.
- The contract laboratory prepared the sample containers to conform to EPA-recommended preservation techniques for the analytes of concern.
- Collected samples were labeled with a sample number, date, and time, and stored in an ice chest containing frozen “blue ice”. Chain-of-custody procedures were followed to document sample handling.
- Dedicated tubing was used at each sampling location.
- Before use, the sampling equipment was washed and rinsed.

# Appendix D

b-1.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 60 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-1-5' | 3-5': SILTY SAND, fine grained, gray, dry, loose, no odor. | | SM | 0.0 | |
| | | | 5-13': SANDY SILT interbedded with silty sand lenses, gray, moist to wet at 12', loose, no odor. | 70 | ML | | |
| | | B-1-10' | | | | 0.0 | |
| | | B-1-13' | 13-15': SAND, fine to medium grained, dark brown, wet, loose, no odor. | 100 | | 0.0 | |
| | | B-1-15' | | | SP | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 4/24/2022 | **Other Information:** Grab groundwater sample (B-1-W) collected from open boring. Stainless steel screen placed from 8-12'. |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** Two inches | **Page** 1 of 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-1

b-2.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 60 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-2-5' | 3-5': SILTY SAND, fine grained, gray, dry, loose, no odor. | | SM | 0.0 | |
| | | | 5-13': SANDY SILT interbedded with silty sand lenses, light gray, moist to wet at 12', loose, no odor. | 70 | ML | | |
| | | B-2-10' | | | | 0.0 | |
| | | B-2-13' | 13-15': SAND, fine to medium grained, dark brown, wet, loose, no odor. | 100 | | 0.0 | |
| | | B-2-15' | | | SP | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 4/24/2022 | **Other Information:** Grab groundwater sample (B-2-W) collected from open boring. Stainless steel screen placed from 8-12'. |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** Two inches | **Page** 1 of 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-2

b-3.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | | 3-5': SILTY SAND, fine grained, gray, dry, loose, no odor. | | SM | | |
| | | B-3-5' | | | | 0.0 | |
| | | | 5-12': SANDY SILT interbedded with silty sand lenses, light gray, moist to wet at 12', loose, no odor. | 70 | ML | | |
| | | B-3-10' | | | | 0.0 | |
| | | B-3-12' | 12-15': SAND, fine to medium grained, dark gray, wet, loose, no odor. ▽ | 90 | SP | 0.2 | |
| | | B-3-15' | | | | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 4/24/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 60s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-3

b-4.vsdx

| Depth | BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|---|
| 0 | | | | Surface-6": Concrete | | | | |
| | | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 60 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | | | 3-5': SILTY SAND, fine grained, light gray, dry, loose, no odor. | | SM | | |
| 5 | | | B-4-5' | | | | 0.0 | |
| | | | | 5-14': SANDY SILT interbedded with silty sand lenses, light gray, moist to wet at 12', loose, no odor. | 70 | ML | | |
| | | | B-4-10' | | | | 0.0 | |
| 10 | | | | ▽ | 100 | | 0.0 | |
| | | | B-4-14' | | | | | |
| | | | B-4-15' | 14-15': SAND, fine to medium grained, dark brown, wet, loose, no odor. EOB at 15' | | SP | 0.3 | |
| 15 | | | | | | | | |
| 20 | | | | | | | | |
| 25 | | | | | | | | |
| 30 | | | | | | | | |

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** 4/24/2022 | **Other Information:** Grab groundwater sample (B-4-W) collected from open boring. Stainless steel screen placed from 8-12'. |
| **Drilling Company:** | Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** | Two inches | **Page** 1 of 1 | |
| **Logged By:** | Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-4

b-5.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 60 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-5-5' | 3-5': SILTY SAND, fine grained, light gray, dry, loose, no odor. | | SM | 0.0 | |
| | | | 5-13': SANDY SILT interbedded with silty sand lenses, light gray, moist to wet at 12', loose, no odor. | 70 | ML | | |
| | | B-5-10' | | | | 0.0 | |
| | | B-5-12' | ▽ | 100 | | 0.0 | |
| | | | 14-15': SAND, fine to medium grained, dark gray, | | SP | | |
| | | B-5-15' | wet, loose, no odor. | | | 0.3 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 4/24/2022 | **Other Information:** Grab groundwater sample (B-5-W) collected from open boring. Stainless steel screen placed from 8-12'. |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** Two inches | **Page** 1 of 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-5

b-6.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-6-5' | 3-5': SILTY SAND, fine grained, light gray, dry, loose, no odor. | | SM | 0.0 | |
| | | | 5-13': SANDY SILT interbedded with silty sand lenses, light gray, moist to wet at 12', loose, no odor. | 80 | ML | | |
| | | B-6-10' | | | | 0.0 | |
| | | | | | | 0.0 | |
| | | B-6-13' | 13-15': SAND, fine to medium grained, dark gray, wet, loose, no odor. | 90 | SP | 0.0 | |
| | | B-6-15' | | | | | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 4/24/2022 | **Other Information:** Grab groundwater sample (B-6-W) collected from open boring. Stainless steel screen placed from 8-12'. |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** Two inches | **Page** 1 of 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-6

b-7.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-7-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | 50 | | 0.0 | |
| | | B-7-5' | 4-7': SILTY SAND, fine grained with wood debris and a gravel layer from 4.5 to 5', dark gray, moist, medium stiff, no odor. | | SM | 0.0 | |
| | | B-7-8' | 7-8': SILT, with wood debris, dark gray, moist, medium stiff, no odor. EOB at 8' | 100 | ML | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-7

b-8.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | 0.1 | Temporary Boring. Backfilled with Bentonite |
| | | B-8-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | | | |
| | | B-8-5' | 4-7': SILTY SAND, fine grained and a gravel layer from 4.5 to 5', dark gray, moist, medium stiff, no odor. | 100 | SM | 0.0 | |
| | | B-8-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. EOB at 8' | | ML | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 7/20/2022 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 70s | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-8

b-9.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | 0.1 | Temporary Boring. Backfilled with Bentonite |
| | | B-9-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | | | |
| | | B-9-5' | 4-7': SILTY SAND, fine grained and a gravel layer from 4 to 4.25', dark gray, moist, medium stiff, no odor. | 100 | SM | 0.0 | |
| | | B-9-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. EOB at 8' | | ML | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-9

b-10.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | 0.0 | Temporary Boring. Backfilled with Bentonite |
| | | B-10-3' | 3-4': SILTY SAND, fine grained with plastic debris, dark gray, dry, loose, no odor. | | | | |
| | | B-10-5' | 4-7': SILT with fine grained sand and a gravel layer from 4.5 to 4.75' and an asphalt layer from 5 to 5.2', dark gray, moist, medium stiff, no odor. | 100 | ML | 4.9 | |
| | | B-10-6' | | | | 0.0 | |
| | | B-10-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. | | | 0.0 | |
| | | | EOB at 8' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-10

b-11.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | 0.0 | Temporary Boring. Backfilled with Bentonite |
| | | B-11-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | SM | | |
| | | B-11-5' | 4-7': SILT with fine grained sand and wood debris, gravel layer from 4 to 4.25', dark gray, moist, medium stiff, no odor. | 100 | ML | 0.0 | |
| | | B-11-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. EOB at 8' | | | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-11

b-12.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | Temporary Boring. Backfilled with Bentonite |
| | | B-12-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | SM | 0.0 | |
| | | B-12-5' | 4-7': SILT with fine grained sand with wood and asphalt debris, gravel layer from 4 to 4.25', dark gray, dry, medium stiff, no odor. | 100 | ML | 0.0 | |
| | | B-12-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. EOB at 8' | | | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 7/20/2022 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 70s | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-12

b-13.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | 0.0 | Temporary Boring. Backfilled with Bentonite |
| | | B-13-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | SM | | |
| | | B-13-5' | 4-8': SILT with fine grained sand, gravel layer from 4 to 4.5', dark gray, dry, medium stiff, no odor. | | | 0.0 | |
| | | | | 100 | ML | | |
| | | B-13-8' | | | | 0.0 | |
| | | | EOB at 8' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-13

b-14.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Concrete | | | | |
| | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | 0.0 | Temporary Boring. Backfilled with Bentonite |
| | | B-14-3' | 3-4': SILTY SAND, fine grained, dark gray, dry, loose, no odor. | | SM | | |
| | | B-14-5' | 4-7': SILT with fine grained sand and a gravel layer from 4 to 4.5', dark gray, dry, medium stiff, no odor. | 100 | ML | 0.0 | |
| | | B-14-8' | 7-8': SILT, dark gray, moist, medium stiff, no odor. EOB at 8' | | | 0.0 | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 7/20/2022 | Other Information: |
| Drilling Company: Holocene | Weather: Sunny, mid 70s | |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

B-14

mw-1.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 8" Boring, Well Box, Concrete Seal, Well Cap, Bentonite Seal |
| 0 | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | | |
| | | MW-1-5 | 3-5': SILTY SAND, fine grained with gravel, gray, moist, medium dense, no odor. | | SM | 0.0 | |
| 5 | | | 5-12': SANDY SILT interbedded with silty sand lenses, gray, moist to wet at 7', medium dense, no odor. | 65 | ML | 0.0 | 2" PVC Blank |
| | | MW-1-7 | | | | | |
| 10 | | | | | | | 2" PVC Screen, Sand |
| | | MW-1-12 | | | | 0.0 | |
| | | | 13-17': SAND, fine to medium grained, dark gray, wet, loose, no odor. | 90 | SP | | |
| | | MW-1-15 | | | | 0.0 | |
| 15 | | | EOB at 17' | | | | 2" PVC Sump |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 5/23/2022 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | DOE Well Tag Number: BPK-204 |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-1

mw-2.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 8" Boring, Well Box, Concrete Seal, Well Cap, Bentonite Seal, 2" PVC Blank, 2" PVC Screen, Sand, 2" PVC Sump |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | | |
| | | MW-2-5 | 3-5': SILTY SAND, fine grained with gravel and wood debris at 5', gray, moist, medium dense, no odor. | | | 0.0 | |
| | | | 5-12.5': SILTY SAND, interbedded with silt lenses, gray, moist to wet at 8', medium dense, no odor. | | SM | | |
| | | MW-2-8 | ▽ | 90 | | 0.0 | |
| | | | | | SM | | |
| | | MW-2-12 | 12.5-14.5': SAND with silt, fine grained, gray, wet, loose, no odor. | 100 | | 0.0 | |
| | | MW-2-15 | 14.5-17': SAND, fine to medium grained, dark gray, wet, loose, no odor. | 100 | SP | 0.0 | |
| | | | EOB at 17' | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 5/23/2022 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | DOE Well Tag Number: BPK-205 |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-2

mw-3.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Cement | | | | 8" Boring, Well Box |
| 0 | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | 0.0 | Concrete Seal, Well Cap, Bentonite Seal |
| | | MW-3-3 | | | | | |
| | | | 3-5': SILTY SAND, fine grained with gravel, gray, | | | | |
| | | MW-3-5 | moist, medium dense, no odor. | | | 0.0 | |
| 5 | | | 5-13.5': SILTY SAND, interbedded with sandy silt lenses, gray, moist to wet at 7', medium dense, no odor. | 75 | SM/ ML | | 2" PVC Blank |
| | | MW-3-10 | | | | 0.0 | |
| 10 | | | | | SM/ ML | | 2" PVC Screen, Sand |
| | | | 13.5-15': SAND, fine to medium grained with trace silt, dark gray, wet, loose, no odor. | 100 | | | |
| | | MW-3-15 | | | SP | 0.0 | |
| 15 | | | 15-17': SAND, fine to medium grained, dark gray, wet, loose, no odor. | 100 | | | 2" PVC Sump |
| | | | EOB at 17' | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 5/23/2022 | **Other Information:** DOE Well Tag Number: BPK-206 |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

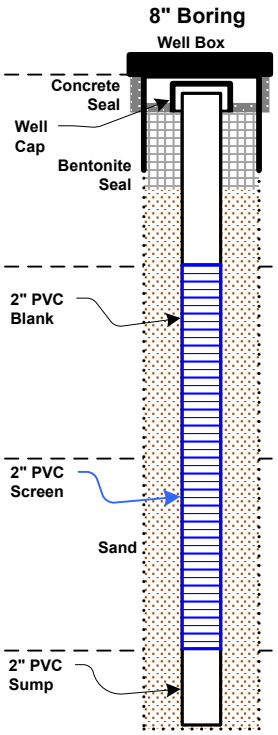
***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-3

mw-4.vsdx

| Depth in feet | BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) |
|---|---|---|---|---|---|---|---|
| 0 | | | | Surface-6": Cement | | | |
| | | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, very slight odor at 3'. | 50 | FILL | 0.6 |
| | | | MW-4-3 | | | | |
| | | | | 3-5': SILTY SAND, fine grained with gravel, gray, | | | |
| 5 | | | MW-4-5 | moist, medium dense, no odor. | | | 0.0 |
| | | | | 5-14.5': SILTY SAND, interbedded with sandy silt lenses, gray, moist to wet at 7', medium dense, no odor. | 100 | SM/ ML | |
| | | | MW-4-10 | | | | 0.0 |
| 10 | | | | | 75 | SM/ ML | |
| | | | MW-4-15 | 14.5-17': SAND, fine to medium grained, dark gray, | | | 0.0 |
| 15 | | | | wet, loose, no odor. | 100 | SP | |
| | | | | EOB at 17' | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

WELL CONSTRUCTION




| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** | 5/23/2022 |
| **Drilling Company:** | Holocene | **Weather:** | Sunny, mid 60s |
| **Boring Diameter:** | Two inches | **Page** | 1 of 1 |
| **Logged By:** | Dan Hatch | | |

**Other Information:**
DOE Well Tag Number: BPK-207

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-4

mw-5.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface-6": Cement | | | | 8" Boring, Well Box |
| 0 | | | 6"-3': FILL (silt, sand, gravel), brown, dry, loose, very slight odor at 3'. | 50 | FILL | 0.5 | Concrete Seal, Well Cap, Bentonite Seal |
| | | MW-5-3 | | | | | |
| | | MW-5-5 | 3-5': SILTY SAND, fine grained with gravel, gray, moist, medium dense, no odor. | | | 0.0 | |
| 5 | | | 5-12.5': SILTY SAND, interbedded with sandy silt lenses, gray, moist to wet at 7', medium dense, no odor. | 100 | SM/ ML | | 2" PVC Blank |
| | | MW-5-10 | | | | 0.0 | |
| 10 | | | | | SM/ ML | | 2" PVC Screen, Sand |
| | | | 12.5-17': SAND, fine to coarse grained, dark gray, wet, loose, no odor. | 100 | SP | | |
| | | MW-5-15 | | | | 0.0 | |
| 15 | | | | 100 | | | 2" PVC Sump |
| | | | EOB at 17' | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 5/23/2022 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Sunny, mid 60s | DOE Well Tag Number: BPK-208 |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Dan Hatch | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-4

mw-6.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 2" Boring; Well Box; Concrete Seal; Well Cap; Bentonite Seal; 2" PVC Blank; 2" PVC Screen; Sand |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | | |
| | | | 3-5': SILTY SAND, fine grained with gravel, gray, moist, medium dense, no odor. | | SM | | |
| | | MW-6-5 | 5-15': SILTY SAND interbedded with sand lenses, gray, moist to wet at 6', medium dense, moderate petroleum odor at 7 feet. | | | 0.0 | |
| | | MW-6-7 | | 50 | SM | 57.4 | |
| | | | | | | 0.9 | |
| | | MW-6-12 | | 100 | SM | 0.0 | |
| | | MW-6-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| Drilling Method: | Direct Push | Date: | 12/10/2024 |
| Drilling Company: | Holocene | Weather: | Cloudy, 40s |
| Boring Diameter: | Two inches | Page | 1 of 1 |
| Logged By: | Haley Carter | | |

Other Information:

DOE Well Tag Number: BQB 961

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

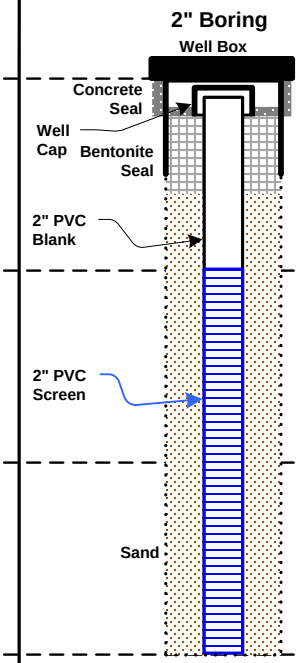
MW-6

mw-7.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | |
| | | | 3-8': SILT with sand, gray, moist to wet at 6', medium stiff, no odor. | 40 | | | |
| | | MW-7-5 | | | ML | 0.0 | |
| | | MW-7-7 | | | | | |
| | | | 8-10': SILTY SAND, gray, wet, medium dense, no odor. | 75 | SM | 0.0 | |
| | | MW-7-10 | 10-15': No Recovery | | | 0.0 | |
| | | | | 0 | | | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet




| | | | |
|---|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/10/2024 | **Other Information:** | |
| **Drilling Company:** Holocene | **Weather:** Cloudy, 40s | DOE Well Tag Number: BQB 962 | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | | |
| **Logged By:** Haley Carter | | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-7

mw-8.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 2" Boring; Well Box; Concrete Seal; Well Cap; Bentonite Seal; 2" PVC Blank; 2" PVC Screen; Sand |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | |
| | | | 3-7': SILT with sand, brown, moist to wet at 6', medium stiff, no odor. | 40 | | | |
| | | MW-8-5 | | | ML | 0.0 | |
| | | | 7-10': SILTY SAND with interbedded sand layers, gray, wet, medium dense, no odor. | 75 | SM | | |
| | | MW-8-10 | 10-15': SAND fine grained with silt, brown, wet, medium dense, no odor. | | | 0.0 | |
| | | | | 75 | SM | | |
| | | MW-8-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 12/10/2024 | Other Information: |
| Drilling Company: Holocene | Weather: Cloudy, 40s | DOE Well Tag Number: BQB 963 |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

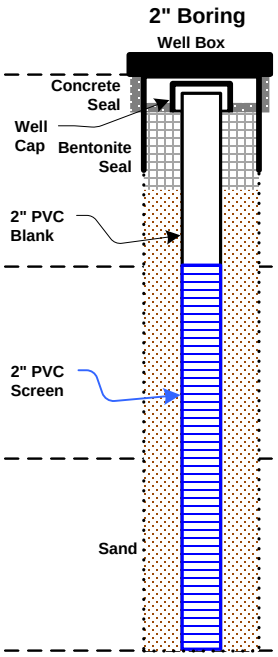
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-8

mw-9.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | |
| | | | 3-5': SAND, fine grained, gray, moist to wet at 5', medium dense, no odor. | 75 | SP | | |
| | | MW-9-5 | 5-10': SILTY SAND, fine grained sand, gray, wet, medium dense, no odor. | | | 0.0 | |
| | | | | 80 | SM | | |
| | | MW-9-10 | 10-15': SAND fine to medium grained with trace silt, brown, wet, medium dense, no odor. | | | 0.0 | |
| | | | | 80 | SP | | |
| | | MW-9-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** | 12/10/2024 |
| **Drilling Company:** | Holocene | **Weather:** | Cloudy, 40s |
| **Boring Diameter:** | Two inches | **Page** | 1 of 1 |
| **Logged By:** | Haley Carter | | |

**Other Information:**

DOE Well Tag Number: BQB 964

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-9

mw-10.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 2" Boring, Well Box, Concrete Seal, Well Cap, Bentonite Seal, 2" PVC Blank, 2" PVC Screen, Sand |
| 0 | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | |
| | | | 3-5': SILT with sand, brown, moist to wet at 6', medium stiff, no odor. | 50 | ML | | |
| | | MW-10-5 | 5-9': SILTY SAND, fine grained sand, gray, moist to wet at 8', medium dense, no odor. | | | 0.0 | |
| 5 | | | | | SM | | |
| | | MW-10-8 | | 90 | | 0.0 | |
| | | | 9-13': SAND fine to medium grained with trace silt, | | | | |
| | | MW-10-10 | brown, wet, medium dense, no odor. | | | 0.0 | |
| 10 | | | | | SP | | |
| | | | 13-15': GRAVELLY SAND, fine to medium grained sand, brown, wet, medium dense, no odor. | 100 | | | |
| | | | | | GW | | |
| | | MW-10-15 | | | | 0.0 | |
| 15 | | | EOB at 15' | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/11/2024 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Partly Cloudy, low 50s | DOE Well Tag Number: BQB 965 |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Haley Carter | | |

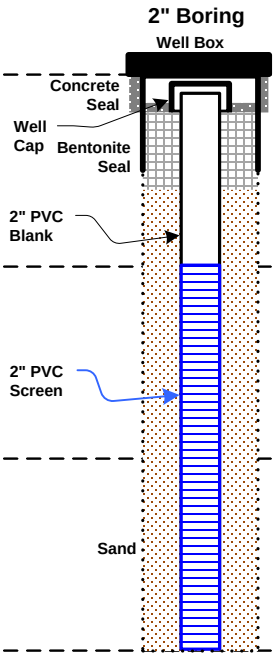
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-10

mw-11.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-5': Pushed a rock, NO RECOVERY | 0 | | | |
| | | | 5-9': SILTY SAND, fine grained sand, gray, moist | | | | |
| | | MW-11-6 | to wet at 6', medium dense, no odor. | 75 | SM | 0.0 | |
| | | | 9-12': SAND fine grained with trace silt, brown, wet, | | | | |
| | | MW-11-10 | medium dense, no odor. | | SP | 0.0 | |
| | | | 12-15': SAND, medium grained with gravel, brown, | | | | |
| | | | wet, medium dense, no odor. | 100 | GW | | |
| | | MW-11-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** | 12/11/2024 |
| **Drilling Company:** | Holocene | **Weather:** | Partly Cloudy, low 50s |
| **Boring Diameter:** | Two inches | **Page** | 1 of 1 |
| **Logged By:** | Haley Carter | | |

**Other Information:**

DOE Well Tag Number: BQB 966

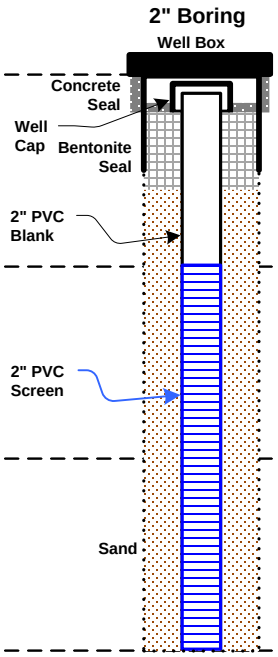
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-11

mw-12.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | | FILL | | |
| | | | 3-7.5': SILTY SAND, fine grained sand, gray, moist to wet at 6', medium dense, no odor. | 10 | | | |
| | | MW-12-6 | 7.5-12': SAND fine grained with trace silt, brown, wet, medium dense, no odor. | 75 | SM | 0.0 | |
| | | MW-12-10 | | | SP | 0.0 | |
| | | | 12-15': SAND, medium grained with gravel, brown, wet, medium dense, no odor. | 100 | GW | | |
| | | MW-12-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/11/2024 | **Other Information:** | |
| **Drilling Company:** Holocene | **Weather:** Partly Cloudy, low 50s | DOE Well Tag Number: BQB 967 | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | | |
| **Logged By:** Haley Carter | | | |

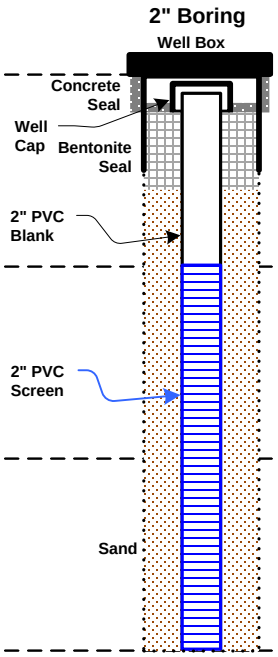
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-12

mw-13.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-5': FILL (silt, sand, gravel), brown, dry to moist, loose, no odor. | 75 | FILL | | |
| | | MW-13-5 | 5-10': NO RECOVERY | 0 | | 0.0 | |
| | | | 10-15': SAND, medium grained with gravel, brown, wet, medium dense, no odor. | | | | |
| | | MW-13-12 | | 100 | SP | 0.0 | |
| | | MW-13-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/11/2024 | **Other Information:** | |
| **Drilling Company:** Holocene | **Weather:** Partly Cloudy, low 50s | DOE Well Tag Number: BQB 968 | |
| **Boring Diameter:** Two inches | **Page** 1 of 1 | | |
| **Logged By:** Haley Carter | | | |

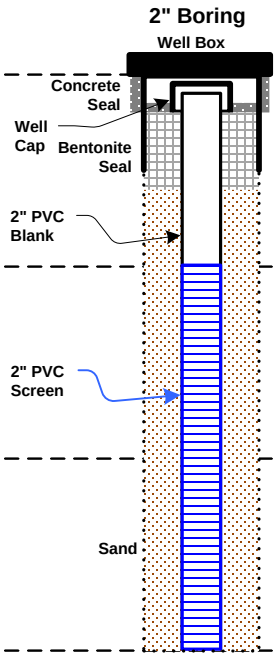
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-13

mw-14.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-5': FILL (silt, sand, gravel), brown, dry to moist, loose, no odor. | 60 | FILL | | |
| | | MW-14-6 | 5-10': SILTY SAND, fine grained sand, gray, moist to wet at 6', medium dense, no odor. | 75 | SM | 0.0 | |
| | | MW-14-10 | 10-15': SAND fine grained with trace silt and gravel, brown, wet, medium dense, no odor. | 100 | SP | 0.0 | |
| | | MW-14-15 | EOB at 15' | | | 0.0 | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** 12/12/2024 | **Other Information:** |
| **Drilling Company:** | Holocene | **Weather:** Partly Cloudy, 40s | DOE Well Tag Number: BQB 969 |
| **Boring Diameter:** | Two inches | **Page** 1 **of** 1 | |
| **Logged By:** | Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

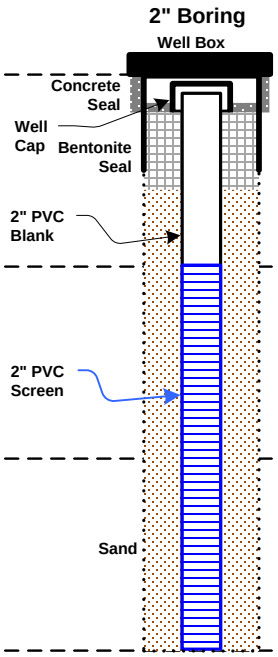
MW-14

mw-15.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-5': FILL (silt, sand, gravel), brown, dry to moist, loose, no odor. | 75 | FILL | | |
| | | MW-15-5 | 5-10': NO RECOVERY | | | 0.0 | |
| | | | | 0 | | | |
| | | | 10-13': SAND, fine grained with silt, gray, wet, | | | | |
| | | MW-15-11 | medium dense, no odor. | | | 0.0 | |
| | | | | | SM | | |
| | | | 10-15': SAND, medium grained with gravel, brown, | 100 | | | |
| | | | wet, medium dense, no odor. | | SP | | |
| | | MW-15-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet




| | | | |
|---|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/11/2024 | **Other Information:** | |
| **Drilling Company:** Holocene | **Weather:** Partly Cloudy, 40s | DOE Well Tag Number: BQB 970 | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | | |
| **Logged By:** Haley Carter | | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-15

mw-16.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 2" Boring; Well Box; Concrete Seal; Well Cap; Bentonite Seal; 2" PVC Blank; 2" PVC Screen; Sand |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | |
| | | MW-16-5 | 3-5': SAND, fine grained with silt, gray, moist, medium dense, no odor. 5-8': SILTY SAND interbedded with sand lenses, gray, moist to wet at 6', medium dense, no odor. | | SM | 0.0 | |
| | | MW-16-10 | 8-15': SAND, fine to medium grained with interbedded silt lenses, brown, wet, medium dense, no odor. | 100 | SP/SM | 0.0 | |
| | | MW-16-15 | | 100 | SP/SM | 0.0 | |
| | | | EOB at 15' | | | | |

Depth in feet

| | | |
|---|---|---|
| Drilling Method: Direct Push | Date: 12/12/2024 | Other Information: |
| Drilling Company: Holocene | Weather: Cloudy, 40s | DOE Well Tag Number: BQB 971 |
| Boring Diameter: Two inches | Page 1 of 1 | |
| Logged By: Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-16

mw-17.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | 2" Boring, Well Box, Concrete Seal, Well Cap, Bentonite Seal, 2" PVC Blank, 2" PVC Screen, Sand |
| 0 | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 50 | FILL | | |
| | | | 3-5': SAND, fine grained with silt, gray, moist, medium dense, no odor. | | | | |
| | | MW-17-5 | 5-12.5': SILTY SAND, gray, moist to wet at 7.5', | | | 0.0 | |
| 5 | | | medium dense, no odor. | | SM | | |
| | | | | 100 | | | |
| | | MW-17-10 | | | | 0.0 | |
| 10 | | | | | | | |
| | | | 12.5-15': SAND, fine to medium grained, brown, wet, medium dense, no odor. | 100 | SP | | |
| | | MW-17-15 | | | | 0.0 | |
| 15 | | | EOB at 15' | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |

Depth in feet

| | | |
|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/12/2024 | **Other Information:** |
| **Drilling Company:** Holocene | **Weather:** Cloudy, 40s | DOE Well Tag Number: BQB 972 |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | |
| **Logged By:** Haley Carter | | |

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

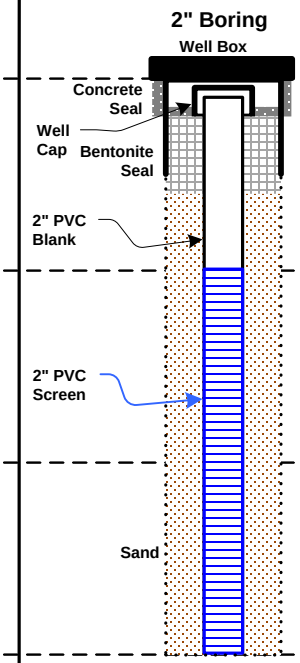
MW-17

mw-18.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-4': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | |
| | | MW-18-5 | 4-12.5': SILTY SAND, gray, moist to wet at 6', medium dense, no odor. | | | 0.0 | |
| | | MW-18-10 | | 75 | SM | 0.0 | |
| | | | | | SM | | |
| | | MW-18-15 | 12.5-15': SAND, fine to medium grained, gray, wet, medium dense, no odor. | 100 | SP | 0.0 | |
| | | | EOB at 15' | | | | |

0 5 10 15 20 25 30

Depth in feet




| | | | |
|---|---|---|---|
| **Drilling Method:** Direct Push | **Date:** 12/13/2024 | **Other Information:** | |
| **Drilling Company:** Holocene | **Weather:** Cloudy, 40s | DOE Well Tag Number: BQB 973 | |
| **Boring Diameter:** Two inches | **Page** 1 **of** 1 | | |
| **Logged By:** Haley Carter | | | |

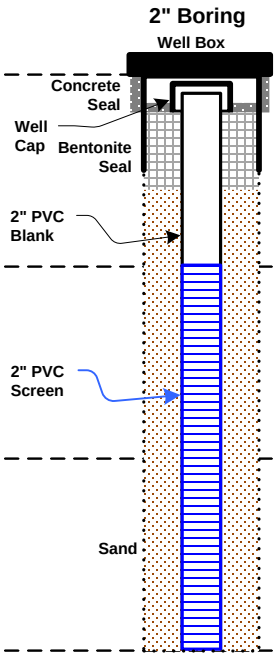
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-18

mw-19.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-4': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 60 | FILL | | |
| | | MW-19-5 | 4-11': SILTY SAND, gray, moist to wet at 6', medium dense, no odor. | | | 0.0 | |
| | | | | 60 | SM | | |
| | | MW-19-10 | | | | 0.0 | |
| | | | 11-15': SAND, fine to medium grained, gray, wet, medium dense, no odor. | 100 | SP | | |
| | | MW-19-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** | 12/13/2024 |
| **Drilling Company:** | Holocene | **Weather:** | Cloudy, 40s |
| **Boring Diameter:** | Two inches | **Page** | 1 of 1 |
| **Logged By:** | Haley Carter | | |

**Other Information:**

DOE Well Tag Number: BQB 974

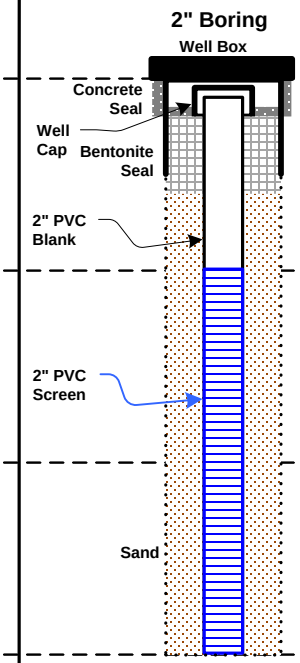
BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-19

mw-20.vsdx

| BLOWS/6 inches | INTERVAL | SAMPLE NUMBER | SOIL DESCRIPTION | Recovery % | USCS | PID (ppmv in headspace) | WELL CONSTRUCTION |
|---|---|---|---|---|---|---|---|
| | | | Surface: Asphalt | | | | |
| | | | 0-3': FILL (silt, sand, gravel), brown, dry, loose, no odor. | 40 | FILL | | |
| | | MW-20-5 | 3-11': SILTY SAND with fine grained interbedded sand, gray, moist to wet at 6', medium dense, no odor. | | | 0.0 | |
| | | MW-20-10 | | 80 | SM/ SP | 0.0 | |
| | | | 11-15': SAND, fine to medium grained, gray, wet, medium dense, no odor. | 100 | SP | | |
| | | MW-20-15 | | | | 0.0 | |
| | | | EOB at 15' | | | | |




0 5 10 15 20 25 30

Depth in feet

| | | | |
|---|---|---|---|
| **Drilling Method:** | Direct Push | **Date:** | 12/13/2024 |
| **Drilling Company:** | Holocene | **Weather:** | Cloudy, 40s |
| **Boring Diameter:** | Two inches | **Page** | 1 of 1 |
| **Logged By:** | Haley Carter | | |

**Other Information:**

DOE Well Tag Number: BQB 975

BLUESTONE ENVIRONMENTAL, NW

***Boring Log***
**Auburn VW**
**3109 Auburn Way North**
**Auburn, WA**

MW-20

# Appendix E

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

May 12, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the additional results from the testing of material submitted on April 25, 2022 from the Auburn VW BE-0107-B, F&BI 204418 project. There are 15 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
BST0512R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on April 25, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW BE-0107-B, F&BI 204418 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 204418 -01 | B-1-5 |
| 204418 -02 | B-1-10 |
| 204418 -03 | B-1-13 |
| 204418 -04 | B-1-15 |
| 204418 -05 | B-1-W |
| 204418 -06 | B-2-5 |
| 204418 -07 | B-2-10 |
| 204418 -08 | B-2-13 |
| 204418 -09 | B-2-15 |
| 204418 -10 | B-2-W |
| 204418 -11 | B-3-5 |
| 204418 -12 | B-3-10 |
| 204418 -13 | B-3-12 |
| 204418 -14 | B-3-15 |
| 204418 -15 | B-4-5 |
| 204418 -16 | B-4-10 |
| 204418 -17 | B-4-14 |
| 204418 -18 | B-4-15 |
| 204418 -19 | B-4-W |
| 204418 -20 | B-5-5 |
| 204418 -21 | B-5-10 |
| 204418 -22 | B-5-12 |
| 204418 -23 | B-5-15 |
| 204418 -24 | B-5-W |
| 204418 -25 | B-6-5 |
| 204418 -26 | B-6-10 |
| 204418 -27 | B-6-13 |
| 204418 -28 | B-6-15 |
| 204418 -29 | B-6-W |

The 8260D matrix spike and matrix spike duplicate failed the relative percent difference for bromomethane. The analyte was not detected therefore the data were acceptable.

All other quality control requirements were acceptable.

Date of Report: 05/12/22
Date Received: 04/25/22
Project: Auburn VW BE-0107-B, F&BI 204418
Date Extracted: 05/06/22
Date Analyzed: 05/06/22

**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)

| Sample ID<br>Laboratory ID | Diesel Range<br>($C_{10}$-$C_{25}$) | Motor Oil Range<br>($C_{25}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 56-165) |
|---|---|---|---|
| B-1-5<br>204418-01 | <50 | <250 | 107 |
| B-2-10<br>204418-07 | <50 | <250 | 111 |
| B-4-5<br>204418-15 | <50 | <250 | 109 |
| Method Blank<br>02-1073 MB | <50 | <250 | 108 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

## Analysis For Volatile Compounds By EPA Method 8260D

| | | | |
|---|---|---|---|
| Client Sample ID: | B-1-5 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-01 |
| Date Analyzed: | 05/06/22 | Data File: | 050615.D |
| Matrix: | Soil | Instrument: | GCMS4 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | RF |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 90 | 109 |
| Toluene-d8 | 97 | 89 | 112 |
| 4-Bromofluorobenzene | 97 | 84 | 115 |

| Compounds: | Concentration mg/kg (ppm) | Compounds: | Concentration mg/kg (ppm) |
|---|---|---|---|
| Dichlorodifluoromethane | <0.5 | 1,3-Dichloropropane | <0.05 |
| Chloromethane | <0.5 | Tetrachloroethene | <0.025 |
| Vinyl chloride | <0.05 | Dibromochloromethane | <0.05 |
| Bromomethane | <0.5 | 1,2-Dibromoethane (EDB) | <0.05 |
| Chloroethane | <0.5 | Chlorobenzene | <0.05 |
| Trichlorofluoromethane | <0.5 | Ethylbenzene | <0.05 |
| Acetone | <5 | 1,1,1,2-Tetrachloroethane | <0.05 |
| 1,1-Dichloroethene | <0.05 | m,p-Xylene | <0.1 |
| Hexane | <0.25 | o-Xylene | <0.05 |
| Methylene chloride | <0.5 | Styrene | <0.05 |
| Methyl t-butyl ether (MTBE) | <0.05 | Isopropylbenzene | <0.05 |
| trans-1,2-Dichloroethene | <0.05 | Bromoform | <0.05 |
| 1,1-Dichloroethane | <0.05 | n-Propylbenzene | <0.05 |
| 2,2-Dichloropropane | <0.05 | Bromobenzene | <0.05 |
| cis-1,2-Dichloroethene | <0.05 | 1,3,5-Trimethylbenzene | <0.05 |
| Chloroform | <0.05 | 1,1,2,2-Tetrachloroethane | <0.05 |
| 2-Butanone (MEK) | <1 | 1,2,3-Trichloropropane | <0.05 |
| 1,2-Dichloroethane (EDC) | <0.05 | 2-Chlorotoluene | <0.05 |
| 1,1,1-Trichloroethane | <0.05 | 4-Chlorotoluene | <0.05 |
| 1,1-Dichloropropene | <0.05 | tert-Butylbenzene | <0.05 |
| Carbon tetrachloride | <0.05 | 1,2,4-Trimethylbenzene | <0.05 |
| Benzene | <0.03 | sec-Butylbenzene | <0.05 |
| Trichloroethene | <0.02 | p-Isopropyltoluene | <0.05 |
| 1,2-Dichloropropane | <0.05 | 1,3-Dichlorobenzene | <0.05 |
| Bromodichloromethane | <0.05 | 1,4-Dichlorobenzene | <0.05 |
| Dibromomethane | <0.05 | 1,2-Dichlorobenzene | <0.05 |
| 4-Methyl-2-pentanone | <1 | 1,2-Dibromo-3-chloropropane | <0.5 |
| cis-1,3-Dichloropropene | <0.05 | 1,2,4-Trichlorobenzene | <0.25 |
| Toluene | <0.05 | Hexachlorobutadiene | <0.25 |
| trans-1,3-Dichloropropene | <0.05 | Naphthalene | <0.05 |
| 1,1,2-Trichloroethane | <0.05 | 1,2,3-Trichlorobenzene | <0.25 |
| 2-Hexanone | <0.5 | | |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

## Analysis For Volatile Compounds By EPA Method 8260D

| | | | |
|---|---|---|---|
| Client Sample ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | Not Applicable | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 02-988 mb |
| Date Analyzed: | 05/06/22 | Data File: | 050605.D |
| Matrix: | Soil | Instrument: | GCMS4 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | RF |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 90 | 109 |
| Toluene-d8 | 98 | 89 | 112 |
| 4-Bromofluorobenzene | 100 | 84 | 115 |

| Compounds: | Concentration mg/kg (ppm) | Compounds: | Concentration mg/kg (ppm) |
|---|---|---|---|
| Dichlorodifluoromethane | <0.5 | 1,3-Dichloropropane | <0.05 |
| Chloromethane | <0.5 | Tetrachloroethene | <0.025 |
| Vinyl chloride | <0.05 | Dibromochloromethane | <0.05 |
| Bromomethane | <0.5 | 1,2-Dibromoethane (EDB) | <0.05 |
| Chloroethane | <0.5 | Chlorobenzene | <0.05 |
| Trichlorofluoromethane | <0.5 | Ethylbenzene | <0.05 |
| Acetone | <5 | 1,1,1,2-Tetrachloroethane | <0.05 |
| 1,1-Dichloroethene | <0.05 | m,p-Xylene | <0.1 |
| Hexane | <0.25 | o-Xylene | <0.05 |
| Methylene chloride | <0.5 | Styrene | <0.05 |
| Methyl t-butyl ether (MTBE) | <0.05 | Isopropylbenzene | <0.05 |
| trans-1,2-Dichloroethene | <0.05 | Bromoform | <0.05 |
| 1,1-Dichloroethane | <0.05 | n-Propylbenzene | <0.05 |
| 2,2-Dichloropropane | <0.05 | Bromobenzene | <0.05 |
| cis-1,2-Dichloroethene | <0.05 | 1,3,5-Trimethylbenzene | <0.05 |
| Chloroform | <0.05 | 1,1,2,2-Tetrachloroethane | <0.05 |
| 2-Butanone (MEK) | <1 | 1,2,3-Trichloropropane | <0.05 |
| 1,2-Dichloroethane (EDC) | <0.05 | 2-Chlorotoluene | <0.05 |
| 1,1,1-Trichloroethane | <0.05 | 4-Chlorotoluene | <0.05 |
| 1,1-Dichloropropene | <0.05 | tert-Butylbenzene | <0.05 |
| Carbon tetrachloride | <0.05 | 1,2,4-Trimethylbenzene | <0.05 |
| Benzene | <0.03 | sec-Butylbenzene | <0.05 |
| Trichloroethene | <0.02 | p-Isopropyltoluene | <0.05 |
| 1,2-Dichloropropane | <0.05 | 1,3-Dichlorobenzene | <0.05 |
| Bromodichloromethane | <0.05 | 1,4-Dichlorobenzene | <0.05 |
| Dibromomethane | <0.05 | 1,2-Dichlorobenzene | <0.05 |
| 4-Methyl-2-pentanone | <1 | 1,2-Dibromo-3-chloropropane | <0.5 |
| cis-1,3-Dichloropropene | <0.05 | 1,2,4-Trichlorobenzene | <0.25 |
| Toluene | <0.05 | Hexachlorobutadiene | <0.25 |
| trans-1,3-Dichloropropene | <0.05 | Naphthalene | <0.05 |
| 1,1,2-Trichloroethane | <0.05 | 1,2,3-Trichlorobenzene | <0.25 |
| 2-Hexanone | <0.5 | | |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-1-5 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-01 1/5 |
| Date Analyzed: | 05/09/22 | Data File: | 050920.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 66 | 39 | 103 |
| Phenol-d6 | 73 | 48 | 109 |
| Nitrobenzene-d5 | 71 | 23 | 138 |
| 2-Fluorobiphenyl | 76 | 50 | 150 |
| 2,4,6-Tribromophenol | 73 | 40 | 127 |
| Terphenyl-d14 | 87 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | 0.032 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-2-10 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-07 1/5 |
| Date Analyzed: | 05/09/22 | Data File: | 050921.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 59 | 39 | 103 |
| Phenol-d6 | 67 | 48 | 109 |
| Nitrobenzene-d5 | 62 | 23 | 138 |
| 2-Fluorobiphenyl | 72 | 50 | 150 |
| 2,4,6-Tribromophenol | 73 | 40 | 127 |
| Terphenyl-d14 | 88 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-3-5 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-11 1/25 |
| Date Analyzed: | 05/09/22 | Data File: | 050923.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 59 d | 39 | 103 |
| Phenol-d6 | 67 d | 48 | 109 |
| Nitrobenzene-d5 | 62 d | 23 | 138 |
| 2-Fluorobiphenyl | 76 d | 50 | 150 |
| 2,4,6-Tribromophenol | 75 d | 40 | 127 |
| Terphenyl-d14 | 82 d | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.05 |
| 2-Methylnaphthalene | <0.05 |
| 1-Methylnaphthalene | <0.05 |
| Acenaphthylene | <0.05 |
| Acenaphthene | <0.05 |
| Fluorene | <0.05 |
| Phenanthrene | <0.05 |
| Anthracene | <0.05 |
| Fluoranthene | <0.05 |
| Pyrene | <0.05 |
| Benz(a)anthracene | <0.05 |
| Chrysene | <0.05 |
| Benzo(a)pyrene | <0.05 |
| Benzo(b)fluoranthene | <0.05 |
| Benzo(k)fluoranthene | <0.05 |
| Indeno(1,2,3-cd)pyrene | <0.05 |
| Dibenz(a,h)anthracene | <0.05 |
| Benzo(g,h,i)perylene | <0.05 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-4-5 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-15 1/25 |
| Date Analyzed: | 05/09/22 | Data File: | 050924.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 63 d | 39 | 103 |
| Phenol-d6 | 73 d | 48 | 109 |
| Nitrobenzene-d5 | 66 d | 23 | 138 |
| 2-Fluorobiphenyl | 79 d | 50 | 150 |
| 2,4,6-Tribromophenol | 77 d | 40 | 127 |
| Terphenyl-d14 | 89 d | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.05 |
| 2-Methylnaphthalene | <0.05 |
| 1-Methylnaphthalene | <0.05 |
| Acenaphthylene | <0.05 |
| Acenaphthene | <0.05 |
| Fluorene | <0.05 |
| Phenanthrene | <0.05 |
| Anthracene | <0.05 |
| Fluoranthene | <0.05 |
| Pyrene | <0.05 |
| Benz(a)anthracene | <0.05 |
| Chrysene | <0.05 |
| Benzo(a)pyrene | <0.05 |
| Benzo(b)fluoranthene | <0.05 |
| Benzo(k)fluoranthene | <0.05 |
| Indeno(1,2,3-cd)pyrene | <0.05 |
| Dibenz(a,h)anthracene | <0.05 |
| Benzo(g,h,i)perylene | <0.05 |

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-6-5 | Client: | Bluestone Environmental NW |
| Date Received: | 04/25/22 | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 204418-25 1/5 |
| Date Analyzed: | 05/09/22 | Data File: | 050922.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 64 | 39 | 103 |
| Phenol-d6 | 71 | 48 | 109 |
| Nitrobenzene-d5 | 66 | 23 | 138 |
| 2-Fluorobiphenyl | 76 | 50 | 150 |
| 2,4,6-Tribromophenol | 75 | 40 | 127 |
| Terphenyl-d14 | 85 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | Not Applicable | Project: | Auburn VW BE-0107-B |
| Date Extracted: | 05/06/22 | Lab ID: | 02-1076 mb 1/5 |
| Date Analyzed: | 05/09/22 | Data File: | 050909.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 80 | 39 | 103 |
| Phenol-d6 | 88 | 48 | 109 |
| Nitrobenzene-d5 | 84 | 23 | 138 |
| 2-Fluorobiphenyl | 94 | 50 | 150 |
| 2,4,6-Tribromophenol | 77 | 40 | 127 |
| Terphenyl-d14 | 102 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

Date of Report: 05/12/22
Date Received: 04/25/22
Project: Auburn VW BE-0107-B, F&BI 204418

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

Laboratory Code: 204286-08 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result (Wet Wt) | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Diesel Extended | mg/kg (ppm) | 5,000 | 810 | 104 | 100 | 63-146 | 4 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Diesel Extended | mg/kg (ppm) | 5,000 | 110 | 79-144 |

Date of Report: 05/12/22
Date Received: 04/25/22
Project: Auburn VW BE-0107-B, F&BI 204418

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

Laboratory Code: 205057-03 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result (Wet wt) | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | mg/kg (ppm) | 1 | <0.5 | 17 | 19 | 10-142 | 11 |
| Chloromethane | mg/kg (ppm) | 1 | <0.5 | 46 | 45 | 10-126 | 2 |
| Vinyl chloride | mg/kg (ppm) | 1 | <0.05 | 44 | 47 | 10-138 | 7 |
| Bromomethane | mg/kg (ppm) | 1 | <0.5 | 64 | 83 | 10-163 | 26 vo |
| Chloroethane | mg/kg (ppm) | 1 | <0.5 | 59 | 61 | 10-176 | 3 |
| Trichlorofluoromethane | mg/kg (ppm) | 1 | <0.5 | 50 | 56 | 10-176 | 11 |
| Acetone | mg/kg (ppm) | 5 | <5 | 68 | 68 | 10-163 | 0 |
| 1,1-Dichloroethene | mg/kg (ppm) | 1 | <0.05 | 65 | 68 | 10-160 | 5 |
| Hexane | mg/kg (ppm) | 1 | <0.25 | 54 | 56 | 10-137 | 4 |
| Methylene chloride | mg/kg (ppm) | 1 | <0.5 | 80 | 76 | 10-156 | 5 |
| Methyl t-butyl ether (MTBE) | mg/kg (ppm) | 1 | <0.05 | 87 | 86 | 21-145 | 1 |
| trans-1,2-Dichloroethene | mg/kg (ppm) | 1 | <0.05 | 77 | 75 | 14-137 | 3 |
| 1,1-Dichloroethane | mg/kg (ppm) | 1 | <0.05 | 79 | 80 | 19-140 | 1 |
| 2,2-Dichloropropane | mg/kg (ppm) | 1 | <0.05 | 98 | 98 | 10-158 | 0 |
| cis-1,2-Dichloroethene | mg/kg (ppm) | 1 | <0.05 | 80 | 85 | 25-135 | 6 |
| Chloroform | mg/kg (ppm) | 1 | <0.05 | 84 | 87 | 21-145 | 4 |
| 2-Butanone (MEK) | mg/kg (ppm) | 5 | <1 | 79 | 83 | 19-147 | 5 |
| 1,2-Dichloroethane (EDC) | mg/kg (ppm) | 1 | <0.05 | 80 | 82 | 12-160 | 2 |
| 1,1,1-Trichloroethane | mg/kg (ppm) | 1 | <0.05 | 80 | 82 | 10-156 | 2 |
| 1,1-Dichloropropene | mg/kg (ppm) | 1 | <0.05 | 76 | 80 | 17-140 | 5 |
| Carbon tetrachloride | mg/kg (ppm) | 1 | <0.05 | 80 | 81 | 9-164 | 1 |
| Benzene | mg/kg (ppm) | 1 | <0.03 | 77 | 81 | 29-129 | 5 |
| Trichloroethene | mg/kg (ppm) | 1 | <0.02 | 80 | 80 | 21-139 | 0 |
| 1,2-Dichloropropane | mg/kg (ppm) | 1 | <0.05 | 77 | 80 | 30-135 | 4 |
| Bromodichloromethane | mg/kg (ppm) | 1 | <0.05 | 83 | 85 | 23-155 | 2 |
| Dibromomethane | mg/kg (ppm) | 1 | <0.05 | 80 | 84 | 23-145 | 5 |
| 4-Methyl-2-pentanone | mg/kg (ppm) | 5 | <1 | 86 | 89 | 24-155 | 3 |
| cis-1,3-Dichloropropene | mg/kg (ppm) | 1 | <0.05 | 79 | 84 | 28-144 | 6 |
| Toluene | mg/kg (ppm) | 1 | <0.05 | 76 | 78 | 35-130 | 3 |
| trans-1,3-Dichloropropene | mg/kg (ppm) | 1 | <0.05 | 78 | 80 | 26-149 | 3 |
| 1,1,2-Trichloroethane | mg/kg (ppm) | 1 | <0.05 | 85 | 83 | 10-205 | 2 |
| 2-Hexanone | mg/kg (ppm) | 5 | <0.5 | 83 | 90 | 15-166 | 8 |
| 1,3-Dichloropropane | mg/kg (ppm) | 1 | <0.05 | 77 | 81 | 31-137 | 5 |
| Tetrachloroethene | mg/kg (ppm) | 1 | <0.025 | 77 | 79 | 20-133 | 3 |
| Dibromochloromethane | mg/kg (ppm) | 1 | <0.05 | 75 | 77 | 28-150 | 3 |
| 1,2-Dibromoethane (EDB) | mg/kg (ppm) | 1 | <0.05 | 77 | 81 | 28-142 | 5 |
| Chlorobenzene | mg/kg (ppm) | 1 | <0.05 | 79 | 81 | 32-129 | 2 |
| Ethylbenzene | mg/kg (ppm) | 1 | <0.05 | 80 | 83 | 32-137 | 4 |
| 1,1,1,2-Tetrachloroethane | mg/kg (ppm) | 1 | <0.05 | 82 | 83 | 31-143 | 1 |
| m,p-Xylene | mg/kg (ppm) | 2 | <0.1 | 79 | 82 | 34-136 | 4 |
| o-Xylene | mg/kg (ppm) | 1 | <0.05 | 82 | 82 | 33-134 | 0 |
| Styrene | mg/kg (ppm) | 1 | <0.05 | 78 | 81 | 35-137 | 4 |
| Isopropylbenzene | mg/kg (ppm) | 1 | <0.05 | 85 | 87 | 31-142 | 2 |
| Bromoform | mg/kg (ppm) | 1 | <0.05 | 74 | 77 | 21-156 | 4 |
| n-Propylbenzene | mg/kg (ppm) | 1 | <0.05 | 83 | 83 | 23-146 | 0 |
| Bromobenzene | mg/kg (ppm) | 1 | <0.05 | 74 | 78 | 34-130 | 5 |
| 1,3,5-Trimethylbenzene | mg/kg (ppm) | 1 | <0.05 | 76 | 80 | 18-149 | 5 |
| 1,1,2,2-Tetrachloroethane | mg/kg (ppm) | 1 | <0.05 | 93 | 85 | 28-140 | 9 |
| 1,2,3-Trichloropropane | mg/kg (ppm) | 1 | <0.05 | 75 | 82 | 25-144 | 9 |
| 2-Chlorotoluene | mg/kg (ppm) | 1 | <0.05 | 77 | 80 | 31-134 | 4 |
| 4-Chlorotoluene | mg/kg (ppm) | 1 | <0.05 | 75 | 79 | 31-136 | 5 |
| tert-Butylbenzene | mg/kg (ppm) | 1 | <0.05 | 81 | 83 | 30-137 | 2 |
| 1,2,4-Trimethylbenzene | mg/kg (ppm) | 1 | <0.05 | 80 | 83 | 10-182 | 4 |
| sec-Butylbenzene | mg/kg (ppm) | 1 | <0.05 | 83 | 84 | 23-145 | 1 |
| p-Isopropyltoluene | mg/kg (ppm) | 1 | <0.05 | 82 | 84 | 21-149 | 2 |
| 1,3-Dichlorobenzene | mg/kg (ppm) | 1 | <0.05 | 77 | 79 | 30-131 | 3 |
| 1,4-Dichlorobenzene | mg/kg (ppm) | 1 | <0.05 | 77 | 80 | 29-129 | 4 |
| 1,2-Dichlorobenzene | mg/kg (ppm) | 1 | <0.05 | 77 | 80 | 31-132 | 4 |
| 1,2-Dibromo-3-chloropropane | mg/kg (ppm) | 1 | <0.5 | 80 | 81 | 11-161 | 1 |
| 1,2,4-Trichlorobenzene | mg/kg (ppm) | 1 | <0.25 | 83 | 85 | 22-142 | 2 |
| Hexachlorobutadiene | mg/kg (ppm) | 1 | <0.25 | 90 | 88 | 10-142 | 2 |
| Naphthalene | mg/kg (ppm) | 1 | <0.05 | 91 | 89 | 14-157 | 2 |
| 1,2,3-Trichlorobenzene | mg/kg (ppm) | 1 | <0.25 | 83 | 85 | 20-144 | 2 |

Date of Report: 05/12/22
Date Received: 04/25/22
Project: Auburn VW BE-0107-B, F&BI 204418

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

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Dichlorodifluoromethane | mg/kg (ppm) | 1 | 40 | 10-146 |
| Chloromethane | mg/kg (ppm) | 1 | 64 | 27-133 |
| Vinyl chloride | mg/kg (ppm) | 1 | 70 | 22-139 |
| Bromomethane | mg/kg (ppm) | 1 | 96 | 38-114 |
| Chloroethane | mg/kg (ppm) | 1 | 82 | 9-163 |
| Trichlorofluoromethane | mg/kg (ppm) | 1 | 83 | 10-196 |
| Acetone | mg/kg (ppm) | 5 | 76 | 52-141 |
| 1,1-Dichloroethene | mg/kg (ppm) | 1 | 91 | 47-128 |
| Hexane | mg/kg (ppm) | 1 | 88 | 43-142 |
| Methylene chloride | mg/kg (ppm) | 1 | 107 | 10-184 |
| Methyl t-butyl ether (MTBE) | mg/kg (ppm) | 1 | 95 | 60-123 |
| trans-1,2-Dichloroethene | mg/kg (ppm) | 1 | 94 | 67-129 |
| 1,1-Dichloroethane | mg/kg (ppm) | 1 | 95 | 68-115 |
| 2,2-Dichloropropane | mg/kg (ppm) | 1 | 133 | 52-170 |
| cis-1,2-Dichloroethene | mg/kg (ppm) | 1 | 97 | 72-127 |
| Chloroform | mg/kg (ppm) | 1 | 97 | 66-120 |
| 2-Butanone (MEK) | mg/kg (ppm) | 5 | 88 | 30-197 |
| 1,2-Dichloroethane (EDC) | mg/kg (ppm) | 1 | 94 | 56-135 |
| 1,1,1-Trichloroethane | mg/kg (ppm) | 1 | 98 | 62-131 |
| 1,1-Dichloropropene | mg/kg (ppm) | 1 | 93 | 69-128 |
| Carbon tetrachloride | mg/kg (ppm) | 1 | 99 | 60-139 |
| Benzene | mg/kg (ppm) | 1 | 93 | 71-118 |
| Trichloroethene | mg/kg (ppm) | 1 | 91 | 63-121 |
| 1,2-Dichloropropane | mg/kg (ppm) | 1 | 88 | 72-127 |
| Bromodichloromethane | mg/kg (ppm) | 1 | 97 | 57-126 |
| Dibromomethane | mg/kg (ppm) | 1 | 95 | 62-123 |
| 4-Methyl-2-pentanone | mg/kg (ppm) | 5 | 95 | 45-145 |
| cis-1,3-Dichloropropene | mg/kg (ppm) | 1 | 95 | 67-122 |
| Toluene | mg/kg (ppm) | 1 | 88 | 66-126 |
| trans-1,3-Dichloropropene | mg/kg (ppm) | 1 | 94 | 72-132 |
| 1,1,2-Trichloroethane | mg/kg (ppm) | 1 | 89 | 64-115 |
| 2-Hexanone | mg/kg (ppm) | 5 | 98 | 33-152 |
| 1,3-Dichloropropane | mg/kg (ppm) | 1 | 89 | 72-130 |
| Tetrachloroethene | mg/kg (ppm) | 1 | 91 | 72-114 |
| Dibromochloromethane | mg/kg (ppm) | 1 | 91 | 55-121 |
| 1,2-Dibromoethane (EDB) | mg/kg (ppm) | 1 | 92 | 74-132 |
| Chlorobenzene | mg/kg (ppm) | 1 | 91 | 76-111 |
| Ethylbenzene | mg/kg (ppm) | 1 | 92 | 64-123 |
| 1,1,1,2-Tetrachloroethane | mg/kg (ppm) | 1 | 98 | 64-121 |
| m,p-Xylene | mg/kg (ppm) | 2 | 92 | 78-122 |
| o-Xylene | mg/kg (ppm) | 1 | 94 | 77-124 |
| Styrene | mg/kg (ppm) | 1 | 91 | 74-126 |
| Isopropylbenzene | mg/kg (ppm) | 1 | 93 | 76-127 |
| Bromoform | mg/kg (ppm) | 1 | 92 | 56-132 |
| n-Propylbenzene | mg/kg (ppm) | 1 | 90 | 74-124 |
| Bromobenzene | mg/kg (ppm) | 1 | 87 | 72-122 |
| 1,3,5-Trimethylbenzene | mg/kg (ppm) | 1 | 89 | 76-126 |
| 1,1,2,2-Tetrachloroethane | mg/kg (ppm) | 1 | 91 | 56-143 |
| 1,2,3-Trichloropropane | mg/kg (ppm) | 1 | 90 | 61-137 |
| 2-Chlorotoluene | mg/kg (ppm) | 1 | 91 | 74-121 |
| 4-Chlorotoluene | mg/kg (ppm) | 1 | 90 | 75-122 |
| tert-Butylbenzene | mg/kg (ppm) | 1 | 92 | 73-130 |
| 1,2,4-Trimethylbenzene | mg/kg (ppm) | 1 | 90 | 76-125 |
| sec-Butylbenzene | mg/kg (ppm) | 1 | 91 | 71-130 |
| p-Isopropyltoluene | mg/kg (ppm) | 1 | 92 | 70-132 |
| 1,3-Dichlorobenzene | mg/kg (ppm) | 1 | 91 | 75-121 |
| 1,4-Dichlorobenzene | mg/kg (ppm) | 1 | 91 | 74-117 |
| 1,2-Dichlorobenzene | mg/kg (ppm) | 1 | 91 | 76-121 |
| 1,2-Dibromo-3-chloropropane | mg/kg (ppm) | 1 | 95 | 58-138 |
| 1,2,4-Trichlorobenzene | mg/kg (ppm) | 1 | 94 | 64-135 |
| Hexachlorobutadiene | mg/kg (ppm) | 1 | 96 | 50-153 |
| Naphthalene | mg/kg (ppm) | 1 | 93 | 63-140 |
| 1,2,3-Trichlorobenzene | mg/kg (ppm) | 1 | 94 | 63-138 |

Date of Report: 05/12/22
Date Received: 04/25/22
Project: Auburn VW BE-0107-B, F&BI 204418

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

Laboratory Code: 205099-02 1/5 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result (Wet wt) | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Naphthalene | mg/kg (ppm) | 0.83 | <0.01 | 82 | 78 | 50-150 | 5 |
| 2-Methylnaphthalene | mg/kg (ppm) | 0.83 | <0.01 | 85 | 83 | 50-150 | 2 |
| 1-Methylnaphthalene | mg/kg (ppm) | 0.83 | <0.01 | 84 | 82 | 50-150 | 2 |
| Acenaphthylene | mg/kg (ppm) | 0.83 | <0.01 | 85 | 84 | 50-150 | 1 |
| Acenaphthene | mg/kg (ppm) | 0.83 | <0.01 | 83 | 83 | 50-150 | 0 |
| Fluorene | mg/kg (ppm) | 0.83 | 0.016 | 84 | 88 | 50-150 | 5 |
| Phenanthrene | mg/kg (ppm) | 0.83 | 0.18 | 69 b | 67 b | 50-150 | 3 b |
| Anthracene | mg/kg (ppm) | 0.83 | 0.024 | 85 | 85 | 50-150 | 0 |
| Fluoranthene | mg/kg (ppm) | 0.83 | 0.17 | 72 b | 71 b | 50-150 | 1 b |
| Pyrene | mg/kg (ppm) | 0.83 | 0.15 | 76 | 71 | 50-150 | 7 |
| Benz(a)anthracene | mg/kg (ppm) | 0.83 | 0.063 | 81 | 83 | 50-150 | 2 |
| Chrysene | mg/kg (ppm) | 0.83 | 0.089 | 79 | 80 | 50-150 | 1 |
| Benzo(a)pyrene | mg/kg (ppm) | 0.83 | 0.077 | 84 | 84 | 50-150 | 0 |
| Benzo(b)fluoranthene | mg/kg (ppm) | 0.83 | 0.084 | 90 | 86 | 50-150 | 5 |
| Benzo(k)fluoranthene | mg/kg (ppm) | 0.83 | 0.030 | 94 | 93 | 50-150 | 1 |
| Indeno(1,2,3-cd)pyrene | mg/kg (ppm) | 0.83 | 0.034 | 65 | 72 | 50-150 | 10 |
| Dibenz(a,h)anthracene | mg/kg (ppm) | 0.83 | <0.01 | 74 | 79 | 50-150 | 7 |
| Benzo(g,h,i)perylene | mg/kg (ppm) | 0.83 | 0.030 | 63 | 69 | 50-150 | 9 |

Laboratory Code: Laboratory Control Sample 1/5

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Naphthalene | mg/kg (ppm) | 0.83 | 86 | 61-102 |
| 2-Methylnaphthalene | mg/kg (ppm) | 0.83 | 85 | 62-108 |
| 1-Methylnaphthalene | mg/kg (ppm) | 0.83 | 85 | 62-108 |
| Acenaphthylene | mg/kg (ppm) | 0.83 | 92 | 61-111 |
| Acenaphthene | mg/kg (ppm) | 0.83 | 91 | 61-110 |
| Fluorene | mg/kg (ppm) | 0.83 | 87 | 62-114 |
| Phenanthrene | mg/kg (ppm) | 0.83 | 92 | 64-112 |
| Anthracene | mg/kg (ppm) | 0.83 | 90 | 63-111 |
| Fluoranthene | mg/kg (ppm) | 0.83 | 90 | 66-115 |
| Pyrene | mg/kg (ppm) | 0.83 | 94 | 65-112 |
| Benz(a)anthracene | mg/kg (ppm) | 0.83 | 90 | 64-116 |
| Chrysene | mg/kg (ppm) | 0.83 | 93 | 66-119 |
| Benzo(a)pyrene | mg/kg (ppm) | 0.83 | 90 | 62-116 |
| Benzo(b)fluoranthene | mg/kg (ppm) | 0.83 | 91 | 61-118 |
| Benzo(k)fluoranthene | mg/kg (ppm) | 0.83 | 91 | 65-119 |
| Indeno(1,2,3-cd)pyrene | mg/kg (ppm) | 0.83 | 94 | 64-130 |
| Dibenz(a,h)anthracene | mg/kg (ppm) | 0.83 | 101 | 67-131 |
| Benzo(g,h,i)perylene | mg/kg (ppm) | 0.83 | 102 | 67-126 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

20418

# SAMPLE CHAIN OF CUSTODY

04/25/22 VS-B4 / ~~B3~~ / VW3 / B14

Page # 3 of 3

Report To Dan Hatch

Company Bluestone Environmental

Address

City, State, ZIP

Phone Email dan@bluestoneenv.com

SAMPLERS (signature)

PROJECT NAME: Auburn VW

PO #: BE-007-B

REMARKS: Project specific RLs? - Yes (No)

INVOICE TO: Bluestone

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | MTCA 5 | Synthetic | | | ● per DH 5/6/22 Notes #6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-1-5 | 01 A-E | 4/24/22 | 9:40 | S | 5 | ● | | | | ● | ● | | | | | | |
| B-1-10 | 02 | | 9:45 | | | X | X | | | X | | | | | | | |
| B-1-13 | 03 | | 9:50 | | | X | X | | | X | X | | X | | | | |
| B-1-15 | 04 | | 9:55 | | | | | | | | | | | | | | |
| B-1-W | 05 A-F | | 10:10 | W | 6 | X | X | | | X | X | | X | | | | 4oz VOA for PAHs |
| B-2-5 | 06 A-F | | 10:30 | S | 5 | X | X | | | X | X | | X | | | | |
| B-2-10 | 07 | | 10:35 | | | ● | | | | | ● | | | | | | |
| B-2-13 | 08 | | 10:40 | | | X | | | | X | | | | | | | |
| B-2-15 | 09 | | 10:45 | | | | | | | | | | | | | | |
| B-2-W | 10 | | 10:55 | W | 6 | X | X | | | X | X | | X | | | | |

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | Dan Hatch | Bluestone | 4/25/22 | 13:00 |
| Received by: | Eric Young | FedEx | 4/26/22 | ~~0855~~ 1835 |
| Relinquished by: | | | | |
| Received by: | | Samples received at 4 °C | | |


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

20418

# SAMPLE CHAIN OF CUSTODY

04/25/22 BD4/VS-B4/VW3/ED3

Page # 2 of 3

Report To Dan Hatch

Company Bluestone

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)

PROJECT NAME: Auburn VW

PO #: BE-0102-B

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: Bluestone

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | MCTA 5 metals | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-3-5 | 11 A-E | 4/24/22 | 11:10 | S | 5 | X | X | | | X | ● | | | | | | |
| B-3-10 | 12 | | 11:15 | | | | | | | | | | | | | | |
| B-3-12 | 13 | | 11:20 | | | X | X | | | X | | | | | | | |
| B-3-15 | 14 | | 11:25 | | | | | | | | | | | | | | |
| ~~B-4-0~~ B-4-5 | 15 | | 11:50 | | | ● | | | | | ● | | | | | | |
| B-4-10 | 16 | | 11:55 | | | X | X | | | X | | | | | | | |
| B-4-14 | 17 | | 12:00 | | | X | X | | | X | X | | X | | | | |
| B-4-15 | 18 | | 12:05 | ↓ | ↓ | | | | | | | | | | | | |
| B-4-W | 19 A-F | ↓ | 12:10 | W | 6 | X | X | | | X | X | | X | | | | |
| | | | | | | | | | | | | | | | | | |

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | Dan Hatch | Bluestone | 4/25/22 | 1300 |
| Received by: | Eric Young | FJB | 4/25/22 | ~~0945~~ 1835 |
| Relinquished by: | | | | |
| Received by: | | Samples received at | | 4 °C |


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

204418

# SAMPLE CHAIN OF CUSTODY

04/25/22 AB / BDH / VS-B4 3 E03

Page # 3 of 3 WW3

Report To Bluestone

Company

Address

City, State, ZIP

Phone Email

SAMPLERS (signature)

PROJECT NAME: Auburn UW

PO #: BE0107-B

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Bluestone

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | metals | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-5-5 | 20 A-E | 4/24/22 | 12:55 | S | 5 | | | | | | | | | | | | ✓ - per DH |
| B-5-10 | 21 | | 13:00 | | | X | | | | X | X | | | | | | 4/26 |
| B-5-12 | 22 | | 13:05 | | | | | | | | | | | | | | |
| B-5-15 | 23 | | 13:10 | | | X | | | | X | | | X | | | | |
| B-5-W | 24 A-F | | 13:15 | W | 6 | X | X | | | X | ✓ | | X | | | | |
| B-6-5 | 25 A-E | | 13:30 | S | 5 | | | | | | ● | | | | | | |
| B-6-10 | 26 | | 13:35 | | | X | | | | X | | | | | | | |
| B-6-13 | 27 | | 13:40 | | | X | X | | | X | X | | X | | | | |
| B-6-15 | 28 | | 13:45 | | | | | | | | | | | | | | |
| B-6-W | 29 A-F | | 13 55 | W | 6 | X | X | | | X | X | | X | | | | unpreserved Plo1 |

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | Dan Hatfield | Bluestone | 4/25/22 | 13:00 |
| Received by: | Eric Nelson | F-B | 4/27/22 | 1835 |
| Relinquished by: | | | | |
| Received by: | | Samples received at 4 °C | | |

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 15, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the additional results from the testing of material submitted on May 27, 2022 from the Auburn BE-0107-C, F&BI 205474 project. There are 4 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
BST0615R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 27, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn BE-0107-C, F&BI 205474 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 205474 -01 | MW-1-W |
| 205474 -02 | MW-2-W |
| 205474 -03 | MW-3-W |
| 205474 -04 | MW-4-W |
| 205474 -05 | MW-5-W |
| 205474 -06 | MW-Dup |

All quality control requirements were acceptable.

Date of Report: 06/15/22
Date Received: 05/27/22
Project: Auburn BE-0107-C, F&BI 205474
Date Extracted: 06/10/22
Date Analyzed: 06/10/22

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

Results Reported as ug/L (ppb)

| Sample ID<br>Laboratory ID | Gasoline Range | Surrogate (% Recovery)<br>(Limit 51-134) |
|---|---|---|
| MW-1-W<br>205474-01 | <100 | 91 |
| MW-2-W<br>205474-02 | <100 | 75 |
| MW-3-W<br>205474-03 | <100 | 76 |
| MW-4-W<br>205474-04 | <100 | 76 |
| MW-5-W<br>205474-05 | <100 | 81 |
| MW-Dup<br>205474-06 | <100 | 82 |
| Method Blank<br>02-1150 MB | <100 | 83 |

Date of Report: 06/15/22
Date Received: 05/27/22
Project: Auburn BE-0107-C, F&BI 205474

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

Laboratory Code: 206151-01 (Duplicate)

| Analyte | Reporting Units | Sample Result | Duplicate Result | RPD (Limit 20) |
|---|---|---|---|---|
| Gasoline | ug/L (ppb) | <100 | <100 | nm |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Gasoline | ug/L (ppb) | 1,000 | 111 | 69-134 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

205474

# SAMPLE CHAIN OF CUSTODY

05-27-22

E03/A13/VW5

Page # 1 of 1

Report To DAN HATCH

Company BLUESTONE

Address

City, State, ZIP

Phone Email danh@bluestonenw.com

SAMPLERS (signature)

PROJECT NAME: Auburn VW

PO #: BE-0107-C

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: BLUESTONE

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | MTCA 5 Metals | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1-W | 01 A-I | 5/26/22 | 1130 | W | 9 | X | | | | X | X | | X | | | | + |
| MW-2-W | 02 | | 915 | | | X | | | | X | X | | X | | | | |
| MW-3-W | 03 | | 1100 | | | X | | | | X | X | | X | | | | |
| MW-4-W | 04 | | 1015 | | | X | | | | X | X | | X | | | | |
| MW-5-W | 05 | | 950 | | | X | | | | X | X | | X | | | | |
| MW-DUP | 06 | | 2400 | | | X | | | | X | X | | X | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

ANALYSES REQUESTED

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | HALEY CARTER | BLUESTONE | 5/27/22 | 900 |
| Received by: | Liz Webber - Bruya | F?B | 5/27/22 | 1257 |
| Relinquished by: | | | | |
| Received by: | | Samples received at | 4 °C | |

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

June 15, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the additional results from the testing of material submitted on May 23, 2022 from the Auburn VW BE-0107_BC, F&BI 205405 project. There are 5 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
BST0615R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 23, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW BE-0107_BC, F&BI 205405 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 205405 -01 | MW-1-5 |
| 205405 -02 | MW-1-7 |
| 205405 -03 | MW-1-12 |
| 205405 -04 | MW-1-15 |
| 205405 -05 | MW-2-5 |
| 205405 -06 | MW-2-8 |
| 205405 -07 | MW-2-12 |
| 205405 -08 | MW-2-15 |
| 205405 -09 | MW-3-3 |
| 205405 -10 | MW-3-5 |
| 205405 -11 | MW-3-10 |
| 205405 -12 | MW-3-15 |
| 205405 -13 | MW-4-3 |
| 205405 -14 | MW-4-5 |
| 205405 -15 | MW-4-10 |
| 205405 -16 | MW-4-15 |
| 205405 -17 | MW-5-3 |
| 205405 -18 | MW-5-5 |
| 205405 -19 | MW-5-10 |
| 205405 -20 | MW-5-15 |

The NWTPH-Gx and BTEX samples were requested outside of the holding time. The data were flagged accordingly.

All other quality control requirements were acceptable.

Date of Report: 06/15/22
Date Received: 05/23/22
Project: Auburn VW BE-0107_BC, F&BI 205405
Date Extracted: 06/13/22
Date Analyzed: 06/13/22

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

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

| Sample ID<br>Laboratory ID | Benzene | Toluene | Ethyl Benzene | Total Xylenes | Gasoline Range | Surrogate (% Recovery)<br>(Limit 50-150) |
|---|---|---|---|---|---|---|
| MW-1-5 ht<br>205405-01 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 81 |
| MW-1-7 ht<br>205405-02 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 83 |
| MW-1-12 ht<br>205405-03 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 67 |
| MW-2-5 ht<br>205405-05 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 82 |
| MW-2-8 ht<br>205405-06 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 84 |
| MW-2-12 ht<br>205405-07 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 86 |
| MW-3-3 ht<br>205405-09 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 83 |
| MW-3-5 ht<br>205405-10 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 80 |
| MW-3-10 ht<br>205405-11 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 81 |
| MW-4-3 ht<br>205405-13 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 61 |
| MW-4-5 ht<br>205405-14 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 81 |

Date of Report: 06/15/22
Date Received: 05/23/22
Project: Auburn VW BE-0107_BC, F&BI 205405
Date Extracted: 06/13/22
Date Analyzed: 06/13/22

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

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

| Sample ID<br>Laboratory ID | Benzene | Toluene | Ethyl Benzene | Total Xylenes | Gasoline Range | Surrogate (% Recovery)<br>(Limit 50-150) |
|---|---|---|---|---|---|---|
| MW-4-10 ht<br>205405-15 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 74 |
| MW-5-3 ht<br>205405-17 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 79 |
| MW-5-5 ht<br>205405-18 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 77 |
| MW-5-10 ht<br>205405-19 | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 75 |
| Method Blank<br>02-1153 MB | <0.02 | <0.02 | <0.02 | <0.06 | <5 | 84 |

Date of Report: 06/15/22
Date Received: 05/23/22
Project: Auburn VW BE-0107_BC, F&BI 205405

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

Laboratory Code: 205405-01 (Duplicate)

| Analyte | Reporting Units | Sample Result (Wet Wt) | Duplicate Result (Wet Wt) | RPD (Limit 20) |
|---|---|---|---|---|
| Benzene | mg/kg (ppm) | <0.02 | <0.02 | nm |
| Toluene | mg/kg (ppm) | <0.02 | <0.02 | nm |
| Ethylbenzene | mg/kg (ppm) | <0.02 | <0.02 | nm |
| Xylenes | mg/kg (ppm) | <0.06 | <0.06 | nm |
| Gasoline | mg/kg (ppm) | <5 | <5 | nm |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Benzene | mg/kg (ppm) | 0.5 | 90 | 69-120 |
| Toluene | mg/kg (ppm) | 0.5 | 90 | 70-117 |
| Ethylbenzene | mg/kg (ppm) | 0.5 | 90 | 65-123 |
| Xylenes | mg/kg (ppm) | 1.5 | 93 | 66-120 |
| Gasoline | mg/kg (ppm) | 20 | 105 | 71-131 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# SAMPLE CHAIN OF CUSTODY

205405

05/23/22

US-84 / BT42

Page # 1 of 2

Report To DAN HATCH

Company BLUESTONE NW

Address

City, State, ZIP

Phone Email danh@bluestonenw.com

SAMPLERS (*signature*)

PROJECT NAME: Auburn VW

PO #: BE-0107-BC

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: BLUESTONE

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | MTCA 5 | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1-5 | 01 A-E | 5/23/22 | 905 | S | 5 | | | | | | | | | | | | |
| MW-1-7 | 02 | | 910 | | | X | | | | X | | X | | | | | |
| MW-1-12 | 03 | | 915 | | | | | | | | | | | | | | |
| MW-1-15 | 04 | | 920 | | | | | | | | | | | | | | |
| MW-2-5 | 05 | | 1050 | | | | | | | | | | X | | | | |
| MW-2-8 | 06 | | 1055 | | | X | | | | | X | | X | | | | |
| MW-2-12 | 07 | | 1100 | | | | | | | | | | | | | | |
| MW-2-15 | 08 | | 1105 | | | | | | | | | | | | | | |
| MW-3-3 | 09 | | 1345 | | | X | | | | X | X | | X | | | | |
| MW-3-5 | 10 | ↓ | 1350 | ↓ | ↓ | | | | | | | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | HALEY CARTER | BLUESTONE | 5/24/22 | 750 |
| Received by: | | Liz Webber-Bruya | F?B | 5/24/22 | 1110 |
| Relinquished by: | | | Samples received at 3 | | °C |
| Received by: | | | | | |

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

# SAMPLE CHAIN OF CUSTODY

205405

05/23/22 VS-B4/2 BIY2

Page # 1 of 2

Report To DAN HATCH

Company

Address

City, State, ZIP

Phone Email danh@bluestonenw.com

SAMPLERS (signature)

PROJECT NAME: Auburn VW

PO #: BE-0107-C

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: BLUESTONE

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | MTCA 5 METALS | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-3-10 | 11 AE | 5/23/22 | 1355 | S | 5 | X | | | | | | | | | | | |
| MW-3-15 | 12 | | 1400 | | | | | | | | | | | | | | |
| MW-4-3 | 13 | | 1450 | | | X | | | | X | X | | X | | | | |
| MW-4-5 | 14 | | 1455 | | | | | | | | | | | | | | |
| MW-4-10 | 15 | | 1500 | | | X | | | | | | | | | | | |
| MW-4-15 | 16 | | 1505 | | | | | | | | | | | | | | |
| MW-5-3 | 17 | | 1540 | | | X | | | | X | X | | X | | | | |
| MW-5-5 | 18 | | 1545 | | | | | | | | | | | | | | |
| MW-5-10 | 19 | | 1550 | | | X | | | | | | | | | | | |
| MW-5-15 | 20 | ↓ | 1555 | ↓ | ↓ | | | | | | | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | HALEY CARTER | BLUESTONE | 5/24/22 | 750 |
| Received by: | | Liz Webber-Bryan | F?B | 5/24/22 | 1110 |
| Relinquished by: | | | | | |
| Received by: | | | | | |

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

July 28, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the results from the testing of material submitted on July 21, 2022 from the Auburn VW BE-0107-D, F&BI 207331 project. There are 14 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
BST0728R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 21, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW BE-0107-D, F&BI 207331 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 207331 -01 | B-7-3 |
| 207331 -02 | B-7-5 |
| 207331 -03 | B-7-8 |
| 207331 -04 | B-8-3 |
| 207331 -05 | B-8-5 |
| 207331 -06 | B-8-8 |
| 207331 -07 | B-9-3 |
| 207331 -08 | B-9-5 |
| 207331 -09 | B-9-8 |
| 207331 -10 | B-10-3 |
| 207331 -11 | B-10-5 |
| 207331 -12 | B-10-6 |
| 207331 -13 | B-10-8 |
| 207331 -14 | B-11-3 |
| 207331 -15 | B-11-5 |
| 207331 -16 | B-11-8 |
| 207331 -17 | B-12-3 |
| 207331 -18 | B-12-5 |
| 207331 -19 | B-12-8 |
| 207331 -20 | B-13-3 |
| 207331 -21 | B-13-5 |
| 207331 -22 | B-13-8 |
| 207331 -23 | B-14-3 |
| 207331 -24 | B-14-5 |
| 207331 -25 | B-14-8 |

All quality control requirements were acceptable.

Date of Report: 07/28/22
Date Received: 07/21/22
Project: Auburn VW BE-0107-D, F&BI 207331
Date Extracted: 07/22/22
Date Analyzed: 07/22/22

**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)

| Sample ID<br>Laboratory ID | Diesel Range<br>($C_{10}$-$C_{25}$) | Motor Oil Range<br>($C_{25}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 56-165) |
|---|---|---|---|
| B-7-3<br>207331-01 | <50 | <250 | 107 |
| B-7-5<br>207331-02 | <50 | <250 | 100 |
| B-8-3<br>207331-04 | <50 | <250 | 103 |
| B-8-5<br>207331-05 | <50 | <250 | 101 |
| B-13-3<br>207331-20 | <50 | <250 | 104 |
| B-13-5<br>207331-21 | <50 | <250 | 107 |
| B-14-3<br>207331-23 | <50 | <250 | 101 |
| B-14-5<br>207331-24 | <50 | <250 | 100 |
| Method Blank<br>02-1825 MB | <50 | <250 | 90 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-9-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-07 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072616.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 80 | 39 | 103 |
| Phenol-d6 | 91 | 48 | 109 |
| Nitrobenzene-d5 | 84 | 23 | 138 |
| 2-Fluorobiphenyl | 93 | 50 | 150 |
| 2,4,6-Tribromophenol | 99 | 40 | 127 |
| Terphenyl-d14 | 103 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-9-5 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-08 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072617.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 70 | 39 | 103 |
| Phenol-d6 | 84 | 48 | 109 |
| Nitrobenzene-d5 | 82 | 23 | 138 |
| 2-Fluorobiphenyl | 89 | 50 | 150 |
| 2,4,6-Tribromophenol | 60 | 40 | 127 |
| Terphenyl-d14 | 98 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | 0.014 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-10-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-10 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072607.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 78 | 39 | 103 |
| Phenol-d6 | 88 | 48 | 109 |
| Nitrobenzene-d5 | 85 | 23 | 138 |
| 2-Fluorobiphenyl | 97 | 50 | 150 |
| 2,4,6-Tribromophenol | 93 | 40 | 127 |
| Terphenyl-d14 | 102 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-10-6 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-12 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072608.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 75 | 39 | 103 |
| Phenol-d6 | 86 | 48 | 109 |
| Nitrobenzene-d5 | 82 | 23 | 138 |
| 2-Fluorobiphenyl | 90 | 50 | 150 |
| 2,4,6-Tribromophenol | 96 | 40 | 127 |
| Terphenyl-d14 | 98 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | 0.013 |
| 2-Methylnaphthalene | 0.042 |
| 1-Methylnaphthalene | 0.029 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-11-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-14 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072609.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 80 | 39 | 103 |
| Phenol-d6 | 90 | 48 | 109 |
| Nitrobenzene-d5 | 86 | 23 | 138 |
| 2-Fluorobiphenyl | 95 | 50 | 150 |
| 2,4,6-Tribromophenol | 99 | 40 | 127 |
| Terphenyl-d14 | 104 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-11-5 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-15 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072610.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 70 | 39 | 103 |
| Phenol-d6 | 84 | 48 | 109 |
| Nitrobenzene-d5 | 82 | 23 | 138 |
| 2-Fluorobiphenyl | 90 | 50 | 150 |
| 2,4,6-Tribromophenol | 51 | 40 | 127 |
| Terphenyl-d14 | 100 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-12-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-17 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072611.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 77 | 39 | 103 |
| Phenol-d6 | 86 | 48 | 109 |
| Nitrobenzene-d5 | 83 | 23 | 138 |
| 2-Fluorobiphenyl | 96 | 50 | 150 |
| 2,4,6-Tribromophenol | 95 | 40 | 127 |
| Terphenyl-d14 | 100 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | B-12-5 | Client: | Bluestone Environmental NW |
| Date Received: | 07/21/22 | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 207331-18 1/5 |
| Date Analyzed: | 07/26/22 | Data File: | 072612.D |
| Matrix: | Soil | Instrument: | GCMS12 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 70 | 39 | 103 |
| Phenol-d6 | 84 | 48 | 109 |
| Nitrobenzene-d5 | 78 | 23 | 138 |
| 2-Fluorobiphenyl | 90 | 50 | 150 |
| 2,4,6-Tribromophenol | 85 | 40 | 127 |
| Terphenyl-d14 | 96 | 50 | 150 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | 0.065 |
| Anthracene | 0.011 |
| Fluoranthene | 0.12 |
| Pyrene | 0.14 |
| Benz(a)anthracene | 0.068 |
| Chrysene | 0.069 |
| Benzo(a)pyrene | 0.090 |
| Benzo(b)fluoranthene | 0.075 |
| Benzo(k)fluoranthene | 0.027 |
| Indeno(1,2,3-cd)pyrene | 0.033 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | 0.028 |

## Analysis For Semivolatile Compounds By EPA Method 8270E

| | | | |
|---|---|---|---|
| Client Sample ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | Not Applicable | Project: | Auburn VW BE-0107-D |
| Date Extracted: | 07/25/22 | Lab ID: | 02-1830 mb 1/5 |
| Date Analyzed: | 07/25/22 | Data File: | 072505.D |
| Matrix: | Soil | Instrument: | GCMS9 |
| Units: | mg/kg (ppm) Dry Weight | Operator: | VM |

| Surrogates: | % Recovery: | Lower Limit: | Upper Limit: |
|---|---|---|---|
| 2-Fluorophenol | 84 | 24 | 111 |
| Phenol-d6 | 93 | 37 | 116 |
| Nitrobenzene-d5 | 80 | 38 | 117 |
| 2-Fluorobiphenyl | 96 | 45 | 117 |
| 2,4,6-Tribromophenol | 102 | 11 | 158 |
| Terphenyl-d14 | 119 | 50 | 124 |

| Compounds: | Concentration mg/kg (ppm) |
|---|---|
| Naphthalene | <0.01 |
| 2-Methylnaphthalene | <0.01 |
| 1-Methylnaphthalene | <0.01 |
| Acenaphthylene | <0.01 |
| Acenaphthene | <0.01 |
| Fluorene | <0.01 |
| Phenanthrene | <0.01 |
| Anthracene | <0.01 |
| Fluoranthene | <0.01 |
| Pyrene | <0.01 |
| Benz(a)anthracene | <0.01 |
| Chrysene | <0.01 |
| Benzo(a)pyrene | <0.01 |
| Benzo(b)fluoranthene | <0.01 |
| Benzo(k)fluoranthene | <0.01 |
| Indeno(1,2,3-cd)pyrene | <0.01 |
| Dibenz(a,h)anthracene | <0.01 |
| Benzo(g,h,i)perylene | <0.01 |

Date of Report: 07/28/22
Date Received: 07/21/22
Project: Auburn VW BE-0107-D, F&BI 207331

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

Laboratory Code: 207357-01 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result (Wet Wt) | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Diesel Extended | mg/kg (ppm) | 5,000 | <50 | 106 | 112 | 63-146 | 6 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Diesel Extended | mg/kg (ppm) | 5,000 | 122 | 79-144 |

Date of Report: 07/28/22
Date Received: 07/21/22
Project: Auburn VW BE-0107-D, F&BI 207331

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

Laboratory Code: 207385-02 1/5 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result (Wet wt) | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Naphthalene | mg/kg (ppm) | 0.83 | <0.01 | 78 | 79 | 34-118 | 1 |
| 2-Methylnaphthalene | mg/kg (ppm) | 0.83 | <0.01 | 82 | 83 | 29-130 | 1 |
| 1-Methylnaphthalene | mg/kg (ppm) | 0.83 | <0.01 | 82 | 83 | 37-119 | 1 |
| Acenaphthylene | mg/kg (ppm) | 0.83 | 0.034 | 83 | 83 | 45-128 | 0 |
| Acenaphthene | mg/kg (ppm) | 0.83 | <0.01 | 85 | 85 | 36-125 | 0 |
| Fluorene | mg/kg (ppm) | 0.83 | 0.032 | 85 | 84 | 48-121 | 1 |
| Phenanthrene | mg/kg (ppm) | 0.83 | 0.35 | 46 b | 46 b | 50-150 | 0 b |
| Anthracene | mg/kg (ppm) | 0.83 | 0.063 | 82 | 80 | 50-150 | 2 |
| Fluoranthene | mg/kg (ppm) | 0.83 | 0.31 | 57 b | 56 b | 50-150 | 2 b |
| Pyrene | mg/kg (ppm) | 0.83 | 0.40 | 45 b | 45 b | 50-150 | 0 b |
| Benz(a)anthracene | mg/kg (ppm) | 0.83 | 0.16 | 72 | 73 | 50-150 | 1 |
| Chrysene | mg/kg (ppm) | 0.83 | 0.17 | 68 b | 68 b | 50-150 | 0 b |
| Benzo(a)pyrene | mg/kg (ppm) | 0.83 | 0.16 | 76 | 75 | 50-150 | 1 |
| Benzo(b)fluoranthene | mg/kg (ppm) | 0.83 | 0.13 | 79 | 80 | 50-150 | 1 |
| Benzo(k)fluoranthene | mg/kg (ppm) | 0.83 | 0.045 | 87 | 88 | 50-150 | 1 |
| Indeno(1,2,3-cd)pyrene | mg/kg (ppm) | 0.83 | 0.079 | 91 | 83 | 41-134 | 9 |
| Dibenz(a,h)anthracene | mg/kg (ppm) | 0.83 | 0.015 | 97 | 90 | 44-130 | 7 |
| Benzo(g,h,i)perylene | mg/kg (ppm) | 0.83 | 0.075 | 86 | 78 | 33-131 | 10 |

.

Laboratory Code: Laboratory Control Sample 1/5

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Naphthalene | mg/kg (ppm) | 0.83 | 78 | 58-108 |
| 2-Methylnaphthalene | mg/kg (ppm) | 0.83 | 81 | 67-108 |
| 1-Methylnaphthalene | mg/kg (ppm) | 0.83 | 81 | 66-107 |
| Acenaphthylene | mg/kg (ppm) | 0.83 | 90 | 70-130 |
| Acenaphthene | mg/kg (ppm) | 0.83 | 89 | 66-112 |
| Fluorene | mg/kg (ppm) | 0.83 | 94 | 67-117 |
| Phenanthrene | mg/kg (ppm) | 0.83 | 88 | 70-130 |
| Anthracene | mg/kg (ppm) | 0.83 | 90 | 70-130 |
| Fluoranthene | mg/kg (ppm) | 0.83 | 91 | 70-130 |
| Pyrene | mg/kg (ppm) | 0.83 | 87 | 70-130 |
| Benz(a)anthracene | mg/kg (ppm) | 0.83 | 91 | 70-130 |
| Chrysene | mg/kg (ppm) | 0.83 | 90 | 70-130 |
| Benzo(a)pyrene | mg/kg (ppm) | 0.83 | 91 | 68-120 |
| Benzo(b)fluoranthene | mg/kg (ppm) | 0.83 | 90 | 69-125 |
| Benzo(k)fluoranthene | mg/kg (ppm) | 0.83 | 92 | 70-130 |
| Indeno(1,2,3-cd)pyrene | mg/kg (ppm) | 0.83 | 106 | 67-129 |
| Dibenz(a,h)anthracene | mg/kg (ppm) | 0.83 | 109 | 67-128 |
| Benzo(g,h,i)perylene | mg/kg (ppm) | 0.83 | 107 | 64-127 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

207331

# SAMPLE CHAIN OF CUSTODY

07-21-22

VSB3/A07

Page # 1 of 3

Report To DAN HATCH & HALEY CARTER

Company BLUESTONE

Address

City, State, ZIP

Phone Email dan@bluestonenw.com

SAMPLERS (signature)

PROJECT NAME: Auburn VW

PO #: BE-0107-D

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Buck Clary

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

SAMPLE DISPOSAL
☐ Archive samples
☐ Other
Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-7-3 | 01 A-E | 7/20/22 | 845 | S | 5 | X | | | | | | | | | | | |
| B-7-5 | 02 | | 850 | | | X | | | | | | | | | | | |
| B-7-8 | 03 | | 855 | | | | | | | | | | | | | | |
| B-8-3 | 04 | | 910 | | | X | | | | | | | | | | | |
| B-8-5 | 05 | | 915 | | | X | | | | | | | | | | | |
| B-8-8 | 06 | | 920 | | | | | | | | | | | | | | |
| B-9-3 | 07 | | 935 | | | | | | | | X | | | | | | |
| B-9-5 | 08 | | 940 | | | | | | | | X | | | | | | |
| B-9-8 | 09 | | 945 | | | | | | | | | | | | | | |
| B-10-3 | 10 | ↓ | 1000 | ↓ | ↓ | | | | | | X | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | HALEY CARTER | BLUESTONE | 7/21/22 | 800 |
| Received by: | | Ann WBruya | FAB | 7/21/22 | 0815 |
| Relinquished by: | | | Samples received at 5 °C | | |
| Received by: | | | | | |

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

207331

# SAMPLE CHAIN OF CUSTODY

7-21-22

Page # 2 of 3

Report To DAN HATCH & HALEY CARTER

Company BLUESTONE

Address

City, State, ZIP

Phone Email dan@bluestonenw.com

SAMPLERS (*signature*)

PROJECT NAME: Auburn VW

PO #: BE-0107-D

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Bud Clary

TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-10-5 | 11 A-E | 7/20/22 | 1005 | S | 5 | | | | | | | | | | | | |
| B-10-6 | 12 | | 1007 | | | | | | | | X | | | | | | |
| B-10-8 | 13 | | 1010 | | | | | | | | | | | | | | |
| B-11-3 | 14 | | 1025 | | | | | | | | X | | | | | | |
| B-11-5 | 15 | | 1030 | | | | | | | | X | | | | | | |
| B-11-8 | 16 | | 1035 | | | | | | | | | | | | | | |
| B-12-3 | 17 | | 1050 | | | | | | | | X | | | | | | |
| B-12-5 | 18 | | 1055 | | | | | | | | X | | | | | | |
| B-12-8 | 19 | | 1100 | | | | | | | | | | | | | | |
| B-13-3 | 20 | ↓ | 1210 | ↓ | ↓ | X | | | | | | | | | | | |

ANALYSES REQUESTED

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | HALEY CARTER | BLUESTONE | 7/21/22 | 800 |
| Received by: | Ann Wanya | F&B | 7/21/22 | 0815 |
| Relinquished by: | | Samples received at 5 °C | | |
| Received by: | | | | |

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

207331

# SAMPLE CHAIN OF CUSTODY

07-21-22

Report To DAN HATCH & HALEY CARTER

Company BLUESTONE

Address

City, State, ZIP

Phone Email DanH@bluestonenw.com

SAMPLERS (signature)

PROJECT NAME: Auburn NW

PO #: BE-0107-D

REMARKS

Project specific RLs? - Yes / No

INVOICE TO: Bud Clary



TURNAROUND TIME
- [x] Standard turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Archive samples
- [ ] Other
Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-13-5 | 21 A-E | 7/20/22 | 1215 | S | 5 | X | | | | | | | | | | | |
| B-13-8 | 22 | " | 1220 | " | " | | | | | | | | | | | | |
| B-14-3 | 23 | " | 1240 | " | " | X | | | | | | | | | | | |
| B-14-5 | 24 | " | 1245 | " | " | X | | | | | | | | | | | |
| B-14-8 | 25 | " | 1250 | " | " | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | HALEY CARTER | BLUESTONE | 7/21/22 | 800 |
| Received by: | | Ann Bruya | FRB | 7/21/22 | 0815 |
| Relinquished by: | | | | | |
| Received by: | | | Samples received at 5 °C | | |

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

August 8, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the results from the testing of material submitted on July 26, 2022 from the Auburn VW, F&BI 207447 project. There are 24 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
BST0808R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on July 26, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW, F&BI 207447 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 207447 -01 | MW-1 |
| 207447 -02 | MW-2 |
| 207447 -03 | MW-3 |
| 207447 -04 | MW-4 |
| 207447 -05 | MW-5 |
| 207447 -06 | MW-DUPA |

All quality control requirements were acceptable.

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447
Date Extracted: 07/27/22
Date Analyzed: 07/27/22

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

Results Reported as ug/L (ppb)

| Sample ID<br>Laboratory ID | Diesel Extended<br>($C_{10}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 41-152) |
|---|---|---|
| MW-1<br>207447-01 | 960 x | 144 |
| MW-2<br>207447-02 | 940 x | ip |
| MW-3<br>207447-03 | 670 x | 145 |
| MW-4<br>207447-04 | 550 x | ip |
| MW-5<br>207447-05 | 300 x | ip |
| MW-DUPA<br>207447-06 | 510 x | 141 |
| Method Blank<br>02-1847 MB | <250 | 111 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-1 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 07/27/22 | Lab ID: | 207447-01 x5 |
| Date Analyzed: | 08/01/22 | Data File: | 207447-01 x5.189 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 20.0 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-2 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-02 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-02 x5.151 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 58.1 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-03 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-03 x5.152 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 14.3 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-4 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 07/27/22 | Lab ID: | 207447-04 x10 |
| Date Analyzed: | 08/01/22 | Data File: | 207447-04 x10.056 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 11.4 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-5 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-05 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-05 x5.153 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 35.4 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-DUPA | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-06 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-06 x5.154 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 11.5 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 07/28/22 | Lab ID: | I2-511 mb |
| Date Analyzed: | 07/28/22 | Data File: | I2-511 mb.046 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | I2-526 mb |
| Date Analyzed: | 08/03/22 | Data File: | I2-526 mb.116 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-1 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/01/22 | Lab ID: | 207447-01 |
| Date Analyzed: | 08/01/22 | Data File: | 207447-01.192 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 17.8 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-2 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-02 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-02 x5.145 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 55.6 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-3 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-03 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-03 x5.146 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 16.2 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-4 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/01/22 | Lab ID: | 207447-04 x10 |
| Date Analyzed: | 08/01/22 | Data File: | 207447-04 x10.182 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 11.1 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-5 | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-05 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-05 x5.147 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 34.5 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-DUPA | Client: | Bluestone Environmental NW |
| Date Received: | 07/26/22 | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | 207447-06 x5 |
| Date Analyzed: | 08/03/22 | Data File: | 207447-06 x5.148 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 11.9 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/03/22 | Lab ID: | I2-527 mb |
| Date Analyzed: | 08/03/22 | Data File: | I2-527 mb.083 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW, F&BI 207447 |
| Date Extracted: | 08/01/22 | Lab ID: | I2-519 mb |
| Date Analyzed: | 08/01/22 | Data File: | I2-519 mb.141 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447

## 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

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Percent Recovery LCSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|
| Diesel Extended | ug/L (ppb) | 2,500 | 108 | 108 | 63-142 | 0 |

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447

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

Laboratory Code: 207468-07 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | <1 | 98 | 102 | 75-125 | 4 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 92 | 80-120 |

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447

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

Laboratory Code: 207447-04 x10 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 11.4 | 95 | 91 | 75-125 | 4 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 95 | 80-120 |

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447

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

Laboratory Code: 207416-01 x10 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 10.6 | 85 | 84 | 75-125 | 1 |

Laboratory Code: Laboratory Control Sample

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

Date of Report: 08/08/22
Date Received: 07/26/22
Project: Auburn VW, F&BI 207447

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

Laboratory Code: 207489-03 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 22.9 | 126 b | 126 b | 75-125 | 0 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 91 | 80-120 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# SAMPLE CHAIN OF CUSTODY

207447

Report To DAN HATCH & HALEY CARTER

Company BLUESTONE

Address

City, State, ZIP

Phone Email dan@bluestonenw.com

SAMPLERS (signature) 7/26/22

PROJECT NAME: Auburn VW

PO #

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

EDB/AIS/VW4

Page # 1 of 1

TURNAROUND TIME
- ~~Standard turnaround~~
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | T&D | Arsenic | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 01A-6 | 7/26/22 | 850 | W | 7 | X | | | | | | | X | | | | |
| MW-2 | 02 | | 820 | | | X | | | | | | | X | | | | |
| MW-3 | 03 | | 1015 | | | X | | | | | | | X | | | | |
| MW-4 | 04 | | 940 | | | X | | | | | | | X | | | | |
| MW-5 | 05 | | 920 | | | X | | | | | | | X | | | | |
| MW-DUPA | 06 | ↓ | 2400 | ↓ | ↓ | X | | | | | | | X | | | | |
| | | | | | | | | | | | | | | | | | |
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| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | HALEY CARTER | BLUESTONE | 7/26/22 | |
| Received by: | NHUT TRUONG | F+BI | 7/26/22 | 1705 |
| Relinquished by: | | | | |
| Received by: | | Samples received at | 2 | °C |

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

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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

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

September 27, 2022

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the results from the testing of material submitted on September 16, 2022 from the Auburn VW BE-0107-E, F&BI 209252 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
BST0927R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on September 16, 2022 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW BE-0107-E, F&BI 209252 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 209252 -01 | MW-1 |
| 209252 -02 | MW-3 |

All quality control requirements were acceptable.

Date of Report: 09/27/22
Date Received: 09/16/22
Project: Auburn VW BE-0107-E, F&BI 209252
Date Extracted: 09/20/22
Date Analyzed: 09/21/22

**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)

| Sample ID<br>Laboratory ID | Diesel Range<br>($C_{10}$-$C_{25}$) | Motor Oil Range<br>($C_{25}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 41-152) |
|---|---|---|---|
| MW-1<br>209252-01 | <50 | <250 | 99 |
| MW-3<br>209252-02 | <50 | <250 | 91 |
| Method Blank<br>02-2235 MB | <50 | <250 | 87 |

Date of Report: 09/27/22
Date Received: 09/16/22
Project: Auburn VW BE-0107-E, F&BI 209252
Date Extracted: 09/20/22
Date Analyzed: 09/20/22

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

Results Reported as ug/L (ppb)

| Sample ID<br>Laboratory ID | Diesel Range<br>($C_{10}$-$C_{25}$) | Motor Oil Range<br>($C_{25}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 41-152) |
|---|---|---|---|
| MW-1<br>209252-01 | 350 x | 310 x | 103 |
| MW-3<br>209252-02 | 300 x | 290 x | 101 |
| Method Blank<br>02-2235 MB | <50 | <250 | 93 |

Date of Report: 09/27/22
Date Received: 09/16/22
Project: Auburn VW BE-0107-E, F&BI 209252

## 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 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 | 64 | 80 | 63-142 | 22 vo |

Date of Report: 09/27/22
Date Received: 09/16/22
Project: Auburn VW BE-0107-E, F&BI 209252

## 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

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Percent Recovery LCSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|
| Diesel Extended | ug/L (ppb) | 2,500 | 64 | 64 | 63-142 | 0 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

209252

# SAMPLE CHAIN OF CUSTODY

09/16/22

EDB

Page # 1 of 1

Report To Dan Hatch

Company Bluestone

Address

City, State, ZIP

Phone Email danh@bluestonenw.com

SAMPLERS (*signature*)

PROJECT NAME: Auburn VW

PO #: BE-0107-E

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: Bud Clary

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx Silica Gel | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 01 | 9/15/22 | 1330 | W | 1 | X | | | | | | | | | | | with & without |
| MW-3 | 02 | 9/15/22 | 1320 | W | 1 | X | | | | | | | | | | | silica gel po |
| | | | | | | | | | | | | | | | | | DH MC 9/21/22 |
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| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | HALEY CARTER | BLUESTONE | 9/16/22 | 1230 |
| Received by: | | ANH PHAN | F&B | 09/16/22 | 15:05 |
| Relinquished by: | | | | | |
| Received by: | | | Samples received at 0 °C | | |

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

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 Avenue South
Seattle, WA 98108
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 24, 2023

Dan Hatch, Project Manager
Bluestone Environmental NW
20204 SE 284th St
Kent, WA 98042

Dear Mr Hatch:

Included are the results from the testing of material submitted on January 10, 2023 from the Auburn VW BE-0107-E, F&BI 301134 project. There are 22 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
BST0124R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 10, 2023 by Friedman & Bruya, Inc. from the Bluestone Environmental NW Auburn VW BE-0107-E, F&BI 301134 project. Samples were logged in under the laboratory ID's listed below.

| Laboratory ID | Bluestone Environmental NW |
|---|---|
| 301134 -01 | MW-1 |
| 301134 -02 | MW-2 |
| 301134 -03 | MW-3 |
| 301134 -04 | MW-4 |
| 301134 -05 | MW-5 |
| 301134 -06 | DUP-W |

The samples were sent to Fremont Analytical for total organic carbon analysis. The report is enclosed.

All quality control requirements were acceptable.

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134
Date Extracted: 01/11/23
Date Analyzed: 01/12/23

**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)

| Sample ID<br>Laboratory ID | Benzene | Toluene | Ethyl Benzene | Total Xylenes | Gasoline Range | Surrogate (% Recovery)<br>(Limit 50-150) |
|---|---|---|---|---|---|---|
| MW-1<br>301134-01 | <1 | <1 | <1 | <3 | <100 | 119 |
| MW-2<br>301134-02 | <1 | <1 | <1 | <3 | <100 | 125 |
| MW-3<br>301134-03 | <1 | <1 | <1 | <3 | <100 | 124 |
| MW-4<br>301134-04 | <1 | <1 | <1 | <3 | <100 | 133 |
| MW-5<br>301134-05 | <1 | <1 | <1 | <3 | <100 | 123 |
| DUP-W<br>301134-06 | <1 | <1 | <1 | <3 | <100 | 126 |
| Method Blank<br>03-0018 MB | <1 | <1 | <1 | <3 | <100 | 96 |

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134
Date Extracted: 01/11/23
Date Analyzed: 01/11/23

**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)

| Sample ID<br>Laboratory ID | Diesel Extended<br>($C_{10}$-$C_{36}$) | Surrogate<br>(% Recovery)<br>(Limit 41-152) |
|---|---|---|
| MW-1<br>301134-01 | 270 x | 125 |
| MW-2<br>301134-02 | 420 x | 131 |
| MW-3<br>301134-03 | 280 x | 110 |
| MW-4<br>301134-04 | <250 | 112 |
| MW-5<br>301134-05 | <250 | 138 |
| DUP-W<br>301134-06 | <250 | 136 |
| Method Blank<br>03-133 MB | <250 | 143 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-1 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-01 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-01.163 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-2 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-02 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-02.164 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 97.4 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-3 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-03 x5 |
| Date Analyzed: | 01/13/23 | Data File: | 301134-03 x5.086 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 17.2 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-4 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-04 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-04.166 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 8.04 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-5 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-05 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-05.167 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 23.8 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | DUP-W | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-06 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-06.168 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 7.70 |

## Analysis For Dissolved Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | I3-23 mb |
| Date Analyzed: | 01/11/23 | Data File: | I3-23 mb.153 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-1 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-01 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-01.102 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 13.4 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-2 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-02 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-02.104 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 110 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-3 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-03 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-03.105 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 20.4 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-4 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-04 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-04.106 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 7.88 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | MW-5 | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-05 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-05.107 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 26.3 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | DUP-W | Client: | Bluestone Environmental NW |
| Date Received: | 01/10/23 | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | 301134-06 |
| Date Analyzed: | 01/11/23 | Data File: | 301134-06.108 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | 7.82 |

## Analysis For Total Metals By EPA Method 6020B

| | | | |
|---|---|---|---|
| Client ID: | Method Blank | Client: | Bluestone Environmental NW |
| Date Received: | NA | Project: | Auburn VW BE-0107-E |
| Date Extracted: | 01/11/23 | Lab ID: | I3-18 mb2 |
| Date Analyzed: | 01/11/23 | Data File: | I3-18 mb2.053 |
| Matrix: | Water | Instrument: | ICPMS2 |
| Units: | ug/L (ppb) | Operator: | SP |

| Analyte: | Concentration ug/L (ppb) |
|---|---|
| Arsenic | <1 |

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134

## 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: 301027-01 (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 Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Benzene | ug/L (ppb) | 50 | 118 | 70-130 |
| Toluene | ug/L (ppb) | 50 | 112 | 70-130 |
| Ethylbenzene | ug/L (ppb) | 50 | 110 | 70-130 |
| Xylenes | ug/L (ppb) | 150 | 113 | 70-130 |
| Gasoline | ug/L (ppb) | 1,000 | 100 | 70-130 |

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134

## 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

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Percent Recovery LCSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|
| Diesel Extended | ug/L (ppb) | 2,500 | 96 | 100 | 70-130 | 4 |

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134

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

Laboratory Code: 301134-01 x10 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 17.6 | 78 | 81 | 75-125 | 4 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 92 | 80-120 |

Date of Report: 01/24/23
Date Received: 01/10/23
Project: Auburn VW BE-0107-E, F&BI 301134

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

Laboratory Code: 301116-01 (Matrix Spike)

| Analyte | Reporting Units | Spike Level | Sample Result | Percent Recovery MS | Percent Recovery MSD | Acceptance Criteria | RPD (Limit 20) |
|---|---|---|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | <1 | 99 | 96 | 75-125 | 3 |

Laboratory Code: Laboratory Control Sample

| Analyte | Reporting Units | Spike Level | Percent Recovery LCS | Acceptance Criteria |
|---|---|---|---|---|
| Arsenic | ug/L (ppb) | 10 | 87 | 80-120 |

# Data Qualifiers & Definitions

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

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

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

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

cf - The sample was centrifuged prior to analysis.

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

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

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

~~301133~~ (AP) 301134

# SAMPLE CHAIN OF CUSTODY

01/10/23 VW3/C2/J2

Report To DAN HATCH

Company BLUESTONE

Address

City, State, ZIP

Phone Email dan@bluestonenw.com

SAMPLERS (*signature*)

PROJECT NAME: Auburn VW

PO #: BE-0107-E

REMARKS: Project specific RLs? - Yes / No

INVOICE TO: BLUESTONE

Page # 1 of 1

TURNAROUND TIME
- ☑ Standard turnaround
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other
- Default: Dispose after 30 days

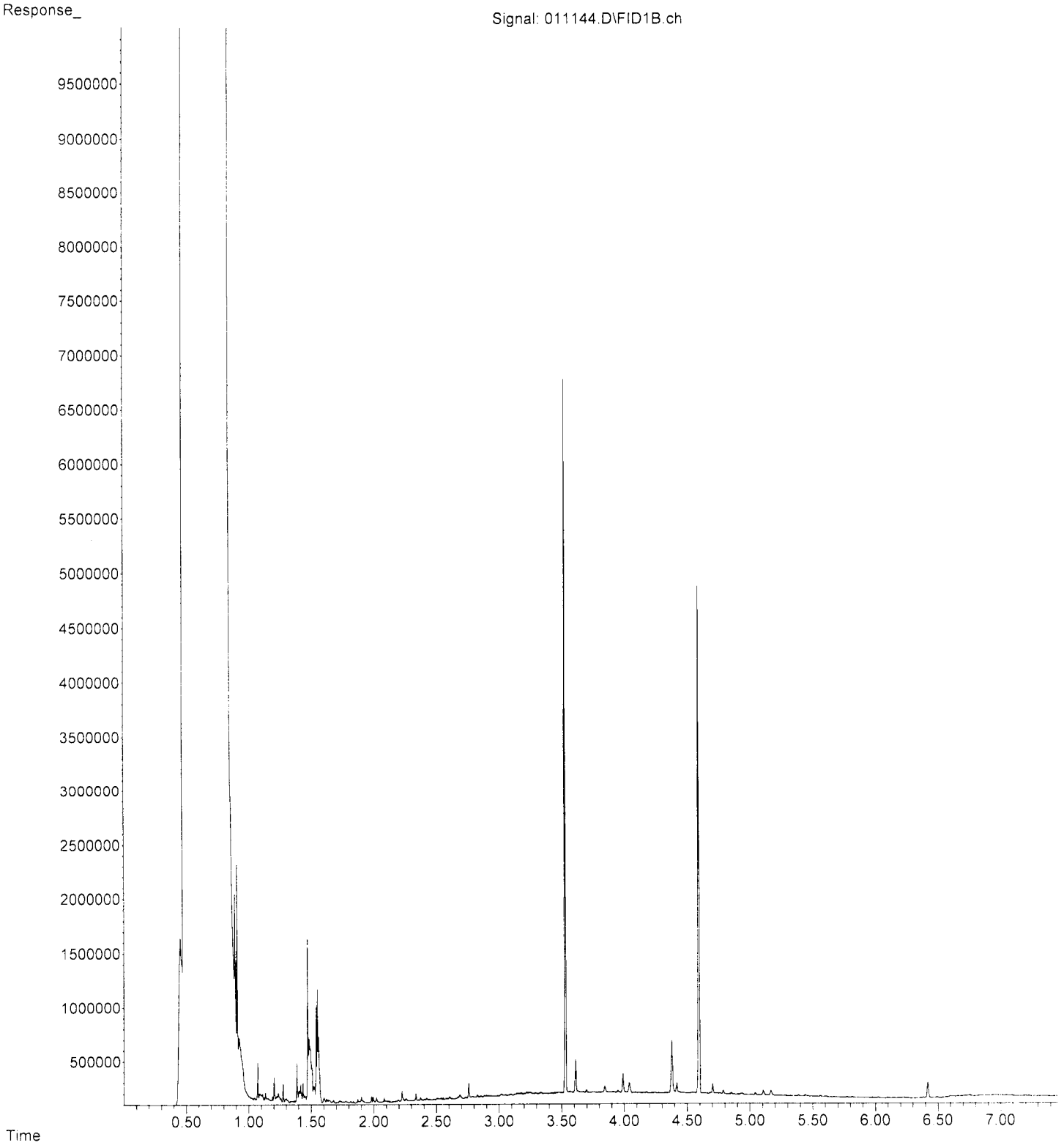
| Sample ID | Lab ID | Date Sampled | Time Sampled | Sample Type | # of Jars | ANALYSES REQUESTED: NWTPH-Dx | NWTPH-Gx | BTEX EPA 8021 | NWTPH-HCID | VOCs EPA 8260 | PAHs EPA 8270 | PCBs EPA 8082 | TOC | Arsenic TAD | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 01 A-G | 1/10/23 | 1020 | GW | 7 | X | X | X | | | | | X | X | | | |
| MW-2 | 02 | | 945 | | | X | X | X | | | | | X | X | | | |
| MW-3 | 03 | | 1210 | | | X | X | X | | | | | X | X | | | |
| MW-4 | 04 | | 1135 | | | X | X | X | | | | | X | X | | | |
| MW-5 | 05 | | 1100 | | | X | X | X | | | | | X | X | | | |
| DUP-W | 06 | | 115 | | | X | X | X | | | | | X | X | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|
| Relinquished by: | HALEY CARTER | BLUESTONE | 1/10/23 | 13:00 |
| Received by: | ANH PHAN | F&B | 01/10/23 | 15:55 |
| Relinquished by: | | | | |
| Received by: | | | | |

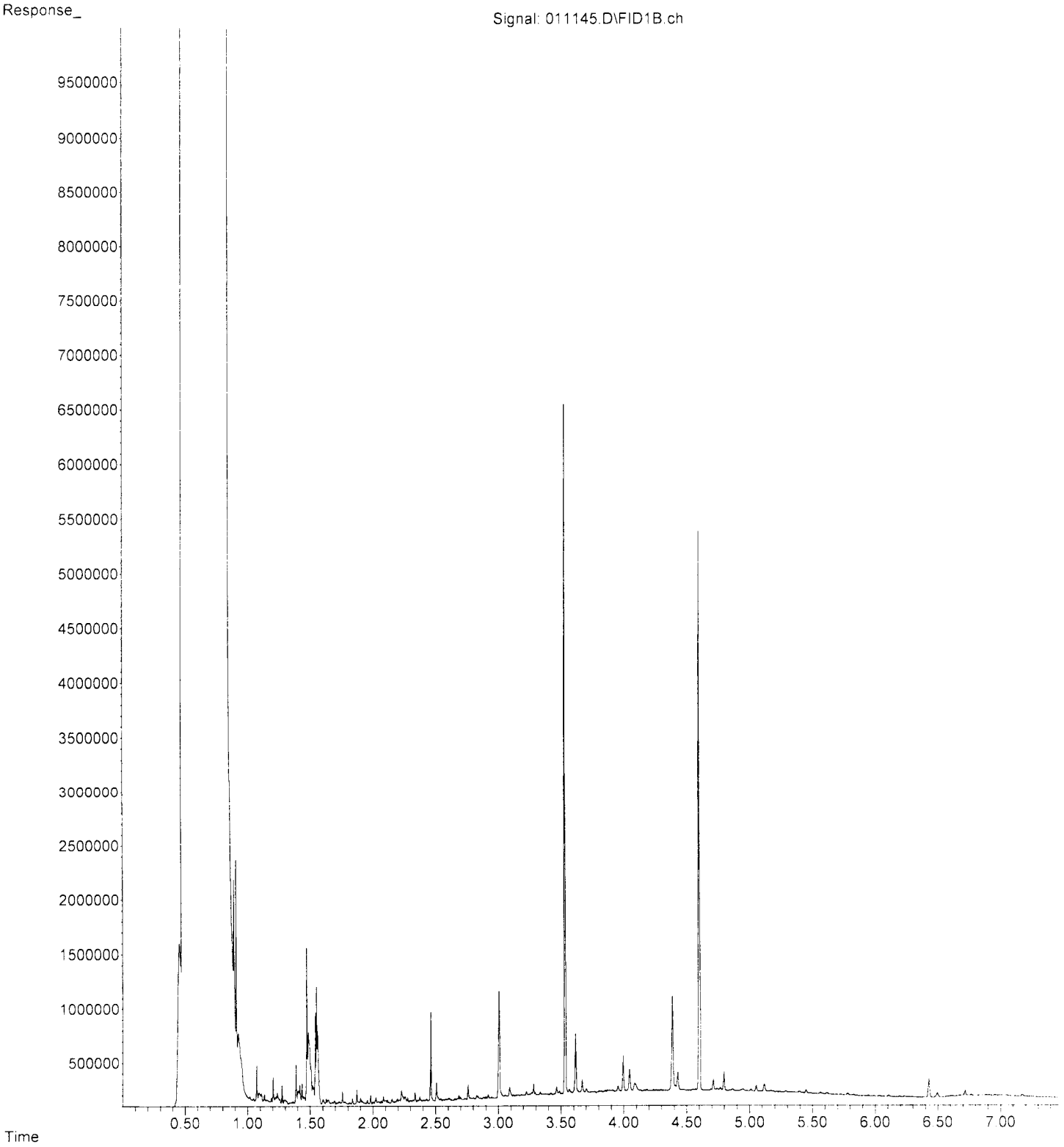
Samples received at 0 °C

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

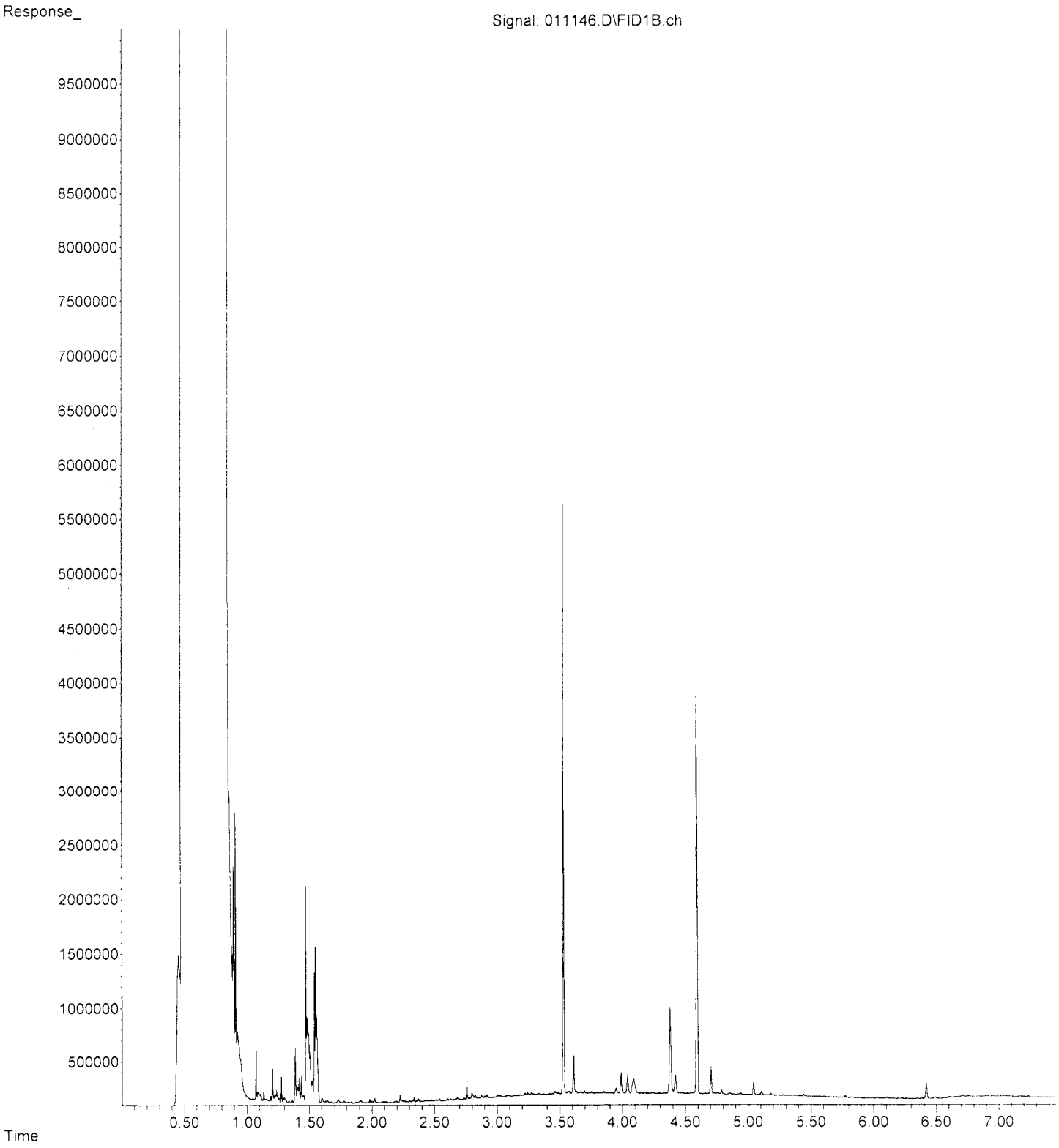
File :P:\Proc_GC10\01-11-23\011144.D
Operator : TL
Acquired : 11 Jan 2023 05:56 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-01
Misc Info :
Vial Number: 34



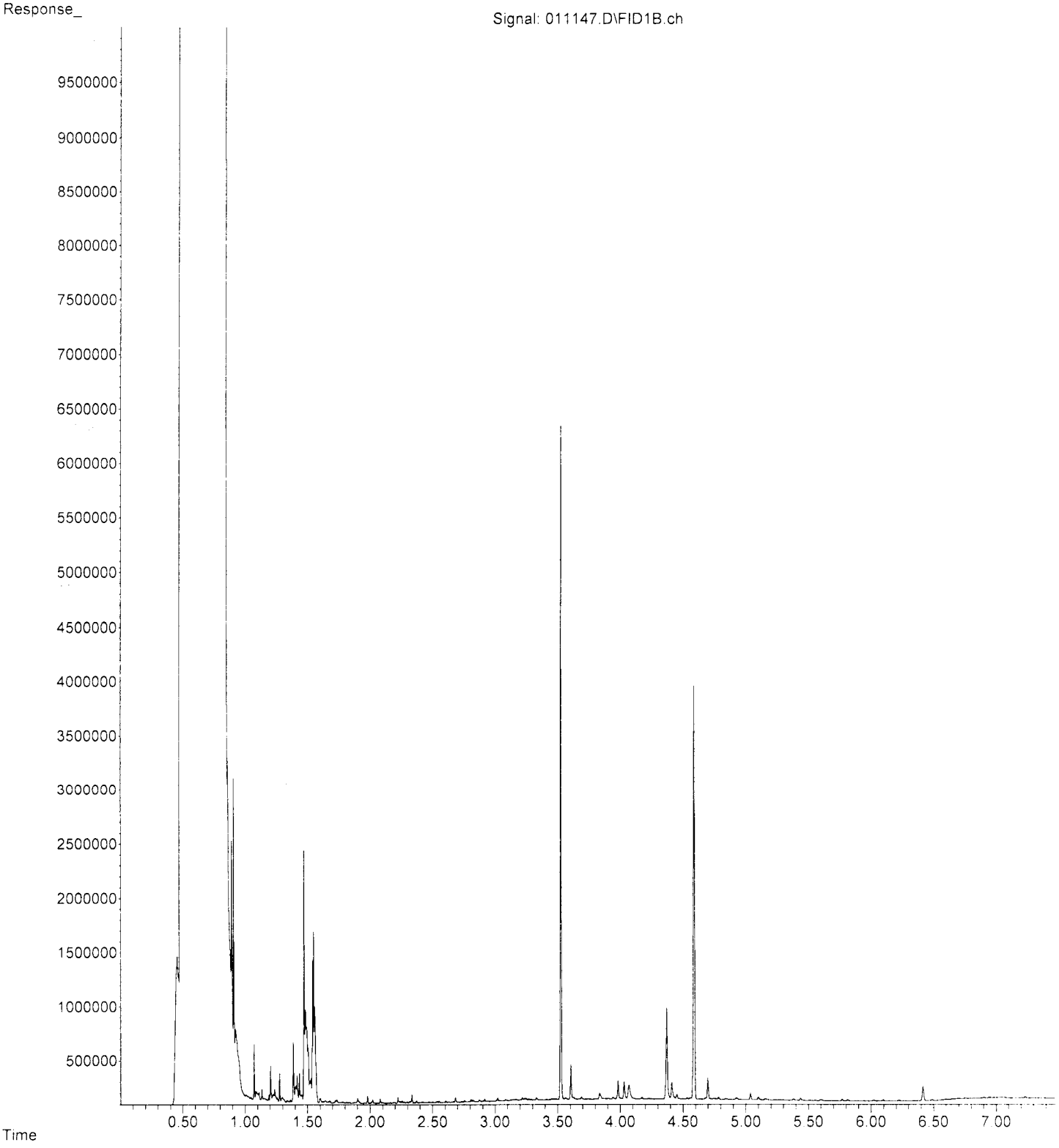
File :P:\Proc_GC10\01-11-23\011145.D
Operator : TL
Acquired : 11 Jan 2023 06:08 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-02
Misc Info :
Vial Number: 35



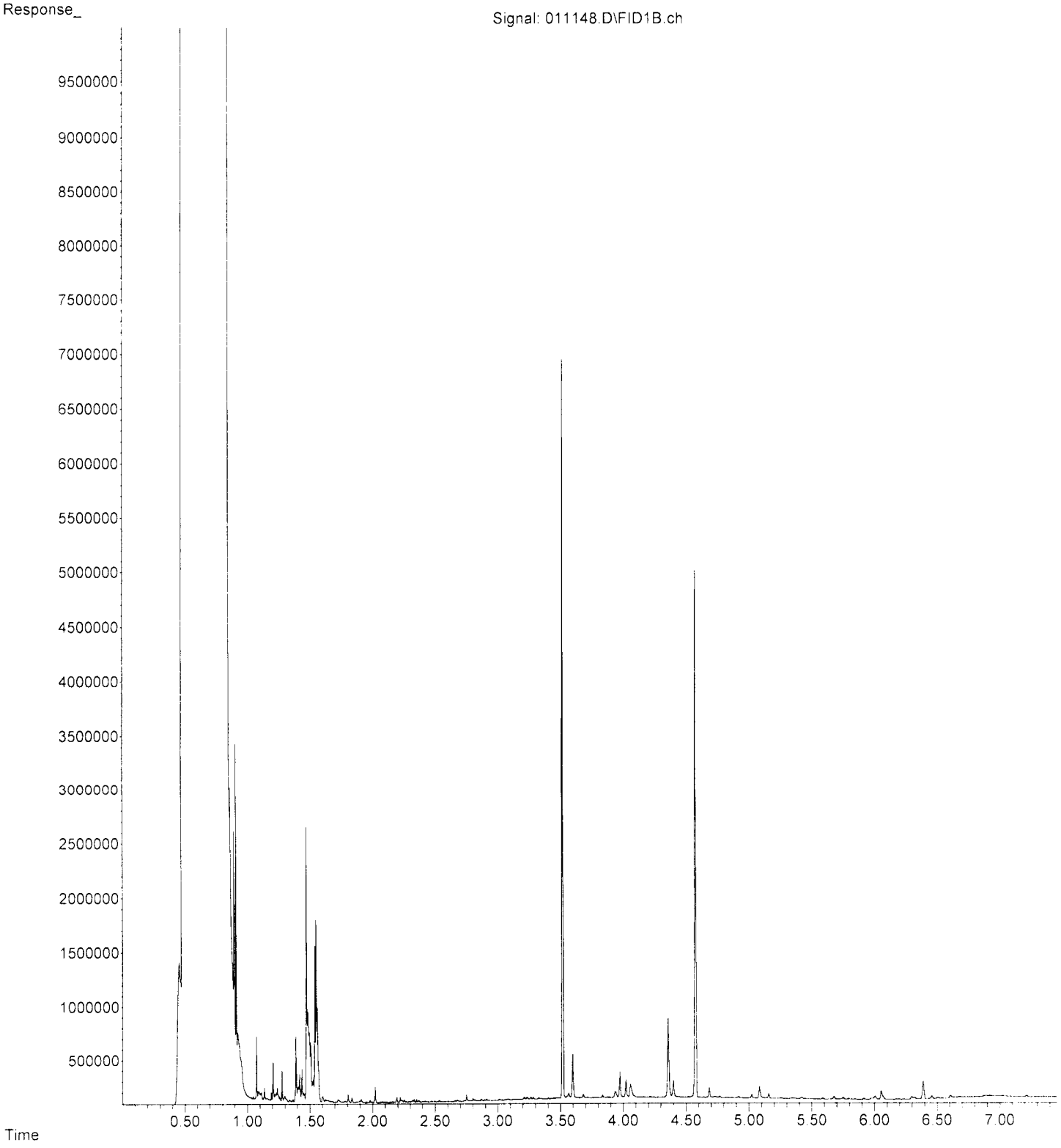
File :P:\Proc_GC10\01-11-23\011146.D
Operator : TL
Acquired : 11 Jan 2023 06:19 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-03
Misc Info :
Vial Number: 36



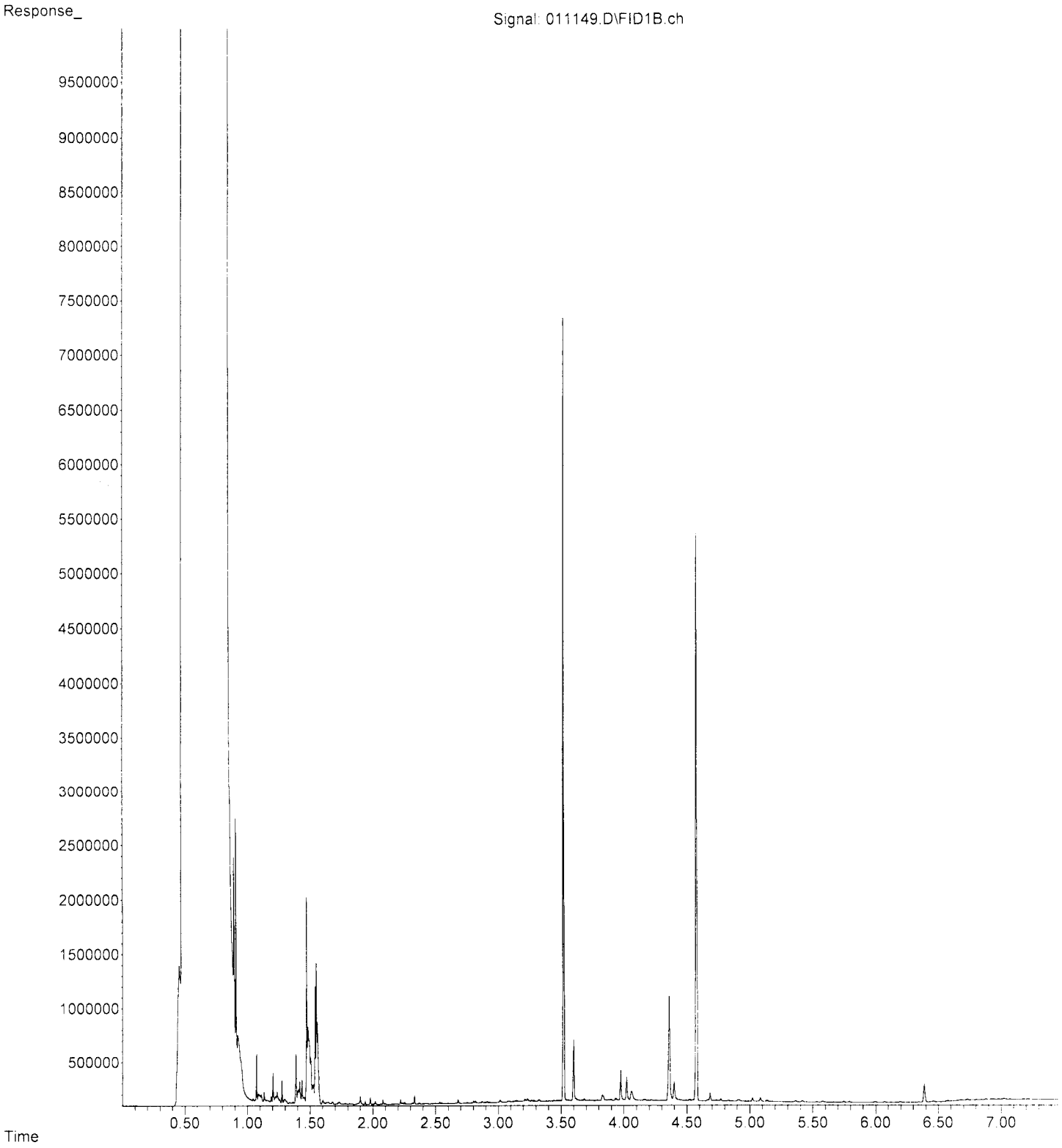
File :P:\Proc_GC10\01-11-23\011147.D
Operator : TL
Acquired : 11 Jan 2023 06:31 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-04
Misc Info :
Vial Number: 37



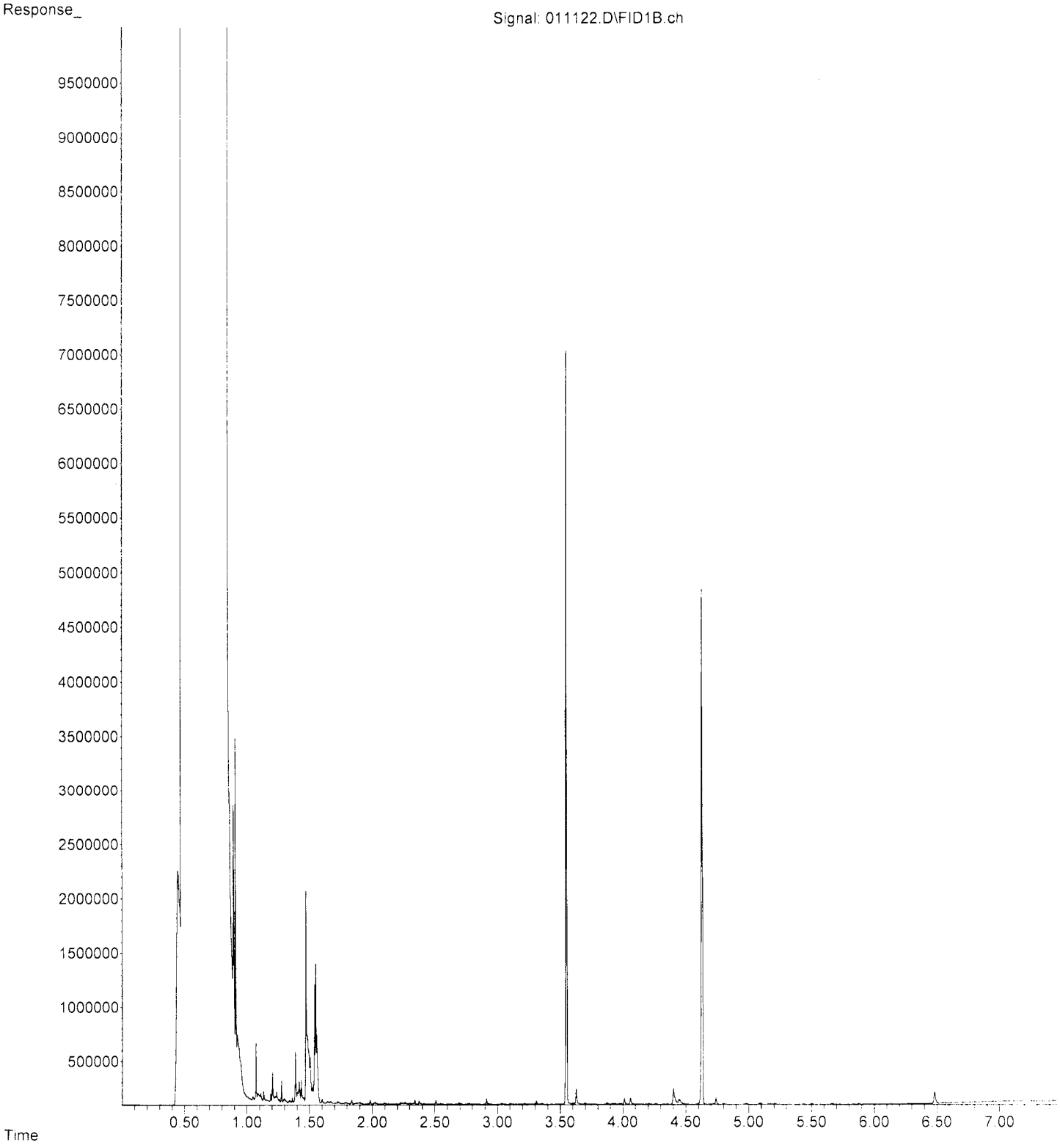
File :P:\Proc_GC10\01-11-23\011148.D
Operator : TL
Acquired : 11 Jan 2023 06:43 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-05
Misc Info :
Vial Number: 38



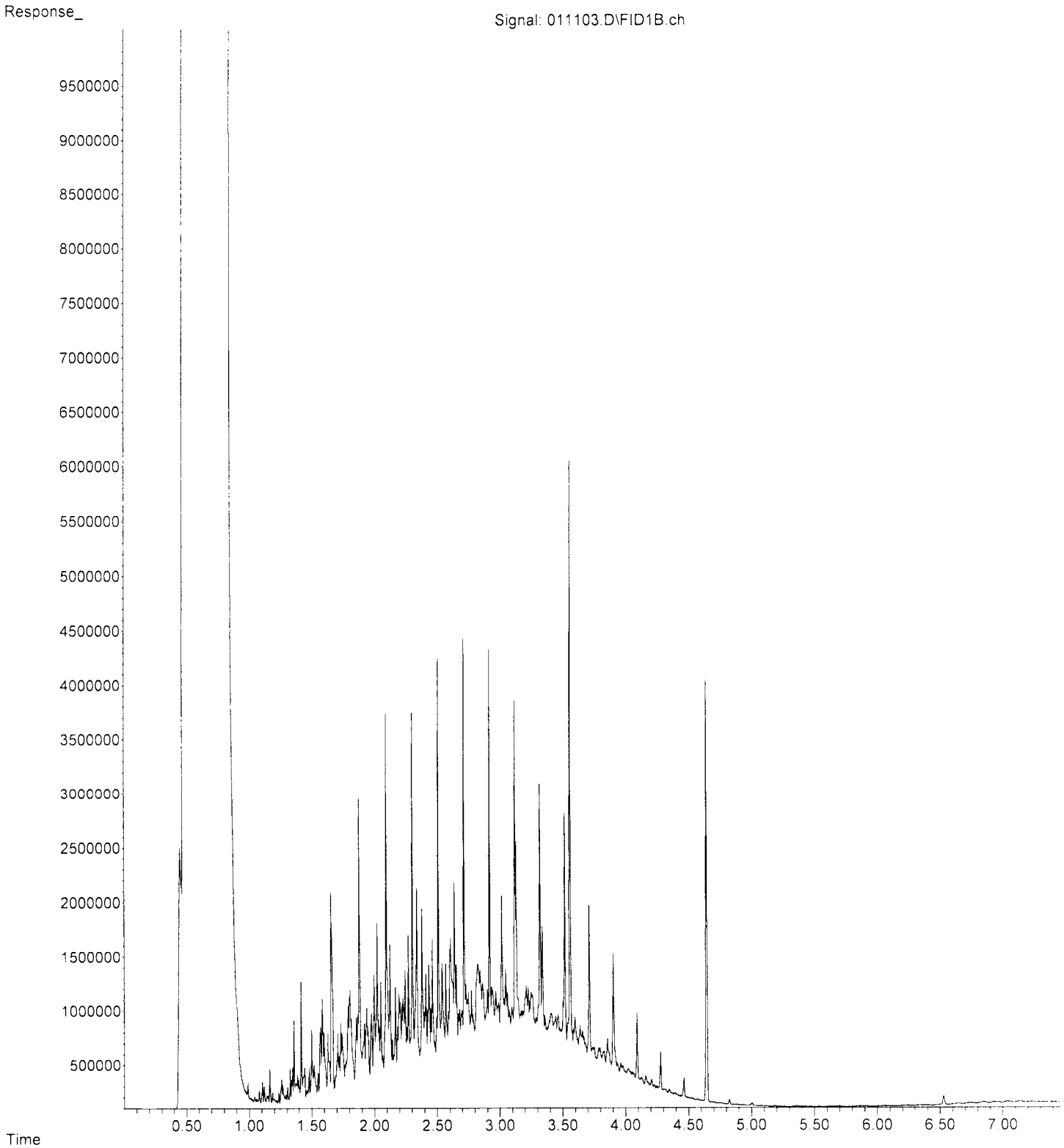
File :P:\Proc_GC10\01-11-23\011149.D
Operator : TL
Acquired : 11 Jan 2023 06:55 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 301134-06
Misc Info :
Vial Number: 39



File :P:\Proc_GC10\01-11-23\011122.D
Operator : TL
Acquired : 11 Jan 2023 01:10 pm using AcqMethod DX.M
Instrument : GC10
Sample Name: 03-133 mb
Misc Info :
Vial Number: 105



File :P:\Proc_GC10\01-11-23\011103.D
Operator : TL
Acquired : 11 Jan 2023 09:24 am using AcqMethod DX.M
Instrument : GC10
Sample Name: 500 DX 67-143B
Misc Info :
Vial Number: 3



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

**Friedman & Bruya**
Michael Erdahl
3012 16th Ave. W.
Seattle, WA 98119

**RE: 301134**
**Work Order Number: 2301200**

January 18, 2023

**Attention Michael Erdahl:**

Fremont Analytical, Inc. received 6 sample(s) on 1/11/2023 for the analyses presented in the following report.

***Total Organic Carbon by SM 5310C***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

**Date:** *01/18/2023*

**CLIENT:** Friedman & Bruya
**Project:** 301134
**Work Order:** 2301200

# Work Order Sample Summary

| Lab Sample ID | Client Sample ID | Date/Time Collected | Date/Time Received |
|---|---|---|---|
| 2301200-001 | MW-1 | 01/10/2023 10:20 AM | 01/11/2023 3:12 PM |
| 2301200-002 | MW-2 | 01/10/2023 9:45 AM | 01/11/2023 3:12 PM |
| 2301200-003 | MW-3 | 01/10/2023 12:10 PM | 01/11/2023 3:12 PM |
| 2301200-004 | MW-4 | 01/10/2023 11:35 AM | 01/11/2023 3:12 PM |
| 2301200-005 | MW-5 | 01/10/2023 11:00 AM | 01/11/2023 3:12 PM |
| 2301200-006 | DUP-W | 01/10/2023 11:15 AM | 01/11/2023 3:12 PM |

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

Original

# Case Narrative

WO#: **2301200**
Date: **1/18/2023**

**CLIENT:** Friedman & Bruya
**Project:** 301134

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.

**CLIENT:** Friedman & Bruya
**Project:** 301134

**Lab ID:** 2301200-001 **Collection Date:** 1/10/2023 10:20:00 AM
**Client Sample ID:** **MW-1** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 68.2 | 2.80 | D | mg/L | 4 | 1/13/2023 4:43:00 AM |

**Lab ID:** 2301200-002 **Collection Date:** 1/10/2023 9:45:00 AM
**Client Sample ID:** **MW-2** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 44.1 | 2.80 | D | mg/L | 4 | 1/13/2023 5:05:00 AM |

**Lab ID:** 2301200-003 **Collection Date:** 1/10/2023 12:10:00 PM
**Client Sample ID:** **MW-3** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 70.1 | 2.80 | D | mg/L | 4 | 1/13/2023 5:27:00 AM |

**Lab ID:** 2301200-004 **Collection Date:** 1/10/2023 11:35:00 AM
**Client Sample ID:** **MW-4** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 19.5 | 2.80 | D | mg/L | 4 | 1/13/2023 5:49:00 AM |

# Analytical Report

Work Order: **2301200**
Date Reported: **1/18/2023**

**CLIENT:** Friedman & Bruya
**Project:** 301134

**Lab ID:** 2301200-005 **Collection Date:** 1/10/2023 11:00:00 AM
**Client Sample ID:** **MW-5** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 26.2 | 2.80 | D | mg/L | 4 | 1/13/2023 6:11:00 AM |

**Lab ID:** 2301200-006 **Collection Date:** 1/10/2023 11:15:00 AM
**Client Sample ID:** **DUP-W** **Matrix:** Water

| Analyses | Result | RL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **Total Organic Carbon by SM 5310C** | | | | Batch ID: R81119 | | Analyst: AT |
| Total Organic Carbon | 19.3 | 2.80 | D | mg/L | 4 | 1/13/2023 6:32:00 AM |

**Work Order:** 2301200
**CLIENT:** Friedman & Bruya
**Project:** 301134

# QC SUMMARY REPORT

## Total Organic Carbon by SM 5310C

| Sample ID: **MB-81119** | SampType: **MBLK** | | | Units: **mg/L** | | Prep Date: **1/12/2023** | | RunNo: **81119** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **MBLKW** | Batch ID: **R81119** | | | | | Analysis Date: **1/12/2023** | | SeqNo: **1678968** | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | ND | 0.700 | | | | | | | | | |

| Sample ID: **LCS-81119** | SampType: **LCS** | | | Units: **mg/L** | | Prep Date: **1/12/2023** | | RunNo: **81119** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **LCSW** | Batch ID: **R81119** | | | | | Analysis Date: **1/12/2023** | | SeqNo: **1678969** | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | 5.11 | 0.700 | 5.000 | 0 | 102 | 90 | 110 | | | | |

| Sample ID: **2301067-003ADUP** | SampType: **DUP** | | | Units: **mg/L** | | Prep Date: **1/12/2023** | | RunNo: **81119** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **BATCH** | Batch ID: **R81119** | | | | | Analysis Date: **1/12/2023** | | SeqNo: **1678974** | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | 2.91 | 0.700 | | | | | | 2.926 | 0.651 | 20 | |

| Sample ID: **2301067-003AMS** | SampType: **MS** | | | Units: **mg/L** | | Prep Date: **1/12/2023** | | RunNo: **81119** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **BATCH** | Batch ID: **R81119** | | | | | Analysis Date: **1/12/2023** | | SeqNo: **1678975** | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | 7.69 | 0.700 | 5.000 | 2.926 | 95.3 | 68.3 | 120 | | | | |

| Sample ID: **2301067-003AMSD** | SampType: **MSD** | | | Units: **mg/L** | | Prep Date: **1/12/2023** | | RunNo: **81119** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **BATCH** | Batch ID: **R81119** | | | | | Analysis Date: **1/12/2023** | | SeqNo: **1678976** | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | 7.93 | 0.700 | 5.000 | 2.926 | 100 | 68.3 | 120 | 7.689 | 3.06 | 30 | |

**Work Order:** 2301200
**CLIENT:** Friedman & Bruya
**Project:** 301134

# QC SUMMARY REPORT

## Total Organic Carbon by SM 5310C

| Sample ID: **2301115-004GDUP** | SampType: **DUP** | | | Units: **mg/L** | | Prep Date: **1/13/2023** | | RunNo: **81119** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **BATCH** | Batch ID: **R81119** | | | | | Analysis Date: **1/13/2023** | | SeqNo: **1678983** | | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | ND | 0.700 | | | | | | 0 | | 20 | |

| Sample ID: **2301115-004GMS** | SampType: **MS** | | | Units: **mg/L** | | Prep Date: **1/13/2023** | | RunNo: **81119** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Client ID: **BATCH** | Batch ID: **R81119** | | | | | Analysis Date: **1/13/2023** | | SeqNo: **1678984** | | | |
| Analyte | Result | RL | SPK value | SPK Ref Val | %REC | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon | 5.50 | 0.700 | 5.000 | 0.5280 | 99.3 | 68.3 | 120 | | | | |

# Sample Log-In Check List

| | | | |
|---|---|---|---|
| Client Name: | **FB** | Work Order Number: | **2301200** |
| Logged by: | **Kate Porter** | Date Received: | **1/11/2023 3:12:00 PM** |

## *Chain of Custody*

| | | | | |
|---|---|---|---|---|
| 1. | Is Chain of Custody complete? | Yes ☑ | No ☐ | Not Present ☐ |
| 2. | How was the sample delivered? | Client | | |

## *Log In*

| | | | | |
|---|---|---|---|---|
| 3. | Coolers are present? | Yes ☑ | No ☐ | NA ☐ |
| 4. | Shipping container/cooler in good condition? | Yes ☑ | No ☐ | |
| 5. | Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact) | Yes ☐ | No ☐ | Not Present ☑ |
| 6. | Was an attempt made to cool the samples? | Yes ☑ | No ☐ | NA ☐ |
| 7. | Were all items received at a temperature of >2°C to 6°C * | Yes ☑ | No ☐ | NA ☐ |
| 8. | Sample(s) in proper container(s)? | Yes ☑ | No ☐ | |
| 9. | Sufficient sample volume for indicated test(s)? | Yes ☑ | No ☐ | |
| 10. | Are samples properly preserved? | Yes ☑ | No ☐ | |
| 11. | Was preservative added to bottles? | Yes ☐ | No ☑ | NA ☐ |
| 12. | Is there headspace in the VOA vials? | Yes ☐ | No ☐ | NA ☑ |
| 13. | Did all samples containers arrive in good condition(unbroken)? | Yes ☑ | No ☐ | |
| 14. | Does paperwork match bottle labels? | Yes ☑ | No ☐ | |
| 15. | Are matrices correctly identified on Chain of Custody? | Yes ☑ | No ☐ | |
| 16. | Is it clear what analyses were requested? | Yes ☑ | No ☐ | |
| 17. | Were all holding times able to be met? | Yes ☑ | No ☐ | |

## *Special Handling (if applicable)*

| | | | | |
|---|---|---|---|---|
| 18. | Was client notified of all discrepancies with this order? | Yes ☐ | No ☐ | NA ☑ |

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

**Item Information**

| Item # | Temp ºC |
|---|---|
| Sample 1 | 2.5 |

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

# SUBCONTRACT SAMPLE CHAIN OF CUSTODY

2301200

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER Fremont

PROJECT NAME/NO. 301134

PO # D-106

REMARKS

Please Email Results

TURNAROUND TIME

X Standard TAT

RUSH

Rush charges authorized by:

SAMPLE DISPOSAL

Dispose after 30 days

Return samples

Will call with instructions

| Sample ID | Lab ID | Date Sampled | Time Sampled | Matrix | # of jars | ANALYSES REQUESTED: Dioxins/Furans | EPH | VPH | TOC | | | | | | | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | | 1/10/23 | 1620 | water | 1 | | | | X | | | | | | | |
| MW-2 | | | 945 | | 1 | | | | X | | | | | | | |
| MW-3 | | | 1210 | | 1 | | | | X | | | | | | | |
| MW-4 | | | 1135 | | 1 | | | | X | | | | | | | |
| MW-5 | | | 1100 | | 1 | | | | X | | | | | | | |
| DUP-W | | | 1115 | | 1 | | | | X | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

| | SIGNATURE | PRINT NAME | COMPANY | DATE | TIME |
|---|---|---|---|---|---|
| Relinquished by: | | Michael Erdahl | Friedman & Bruya | 1/11/23 | 0900 |
| Received by: | | Emma Trek | Fremont Analytical | 1/11/23 | 15:12 |
| Relinquished by: | | | | | |
| Received by: | | | | | |

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

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

Thursday, January 16, 2025

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A4L1608 - Auburn VW - BE-0107-E

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4L1608, which was received by the laboratory on 12/20/2024 at 11:16:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information | | | | | |
|---|---|---|---|---|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. | | | | | |
| (See Cooler Receipt Form for details) | | | | | |
| Cooler #1 | 3.1 | degC | Cooler #2 | 0.8 | degC |
| Cooler #3 | 5.1 | degC | | | |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-8 | A4L1608-01 | Water | 12/19/24 13:50 | 12/20/24 11:16 |
| MW-10 | A4L1608-02 | Water | 12/19/24 11:15 | 12/20/24 11:16 |
| MW-11 | A4L1608-03 | Water | 12/19/24 11:55 | 12/20/24 11:16 |
| MW-12 | A4L1608-04 | Water | 12/19/24 12:30 | 12/20/24 11:16 |
| MW-13 | A4L1608-05 | Water | 12/19/24 13:05 | 12/20/24 11:16 |
| MW-14 | A4L1608-06 | Water | 12/19/24 10:35 | 12/20/24 11:16 |
| MW-17 | A4L1608-07 | Water | 12/19/24 09:45 | 12/20/24 11:16 |
| MW-19 | A4L1608-08 | Water | 12/18/24 16:15 | 12/20/24 11:16 |

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1608 - 01 16 25 1235 |

## ANALYTICAL CASE NARRATIVE

Work Order: **A4L1608** — **Apex Laboratories**

Amended Report Revision #1 -This report supersedes all previous reports.

Gasoline Range Organics by NWTPH-HCID: Amended Data

This report contains modified data for Gasoline Range Organics by NWTPH-HCID for the following samples:

| Client Sample ID | Apex Laboratories ID |
|---|---|
| "MW-17" | A4L1608-07 |
| "MW-19" | A4L1608-19 |

Gasoline Range Organics was originally reported by the NWTPH-HCID screening method with a result of "DET", indicating a detection above the screening level of 0.100mg/L. The quantitative follow up method NWTPH-Gx was subsequently performed, with the result for Gasoline Range Organics being Non Detect at 0.100 mg/L. Due to this, the original NWTPH-HCID Gasoline Range Organics screening results have been removed from the report.

David Jack
Technical Manager
01/09/2025

---

Subcontract

This report is complete only if it includes the attached subcontract laboratory report from ALS -Kelso Laboratories.

Cameron O'Brien
Project Manager

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-8 (A4L1608-01)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.0971 | mg/L | 1 | 12/30/24 18:33 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 18:33 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 18:33 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *94 %* | *Limits: 50-150 %* | *1* | *12/30/24 18:33* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *40 %* | *10-120 %* | *1* | *12/30/24 18:33* | *NWTPH-HCID* | |
| **MW-10 (A4L1608-02)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.100 | mg/L | 1 | 12/30/24 18:56 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.250 | mg/L | 1 | 12/30/24 18:56 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.250 | mg/L | 1 | 12/30/24 18:56 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *96 %* | *Limits: 50-150 %* | *1* | *12/30/24 18:56* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *46 %* | *10-120 %* | *1* | *12/30/24 18:56* | *NWTPH-HCID* | |
| **MW-11 (A4L1608-03)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.0990 | mg/L | 1 | 12/30/24 19:43 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.248 | mg/L | 1 | 12/30/24 19:43 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.248 | mg/L | 1 | 12/30/24 19:43 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *93 %* | *Limits: 50-150 %* | *1* | *12/30/24 19:43* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *39 %* | *10-120 %* | *1* | *12/30/24 19:43* | *NWTPH-HCID* | |
| **MW-12 (A4L1608-04)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.0971 | mg/L | 1 | 12/30/24 20:06 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 20:06 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 20:06 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *92 %* | *Limits: 50-150 %* | *1* | *12/30/24 20:06* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *39 %* | *10-120 %* | *1* | *12/30/24 20:06* | *NWTPH-HCID* | |
| **MW-13 (A4L1608-05)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.0980 | mg/L | 1 | 12/30/24 20:29 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.245 | mg/L | 1 | 12/30/24 20:29 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.245 | mg/L | 1 | 12/30/24 20:29 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *95 %* | *Limits: 50-150 %* | *1* | *12/30/24 20:29* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *42 %* | *10-120 %* | *1* | *12/30/24 20:29* | *NWTPH-HCID* | |
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1608 - 01 16 25 1235 |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | |
| Gasoline Range Organics | ND | --- | 0.0971 | mg/L | 1 | 12/30/24 20:53 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 20:53 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 20:53 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *94 %* | *Limits: 50-150 %* | *1* | *12/30/24 20:53* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *54 %* | *10-120 %* | *1* | *12/30/24 20:53* | *NWTPH-HCID* | |
| **MW-17 (A4L1608-07)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | **AMEND** |
| Diesel Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/30/24 21:16 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/30/24 21:16 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *94 %* | *Limits: 50-150 %* | *1* | *12/30/24 21:16* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *51 %* | *10-120 %* | *1* | *12/30/24 21:16* | *NWTPH-HCID* | |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | **Batch: 24L1016** | | **AMEND** |
| Diesel Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 21:39 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/30/24 21:39 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *92 %* | *Limits: 50-150 %* | *1* | *12/30/24 21:39* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *40 %* | *10-120 %* | *1* | *12/30/24 21:39* | *NWTPH-HCID* | |

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-17 (A4L1608-07)** | | | | **Matrix: Water** | | **Batch: 25A0008** | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 01/02/25 15:34 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 90 %* | *Limits: 50-150 %* | *1* | *01/02/25 15:34* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *114 %* | *50-150 %* | *1* | *01/02/25 15:34* | *NWTPH-Gx (MS)* | |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | **Batch: 25A0008** | | **H-01** |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | 01/02/25 15:56 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | | *Recovery: 90 %* | *Limits: 50-150 %* | *1* | *01/02/25 15:56* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *116 %* | *50-150 %* | *1* | *01/02/25 15:56* | *NWTPH-Gx (MS)* | |

Apex Laboratories

Cameron O'Brien, Project Manager

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**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### BTEX Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-17 (A4L1608-07)** | | | | **Matrix: Water** | | **Batch: 25A0008** | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 01/02/25 15:34 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 01/02/25 15:34 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 01/02/25 15:34 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 01/02/25 15:34 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *111 %* | *Limits: 80-120 %* | *1* | *01/02/25 15:34* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *109 %* | *80-120 %* | *1* | *01/02/25 15:34* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *99 %* | *80-120 %* | *1* | *01/02/25 15:34* | *EPA 8260D* | |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | **Batch: 25A0008** | | **H-01** |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 01/02/25 15:56 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 01/02/25 15:56 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 01/02/25 15:56 | EPA 8260D | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | 01/02/25 15:56 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *111 %* | *Limits: 80-120 %* | *1* | *01/02/25 15:56* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *110 %* | *80-120 %* | *1* | *01/02/25 15:56* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *99 %* | *80-120 %* | *1* | *01/02/25 15:56* | *EPA 8260D* | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10 (A4L1608-02)** | | | | **Matrix: Water** | | **Batch: 24L0855** | | |
| Acetone | ND | --- | 26.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | A-01 |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10 (A4L1608-02)** | | | | **Matrix: Water** | | **Batch: 24L0855** | | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:29 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *107 %* | *Limits: 80-120 %* | *1* | *12/24/24 08:29* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *108 %* | *80-120 %* | *1* | *12/24/24 08:29* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | *80-120 %* | *1* | *12/24/24 08:29* | *EPA 8260D* | |
| **MW-10 (A4L1608-02RE1)** | | | | **Matrix: Water** | | **Batch: 24L0985** | | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/27/24 17:07 | EPA 8260D | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | 12/27/24 17:07 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *107 %* | *Limits: 80-120 %* | *1* | *12/27/24 17:07* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *107 %* | *80-120 %* | *1* | *12/27/24 17:07* | *EPA 8260D* | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
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503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10 (A4L1608-02RE1)** | | | | **Matrix: Water** | | **Batch: 24L0985** | | |
| *Surrogate: 4-Bromofluorobenzene (Surr)* | | *Recovery: 105 %* | *Limits: 80-120 %* | | *1* | *12/27/24 17:07* | *EPA 8260D* | |
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | **Batch: 24L0855** | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | **Batch: 24L0855** | | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 08:56 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *108 %* | *Limits:* | *80-120 %* | *1* | *12/24/24 08:56* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *106 %* | | *80-120 %* | *1* | *12/24/24 08:56* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *99 %* | | *80-120 %* | *1* | *12/24/24 08:56* | *EPA 8260D* | |
| **MW-14 (A4L1608-06RE1)** | | | | **Matrix: Water** | | **Batch: 24L0985** | | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | 12/27/24 17:29 | EPA 8260D | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-14 (A4L1608-06RE1)** | | | | **Matrix: Water** | | **Batch: 24L0985** | | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *107 %* | *Limits: 80-120 %* | *1* | *12/27/24 17:29* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *108 %* | *80-120 %* | *1* | *12/27/24 17:29* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *106 %* | *80-120 %* | *1* | *12/27/24 17:29* | *EPA 8260D* | |

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-8 (A4L1608-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **18.4** | --- | 1.00 | ug/L | 1 | 01/08/25 02:14 | EPA 6020B | |
| **MW-10 (A4L1608-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **9.06** | --- | 1.00 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| **Barium** | **20.7** | --- | 2.00 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| **Lead** | **0.210** | --- | 0.200 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/08/25 02:19 | EPA 6020B | |
| **MW-10 (A4L1608-02RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 10:38 | EPA 6020B | |
| **MW-11 (A4L1608-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **6.21** | --- | 1.00 | ug/L | 1 | 01/08/25 02:35 | EPA 6020B | |
| **MW-12 (A4L1608-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **10.0** | --- | 1.00 | ug/L | 1 | 01/08/25 02:51 | EPA 6020B | |
| **MW-13 (A4L1608-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| **Barium** | **9.48** | --- | 2.00 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/08/25 02:56 | EPA 6020B | |
| **MW-13 (A4L1608-05RE1)** | | | | **Matrix: Water** | | | | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-13 (A4L1608-05RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 11:05 | EPA 6020B | |
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **3.78** | --- | 1.00 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| **Barium** | **11.8** | --- | 2.00 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:01 | EPA 6020B | |
| **MW-14 (A4L1608-06RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 11:10 | EPA 6020B | |
| **MW-17 (A4L1608-07)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **26.2** | --- | 1.00 | ug/L | 1 | 01/08/25 03:07 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:07 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/08/25 03:07 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:07 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/08/25 03:07 | EPA 6020B | |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| **Arsenic** | **3.08** | --- | 1.00 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| **Barium** | **39.4** | --- | 2.00 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| **Chromium** | **2.62** | --- | 2.00 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/08/25 03:12 | EPA 6020B | |
| **MW-19 (A4L1608-08RE1)** | | | | **Matrix: Water** | | | | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-19 (A4L1608-08RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0148 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 11:15 | EPA 6020B | |

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|---|---|---|
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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-8 (A4L1608-01)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **17.3** | --- | 1.00 | ug/L | 1 | 01/03/25 05:32 | EPA 6020B (Diss) | |
| **MW-8 (A4L1608-01RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0365 | | | | | | | | |
| **Arsenic** | **1.35** | --- | 1.00 | ug/L | 1 | 01/13/25 13:16 | EPA 6020B (Diss) | **FILT1** |
| **MW-10 (A4L1608-02)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **8.49** | --- | 1.00 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| **Barium** | **18.1** | --- | 1.00 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:37 | EPA 6020B (Diss) | |
| **MW-10 (A4L1608-02RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:18 | EPA 6020B (Diss) | |
| **MW-11 (A4L1608-03)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **5.39** | --- | 1.00 | ug/L | 1 | 01/03/25 05:42 | EPA 6020B (Diss) | |
| **MW-12 (A4L1608-04)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **9.74** | --- | 1.00 | ug/L | 1 | 01/03/25 05:58 | EPA 6020B (Diss) | |
| **MW-13 (A4L1608-05)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| **Barium** | **8.85** | --- | 1.00 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-13 (A4L1608-05)** | | | | **Matrix: Water** | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:04 | EPA 6020B (Diss) | |
| **MW-13 (A4L1608-05RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:23 | EPA 6020B (Diss) | |
| **MW-14 (A4L1608-06)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **3.39** | --- | 1.00 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| **Barium** | **10.3** | --- | 1.00 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:09 | EPA 6020B (Diss) | |
| **MW-14 (A4L1608-06RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:29 | EPA 6020B (Diss) | |
| **MW-17 (A4L1608-07)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **25.2** | --- | 1.00 | ug/L | 1 | 01/03/25 06:14 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:14 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 06:14 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:14 | EPA 6020B (Diss) | |
| **MW-17 (A4L1608-07RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:34 | EPA 6020B (Diss) | |
| Batch: 25A0365 | | | | | | | | |
| **Arsenic** | **1.51** | --- | 1.00 | ug/L | 1 | 01/13/25 13:21 | EPA 6020B (Diss) | **FILT1** |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |

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ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | | | |
| **Arsenic** | **2.69** | --- | 1.00 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| **Barium** | **36.6** | --- | 1.00 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 06:19 | EPA 6020B (Diss) | |
| **MW-19 (A4L1608-08RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:39 | EPA 6020B (Diss) | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1608 - 01 16 25 1235 |

## ANALYTICAL SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-13 (A4L1608-05)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0836 | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | 12/23/24 14:56 | SM 2540 D | TSS |
| **MW-19 (A4L1608-08)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0813 | | | | | | | | |
| **Total Suspended Solids** | **80000** | --- | 5000 | ug/L | 1 | 12/20/24 17:28 | SM 2540 D | |

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1016 - EPA 3510C (Fuels/Acid Ext.)** | | | | | | | | | | | **Water** | |
| **Blank (24L1016-BLK1)** | | Prepared: 12/30/24 05:11 | | Analyzed: 12/30/24 17:23 | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 91 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *30 %* | | *10-120 %* | | *"* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0008 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (25A0008-BLK1)** | | Prepared: 01/02/25 08:08 | | Analyzed: 01/02/25 14:49 | | | | | | | | |
| **NWTPH-Gx (MS)** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 87 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | | *113 %* | | *50-150 %* | | | *"* | | | | |
| **LCS (25A0008-BS2)** | | Prepared: 01/02/25 08:08 | | Analyzed: 01/02/25 14:26 | | | | | | | | |
| **NWTPH-Gx (MS)** | | | | | | | | | | | | |
| Gasoline Range Organics | 470 | --- | 100 | ug/L | 1 | 500 | --- | 94 | 80 - 120% | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 90 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | | *110 %* | | *50-150 %* | | | *"* | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

Apex Laboratories

Cameron O'Brien, Project Manager

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### BTEX Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0008 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (25A0008-BLK1)** | | Prepared: 01/02/25 08:08 | | Analyzed: 01/02/25 14:49 | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Xylenes, total | ND | --- | 1.50 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 110 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *107 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *102 %* | | *80-120 %* | | | *"* | | | | | |
| **LCS (25A0008-BS1)** | | Prepared: 01/02/25 08:08 | | Analyzed: 01/02/25 14:04 | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Benzene | 19.6 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 98 | 80 - 120% | --- | --- | |
| Toluene | 19.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 95 | 80 - 120% | --- | --- | |
| Ethylbenzene | 20.2 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Xylenes, total | 56.6 | --- | 1.50 | ug/L | 1 | 60.0 | --- | 94 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 105 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *102 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *89 %* | | *80-120 %* | | | *"* | | | | | |
| **Matrix Spike (25A0008-MS1)** | | Prepared: 01/02/25 08:08 | | Analyzed: 01/02/25 17:03 | | | | | | | | |
| **QC Source Sample: MW-17 (A4L1608-07)** | | | | | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Benzene | 21.6 | --- | 0.200 | ug/L | 1 | 20.0 | ND | 108 | 79 - 120% | --- | --- | |
| Toluene | 20.4 | --- | 1.00 | ug/L | 1 | 20.0 | ND | 102 | 80 - 121% | --- | --- | |
| Ethylbenzene | 21.9 | --- | 0.500 | ug/L | 1 | 20.0 | ND | 110 | 79 - 121% | --- | --- | |
| Xylenes, total | 60.8 | --- | 1.50 | ug/L | 1 | 60.0 | ND | 101 | 79 - 121% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 106 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *99 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *82 %* | | *80-120 %* | | | *"* | | | | | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0855 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0855-BLK1)** | | Prepared: 12/23/24 11:43 | | | Analyzed: 12/24/24 02:04 | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |

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Cameron O'Brien, Project Manager

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0855 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0855-BLK1)** | | Prepared: 12/23/24 11:43 | | Analyzed: 12/24/24 02:04 | | | | | | | | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 108 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0855 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (24L0855-BLK1)** | | | Prepared: 12/23/24 11:43 Analyzed: 12/24/24 02:04 | | | | | | | | | |
| *Surr: Toluene-d8 (Surr)* | | | *Recovery: 104 %* | *Limits: 80-120 %* | | | | *Dilution: 1x* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | *80-120 %* | | | | *"* | | | | |
| **LCS (24L0855-BS1)** | | | Prepared: 12/23/24 11:43 Analyzed: 12/24/24 00:41 | | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | 27.9 | --- | 20.0 | ug/L | 1 | 40.0 | --- | **70** | **80 - 120%** | --- | --- | Q-55 |
| Acrylonitrile | 17.0 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 85 | 80 - 120% | --- | --- | |
| Benzene | 20.6 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Bromobenzene | 19.7 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Bromochloromethane | 22.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Bromodichloromethane | 22.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 113 | 80 - 120% | --- | --- | |
| Bromoform | 23.7 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 118 | 80 - 120% | --- | --- | |
| Bromomethane | 34.9 | --- | 5.00 | ug/L | 1 | 20.0 | --- | **174** | **80 - 120%** | --- | --- | Q-56 |
| 2-Butanone (MEK) | 32.1 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 80 | 80 - 120% | --- | --- | |
| n-Butylbenzene | 20.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| sec-Butylbenzene | 20.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| tert-Butylbenzene | 21.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| Carbon disulfide | 24.7 | --- | 10.0 | ug/L | 1 | 20.0 | --- | **124** | **80 - 120%** | --- | --- | Q-56 |
| Carbon tetrachloride | 23.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 118 | 80 - 120% | --- | --- | |
| Chlorobenzene | 20.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Chloroethane | 52.2 | --- | 10.0 | ug/L | 1 | 20.0 | --- | **261** | **80 - 120%** | --- | --- | Q-56 |
| Chloroform | 21.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 107 | 80 - 120% | --- | --- | |
| Chloromethane | 20.0 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 2-Chlorotoluene | 20.9 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| 4-Chlorotoluene | 22.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Dibromochloromethane | 24.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | **121** | **80 - 120%** | --- | --- | Q-56 |
| 1,2-Dibromo-3-chloropropane | 18.6 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 93 | 80 - 120% | --- | --- | |
| 1,2-Dibromoethane (EDB) | 20.7 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| Dibromomethane | 22.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 111 | 80 - 120% | --- | --- | |
| 1,2-Dichlorobenzene | 20.8 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| 1,3-Dichlorobenzene | 21.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| 1,4-Dichlorobenzene | 20.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Dichlorodifluoromethane | 20.7 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethane | 22.1 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 110 | 80 - 120% | --- | --- | |

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0855 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **LCS (24L0855-BS1)** | | Prepared: 12/23/24 11:43 | | Analyzed: 12/24/24 00:41 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | 21.0 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethene | 24.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | **123** | **80 - 120%** | --- | --- | Q-56 |
| cis-1,2-Dichloroethene | 20.3 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| trans-1,2-Dichloroethene | 20.3 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| 1,2-Dichloropropane | 21.2 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,3-Dichloropropane | 21.0 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 2,2-Dichloropropane | 21.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,1-Dichloropropene | 20.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| cis-1,3-Dichloropropene | 22.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 113 | 80 - 120% | --- | --- | |
| trans-1,3-Dichloropropene | 21.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| Ethylbenzene | 21.9 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 110 | 80 - 120% | --- | --- | |
| Hexachlorobutadiene | 20.6 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| 2-Hexanone | 34.4 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 86 | 80 - 120% | --- | --- | |
| Isopropylbenzene | 18.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 93 | 80 - 120% | --- | --- | |
| 4-Isopropyltoluene | 19.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| Methylene chloride | 20.2 | --- | 10.0 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | 37.8 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 94 | 80 - 120% | --- | --- | |
| Methyl tert-butyl ether (MTBE) | 20.0 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| Naphthalene | 16.9 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 84 | 80 - 120% | --- | --- | |
| n-Propylbenzene | 22.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 113 | 80 - 120% | --- | --- | |
| Styrene | 19.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 96 | 80 - 120% | --- | --- | |
| 1,1,1,2-Tetrachloroethane | 22.7 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 114 | 80 - 120% | --- | --- | |
| 1,1,2,2-Tetrachloroethane | 20.5 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| Tetrachloroethene (PCE) | 20.2 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Toluene | 20.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 1,2,3-Trichlorobenzene | 21.4 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 107 | 80 - 120% | --- | --- | |
| 1,2,4-Trichlorobenzene | 19.2 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 96 | 80 - 120% | --- | --- | |
| 1,1,1-Trichloroethane | 22.4 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| 1,1,2-Trichloroethane | 19.9 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| Trichloroethene (TCE) | 20.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Trichlorofluoromethane | 25.7 | --- | 2.00 | ug/L | 1 | 20.0 | --- | **128** | **80 - 120%** | --- | --- | Q-56 |
| 1,2,3-Trichloropropane | 19.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 98 | 80 - 120% | --- | --- | |
| 1,2,4-Trimethylbenzene | 20.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| 1,3,5-Trimethylbenzene | 22.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0855 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **LCS (24L0855-BS1)** | | Prepared: 12/23/24 11:43 | | Analyzed: 12/24/24 00:41 | | | | | | | | |
| Vinyl chloride | 22.8 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 114 | 80 - 120% | --- | --- | |
| m,p-Xylene | 40.9 | --- | 1.00 | ug/L | 1 | 40.0 | --- | 102 | 80 - 120% | --- | --- | |
| o-Xylene | 18.3 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 91 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 100 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *102 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *92 %* | | *80-120 %* | | | *"* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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Cameron O'Brien, Project Manager

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0985 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (24L0985-BLK1)** | | Prepared: 12/27/24 10:00 Analyzed: 12/27/24 15:14 | | | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 105 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *107 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *111 %* | | *80-120 %* | | | *"* | | | | | |
| **LCS (24L0985-BS1)** | | Prepared: 12/27/24 10:00 Analyzed: 12/27/24 14:19 | | | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | 21.2 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| Vinyl chloride | 23.8 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 119 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 102 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *102 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *89 %* | | *80-120 %* | | | *"* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0148 - EPA 3015A** | | | | | | | **Water** | | | | | |
| **Blank (25A0148-BLK1)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 02:03 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Blank (25A0148-BLK2)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 10:33 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | Q-16 |
| **LCS (25A0148-BS1)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 02:09 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 55.3 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 100 | 80 - 120% | --- | --- | |
| Barium | 55.1 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 99 | 80 - 120% | --- | --- | |
| Cadmium | 54.5 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Chromium | 54.5 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Lead | 54.6 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Mercury | 1.10 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 99 | 80 - 120% | --- | --- | |
| Selenium | 27.2 | --- | 2.00 | ug/L | 1 | 27.8 | --- | 98 | 80 - 120% | --- | --- | |
| Silver | 27.6 | --- | 0.200 | ug/L | 1 | 27.8 | --- | 99 | 80 - 120% | --- | --- | |
| **Duplicate (25A0148-DUP1)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 02:40 | | | | | | | | |
| **QC Source Sample: MW-11 (A4L1608-03)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | **6.27** | --- | 1.00 | ug/L | 1 | --- | 6.21 | --- | --- | 0.9 | 20% | |
| Barium | **29.5** | --- | 2.00 | ug/L | 1 | --- | 29.2 | --- | --- | 1 | 20% | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | 1.51 | --- | --- | *** | 20% | |
| Lead | **0.325** | --- | 0.200 | ug/L | 1 | --- | 0.362 | --- | --- | 11 | 20% | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Silver | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0148 - EPA 3015A** | | | | | | | **Water** | | | | | |
| **Duplicate (25A0148-DUP2)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 10:59 | | | | | | | | |
| **QC Source Sample: MW-11 (A4L1608-03RE1)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | Q-16 |
| **Matrix Spike (25A0148-MS1)** | | Prepared: 01/07/25 08:23 | | Analyzed: 01/08/25 02:46 | | | | | | | | |
| **QC Source Sample: MW-11 (A4L1608-03)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 60.4 | --- | 1.00 | ug/L | 1 | 55.6 | 6.21 | 98 | 75 - 125% | --- | --- | |
| Barium | 85.0 | --- | 2.00 | ug/L | 1 | 55.6 | 29.2 | 101 | 75 - 125% | --- | --- | |
| Cadmium | 55.3 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 99 | 75 - 125% | --- | --- | |
| Chromium | 53.7 | --- | 2.00 | ug/L | 1 | 55.6 | 1.51 | 94 | 75 - 125% | --- | --- | |
| Lead | 52.8 | --- | 0.200 | ug/L | 1 | 55.6 | 0.362 | 94 | 75 - 125% | --- | --- | |
| Mercury | 1.07 | --- | 0.0800 | ug/L | 1 | 1.11 | ND | 96 | 75 - 125% | --- | --- | |
| Selenium | 27.8 | --- | 2.00 | ug/L | 1 | 27.8 | ND | 100 | 75 - 125% | --- | --- | |
| Silver | 27.0 | --- | 0.200 | ug/L | 1 | 27.8 | ND | 97 | 75 - 125% | --- | --- | |

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|---|---|---|
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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1102 - Matrix Matched Direct Inject** | | | | | | | **Water** | | | | | |
| **Blank (24L1102-BLK1)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 03:57 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Blank (24L1102-BLK2)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 14:20 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | Q-16 |
| **LCS (24L1102-BS1)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 04:02 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | 53.9 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Barium | 56.6 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 102 | 80 - 120% | --- | --- | |
| Cadmium | 54.6 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Chromium | 54.5 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Lead | 55.5 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 100 | 80 - 120% | --- | --- | |
| Selenium | 28.1 | --- | 1.00 | ug/L | 1 | 27.8 | --- | 101 | 80 - 120% | --- | --- | |
| Silver | 27.6 | --- | 0.200 | ug/L | 1 | 27.8 | --- | 99 | 80 - 120% | --- | --- | |
| **LCS (24L1102-BS2)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 14:25 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Mercury | 1.10 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 99 | 80 - 120% | --- | --- | Q-16 |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

Apex Laboratories

Cameron O'Brien, Project Manager

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0365 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (25A0365-BLK1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:29 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | FILT3 |
| **LCS (25A0365-BS1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:34 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 54.1 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0813 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (24L0813-BLK1)** | | Prepared: 12/20/24 17:28 | | Analyzed: 12/20/24 17:28 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (24L0813-SRM1)** | | Prepared: 12/20/24 17:28 | | Analyzed: 12/20/24 17:28 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | 867 | --- | | mg/L | 1 | 854 | | 102 | 85 - 115% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0836 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (24L0836-BLK1)** | | Prepared: 12/23/24 14:56 | | Analyzed: 12/23/24 14:56 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (24L0836-SRM1)** | | Prepared: 12/23/24 14:56 | | Analyzed: 12/23/24 14:56 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | 873 | --- | | mg/L | 1 | 854 | | 102 | 85 - 115% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1608 - 01 16 25 1235 |

## SAMPLE PREPARATION INFORMATION

### Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Fuels/Acid Ext.)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L1016 | | | | | | | |
| A4L1608-01 | Water | NWTPH-HCID | 12/19/24 13:50 | 12/30/24 05:11 | 1030mL/5mL | 1000mL/5mL | 0.97 |
| A4L1608-02 | Water | NWTPH-HCID | 12/19/24 11:15 | 12/30/24 05:11 | 1000mL/5mL | 1000mL/5mL | 1.00 |
| A4L1608-03 | Water | NWTPH-HCID | 12/19/24 11:55 | 12/30/24 05:11 | 1010mL/5mL | 1000mL/5mL | 0.99 |
| A4L1608-04 | Water | NWTPH-HCID | 12/19/24 12:30 | 12/30/24 05:11 | 1030mL/5mL | 1000mL/5mL | 0.97 |
| A4L1608-05 | Water | NWTPH-HCID | 12/19/24 13:05 | 12/30/24 05:11 | 1020mL/5mL | 1000mL/5mL | 0.98 |
| A4L1608-06 | Water | NWTPH-HCID | 12/19/24 10:35 | 12/30/24 05:11 | 1030mL/5mL | 1000mL/5mL | 0.97 |
| A4L1608-07 | Water | NWTPH-HCID | 12/19/24 09:45 | 12/30/24 05:11 | 1060mL/5mL | 1000mL/5mL | 0.94 |
| A4L1608-08 | Water | NWTPH-HCID | 12/18/24 16:15 | 12/30/24 05:11 | 1030mL/5mL | 1000mL/5mL | 0.97 |

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0008 | | | | | | | |
| A4L1608-07 | Water | NWTPH-Gx (MS) | 12/19/24 09:45 | 01/02/25 14:51 | 5mL/5mL | 5mL/5mL | 1.00 |
| A4L1608-08 | Water | NWTPH-Gx (MS) | 12/18/24 16:15 | 01/02/25 14:51 | 5mL/5mL | 5mL/5mL | 1.00 |

### BTEX Compounds by EPA 8260D

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0008 | | | | | | | |
| A4L1608-07 | Water | EPA 8260D | 12/19/24 09:45 | 01/02/25 14:51 | 5mL/5mL | 5mL/5mL | 1.00 |
| A4L1608-08 | Water | EPA 8260D | 12/18/24 16:15 | 01/02/25 14:51 | 5mL/5mL | 5mL/5mL | 1.00 |

### Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0855 | | | | | | | |
| A4L1608-02 | Water | EPA 8260D | 12/19/24 11:15 | 12/23/24 11:43 | 5mL/5mL | 5mL/5mL | 1.00 |
| A4L1608-06 | Water | EPA 8260D | 12/19/24 10:35 | 12/23/24 11:43 | 5mL/5mL | 5mL/5mL | 1.00 |
| Batch: 24L0985 | | | | | | | |
| A4L1608-02RE1 | Water | EPA 8260D | 12/19/24 11:15 | 12/27/24 15:01 | 5mL/5mL | 5mL/5mL | 1.00 |
| A4L1608-06RE1 | Water | EPA 8260D | 12/19/24 10:35 | 12/27/24 15:01 | 5mL/5mL | 5mL/5mL | 1.00 |

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Cameron O'Brien, Project Manager

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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0148 | | | | | | | |
| A4L1608-01 | Water | EPA 6020B | 12/19/24 13:50 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-02 | Water | EPA 6020B | 12/19/24 11:15 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-02RE1 | Water | EPA 6020B | 12/19/24 11:15 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-03 | Water | EPA 6020B | 12/19/24 11:55 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-04 | Water | EPA 6020B | 12/19/24 12:30 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-05 | Water | EPA 6020B | 12/19/24 13:05 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-05RE1 | Water | EPA 6020B | 12/19/24 13:05 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-06 | Water | EPA 6020B | 12/19/24 10:35 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-06RE1 | Water | EPA 6020B | 12/19/24 10:35 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-07 | Water | EPA 6020B | 12/19/24 09:45 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-08 | Water | EPA 6020B | 12/18/24 16:15 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-08RE1 | Water | EPA 6020B | 12/18/24 16:15 | 01/07/25 08:23 | 45mL/50mL | 45mL/50mL | 1.00 |

### Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L1102 | | | | | | | |
| A4L1608-01 | Water | EPA 6020B (Diss) | 12/19/24 13:50 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-02 | Water | EPA 6020B (Diss) | 12/19/24 11:15 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-02RE1 | Water | EPA 6020B (Diss) | 12/19/24 11:15 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-03 | Water | EPA 6020B (Diss) | 12/19/24 11:55 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-04 | Water | EPA 6020B (Diss) | 12/19/24 12:30 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-05 | Water | EPA 6020B (Diss) | 12/19/24 13:05 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-05RE1 | Water | EPA 6020B (Diss) | 12/19/24 13:05 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-06 | Water | EPA 6020B (Diss) | 12/19/24 10:35 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-06RE1 | Water | EPA 6020B (Diss) | 12/19/24 10:35 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-07 | Water | EPA 6020B (Diss) | 12/19/24 09:45 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-07RE1 | Water | EPA 6020B (Diss) | 12/19/24 09:45 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-08 | Water | EPA 6020B (Diss) | 12/18/24 16:15 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-08RE1 | Water | EPA 6020B (Diss) | 12/18/24 16:15 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 25A0365 | | | | | | | |
| A4L1608-01RE1 | Water | EPA 6020B (Diss) | 12/19/24 13:50 | 01/13/25 08:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1608-07RE1 | Water | EPA 6020B (Diss) | 12/19/24 09:45 | 01/13/25 08:26 | 45mL/50mL | 45mL/50mL | 1.00 |

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1608 - 01 16 25 1235 |

## SAMPLE PREPARATION INFORMATION

### Solid and Moisture Determinations

Prep: Total Suspended Solids - 2022

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0813 | | | | | | | |
| A4L1608-08 | Water | SM 2540 D | 12/18/24 16:15 | 12/20/24 17:28 | 100mL | 100mL | 1.00 |
| Batch: 24L0836 | | | | | | | |
| A4L1608-05 | Water | SM 2540 D | 12/19/24 13:05 | 12/23/24 14:56 | 100mL | 100mL | 1.00 |

### Lab Filtration

Prep: Lab Filtration

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0311 | | | | | | | |
| A4L1608-01 | Water | NA | 12/19/24 13:50 | 01/10/25 11:00 | 150mL/150mL | | NA |
| A4L1608-07 | Water | NA | 12/19/24 09:45 | 01/10/25 11:00 | 150mL/150mL | | NA |

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **A-01** | Reporting limit raised due to possible contamination by a solvent commonly used in the laboratory. |
| **AMEND** | The Result, Reporting Level, Recovery and/or RPD has changed. Note: Batch QC marked as AMENDED may or may not have been issued prior to the change. Case Narrative included if client data is affected. |
| **FILT1** | Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration. |
| **FILT3** | This is a laboratory filtration blank, associated with filtration batch 25A0311. See Prep page of report for associated samples. |
| **H-01** | Analyzed outside the recommended holding time. |
| **Q-16** | Reanalysis of an original Batch QC sample. |
| **Q-55** | Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level. |
| **Q-56** | Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted. |
| **TSS** | Dried residue was less than 2.5mg as specified in the method. Results meet regulatory requirements. |

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

Apex Laboratories

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Cameron O'Brien, Project Manager

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Cameron O'Brien, Project Manager

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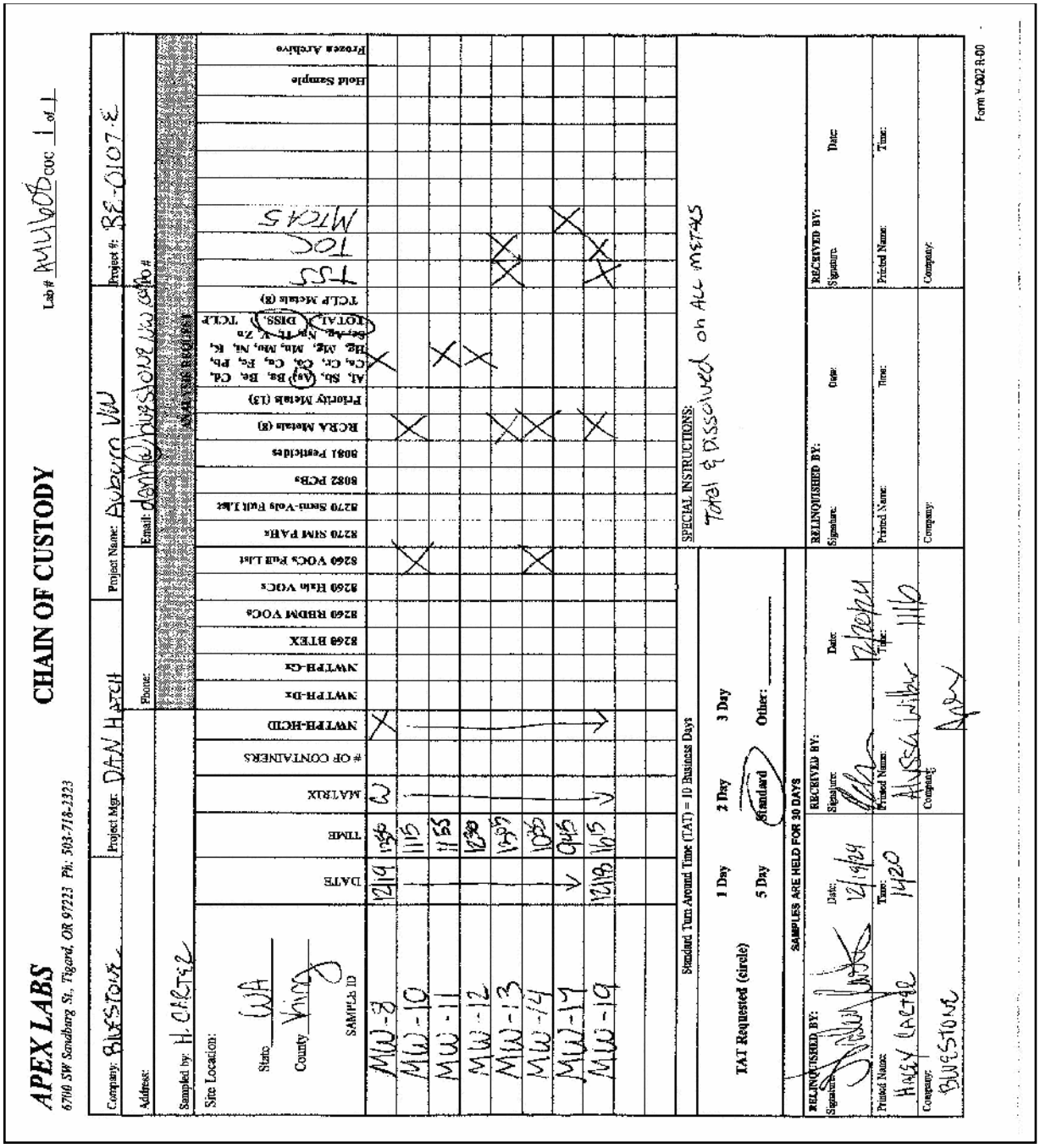
# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

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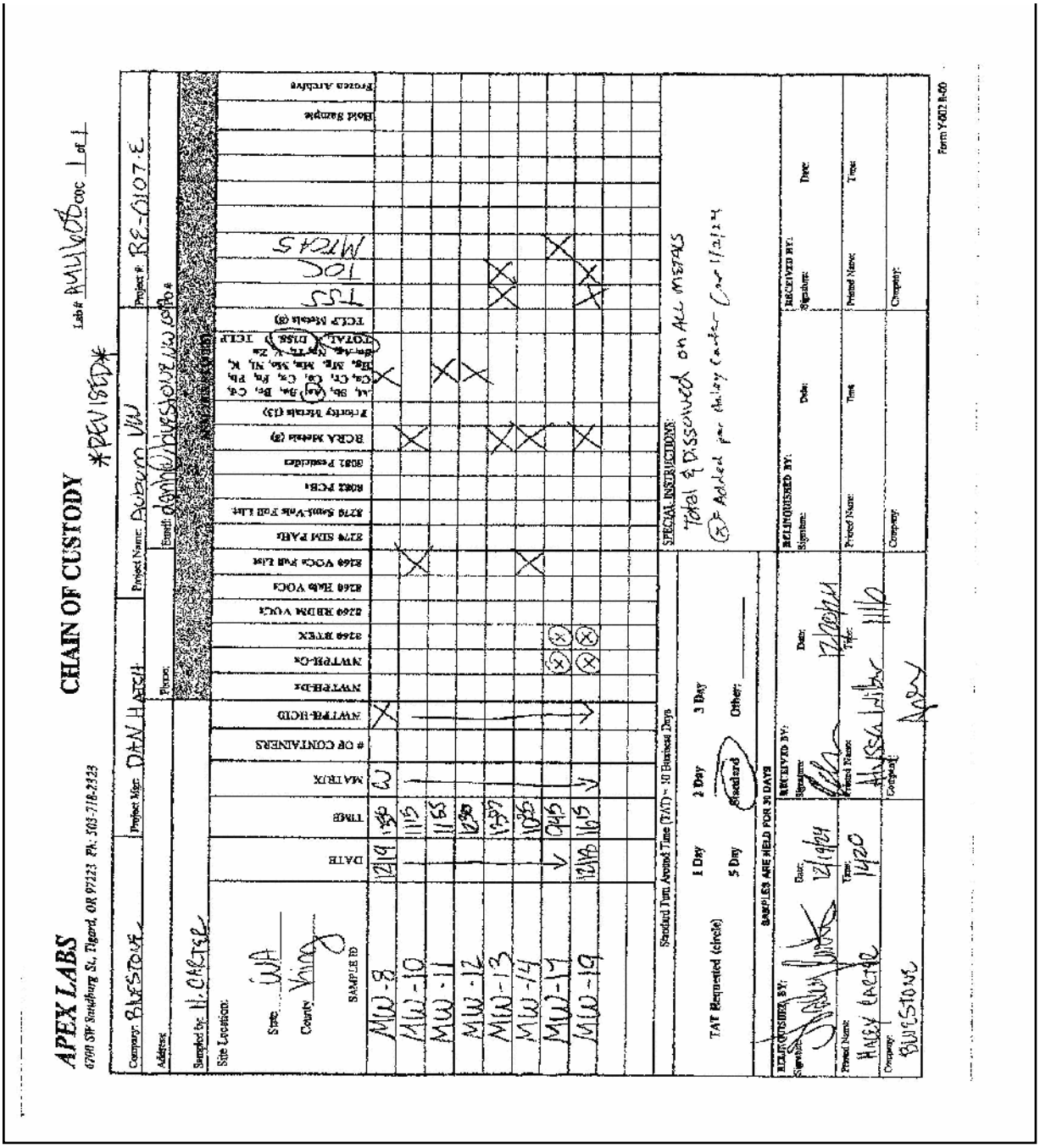
**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1608 - 01 16 25 1235** |

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**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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## APEX LABS COOLER RECEIPT FORM

**Client:** Blue Stone Element WO#: A4L1608

**Project/Project #:** Auburn VW / BE-0107-E

**Delivery Info:**

Date/time received: 12/20/24 @ 1116 By: AMW

Delivered by: Apex__Client__ESS__FedEx__UPS X Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ___ No X

**Cooler Inspection** Date/time inspected: 12/20/24 @ 1116 By: AMW

Chain of Custody included? Yes X No ___

Signed/dated by client? Yes X No ___

Contains USDA Reg. Soils? Yes ___ No X Unsure (email RegSoils) ___

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.1 | 0.8 | 5.1 | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: ___

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 12/20/24 @ 1250 By: AMW

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes X No ___ Comments: ___

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments ___

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes X No ___ NA ___ pH ID: A93172

Comments: ___

12 CIBOAS 01 5730 5040 12 CIBOAS 01 2852 2849 12 CAB OAS 01 3711 0129

Labeled by: AMW Witness: AMW Cooler Inspected by: AMW

Form Y-003 R-02

Apex Laboratories

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Cameron O'Brien, Project Manager

January 06, 2025 Service Request No:K2413611

Cameron O'Brien
Apex Laboratories
6700 SW Sandburg St.
Tigard, OR 97223

**Laboratory Results for: A4L1608**

Dear Cameron,

Enclosed are the results of the sample(s) submitted to our laboratory December 26, 2024
For your reference, these analyses have been assigned our service request number **K2413611.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

for Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

# Narrative Documents

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

**Client:** Apex Laboratories
**Project:** A4L1608
**Sample Matrix:** Water

**Service Request:** K2413611
**Date Received:** 12/26/2024

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Two water samples were received for analysis at ALS Environmental on 12/26/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**General Chemistry:**

No significant anomalies were noted with this analysis.

Approved by _____ Date 01/06/2025

## SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

| CLIENT ID: MW-13 | | | Lab ID: K2413611-001 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 1.20 | | 0.08 | 0.50 | mg/L | SM 5310 C |

| CLIENT ID: MW-19 | | | Lab ID: K2413611-002 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 30.0 | | 0.4 | 2.5 | mg/L | SM 5310 C |

# Sample Receipt Information

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

**Client:** Apex Laboratories **Service Request:**K2413611
**Project:** A4L1608

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| K2413611-001 | MW-13 | 12/19/2024 | 1305 |
| K2413611-002 | MW-19 | 12/18/2024 | 1615 |

K24 13611

**SUBCONTRACT ORDER**

**Apex Laboratories**

09B 12/20/24 **A4L1608**

**SENDING LABORATORY:**

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Cameron O'Brien

**RECEIVING LABORATORY:**

ALS Group USA - Kelso
1317 S 13th Avenue
Kelso, WA 98626
Phone :(360) 577-7222
Fax: (360) 636-1068

**Sample Name: MW-13** **Sampled: 12/19/24 13:05** (A4L1608-05)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/06/25 17:00 | 01/16/25 13:05 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

**Sample Name: MW-19** **Sampled: 12/18/24 16:15** (A4L1608-08)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/06/25 17:00 | 01/15/25 16:15 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

Standard TAT

| Released By | Date | Received By | Date |
|---|---|---|---|
| JA | 12/26/24 1235 | | 12/26/24 1235 |
| | 12/26/24 1425 | M. Mulligan | 12/26/24 1425 |

PM LR

# Cooler Receipt and Preservation Form

Client APEX Service Request K24 13611

Received: 12/20/24 Opened: 12/20/24 By: MM Unloaded: 12/20/24 By: MM

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

| Temp Blank | Sample Temp | IR Gun | Cooler #/COC ID / NA | Out of temp Indicate with "X" | PM Notified If out of temp | Tracking Number NA | Filed |
|---|---|---|---|---|---|---|---|
| 3.9 | | IR02 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
   If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA Y N
   If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

6. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
13. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
14. Was C12/Res negative? NA Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

| Sample ID on Bottle | Sample ID on COC | Identified by: |
|---|---|---|
| | | |
| | | |
| | | |

| Sample ID | Bottle Count Bottle Type | Head-space | Broke | pH | Reagent | Volume added | Reagent Lot Number | Initials | Time |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Notes, Discrepancies, Resolutions: _____

# Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated value. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |
| H | The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. |
| J | The result is an estimated value. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimated value over the calibration range. |
| J | The result is an estimated value between the MDL and the MRL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**
**State Certifications, Accreditations, and Licenses**

| Agency | Web Site | Number |
|---|---|---|
| Alaska DEH | http://dec.alaska.gov/eh/lab/cs/csapproval.htm | UST-040 |
| Arizona DHS | http://www.azdhs.gov/lab/license/env.htm | AZ0339 |
| Arkansas - DEQ | http://www.adeq.state.ar.us/techsvs/labcert.htm | 88-0637 |
| California DHS (ELAP) | http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx | 2795 |
| DOD ELAP | http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm | L16-58-R4 |
| Florida DOH | http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm | E87412 |
| Hawaii DOH | http://health.hawaii.gov/ | - |
| ISO 17025 | http://www.pjlabs.com/ | L16-57 |
| Louisiana DEQ | http://www.deq.louisiana.gov/page/la-lab-accreditation | 03016 |
| Maine DHS | http://www.maine.gov/dhhs/ | WA01276 |
| Minnesota DOH | http://www.health.state.mn.us/accreditation | 053-999-457 |
| Nevada DEP | http://ndep.nv.gov/bsdw/labservice.htm | WA01276 |
| New Jersey DEP | http://www.nj.gov/dep/enforcement/oqa.html | WA005 |
| New York - DOH | https://www.wadsworth.org/regulatory/elap | 12060 |
| North Carolina DEQ | https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification | 605 |
| Oklahoma DEQ | http://www.deq.state.ok.us/CSDnew/labcert.htm | 9801 |
| Oregon – DEQ (NELAP) | http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx | WA100010 |
| South Carolina DHEC | http://www.scdhec.gov/environment/EnvironmentalLabCertification/ | 61002 |
| Texas CEQ | http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html | T104704427 |
| Washington DOE | http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html | C544 |
| Wyoming (EPA Region 8) | https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water- | - |
| Kelso Laboratory Website | www.alsglobal.com | NA |

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

Analyst Summary report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608/ | | |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-13 | **Date Collected:** | 12/19/24 |
| **Lab Code:** | K2413611-001 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-19 | **Date Collected:** | 12/18/24 |
| **Lab Code:** | K2413611-002 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

# Sample Results

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

# General Chemistry

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608 | **Date Collected:** | 12/19/24 13:05 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-13 | **Basis:** | NA |
| **Lab Code:** | K2413611-001 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **1.20** | mg/L | 0.50 | 0.08 | 1 | 01/03/25 14:01 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608 | **Date Collected:** | 12/18/24 16:15 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-19 | **Basis:** | NA |
| **Lab Code:** | K2413611-002 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **30.0** | mg/L | 2.5 | 0.4 | 5 | 01/03/25 14:01 | |

# QC Summary Forms

**ALS Environmental—Kelso Laboratory**
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# General Chemistry

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608 | **Date Collected:** | NA |
| **Sample Matrix:** | Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | NA |
| **Lab Code:** | K2413611-MB | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | ND U | mg/L | 0.50 | 0.08 | 1 | 01/03/25 14:01 | |

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608 | **Date Collected:** | 12/19/24 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 |
| | | **Date Analyzed:** | 01/3/25 |
| | | **Date Extracted:** | NA |

## Matrix Spike Summary
## Carbon, Total Organic

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-13 | **Units:** | mg/L |
| **Lab Code:** | K2413611-001 | **Basis:** | NA |
| **Analysis Method:** | SM 5310 C | | |
| **Prep Method:** | None | | |

### Matrix Spike
K2413611-001MS

| Analyte Name | Sample Result | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Carbon, Total Organic | 1.20 | 25.4 | 25.0 | 97 | 83-117 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project** | A4L1608 | **Date Collected:** | 12/19/24 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 |
| | | **Date Analyzed:** | 01/03/25 |

## Replicate Sample Summary
## General Chemistry Parameters

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-13 | **Units:** | mg/L |
| **Lab Code:** | K2413611-001 | **Basis:** | NA |

| Analyte Name | Analysis Method | MRL | MDL | Sample Result | Duplicate Sample K2413611-001DUP Result | Average | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | 0.50 | 0.08 | 1.20 | 1.10 | 1.15 | 9 | 10 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413611 |
| **Project:** | A4L1608 | **Date Analyzed:** | 01/03/25 |
| **Sample Matrix:** | Water | **Date Extracted:** | NA |

## Lab Control Sample Summary
## Carbon, Total Organic

| | | | |
|---|---|---|---|
| **Analysis Method:** | SM 5310 C | **Units:** | mg/L |
| **Prep Method:** | None | **Basis:** | NA |
| | | **Analysis Lot:** | 866041 |

| Sample Name | Lab Code | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Lab Control Sample | K2413611-LCS | 23.8 | 25.0 | 95 | 83-117 |

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Thursday, January 16, 2025

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A4L1552 - Auburn VW - BE-0107-E

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4L1552, which was received by the laboratory on 12/19/2024 at 10:46:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information | | | | | |
|---|---|---|---|---|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. | | | | | |
| (See Cooler Receipt Form for details) | | | | | |
| Cooler #1 | 3.6 | degC | Cooler #2 | 2.6 | degC |
| Cooler #3 | 0.1 | degC | | | |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

*The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.*

Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-1 | A4L1552-01 | Water | 12/17/24 14:15 | 12/19/24 10:46 |
| MW-3 | A4L1552-02 | Water | 12/17/24 12:10 | 12/19/24 10:46 |
| MW-4 | A4L1552-03 | Water | 12/17/24 12:45 | 12/19/24 10:46 |
| MW-5 | A4L1552-04 | Water | 12/17/24 13:20 | 12/19/24 10:46 |
| MW-6 | A4L1552-05 | Water | 12/18/24 09:55 | 12/19/24 10:46 |
| MW-7 | A4L1552-06 | Water | 12/18/24 10:35 | 12/19/24 10:46 |
| MW-9 | A4L1552-07 | Water | 12/18/24 11:25 | 12/19/24 10:46 |
| MW-18 | A4L1552-08 | Water | 12/18/24 12:45 | 12/19/24 10:46 |
| MW-20 | A4L1552-09 | Water | 12/18/24 12:05 | 12/19/24 10:46 |

Apex Laboratories

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL CASE NARRATIVE

Work Order: **A4L1552** **Apex Laboratories**

Subcontract

This report is complete only if it includes the attached subcontract laboratory report from ALS -Kelso Laboratories.

Cameron O'Brien
Project Manager

Apex Laboratories

*The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.*

Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A4L1552-01)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0962 | mg/L | 1 | 12/23/24 21:22 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/23/24 21:22 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/23/24 21:22 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *85 %* | *Limits: 50-150 %* | *1* | *12/23/24 21:22* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *36 %* | *10-120 %* | *1* | *12/23/24 21:22* | *NWTPH-HCID* | |
| **MW-3 (A4L1552-02)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0943 | mg/L | 1 | 12/23/24 21:45 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/23/24 21:45 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/23/24 21:45 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *88 %* | *Limits: 50-150 %* | *1* | *12/23/24 21:45* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *39 %* | *10-120 %* | *1* | *12/23/24 21:45* | *NWTPH-HCID* | |
| **MW-4 (A4L1552-03)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0943 | mg/L | 1 | 12/23/24 22:09 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/23/24 22:09 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/23/24 22:09 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *91 %* | *Limits: 50-150 %* | *1* | *12/23/24 22:09* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *35 %* | *10-120 %* | *1* | *12/23/24 22:09* | *NWTPH-HCID* | |
| **MW-5 (A4L1552-04)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0962 | mg/L | 1 | 12/23/24 22:56 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/23/24 22:56 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/23/24 22:56 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *97 %* | *Limits: 50-150 %* | *1* | *12/23/24 22:56* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *53 %* | *10-120 %* | *1* | *12/23/24 22:56* | *NWTPH-HCID* | |
| **MW-6 (A4L1552-05)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | **DET** | --- | 0.101 | mg/L | 1 | 12/23/24 23:19 | NWTPH-HCID | |
| Diesel Range Organics | **DET** | --- | 0.253 | mg/L | 1 | 12/23/24 23:19 | NWTPH-HCID | F-13 |
| Oil Range Organics | ND | --- | 0.253 | mg/L | 1 | 12/23/24 23:19 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *92 %* | *Limits: 50-150 %* | *1* | *12/23/24 23:19* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *34 %* | *10-120 %* | *1* | *12/23/24 23:19* | *NWTPH-HCID* | |
| **MW-7 (A4L1552-06)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1552 - 01 16 25 1218 |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-7 (A4L1552-06)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0971 | mg/L | 1 | 12/23/24 23:43 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/23/24 23:43 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.243 | mg/L | 1 | 12/23/24 23:43 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *93 %* | *Limits: 50-150 %* | *1* | *12/23/24 23:43* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *41 %* | *10-120 %* | *1* | *12/23/24 23:43* | *NWTPH-HCID* | |
| **MW-9 (A4L1552-07)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0943 | mg/L | 1 | 12/24/24 00:06 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/24/24 00:06 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.236 | mg/L | 1 | 12/24/24 00:06 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *94 %* | *Limits: 50-150 %* | *1* | *12/24/24 00:06* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *42 %* | *10-120 %* | *1* | *12/24/24 00:06* | *NWTPH-HCID* | |
| **MW-18 (A4L1552-08)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0962 | mg/L | 1 | 12/24/24 00:30 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/24/24 00:30 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.240 | mg/L | 1 | 12/24/24 00:30 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *94 %* | *Limits: 50-150 %* | *1* | *12/24/24 00:30* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *50 %* | *10-120 %* | *1* | *12/24/24 00:30* | *NWTPH-HCID* | |
| **MW-20 (A4L1552-09)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| Gasoline Range Organics | ND | --- | 0.0990 | mg/L | 1 | 12/24/24 00:53 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.248 | mg/L | 1 | 12/24/24 00:53 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.248 | mg/L | 1 | 12/24/24 00:53 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *98 %* | *Limits: 50-150 %* | *1* | *12/24/24 00:53* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *50 %* | *10-120 %* | *1* | *12/24/24 00:53* | *NWTPH-HCID* | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6 (A4L1552-05)** | | | | **Matrix: Water** | | **Batch: 24L0852** | | |
| **Diesel** | **202** | --- | 202 | ug/L | 1 | 12/23/24 23:19 | NWTPH-Dx | **F-18** |
| Oil | ND | --- | 404 | ug/L | 1 | 12/23/24 23:19 | NWTPH-Dx | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 92 %* | *Limits: 50-150 %* | | *1* | *12/23/24 23:19* | *NWTPH-Dx* | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6 (A4L1552-05RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| **Gasoline Range Organics** | **1440** | --- | 100 | ug/L | 1 | 12/24/24 20:11 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | *Recovery: 106 %* | | *Limits: 50-150 %* | *1* | *12/24/24 20:11* | *NWTPH-Gx (MS)* | |
| *1,4-Difluorobenzene (Sur)* | | | *111 %* | *50-150 %* | *1* | *12/24/24 20:11* | *NWTPH-Gx (MS)* | |

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6 (A4L1552-05RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| **n-Butylbenzene** | **4.13** | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| **sec-Butylbenzene** | **8.90** | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1552 - 01 16 25 1218 |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6 (A4L1552-05RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| **Isopropylbenzene** | **1.63** | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| **Naphthalene** | **8.76** | --- | 5.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| **n-Propylbenzene** | **11.6** | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:11 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *104 %* | *Limits:* | *80-120 %* | *1* | *12/24/24 20:11* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *105 %* | | *80-120 %* | *1* | *12/24/24 20:11* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *95 %* | | *80-120 %* | *1* | *12/24/24 20:11* | *EPA 8260D* | |
| **MW-9 (A4L1552-07RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-9 (A4L1552-07RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-9 (A4L1552-07RE1)** | | | | **Matrix: Water** | | **Batch: 24L0911** | | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | 12/24/24 20:38 | EPA 8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *104 %* | *Limits:* | *80-120 %* | *1* | *12/24/24 20:38* | *EPA 8260D* | |
| *Toluene-d8 (Surr)* | | | *106 %* | | *80-120 %* | *1* | *12/24/24 20:38* | *EPA 8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *101 %* | | *80-120 %* | *1* | *12/24/24 20:38* | *EPA 8260D* | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A4L1552-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0028 | | | | | | | | |
| **Arsenic** | **20.8** | --- | 1.00 | ug/L | 1 | 01/03/25 08:53 | EPA 6020B | |
| **MW-3 (A4L1552-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0028 | | | | | | | | |
| **Arsenic** | **20.6** | --- | 1.00 | ug/L | 1 | 01/03/25 08:58 | EPA 6020B | |
| **MW-4 (A4L1552-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0028 | | | | | | | | |
| **Arsenic** | **10.3** | --- | 1.00 | ug/L | 1 | 01/03/25 09:14 | EPA 6020B | |
| **MW-5 (A4L1552-04)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0028 | | | | | | | | |
| **Arsenic** | **28.0** | --- | 1.00 | ug/L | 1 | 01/03/25 09:19 | EPA 6020B | |
| **MW-6 (A4L1552-05)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| **Arsenic** | **24.2** | --- | 1.00 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| **Barium** | **16.8** | --- | 2.00 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| **Lead** | **0.584** | --- | 0.200 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:37 | EPA 6020B | |
| **MW-6 (A4L1552-05RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 10:05 | EPA 6020B | |
| **MW-7 (A4L1552-06)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| **Arsenic** | **5.70** | --- | 1.00 | ug/L | 1 | 01/07/25 23:42 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:42 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/07/25 23:42 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:42 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/07/25 23:42 | EPA 6020B | |

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-9 (A4L1552-07)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| **Arsenic** | **17.0** | --- | 1.00 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| **Barium** | **35.6** | --- | 2.00 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:47 | EPA 6020B | |
| **MW-9 (A4L1552-07RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/08/25 10:10 | EPA 6020B | |
| **MW-18 (A4L1552-08)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| **Arsenic** | **5.00** | --- | 1.00 | ug/L | 1 | 01/07/25 23:52 | EPA 6020B | |
| **MW-20 (A4L1552-09)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0144 | | | | | | | | |
| **Arsenic** | **53.8** | --- | 1.00 | ug/L | 1 | 01/07/25 23:58 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:58 | EPA 6020B | |
| **Chromium** | **3.70** | --- | 2.00 | ug/L | 1 | 01/07/25 23:58 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/07/25 23:58 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/07/25 23:58 | EPA 6020B | |

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1552 - 01 16 25 1218 |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-1 (A4L1552-01)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **20.6** | --- | 1.00 | ug/L | 1 | 01/03/25 04:23 | EPA 6020B (Diss) | |
| **MW-3 (A4L1552-02)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **21.7** | --- | 1.00 | ug/L | 1 | 01/03/25 04:29 | EPA 6020B (Diss) | |
| **MW-3 (A4L1552-02RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0365 | | | | | | | | |
| **Arsenic** | **2.70** | --- | 1.00 | ug/L | 1 | 01/13/25 12:39 | EPA 6020B (Diss) | **FILT1** |
| **MW-4 (A4L1552-03)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **10.1** | --- | 1.00 | ug/L | 1 | 01/03/25 04:34 | EPA 6020B (Diss) | |
| **MW-5 (A4L1552-04)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **26.8** | --- | 1.00 | ug/L | 1 | 01/03/25 04:39 | EPA 6020B (Diss) | |
| **MW-6 (A4L1552-05)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **20.0** | --- | 1.00 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| **Barium** | **10.6** | --- | 1.00 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 04:55 | EPA 6020B (Diss) | |
| **MW-6 (A4L1552-05RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 14:47 | EPA 6020B (Diss) | |
| **MW-7 (A4L1552-06)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |

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ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-7 (A4L1552-06)** | | | | **Matrix: Water** | | | | |
| **Arsenic** | **5.30** | --- | 1.00 | ug/L | 1 | 01/03/25 05:00 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:00 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 05:00 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:00 | EPA 6020B (Diss) | |
| **MW-7 (A4L1552-06RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 14:52 | EPA 6020B (Diss) | |
| **MW-9 (A4L1552-07)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **15.2** | --- | 1.00 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| **Barium** | **33.9** | --- | 1.00 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| Silver | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:06 | EPA 6020B (Diss) | |
| **MW-9 (A4L1552-07RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 14:57 | EPA 6020B (Diss) | |
| **MW-18 (A4L1552-08)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **4.54** | --- | 1.00 | ug/L | 1 | 01/03/25 05:11 | EPA 6020B (Diss) | |
| **MW-20 (A4L1552-09)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |
| **Arsenic** | **52.0** | --- | 1.00 | ug/L | 1 | 01/03/25 05:16 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:16 | EPA 6020B (Diss) | |
| **Chromium** | **2.77** | --- | 2.00 | ug/L | 1 | 01/03/25 05:16 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/03/25 05:16 | EPA 6020B (Diss) | |
| **MW-20 (A4L1552-09RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 24L1102 | | | | | | | | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-20 (A4L1552-09RE1)** | | | | **Matrix: Water** | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/03/25 15:13 | EPA 6020B (Diss) | |
| Batch: 25A0365 | | | | | | | | |
| **Arsenic** | **3.53** | --- | 1.00 | ug/L | 1 | 01/13/25 12:45 | EPA 6020B (Diss) | **FILT1** |

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## ANALYTICAL SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-3 (A4L1552-02)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0777 | | | | | | | | |
| **Total Suspended Solids** | **134000** | --- | 5000 | ug/L | 1 | 12/20/24 10:34 | SM 2540 D | |
| **MW-5 (A4L1552-04)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0777 | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | 12/20/24 10:34 | SM 2540 D | TSS |
| **MW-6 (A4L1552-05)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0813 | | | | | | | | |
| **Total Suspended Solids** | **26000** | --- | 5000 | ug/L | 1 | 12/20/24 17:28 | SM 2540 D | |
| **MW-20 (A4L1552-09)** | | | | **Matrix: Water** | | | | |
| Batch: 24L0813 | | | | | | | | |
| **Total Suspended Solids** | **126000** | --- | 5000 | ug/L | 1 | 12/20/24 17:28 | SM 2540 D | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0852 - EPA 3510C (Fuels/Acid Ext.)** | | | | | | | | | | | | **Water** |
| **Blank (24L0852-BLK1)** | | | Prepared: 12/23/24 11:15 | | Analyzed: 12/23/24 20:12 | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 0.100 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 84 %* | | *Limits: 50-150 %* | | | | *Dilution: 1x* | | | |
| *4-Bromofluorobenzene (Surr)* | | | *27 %* | | *10-120 %* | | | | *"* | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0852 - EPA 3510C (Fuels/Acid Ext.)** | | | | | | | | | | | | **Water** |
| **Blank (24L0852-BLK1)** | | Prepared: 12/23/24 11:15 | | Analyzed: 12/23/24 20:12 | | | | | | | | |
| **NWTPH-Dx** | | | | | | | | | | | | |
| Diesel | ND | --- | 200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil | ND | --- | 400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 83 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS (24L0852-BS1)** | | Prepared: 12/23/24 11:15 | | Analyzed: 12/23/24 20:35 | | | | | | | | |
| **NWTPH-Dx** | | | | | | | | | | | | |
| Diesel | 1010 | --- | 200 | ug/L | 1 | 1250 | --- | 81 | 36 - 132% | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 88 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS Dup (24L0852-BSD1)** | | Prepared: 12/23/24 11:15 | | Analyzed: 12/23/24 20:59 | | | | | | | | **Q-19** |
| **NWTPH-Dx** | | | | | | | | | | | | |
| Diesel | 1000 | --- | 200 | ug/L | 1 | 1250 | --- | 80 | 36 - 132% | 1 | 30% | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 90 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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Cameron O'Brien, Project Manager

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (24L0911-BLK1)** | | Prepared: 12/24/24 15:00 Analyzed: 12/24/24 18:21 | | | | | | | | | | |
| **NWTPH-Gx (MS)** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 100 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 100 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | | *110 %* | | *50-150 %* | | | *"* | | | | |
| **LCS (24L0911-BS2)** | | Prepared: 12/24/24 15:00 Analyzed: 12/24/24 17:47 | | | | | | | | | | |
| **NWTPH-Gx (MS)** | | | | | | | | | | | | |
| Gasoline Range Organics | 481 | --- | 100 | ug/L | 1 | 500 | --- | 96 | 80 - 120% | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 97 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *1,4-Difluorobenzene (Sur)* | | | *104 %* | | *50-150 %* | | | *"* | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0829 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0829-BLK1)** | | Prepared: 12/23/24 07:47 | | | Analyzed: 12/23/24 10:27 | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0829 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0829-BLK1)** | | Prepared: 12/23/24 07:47 | | Analyzed: 12/23/24 10:27 | | | | | | | | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 102 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0829 - EPA 5030C** | | | | | | | | | **Water** | | | |
| **Blank (24L0829-BLK1)** | | | Prepared: 12/23/24 07:47 | | Analyzed: 12/23/24 10:27 | | | | | | | |
| *Surr: Toluene-d8 (Surr)* | | | *Recovery: 104 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *104 %* | | *80-120 %* | | | *"* | | | | |
| **LCS (24L0829-BS1)** | | | Prepared: 12/23/24 07:47 | | Analyzed: 12/23/24 09:30 | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | 38.4 | --- | 20.0 | ug/L | 1 | 40.0 | --- | 96 | 80 - 120% | --- | --- | |
| Acrylonitrile | 19.8 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Benzene | 19.5 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| Bromobenzene | 19.8 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Bromochloromethane | 20.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| Bromodichloromethane | 21.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| Bromoform | 23.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 119 | 80 - 120% | --- | --- | |
| Bromomethane | 27.2 | --- | 5.00 | ug/L | 1 | 20.0 | --- | **136** | **80 - 120%** | --- | --- | Q-56 |
| 2-Butanone (MEK) | 41.0 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 102 | 80 - 120% | --- | --- | |
| n-Butylbenzene | 20.6 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| sec-Butylbenzene | 20.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| tert-Butylbenzene | 21.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| Carbon disulfide | 23.8 | --- | 10.0 | ug/L | 1 | 20.0 | --- | 119 | 80 - 120% | --- | --- | |
| Carbon tetrachloride | 22.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Chlorobenzene | 19.8 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Chloroethane | 19.4 | --- | 10.0 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| Chloroform | 19.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| Chloromethane | 17.4 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 87 | 80 - 120% | --- | --- | |
| 2-Chlorotoluene | 21.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 4-Chlorotoluene | 22.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 110 | 80 - 120% | --- | --- | |
| Dibromochloromethane | 23.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 119 | 80 - 120% | --- | --- | |
| 1,2-Dibromo-3-chloropropane | 21.3 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,2-Dibromoethane (EDB) | 20.9 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| Dibromomethane | 21.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,2-Dichlorobenzene | 21.2 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,3-Dichlorobenzene | 21.2 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,4-Dichlorobenzene | 20.1 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Dichlorodifluoromethane | 19.6 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 98 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethane | 20.1 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0829 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **LCS (24L0829-BS1)** | | Prepared: 12/23/24 07:47 | | Analyzed: 12/23/24 09:30 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | 19.7 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 98 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethene | 22.2 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 111 | 80 - 120% | --- | --- | |
| cis-1,2-Dichloroethene | 19.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 98 | 80 - 120% | --- | --- | |
| trans-1,2-Dichloroethene | 19.4 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| 1,2-Dichloropropane | 19.9 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 1,3-Dichloropropane | 20.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| 2,2-Dichloropropane | 27.7 | --- | 1.00 | ug/L | 1 | 20.0 | --- | **139** | **80 - 120%** | --- | --- | Q-56 |
| 1,1-Dichloropropene | 20.7 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| cis-1,3-Dichloropropene | 23.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 117 | 80 - 120% | --- | --- | |
| trans-1,3-Dichloropropene | 21.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 109 | 80 - 120% | --- | --- | |
| Ethylbenzene | 21.1 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| Hexachlorobutadiene | 23.8 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 119 | 80 - 120% | --- | --- | |
| 2-Hexanone | 41.4 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 104 | 80 - 120% | --- | --- | |
| Isopropylbenzene | 19.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| 4-Isopropyltoluene | 20.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| Methylene chloride | 18.9 | --- | 10.0 | ug/L | 1 | 20.0 | --- | 95 | 80 - 120% | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | 42.2 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 105 | 80 - 120% | --- | --- | |
| Methyl tert-butyl ether (MTBE) | 21.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 107 | 80 - 120% | --- | --- | |
| Naphthalene | 17.9 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 90 | 80 - 120% | --- | --- | |
| n-Propylbenzene | 22.2 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 111 | 80 - 120% | --- | --- | |
| Styrene | 19.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 95 | 80 - 120% | --- | --- | |
| 1,1,1,2-Tetrachloroethane | 22.0 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 110 | 80 - 120% | --- | --- | |
| 1,1,2,2-Tetrachloroethane | 20.3 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| Tetrachloroethene (PCE) | 20.2 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Toluene | 19.1 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 95 | 80 - 120% | --- | --- | |
| 1,2,3-Trichlorobenzene | 21.2 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,2,4-Trichlorobenzene | 21.0 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 1,1,1-Trichloroethane | 21.2 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 1,1,2-Trichloroethane | 19.7 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Trichloroethene (TCE) | 19.8 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Trichlorofluoromethane | 23.2 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 116 | 80 - 120% | --- | --- | |
| 1,2,3-Trichloropropane | 19.9 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 1,2,4-Trimethylbenzene | 20.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| 1,3,5-Trimethylbenzene | 22.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 111 | 80 - 120% | --- | --- | |

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Cameron O'Brien, Project Manager

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**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0829 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **LCS (24L0829-BS1)** | | Prepared: 12/23/24 07:47 | | Analyzed: 12/23/24 09:30 | | | | | | | | |
| Vinyl chloride | 19.4 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| m,p-Xylene | 39.6 | --- | 1.00 | ug/L | 1 | 40.0 | --- | 99 | 80 - 120% | --- | --- | |
| o-Xylene | 18.8 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 94 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | | *Recovery: 99 %* | | *Limits: 80-120 %* | | | | *Dilution: 1x* | | | |
| *Toluene-d8 (Surr)* | | | *100 %* | | *80-120 %* | | | | *"* | | | |
| *4-Bromofluorobenzene (Surr)* | | | *96 %* | | *80-120 %* | | | | *"* | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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Cameron O'Brien, Project Manager

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0911-BLK1)** | | Prepared: 12/24/24 15:00 | | Analyzed: 12/24/24 18:21 | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | ND | --- | 20.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Acrylonitrile | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Benzene | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromodichloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromoform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Bromomethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Butanone (MEK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| sec-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| tert-Butylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon disulfide | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Carbon tetrachloride | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroethane | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloroform | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chloromethane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Chlorotoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromochloromethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dibromomethane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,4-Dichlorobenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Dichlorodifluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,2-Dichloroethene | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |

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Cameron O'Brien, Project Manager

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **Blank (24L0911-BLK1)** | | Prepared: 12/24/24 15:00 | | Analyzed: 12/24/24 18:21 | | | | | | | | |
| 1,2-Dichloropropane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2,2-Dichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| cis-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| trans-1,3-Dichloropropene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Hexachlorobutadiene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 2-Hexanone | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Isopropylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Isopropyltoluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methylene chloride | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 10.0 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 5.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| n-Propylbenzene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Styrene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Tetrachloroethene (PCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trichlorobenzene | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,1-Trichloroethane | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,1,2-Trichloroethane | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichloroethene (TCE) | ND | --- | 0.400 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Trichlorofluoromethane | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichloropropane | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| 1,3,5-Trimethylbenzene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| m,p-Xylene | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| o-Xylene | ND | --- | 0.500 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 106 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **Blank (24L0911-BLK1)** | | | Prepared: 12/24/24 15:00 Analyzed: 12/24/24 18:21 | | | | | | | | | |
| *Surr: Toluene-d8 (Surr)* | | | *Recovery: 105 %* | *Limits: 80-120 %* | | | | *Dilution: 1x* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *103 %* | *80-120 %* | | | | *"* | | | | |
| **LCS (24L0911-BS1)** | | | Prepared: 12/24/24 15:00 Analyzed: 12/24/24 17:20 | | | | | | | | | |
| **EPA 8260D** | | | | | | | | | | | | |
| Acetone | 30.8 | --- | 20.0 | ug/L | 1 | 40.0 | --- | **77** | **80 - 120%** | --- | --- | Q-55 |
| Acrylonitrile | 18.4 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 92 | 80 - 120% | --- | --- | |
| Benzene | 20.2 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Bromobenzene | 20.0 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| Bromochloromethane | 22.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 111 | 80 - 120% | --- | --- | |
| Bromodichloromethane | 22.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Bromoform | 24.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | **122** | **80 - 120%** | --- | --- | Q-56 |
| Bromomethane | 34.3 | --- | 5.00 | ug/L | 1 | 20.0 | --- | **171** | **80 - 120%** | --- | --- | Q-56 |
| 2-Butanone (MEK) | 36.0 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 90 | 80 - 120% | --- | --- | |
| n-Butylbenzene | 19.9 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| sec-Butylbenzene | 20.3 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| tert-Butylbenzene | 20.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| Carbon disulfide | 26.0 | --- | 10.0 | ug/L | 1 | 20.0 | --- | **130** | **80 - 120%** | --- | --- | Q-56 |
| Carbon tetrachloride | 23.0 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 115 | 80 - 120% | --- | --- | |
| Chlorobenzene | 20.5 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| Chloroethane | 40.7 | --- | 10.0 | ug/L | 1 | 20.0 | --- | **203** | **80 - 120%** | --- | --- | Q-56 |
| Chloroform | 20.7 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| Chloromethane | 20.0 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 2-Chlorotoluene | 21.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 106 | 80 - 120% | --- | --- | |
| 4-Chlorotoluene | 22.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Dibromochloromethane | 24.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | **122** | **80 - 120%** | --- | --- | Q-56 |
| 1,2-Dibromo-3-chloropropane | 19.9 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 1,2-Dibromoethane (EDB) | 20.7 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Dibromomethane | 21.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 109 | 80 - 120% | --- | --- | |
| 1,2-Dichlorobenzene | 21.0 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 1,3-Dichlorobenzene | 21.5 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 107 | 80 - 120% | --- | --- | |
| 1,4-Dichlorobenzene | 20.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Dichlorodifluoromethane | 20.7 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethane | 21.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |

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Cameron O'Brien, Project Manager

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ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | **Water** | | | | | |
| **LCS (24L0911-BS1)** | | Prepared: 12/24/24 15:00 | | Analyzed: 12/24/24 17:20 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | 20.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethene | 24.4 | --- | 0.400 | ug/L | 1 | 20.0 | --- | **122** | **80 - 120%** | --- | --- | Q-56 |
| cis-1,2-Dichloroethene | 20.5 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| trans-1,2-Dichloroethene | 20.3 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 102 | 80 - 120% | --- | --- | |
| 1,2-Dichloropropane | 20.9 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 104 | 80 - 120% | --- | --- | |
| 1,3-Dichloropropane | 20.9 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 2,2-Dichloropropane | 25.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | **128** | **80 - 120%** | --- | --- | Q-56 |
| 1,1-Dichloropropene | 21.0 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| cis-1,3-Dichloropropene | 23.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 117 | 80 - 120% | --- | --- | |
| trans-1,3-Dichloropropene | 21.7 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| Ethylbenzene | 21.6 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| Hexachlorobutadiene | 21.1 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 2-Hexanone | 36.9 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 92 | 80 - 120% | --- | --- | |
| Isopropylbenzene | 18.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 92 | 80 - 120% | --- | --- | |
| 4-Isopropyltoluene | 19.4 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 97 | 80 - 120% | --- | --- | |
| Methylene chloride | 20.0 | --- | 10.0 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | 39.3 | --- | 10.0 | ug/L | 1 | 40.0 | --- | 98 | 80 - 120% | --- | --- | |
| Methyl tert-butyl ether (MTBE) | 20.0 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 100 | 80 - 120% | --- | --- | |
| Naphthalene | 17.4 | --- | 5.00 | ug/L | 1 | 20.0 | --- | 87 | 80 - 120% | --- | --- | |
| n-Propylbenzene | 22.3 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| Styrene | 19.1 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 95 | 80 - 120% | --- | --- | |
| 1,1,1,2-Tetrachloroethane | 22.4 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 112 | 80 - 120% | --- | --- | |
| 1,1,2,2-Tetrachloroethane | 21.0 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| Tetrachloroethene (PCE) | 19.9 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| Toluene | 19.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 99 | 80 - 120% | --- | --- | |
| 1,2,3-Trichlorobenzene | 21.0 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 105 | 80 - 120% | --- | --- | |
| 1,2,4-Trichlorobenzene | 19.1 | --- | 2.00 | ug/L | 1 | 20.0 | --- | 96 | 80 - 120% | --- | --- | |
| 1,1,1-Trichloroethane | 21.6 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 108 | 80 - 120% | --- | --- | |
| 1,1,2-Trichloroethane | 20.1 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| Trichloroethene (TCE) | 20.5 | --- | 0.400 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| Trichlorofluoromethane | 26.4 | --- | 2.00 | ug/L | 1 | 20.0 | --- | **132** | **80 - 120%** | --- | --- | Q-56 |
| 1,2,3-Trichloropropane | 20.5 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 103 | 80 - 120% | --- | --- | |
| 1,2,4-Trimethylbenzene | 20.2 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 101 | 80 - 120% | --- | --- | |
| 1,3,5-Trimethylbenzene | 21.8 | --- | 1.00 | ug/L | 1 | 20.0 | --- | 109 | 80 - 120% | --- | --- | |

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Cameron O'Brien, Project Manager

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0911 - EPA 5030C** | | | | | | | | | | | | **Water** |
| **LCS (24L0911-BS1)** | | Prepared: 12/24/24 15:00 | | Analyzed: 12/24/24 17:20 | | | | | | | | |
| Vinyl chloride | 23.0 | --- | 0.200 | ug/L | 1 | 20.0 | --- | 115 | 80 - 120% | --- | --- | |
| m,p-Xylene | 40.1 | --- | 1.00 | ug/L | 1 | 40.0 | --- | 100 | 80 - 120% | --- | --- | |
| o-Xylene | 18.5 | --- | 0.500 | ug/L | 1 | 20.0 | --- | 93 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *100 %* | *Limits:* | *80-120 %* | | *Dilution:* | *1x* | | | | |
| *Toluene-d8 (Surr)* | | | *101 %* | | *80-120 %* | | | *"* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *95 %* | | *80-120 %* | | | *"* | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0028 - EPA 3015A** | | | | | | | | | | | | **Water** |
| **Blank (25A0028-BLK1)** | | Prepared: 01/02/25 10:59 | | Analyzed: 01/03/25 06:30 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25A0028-BS1)** | | Prepared: 01/02/25 10:59 | | Analyzed: 01/03/25 06:35 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 55.2 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 99 | 80 - 120% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0144 - EPA 3015A** | | | | | | | **Water** | | | | | |
| **Blank (25A0144-BLK1)** | | Prepared: 01/07/25 07:54 | | Analyzed: 01/07/25 23:26 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Blank (25A0144-BLK2)** | | Prepared: 01/07/25 07:54 | | Analyzed: 01/08/25 09:55 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | Q-16 |
| **LCS (25A0144-BS1)** | | Prepared: 01/07/25 07:54 | | Analyzed: 01/07/25 23:31 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 54.4 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Barium | 54.2 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Cadmium | 54.0 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Chromium | 54.1 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Lead | 55.9 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 101 | 80 - 120% | --- | --- | |
| Mercury | 1.08 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 97 | 80 - 120% | --- | --- | |
| Selenium | 27.4 | --- | 2.00 | ug/L | 1 | 27.8 | --- | 99 | 80 - 120% | --- | --- | |
| Silver | 27.2 | --- | 0.200 | ug/L | 1 | 27.8 | --- | 98 | 80 - 120% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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Cameron O'Brien, Project Manager

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1102 - Matrix Matched Direct Inject** | | | | | | | **Water** | | | | | |
| **Blank (24L1102-BLK1)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 03:57 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Selenium | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Blank (24L1102-BLK2)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 14:20 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | Q-16 |
| **LCS (24L1102-BS1)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 04:02 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Arsenic | 53.9 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Barium | 56.6 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 102 | 80 - 120% | --- | --- | |
| Cadmium | 54.6 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Chromium | 54.5 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Lead | 55.5 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 100 | 80 - 120% | --- | --- | |
| Selenium | 28.1 | --- | 1.00 | ug/L | 1 | 27.8 | --- | 101 | 80 - 120% | --- | --- | |
| Silver | 27.6 | --- | 0.200 | ug/L | 1 | 27.8 | --- | 99 | 80 - 120% | --- | --- | |
| **LCS (24L1102-BS2)** | | Prepared: 12/31/24 14:56 | | Analyzed: 01/03/25 14:25 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Mercury | 1.10 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 99 | 80 - 120% | --- | --- | Q-16 |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0365 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (25A0365-BLK1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:29 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | FILT3 |
| **LCS (25A0365-BS1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:34 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | 54.1 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| **Duplicate (25A0365-DUP1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:50 | | | | | | | | |
| QC Source Sample: MW-20 (A4L1552-09RE1) | | | | | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | **3.47** | --- | 1.00 | ug/L | 1 | --- | 3.53 | --- | --- | 2 | 20% | FILT1 |
| **Matrix Spike (25A0365-MS1)** | | Prepared: 01/13/25 08:26 | | Analyzed: 01/13/25 12:55 | | | | | | | | |
| QC Source Sample: MW-20 (A4L1552-09RE1) | | | | | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | 58.3 | --- | 1.00 | ug/L | 1 | 55.6 | 3.53 | 99 | 75 - 125% | --- | --- | FILT1 |

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0777 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (24L0777-BLK1)** | | Prepared: 12/20/24 10:34 | | Analyzed: 12/20/24 10:34 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (24L0777-SRM1)** | | Prepared: 12/20/24 10:34 | | Analyzed: 12/20/24 10:34 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | 866 | --- | | mg/L | 1 | 854 | | 101 | 85 - 115% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0813 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (24L0813-BLK1)** | | Prepared: 12/20/24 17:28 | | Analyzed: 12/20/24 17:28 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (24L0813-SRM1)** | | Prepared: 12/20/24 17:28 | | Analyzed: 12/20/24 17:28 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | 867 | --- | | mg/L | 1 | 854 | | 102 | 85 - 115% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1552 - 01 16 25 1218 |

## SAMPLE PREPARATION INFORMATION

### Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Fuels/Acid Ext.)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0852 | | | | | | | |
| A4L1552-01 | Water | NWTPH-HCID | 12/17/24 14:15 | 12/23/24 13:57 | 1040mL/5mL | 1000mL/5mL | 0.96 |
| A4L1552-02 | Water | NWTPH-HCID | 12/17/24 12:10 | 12/23/24 13:57 | 1060mL/5mL | 1000mL/5mL | 0.94 |
| A4L1552-03 | Water | NWTPH-HCID | 12/17/24 12:45 | 12/23/24 13:57 | 1060mL/5mL | 1000mL/5mL | 0.94 |
| A4L1552-04 | Water | NWTPH-HCID | 12/17/24 13:20 | 12/23/24 13:57 | 1040mL/5mL | 1000mL/5mL | 0.96 |
| A4L1552-05 | Water | NWTPH-HCID | 12/18/24 09:55 | 12/23/24 13:57 | 990mL/5mL | 1000mL/5mL | 1.01 |
| A4L1552-06 | Water | NWTPH-HCID | 12/18/24 10:35 | 12/23/24 13:57 | 1030mL/5mL | 1000mL/5mL | 0.97 |
| A4L1552-07 | Water | NWTPH-HCID | 12/18/24 11:25 | 12/23/24 13:57 | 1060mL/5mL | 1000mL/5mL | 0.94 |
| A4L1552-08 | Water | NWTPH-HCID | 12/18/24 12:45 | 12/23/24 13:57 | 1040mL/5mL | 1000mL/5mL | 0.96 |
| A4L1552-09 | Water | NWTPH-HCID | 12/18/24 12:05 | 12/23/24 13:57 | 1010mL/5mL | 1000mL/5mL | 0.99 |

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0852 | | | | | | | |
| A4L1552-05 | Water | NWTPH-Dx | 12/18/24 09:55 | 12/23/24 13:57 | 990mL/5mL | 1000mL/5mL | 1.01 |

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0911 | | | | | | | |
| A4L1552-05RE1 | Water | NWTPH-Gx (MS) | 12/18/24 09:55 | 12/24/24 15:00 | 5mL/5mL | 5mL/5mL | 1.00 |

### Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030C

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0911 | | | | | | | |
| A4L1552-05RE1 | Water | EPA 8260D | 12/18/24 09:55 | 12/24/24 15:00 | 5mL/5mL | 5mL/5mL | 1.00 |
| A4L1552-07RE1 | Water | EPA 8260D | 12/18/24 11:25 | 12/24/24 15:00 | 5mL/5mL | 5mL/5mL | 1.00 |

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0028 | | | | | | | |
| A4L1552-01 | Water | EPA 6020B | 12/17/24 14:15 | 01/02/25 10:59 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-02 | Water | EPA 6020B | 12/17/24 12:10 | 01/02/25 10:59 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-03 | Water | EPA 6020B | 12/17/24 12:45 | 01/02/25 10:59 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-04 | Water | EPA 6020B | 12/17/24 13:20 | 01/02/25 10:59 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 25A0144 | | | | | | | |
| A4L1552-05 | Water | EPA 6020B | 12/18/24 09:55 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-05RE1 | Water | EPA 6020B | 12/18/24 09:55 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-06 | Water | EPA 6020B | 12/18/24 10:35 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-07 | Water | EPA 6020B | 12/18/24 11:25 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-07RE1 | Water | EPA 6020B | 12/18/24 11:25 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-08 | Water | EPA 6020B | 12/18/24 12:45 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-09 | Water | EPA 6020B | 12/18/24 12:05 | 01/07/25 07:54 | 45mL/50mL | 45mL/50mL | 1.00 |

### Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L1102 | | | | | | | |
| A4L1552-01 | Water | EPA 6020B (Diss) | 12/17/24 14:15 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-02 | Water | EPA 6020B (Diss) | 12/17/24 12:10 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-03 | Water | EPA 6020B (Diss) | 12/17/24 12:45 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-04 | Water | EPA 6020B (Diss) | 12/17/24 13:20 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-05 | Water | EPA 6020B (Diss) | 12/18/24 09:55 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-05RE1 | Water | EPA 6020B (Diss) | 12/18/24 09:55 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-06 | Water | EPA 6020B (Diss) | 12/18/24 10:35 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-06RE1 | Water | EPA 6020B (Diss) | 12/18/24 10:35 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-07 | Water | EPA 6020B (Diss) | 12/18/24 11:25 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-07RE1 | Water | EPA 6020B (Diss) | 12/18/24 11:25 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-08 | Water | EPA 6020B (Diss) | 12/18/24 12:45 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-09 | Water | EPA 6020B (Diss) | 12/18/24 12:05 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-09RE1 | Water | EPA 6020B (Diss) | 12/18/24 12:05 | 12/31/24 14:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 25A0365 | | | | | | | |
| A4L1552-02RE1 | Water | EPA 6020B (Diss) | 12/17/24 12:10 | 01/13/25 08:26 | 45mL/50mL | 45mL/50mL | 1.00 |
| A4L1552-09RE1 | Water | EPA 6020B (Diss) | 12/18/24 12:05 | 01/13/25 08:26 | 45mL/50mL | 45mL/50mL | 1.00 |

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**503-718-2323**
ORELAP ID: **OR100062**

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## SAMPLE PREPARATION INFORMATION

### Solid and Moisture Determinations

**Prep: Total Suspended Solids - 2022**

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0777 | | | | | | | |
| A4L1552-02 | Water | SM 2540 D | 12/17/24 12:10 | 12/20/24 10:34 | 100mL | 100mL | 1.00 |
| A4L1552-04 | Water | SM 2540 D | 12/17/24 13:20 | 12/20/24 10:34 | 100mL | 100mL | 1.00 |
| Batch: 24L0813 | | | | | | | |
| A4L1552-05 | Water | SM 2540 D | 12/18/24 09:55 | 12/20/24 17:28 | 100mL | 100mL | 1.00 |
| A4L1552-09 | Water | SM 2540 D | 12/18/24 12:05 | 12/20/24 17:28 | 100mL | 100mL | 1.00 |

### Lab Filtration

**Prep: Lab Filtration**

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0311 | | | | | | | |
| A4L1552-02 | Water | NA | 12/17/24 12:10 | 01/10/25 11:01 | 150mL/150mL | | NA |
| A4L1552-09 | Water | NA | 12/18/24 12:05 | 01/10/25 11:21 | 150mL/150mL | | NA |

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## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **F-13** | The chromatographic pattern does not resemble the fuel standard used for quantitation |
| **F-18** | Result for Diesel (Diesel Range Organics, C12-C25) is due to overlap from Gasoline or a Gasoline Range product. |
| **FILT1** | Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration. |
| **FILT3** | This is a laboratory filtration blank, associated with filtration batch 25A0311. See Prep page of report for associated samples. |
| **Q-16** | Reanalysis of an original Batch QC sample. |
| **Q-19** | Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis. |
| **Q-55** | Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level. |
| **Q-56** | Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted. |
| **TSS** | Dried residue was less than 2.5mg as specified in the method. Results meet regulatory requirements. |

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**ANALYTICAL REPORT**

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

Apex Laboratories

Cameron O'Brien, Project Manager

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|---|---|---|
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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

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**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

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**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1552 - 01 16 25 1218** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Cameron O'Brien, Project Manager

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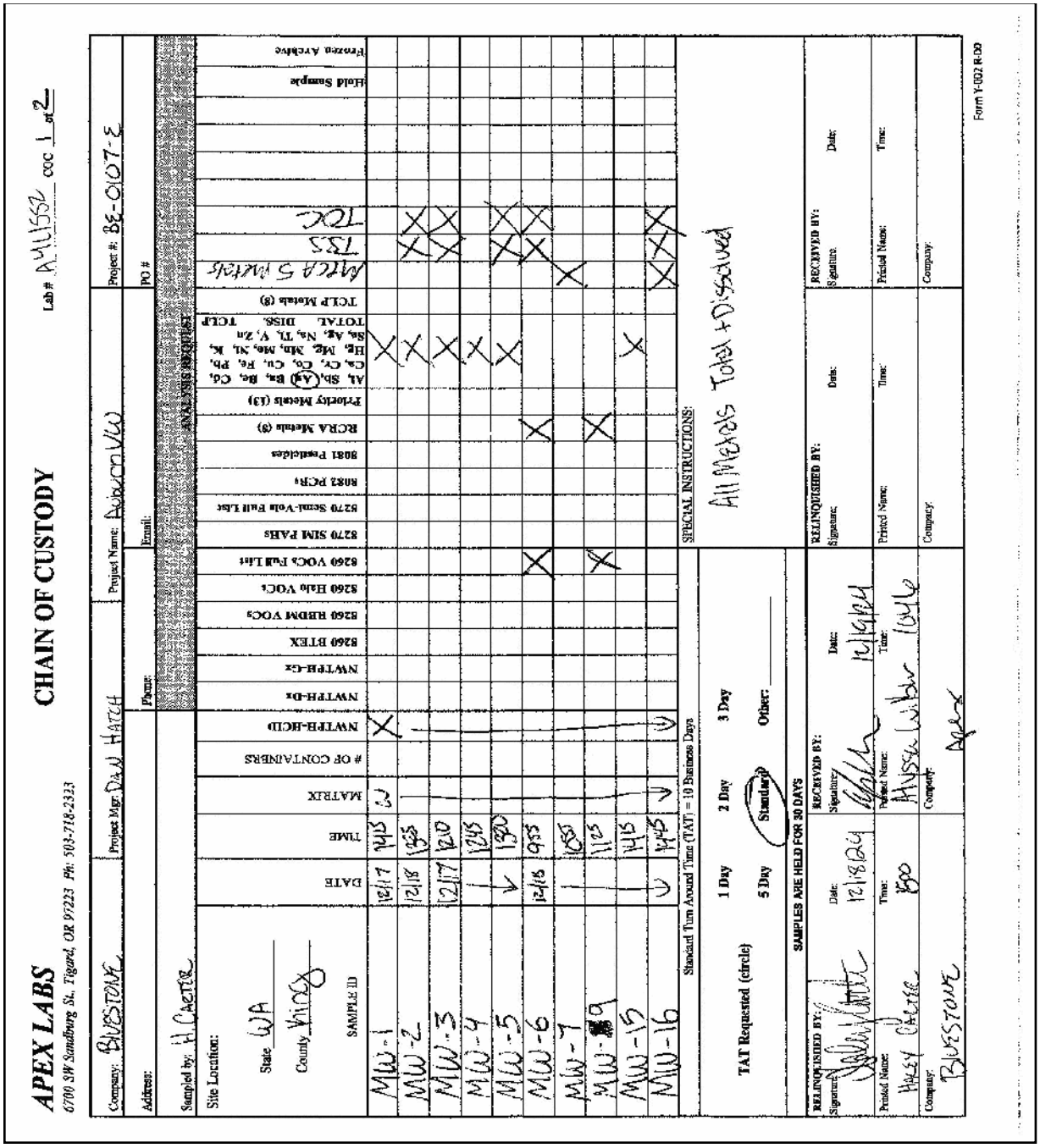


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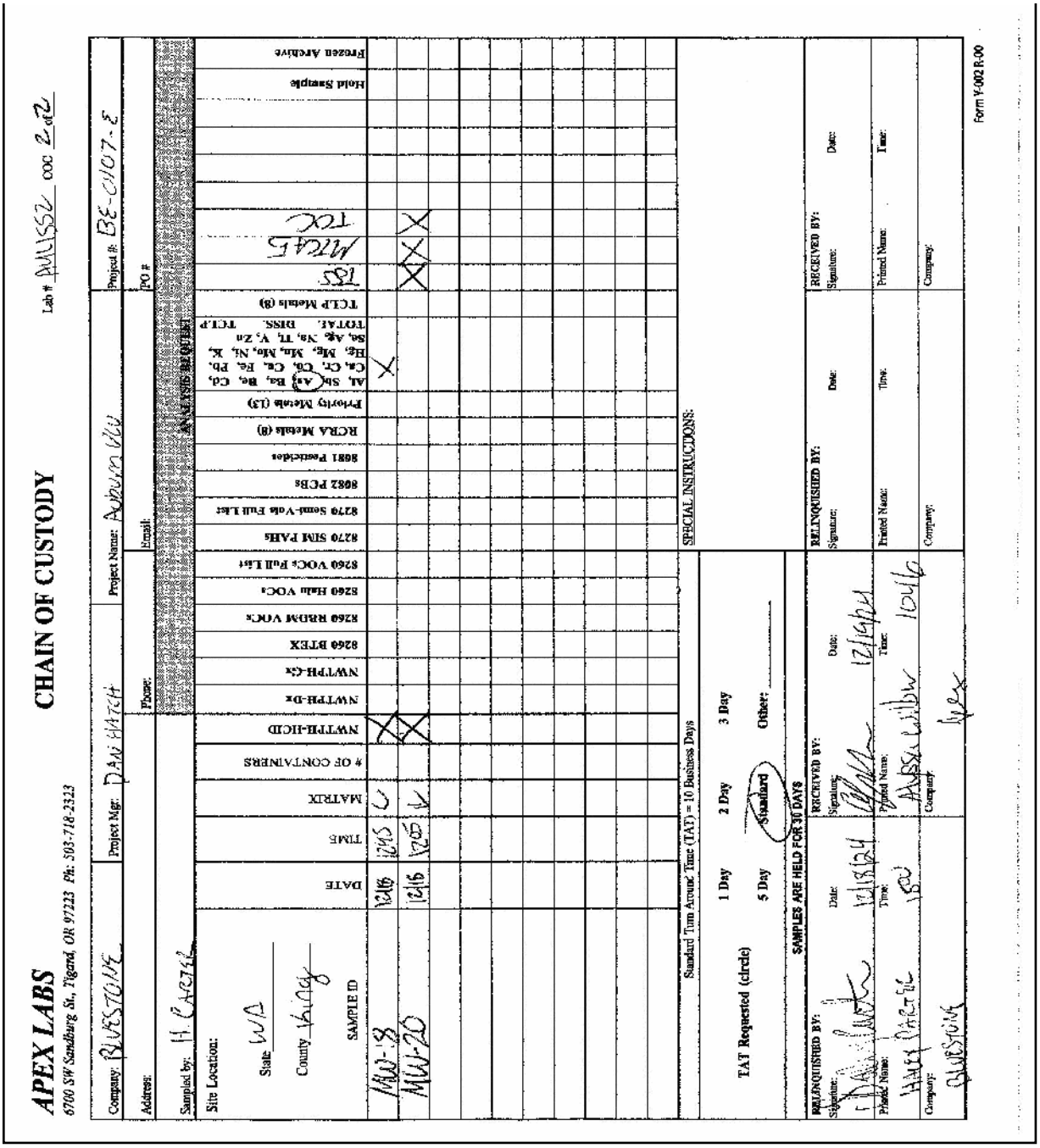

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4L1552 COC 2 of 2

Company: BLUESTONE | Project Mgr: DAN HATCH | Phone: | Project Name: Auburn VW | Project #: BE-0107-E
Address: | Email: | PO #
Sampled by: H. CASTRO

Site Location: State WA County King

| SAMPLE ID | DATE | TIME | MATRIX | # OF CONTAINERS | NWTPH-HCID | NWTPH-Dx | NWTPH-Gx | 8260 BTEX | 8260 RRAM VOCs | 8260 Halo VOCs | 8260 VOCs Full List | 8270 SIM PAHs | 8270 Semi-Vols Full List | 8082 PCBs | 8081 Pesticides | RCRA Metals (8) | Priority Metals (13) | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. | TCLP Metals (8) | TCLP TCLP | TCLP TCLP | Hold Sample | Frozen Archive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-18 | 1/16 | 1245 | W | | X | | | | | | | | | | | | | X | | | | | |
| MW-20 | 1/16 | 1205 | W | | X | | | | | | | | | | | | | X | | | | | |

Standard Turn Around Time (TAT) = 10 Business Days
TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

| RELINQUISHED BY: | Date: | RECEIVED BY: | Date: | RELINQUISHED BY: | Date: | RECEIVED BY: | Date: |
|---|---|---|---|---|---|---|---|
| Signature: | | Signature: | | Signature: | | Signature: | |
| Printed Name: | Time: | Printed Name: | Time: | Printed Name: | Time: | Printed Name: | Time: |
| Company: | | Company: | | Company: | | Company: | |

Form 1-002 R-00

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## APEX LABS COOLER RECEIPT FORM

**Client:** Bluestone Element WO#: A4L1552

**Project/Project #:** Auburn VW / BE-0107-E

**Delivery Info:**

Date/time received: 12/19/24 @ 1046 By: AMW

Delivered by: Apex__Client__ESS___FedEx__UPS X Radio___Morgan ___SDS___Evergreen__ Other ___

From USDA Regulated Origin? Yes _____ No X

**Cooler Inspection** Date/time inspected: 12/19/24 @ 1046 By: AMW

Chain of Custody included? Yes X No _____

Signed/dated by client? Yes Y No _____

Contains USDA Reg. Soils? Yes _____ No X Unsure (email RegSoils) _____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 3.6 | 2.6 | 0.1 | | | | |
| Custody seals? (Y/N) | N | → | | | | | |
| Received on ice? (Y/N) | Y | → | | | | | |
| Temp. blanks? (Y/N) | Y | → | | | | | |
| Ice type: (Gel/Real/Other) | Real | → | | | | | |
| Condition (In/Out): | In | → | | | | | |

Cooler out of temp? (Y/N) Possible reason why: _____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 12/19/24 @ 1310 By: AMW

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes ___ No X Comments: Missing samples MW-2, MW-15, and MW-16.

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: _____

Do VOA vials have visible headspace? Yes ___ No X NA

Comments _____

Water samples: pH checked: Yes X No___NA___ pH appropriate? Yes X No___NA____ pH ID: MSI 172

Comments: _____

12 CIB 065 01 2597 9072 12 CIB 065 01 3420 9467 12 CIB 065 01 2749 9515

Labeled by: AMW Witness: [illegible] Cooler Inspected by: AMW

Form Y-003 R-02

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Cameron O'Brien, Project Manager

January 06, 2025 Service Request No:K2413612

Cameron O'Brien
Apex Laboratories
6700 SW Sandburg St.
Tigard, OR 97223

**Laboratory Results for: A4L1552**

Dear Cameron,

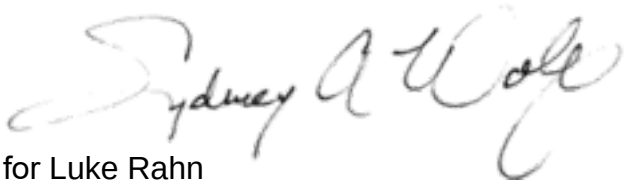
Enclosed are the results of the sample(s) submitted to our laboratory December 26, 2024
For your reference, these analyses have been assigned our service request number **K2413612.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**



for Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

# Narrative Documents

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

**Client:** Apex Laboratories
**Project:** A4L1552
**Sample Matrix:** Water

**Service Request:** K2413612
**Date Received:** 12/26/2024

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Four water samples were received for analysis at ALS Environmental on 12/26/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**General Chemistry:**

No significant anomalies were noted with this analysis.

Approved by _____ Date 01/06/2025

## SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

| CLIENT ID: MW-3 | | | Lab ID: K2413612-001 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 72.0 | | 0.8 | 5.0 | mg/L | SM 5310 C |

| CLIENT ID: MW-5 | | | Lab ID: K2413612-002 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 22.4 | | 0.4 | 2.0 | mg/L | SM 5310 C |

| CLIENT ID: MW-6 | | | Lab ID: K2413612-003 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 4.20 | | 0.08 | 0.50 | mg/L | SM 5310 C |

| CLIENT ID: MW-20 | | | Lab ID: K2413612-004 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 32.8 | | 0.4 | 2.0 | mg/L | SM 5310 C |

# Sample Receipt Information

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

**Client:** Apex Laboratories **Service Request:**K2413612
**Project:** A4L1552

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| K2413612-001 | MW-3 | 12/17/2024 | 1210 |
| K2413612-002 | MW-5 | 12/17/2024 | 1320 |
| K2413612-003 | MW-6 | 12/18/2024 | 0955 |
| K2413612-004 | MW-20 | 12/18/2024 | 1205 |

#K2413212

# SUBCONTRACT ORDER

**Apex Laboratories**

12/20/24 A4L1552

| SENDING LABORATORY: | RECEIVING LABORATORY: |
|---|---|
| Apex Laboratories<br>6700 S.W. Sandburg Street<br>Tigard, OR 97223<br>Phone: (503) 718-2323<br>Fax: (503) 336-0745<br>Project Manager: Cameron O'Brien | ALS Group USA - Kelso<br>1317 S 13th Avenue<br>Kelso, WA 98626<br>Phone :(360) 577-7222<br>Fax: (360) 636-1068 |

**Sample Name: MW-3** **Sampled: 12/17/24 12:10** (A4L1552-02)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/03/25 17:00 | 01/14/25 12:10 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

**Sample Name: MW-5** **Sampled: 12/17/24 13:20** (A4L1552-04)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/03/25 17:00 | 01/14/25 13:20 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

**Sample Name: MW-6** **Sampled: 12/18/24 09:55** (A4L1552-05)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/03/25 17:00 | 01/15/25 09:55 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

**Sample Name: MW-20** **Sampled: 12/18/24 12:05** (A4L1552-09)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/03/25 17:00 | 01/15/25 12:05 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

Standard TAT

| | | | |
|---|---|---|---|
| Released By: JA | 12/26/24 1235 | Received By: JF | 12/26/24 1235 |
| Released By: JF | 12/26/24 1425 | Received By: M. Mulligan | 12/26/24 1425 |

Page 1 of 1

PM CK

# Cooler Receipt and Preservation Form

Client APEX Service Request K24 13617

Received: 12/20/24 Opened: 12/20/24 By: MM Unloaded: 12/20/24 By: MM

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

| Temp Blank | Sample Temp | IR Gun | Cooler #/COC ID / NA | Out of temp indicate with "X" | PM Notified if out of temp | Tracking Number NA | Filed |
|---|---|---|---|---|---|---|---|
| 3.9 | | IR02 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
   If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA Y N
   If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

6. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
13. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
14. Was C12/Res negative? NA Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

| Sample ID on Bottle | Sample ID on COC | Identified by: |
|---|---|---|
| | | |
| | | |
| | | |

| Sample ID | Bottle Count Bottle Type | Head-space | Broke | pH | Reagent | Volume added | Reagent Lot Number | Initials | Time |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Notes, Discrepancies, Resolutions: _____

# Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated value. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |
| H | The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. |
| J | The result is an estimated value. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimated value over the calibration range. |
| J | The result is an estimated value between the MDL and the MRL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**
**State Certifications, Accreditations, and Licenses**

| Agency | Web Site | Number |
|---|---|---|
| Alaska DEH | http://dec.alaska.gov/eh/lab/cs/csapproval.htm | UST-040 |
| Arizona DHS | http://www.azdhs.gov/lab/license/env.htm | AZ0339 |
| Arkansas - DEQ | http://www.adeq.state.ar.us/techsvs/labcert.htm | 88-0637 |
| California DHS (ELAP) | http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx | 2795 |
| DOD ELAP | http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm | L16-58-R4 |
| Florida DOH | http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm | E87412 |
| Hawaii DOH | http://health.hawaii.gov/ | - |
| ISO 17025 | http://www.pjlabs.com/ | L16-57 |
| Louisiana DEQ | http://www.deq.louisiana.gov/page/la-lab-accreditation | 03016 |
| Maine DHS | http://www.maine.gov/dhhs/ | WA01276 |
| Minnesota DOH | http://www.health.state.mn.us/accreditation | 053-999-457 |
| Nevada DEP | http://ndep.nv.gov/bsdw/labservice.htm | WA01276 |
| New Jersey DEP | http://www.nj.gov/dep/enforcement/oqa.html | WA005 |
| New York - DOH | https://www.wadsworth.org/regulatory/elap | 12060 |
| North Carolina DEQ | https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification | 605 |
| Oklahoma DEQ | http://www.deq.state.ok.us/CSDnew/labcert.htm | 9801 |
| Oregon – DEQ (NELAP) | http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx | WA100010 |
| South Carolina DHEC | http://www.scdhec.gov/environment/EnvironmentalLabCertification/ | 61002 |
| Texas CEQ | http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html | T104704427 |
| Washington DOE | http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html | C544 |
| Wyoming (EPA Region 8) | https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water- | - |
| Kelso Laboratory Website | www.alsglobal.com | NA |

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552/ | | |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-3 | **Date Collected:** | 12/17/24 |
| **Lab Code:** | K2413612-001 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-5 | **Date Collected:** | 12/17/24 |
| **Lab Code:** | K2413612-002 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-6 | **Date Collected:** | 12/18/24 |
| **Lab Code:** | K2413612-003 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-20 | **Date Collected:** | 12/18/24 |
| **Lab Code:** | K2413612-004 | **Date Received:** | 12/26/24 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

# Sample Results

**ALS Environmental—Kelso Laboratory**
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# General Chemistry

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
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Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Collected:** | 12/17/24 12:10 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-3 | **Basis:** | NA |
| **Lab Code:** | K2413612-001 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **72.0** | mg/L | 5.0 | 0.8 | 10 | 01/03/25 14:01 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Collected:** | 12/17/24 13:20 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-5 | **Basis:** | NA |
| **Lab Code:** | K2413612-002 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **22.4** | mg/L | 2.0 | 0.4 | 4 | 01/03/25 14:01 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Collected:** | 12/18/24 09:55 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-6 | **Basis:** | NA |
| **Lab Code:** | K2413612-003 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **4.20** | mg/L | 0.50 | 0.08 | 1 | 01/03/25 14:01 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Collected:** | 12/18/24 12:05 |
| **Sample Matrix:** | Water | **Date Received:** | 12/26/24 14:25 |
| **Sample Name:** | MW-20 | **Basis:** | NA |
| **Lab Code:** | K2413612-004 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **32.8** | mg/L | 2.0 | 0.4 | 4 | 01/03/25 14:01 | |

# QC Summary Forms

**ALS Environmental—Kelso Laboratory**
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www.alsglobal.com

# General Chemistry

**ALS Environmental—Kelso Laboratory**
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Collected:** | NA |
| **Sample Matrix:** | Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | NA |
| **Lab Code:** | K2413612-MB | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | ND U | mg/L | 0.50 | 0.08 | 1 | 01/03/25 14:01 | |

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2413612 |
| **Project:** | A4L1552 | **Date Analyzed:** | 01/03/25 |
| **Sample Matrix:** | Water | **Date Extracted:** | NA |

## Lab Control Sample Summary
## Carbon, Total Organic

| | | | |
|---|---|---|---|
| **Analysis Method:** | SM 5310 C | **Units:** | mg/L |
| **Prep Method:** | None | **Basis:** | NA |
| | | **Analysis Lot:** | 866041 |

| Sample Name | Lab Code | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Lab Control Sample | K2413612-LCS | 23.8 | 25.0 | 95 | 83-117 |

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Monday, January 6, 2025

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A4L1255 - Auburn VW - BE-0107-E

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4L1255, which was received by the laboratory on 12/13/2024 at 11:20:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information | | |
|---|---|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. | | |
| (See Cooler Receipt Form for details) | | |
| Default Cooler | 4.4 | degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

Cameron O'Brien, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.*

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-6-5 | A4L1255-01 | Soil | 12/10/24 09:30 | 12/13/24 11:20 |
| MW-6-7 | A4L1255-02 | Soil | 12/10/24 09:35 | 12/13/24 11:20 |
| MW-6-12 | A4L1255-04 | Soil | 12/10/24 09:40 | 12/13/24 11:20 |
| MW-7-5 | A4L1255-06 | Soil | 12/10/24 11:30 | 12/13/24 11:20 |
| MW-7-10 | A4L1255-08 | Soil | 12/10/24 11:40 | 12/13/24 11:20 |
| MW-8-5 | A4L1255-09 | Soil | 12/10/24 12:30 | 12/13/24 11:20 |
| MW-8-10 | A4L1255-10 | Soil | 12/10/24 12:35 | 12/13/24 11:20 |
| MW-9-5 | A4L1255-12 | Soil | 12/10/24 15:00 | 12/13/24 11:20 |
| MW-9-10 | A4L1255-13 | Soil | 12/10/24 15:05 | 12/13/24 11:20 |
| MW-10-5 | A4L1255-15 | Soil | 12/11/24 08:40 | 12/13/24 11:20 |
| MW-10-8 | A4L1255-16 | Soil | 12/11/24 08:45 | 12/13/24 11:20 |
| MW-11-6 | A4L1255-19 | Soil | 12/11/24 10:20 | 12/13/24 11:20 |
| MW-11-10 | A4L1255-20 | Soil | 12/11/24 10:25 | 12/13/24 11:20 |
| MW-12-6 | A4L1255-22 | Soil | 12/11/24 12:40 | 12/13/24 11:20 |
| MW-12-10 | A4L1255-23 | Soil | 12/11/24 12:45 | 12/13/24 11:20 |
| MW-13-5 | A4L1255-25 | Soil | 12/11/24 14:30 | 12/13/24 11:20 |
| MW-13-12 | A4L1255-26 | Soil | 12/11/24 14:35 | 12/13/24 11:20 |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-7-10 (A4L1255-08)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | **DCNT** |
| Gasoline Range Organics | ND | --- | 25.2 | mg/kg dry | 1 | 12/17/24 01:35 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 63.1 | mg/kg dry | 1 | 12/17/24 01:35 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 126 | mg/kg dry | 1 | 12/17/24 01:35 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *66 %* | *Limits: 50-150 %* | *1* | *12/17/24 01:35* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *65 %* | *50-150 %* | *1* | *12/17/24 01:35* | *NWTPH-HCID* | |
| **MW-8-10 (A4L1255-10)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | **DCNT** |
| Gasoline Range Organics | ND | --- | 25.0 | mg/kg dry | 1 | 12/17/24 02:22 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 62.4 | mg/kg dry | 1 | 12/17/24 02:22 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 125 | mg/kg dry | 1 | 12/17/24 02:22 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *79 %* | *Limits: 50-150 %* | *1* | *12/17/24 02:22* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *78 %* | *50-150 %* | *1* | *12/17/24 02:22* | *NWTPH-HCID* | |
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | **DCNT** |
| Gasoline Range Organics | ND | --- | 26.0 | mg/kg dry | 1 | 12/17/24 02:45 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 64.9 | mg/kg dry | 1 | 12/17/24 02:45 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 130 | mg/kg dry | 1 | 12/17/24 02:45 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *79 %* | *Limits: 50-150 %* | *1* | *12/17/24 02:45* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *76 %* | *50-150 %* | *1* | *12/17/24 02:45* | *NWTPH-HCID* | |
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | **DCNT** |
| Gasoline Range Organics | ND | --- | 27.3 | mg/kg dry | 1 | 12/17/24 03:08 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 68.3 | mg/kg dry | 1 | 12/17/24 03:08 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 137 | mg/kg dry | 1 | 12/17/24 03:08 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *84 %* | *Limits: 50-150 %* | *1* | *12/17/24 03:08* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *83 %* | *50-150 %* | *1* | *12/17/24 03:08* | *NWTPH-HCID* | |
| **MW-11-10 (A4L1255-20)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | |
| Gasoline Range Organics | ND | --- | 24.5 | mg/kg dry | 1 | 12/17/24 03:32 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 61.4 | mg/kg dry | 1 | 12/17/24 03:32 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 123 | mg/kg dry | 1 | 12/17/24 03:32 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *83 %* | *Limits: 50-150 %* | *1* | *12/17/24 03:32* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *77 %* | *50-150 %* | *1* | *12/17/24 03:32* | *NWTPH-HCID* | |
| **MW-12-10 (A4L1255-23)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-12-10 (A4L1255-23)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | |
| Gasoline Range Organics | ND | --- | 25.3 | mg/kg dry | 1 | 12/17/24 03:55 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 63.4 | mg/kg dry | 1 | 12/17/24 03:55 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 127 | mg/kg dry | 1 | 12/17/24 03:55 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *75 %* | *Limits: 50-150 %* | *1* | *12/17/24 03:55* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *71 %* | *50-150 %* | *1* | *12/17/24 03:55* | *NWTPH-HCID* | |
| **MW-13-12 (A4L1255-26)** | | | | **Matrix: Soil** | | **Batch: 24L0573** | | **DCNT** |
| Gasoline Range Organics | ND | --- | 23.7 | mg/kg dry | 1 | 12/17/24 04:18 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 59.2 | mg/kg dry | 1 | 12/17/24 04:18 | NWTPH-HCID | |
| Oil Range Organics | **DET** | --- | 118 | mg/kg dry | 1 | 12/17/24 04:18 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *80 %* | *Limits: 50-150 %* | *1* | *12/17/24 04:18* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *75 %* | *50-150 %* | *1* | *12/17/24 04:18* | *NWTPH-HCID* | |

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## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | **Batch: 24L0717** | | **DCNT** |
| **Diesel** | **109** | --- | 23.4 | mg/kg dry | 1 | 12/19/24 23:46 | NWTPH-Dx | |
| Oil | ND | --- | 46.9 | mg/kg dry | 1 | 12/19/24 23:46 | NWTPH-Dx | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 87 %* | | *Limits: 50-150 %* | *1* | *12/19/24 23:46* | *NWTPH-Dx* | |
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0717** | | |
| Diesel | ND | --- | 25.5 | mg/kg dry | 1 | 12/20/24 00:07 | NWTPH-Dx | |
| Oil | ND | --- | 51.0 | mg/kg dry | 1 | 12/20/24 00:07 | NWTPH-Dx | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 82 %* | | *Limits: 50-150 %* | *1* | *12/20/24 00:07* | *NWTPH-Dx* | |
| **MW-13-12 (A4L1255-26)** | | | | **Matrix: Soil** | | **Batch: 24L0717** | | **DCNT** |
| Diesel | ND | --- | 41.7 | mg/kg dry | 2 | 12/20/24 07:04 | NWTPH-Dx | |
| **Oil** | **102** | --- | 83.3 | mg/kg dry | 2 | 12/20/24 07:04 | NWTPH-Dx | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 90 %* | | *Limits: 50-150 %* | *2* | *12/20/24 07:04* | *NWTPH-Dx* | *S-05* |

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## ANALYTICAL SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| **Gasoline Range Organics** | **347** | --- | 7.78 | mg/kg dry | 50 | 12/17/24 13:28 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | *Recovery:* | *111 %* | *Limits:* | *50-150 %* | *1* | *12/17/24 13:28* | *NWTPH-Gx (MS)* |
| *1,4-Difluorobenzene (Sur)* | | | *98 %* | | *50-150 %* | *1* | *12/17/24 13:28* | *NWTPH-Gx (MS)* |
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| **Gasoline Range Organics** | **38.4** | --- | 8.11 | mg/kg dry | 50 | 12/17/24 12:05 | NWTPH-Gx (MS) | |
| *Surrogate: 4-Bromofluorobenzene (Sur)* | | *Recovery:* | *100 %* | *Limits:* | *50-150 %* | *1* | *12/17/24 12:05* | *NWTPH-Gx (MS)* |
| *1,4-Difluorobenzene (Sur)* | | | *96 %* | | *50-150 %* | *1* | *12/17/24 12:05* | *NWTPH-Gx (MS)* |

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**ANALYTICAL REPORT**

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Acetone | ND | --- | 1.56 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Benzene | ND | --- | 0.0156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Bromobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Bromoform | ND | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Bromomethane | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| **n-Butylbenzene** | **2.12** | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| **sec-Butylbenzene** | **1.58** | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Chloroethane | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Chloroform | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |

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**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| cis-1,3-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Hexachlorobutadiene | ND | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| **Isopropylbenzene** | **0.204** | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 4-Isopropyltoluene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Methylene chloride | ND | --- | 0.778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 1.24 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | R-02 |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| **Naphthalene** | **0.730** | --- | 0.156 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| **n-Propylbenzene** | **1.32** | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Styrene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Toluene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| m,p-Xylene | ND | --- | 0.0778 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0389 | mg/kg dry | 50 | 12/17/24 13:28 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *102 %* | *Limits: 80-120 %* | *1* | *12/17/24 13:28* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *95 %* | *80-120 %* | *1* | *12/17/24 13:28* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | *79-120 %* | *1* | *12/17/24 13:28* | *5035A/8260D* | |
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Acetone | ND | --- | 1.62 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Benzene | ND | --- | 0.0162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Bromobenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Bromoform | ND | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Bromomethane | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **n-Butylbenzene** | **0.496** | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **sec-Butylbenzene** | **0.391** | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Chloroethane | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Chloroform | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| cis-1,3-Dichloropropene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Hexachlorobutadiene | ND | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **Isopropylbenzene** | **0.0965** | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 4-Isopropyltoluene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Methylene chloride | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **Naphthalene** | **1.55** | --- | 0.162 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **n-Propylbenzene** | **1.00** | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Styrene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Toluene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| **m,p-Xylene** | **0.0892** | --- | 0.0811 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0406 | mg/kg dry | 50 | 12/17/24 12:05 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *100 %* | *Limits: 80-120 %* | *1* | *12/17/24 12:05* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *98 %* | *80-120 %* | *1* | *12/17/24 12:05* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *98 %* | *79-120 %* | *1* | *12/17/24 12:05* | *5035A/8260D* | |
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Acetone | ND | --- | 1.44 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Benzene | ND | --- | 0.0144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Bromobenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Bromoform | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Bromomethane | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| n-Butylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| sec-Butylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Chloroethane | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Chloroform | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| cis-1,3-Dichloropropene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Hexachlorobutadiene | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Isopropylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| 4-Isopropyltoluene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Methylene chloride | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Naphthalene | ND | --- | 0.144 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| n-Propylbenzene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Styrene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Toluene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| m,p-Xylene | ND | --- | 0.0722 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0361 | mg/kg dry | 50 | 12/17/24 12:33 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery: 101 %* | | *Limits: 80-120 %* | *1* | *12/17/24 12:33* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *96 %* | *80-120 %* | *1* | *12/17/24 12:33* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *99 %* | *79-120 %* | *1* | *12/17/24 12:33* | *5035A/8260D* | |
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Acetone | ND | --- | 1.36 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Benzene | ND | --- | 0.0136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Bromobenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Bromoform | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Bromomethane | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| n-Butylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| sec-Butylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Chloroethane | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Chloroform | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| cis-1,3-Dichloropropene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Hexachlorobutadiene | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Isopropylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 4-Isopropyltoluene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Methylene chloride | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | **Batch: 24L0596** | | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Naphthalene | ND | --- | 0.136 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| n-Propylbenzene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Styrene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Toluene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| m,p-Xylene | ND | --- | 0.0680 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0340 | mg/kg dry | 50 | 12/17/24 13:00 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *102 %* | *Limits: 80-120 %* | *1* | *12/17/24 13:00* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *96 %* | *80-120 %* | *1* | *12/17/24 13:00* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *98 %* | *79-120 %* | *1* | *12/17/24 13:00* | *5035A/8260D* | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-5 (A4L1255-01)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **8.29** | --- | 1.34 | mg/kg dry | 10 | 12/27/24 21:21 | EPA 6020B | **Q-39** |
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **3.53** | --- | 1.46 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | **DCNT** |
| **Barium** | **48.5** | --- | 1.46 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | **DCNT** |
| Cadmium | ND | --- | 0.292 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | DCNT |
| **Chromium** | **12.2** | --- | 1.46 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | **DCNT** |
| **Lead** | **3.01** | --- | 0.292 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | **DCNT** |
| Mercury | ND | --- | 0.117 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | DCNT |
| Selenium | ND | --- | 1.46 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | DCNT |
| Silver | ND | --- | 0.292 | mg/kg dry | 10 | 12/27/24 21:37 | EPA 6020B | DCNT |
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **4.29** | --- | 1.51 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| **Barium** | **52.3** | --- | 1.51 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| Cadmium | ND | --- | 0.302 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| **Chromium** | **13.3** | --- | 1.51 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| **Lead** | **3.16** | --- | 0.302 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| Mercury | ND | --- | 0.121 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| Selenium | ND | --- | 1.51 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| Silver | ND | --- | 0.302 | mg/kg dry | 10 | 12/27/24 21:42 | EPA 6020B | |
| **MW-7-5 (A4L1255-06)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **10.8** | --- | 1.53 | mg/kg dry | 10 | 12/27/24 21:48 | EPA 6020B | |
| **MW-8-5 (A4L1255-09)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **11.9** | --- | 1.42 | mg/kg dry | 10 | 12/27/24 22:03 | EPA 6020B | |
| **MW-8-10 (A4L1255-10)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **5.17** | --- | 1.35 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | **DCNT** |

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ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-8-10 (A4L1255-10)** | | | | **Matrix: Soil** | | | | |
| **Barium** | **52.4** | --- | 1.35 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | **DCNT** |
| Cadmium | ND | --- | 0.270 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | DCNT |
| **Chromium** | **13.0** | --- | 1.35 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | **DCNT** |
| **Copper** | **24.1** | --- | 2.70 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | **DCNT** |
| **Lead** | **3.29** | --- | 0.270 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | **DCNT** |
| Mercury | ND | --- | 0.108 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | DCNT |
| Selenium | ND | --- | 1.35 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | DCNT |
| Silver | ND | --- | 0.270 | mg/kg dry | 10 | 12/27/24 22:09 | EPA 6020B | DCNT |
| **MW-9-5 (A4L1255-12)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **5.71** | --- | 1.33 | mg/kg dry | 10 | 12/27/24 22:14 | EPA 6020B | |
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **2.43** | --- | 1.31 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | **DCNT** |
| **Barium** | **67.9** | --- | 1.31 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | **DCNT** |
| Cadmium | ND | --- | 0.262 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | DCNT |
| **Chromium** | **14.3** | --- | 1.31 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | **DCNT** |
| **Lead** | **3.38** | --- | 0.262 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | **DCNT** |
| Mercury | ND | --- | 0.105 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | DCNT |
| Selenium | ND | --- | 1.31 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | DCNT |
| Silver | ND | --- | 0.262 | mg/kg dry | 10 | 12/27/24 22:19 | EPA 6020B | DCNT |
| **MW-10-5 (A4L1255-15)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **11.5** | --- | 1.44 | mg/kg dry | 10 | 12/27/24 22:24 | EPA 6020B | |
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **6.11** | --- | 1.44 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | **DCNT** |
| **Barium** | **77.6** | --- | 1.44 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | **DCNT** |
| Cadmium | ND | --- | 0.289 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | DCNT |
| **Chromium** | **16.2** | --- | 1.44 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | **DCNT** |
| **Lead** | **5.12** | --- | 0.289 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | **DCNT** |
| Mercury | ND | --- | 0.116 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | DCNT |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | | | |
| Selenium | ND | --- | 1.44 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | DCNT |
| Silver | ND | --- | 0.289 | mg/kg dry | 10 | 12/27/24 22:30 | EPA 6020B | DCNT |
| **MW-11-6 (A4L1255-19)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **4.28** | --- | 1.46 | mg/kg dry | 10 | 12/27/24 22:35 | EPA 6020B | |
| **MW-12-6 (A4L1255-22)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **3.51** | --- | 1.35 | mg/kg dry | 10 | 12/27/24 22:40 | EPA 6020B | |
| **MW-13-5 (A4L1255-25)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **16.1** | --- | 1.24 | mg/kg dry | 10 | 12/27/24 22:45 | EPA 6020B | |
| **MW-13-12 (A4L1255-26)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L0973 | | | | | | | | |
| **Arsenic** | **1.40** | --- | 1.21 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | **DCNT** |
| **Barium** | **18.2** | --- | 1.21 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | **DCNT** |
| Cadmium | ND | --- | 0.242 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | DCNT |
| **Chromium** | **7.37** | --- | 1.21 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | **DCNT** |
| **Copper** | **9.16** | --- | 2.42 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | **DCNT** |
| **Lead** | **1.74** | --- | 0.242 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | **DCNT** |
| Mercury | ND | --- | 0.0967 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | DCNT |
| Selenium | ND | --- | 1.21 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | DCNT |
| Silver | ND | --- | 0.242 | mg/kg dry | 10 | 12/27/24 22:51 | EPA 6020B | DCNT |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## ANALYTICAL SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-6-5 (A4L1255-01)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 77.0 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-6-7 (A4L1255-02)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | DCNT |
| % Solids | 73.4 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-6-12 (A4L1255-04)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 70.3 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-7-5 (A4L1255-06)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 71.7 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-7-10 (A4L1255-08)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | DCNT |
| % Solids | 74.9 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-8-5 (A4L1255-09)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 73.4 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-8-10 (A4L1255-10)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | DCNT |
| % Solids | 76.1 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-9-5 (A4L1255-12)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 81.7 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-9-10 (A4L1255-13)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | DCNT |
| % Solids | 74.8 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-10-5 (A4L1255-15)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 73.6 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-10-8 (A4L1255-16)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | DCNT |
| % Solids | 72.7 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-11-6 (A4L1255-19)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| % Solids | 70.6 | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-11-10 (A4L1255-20)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |

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ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## ANALYTICAL SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-11-10 (A4L1255-20)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| **% Solids** | **76.8** | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-12-6 (A4L1255-22)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| **% Solids** | **74.1** | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-12-10 (A4L1255-23)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| **% Solids** | **78.8** | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-13-5 (A4L1255-25)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | |
| **% Solids** | **85.3** | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |
| **MW-13-12 (A4L1255-26)** | | | | **Matrix: Soil** | | **Batch: 24L0615** | | **DCNT** |
| **% Solids** | **81.4** | --- | 1.00 | % | 1 | 12/18/24 05:13 | EPA 8000D | |

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ANALYTICAL REPORT

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0573 - EPA 3546 (Fuels)** | | | | | | | Soil | | | | | |
| **Blank (24L0573-BLK1)** | | Prepared: 12/16/24 10:56 Analyzed: 12/17/24 01:12 | | | | | | | | | | |
| NWTPH-HCID | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 20.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 50.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 100 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 69 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *70 %* | | *50-150 %* | | *"* | | | | | |
| **Duplicate (24L0573-DUP1)** | | Prepared: 12/16/24 10:56 Analyzed: 12/17/24 01:58 | | | | | | | | | | **DCNT** |
| QC Source Sample: MW-7-10 (A4L1255-08) | | | | | | | | | | | | |
| NWTPH-HCID | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 25.9 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Diesel Range Organics | ND | --- | 64.7 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Oil Range Organics | ND | --- | 129 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| *Surr: o-Terphenyl (Surr)* | | | *Recovery: 70 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *69 %* | | *50-150 %* | | *"* | | | | | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0717 - EPA 3546 (Fuels)** | | | | | | | Soil | | | | | |
| **Blank (24L0717-BLK1)** | | Prepared: 12/19/24 07:42 Analyzed: 12/19/24 20:24 | | | | | | | | | | |
| NWTPH-Dx | | | | | | | | | | | | |
| Diesel | ND | --- | 20.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Oil | ND | --- | 40.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Mineral Oil | ND | --- | 40.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 82 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS (24L0717-BS1)** | | Prepared: 12/19/24 07:42 Analyzed: 12/19/24 20:44 | | | | | | | | | | |
| NWTPH-Dx | | | | | | | | | | | | |
| Diesel | 111 | --- | 20.0 | mg/kg wet | 1 | 125 | --- | 89 | 38 - 132% | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 86 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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ANALYTICAL REPORT

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|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | | | | | | **Soil** |
| **Blank (24L0596-BLK1)** | | Prepared: 12/16/24 13:24 Analyzed: 12/17/24 04:19 | | | | | | | | | | |
| NWTPH-Gx (MS) | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 5.00 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 98 %* | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | | | |
| *1,4-Difluorobenzene (Sur)* | | *97 %* | *50-150 %* | | *"* | | | | | | | |
| **LCS (24L0596-BS2)** | | Prepared: 12/16/24 13:24 Analyzed: 12/17/24 03:52 | | | | | | | | | | |
| NWTPH-Gx (MS) | | | | | | | | | | | | |
| Gasoline Range Organics | 22.0 | --- | 5.00 | mg/kg wet | 50 | 25.0 | --- | 88 | 80 - 120% | --- | --- | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 96 %* | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | | | |
| *1,4-Difluorobenzene (Sur)* | | *96 %* | *50-150 %* | | *"* | | | | | | | |
| **Duplicate (24L0596-DUP1)** | | Prepared: 12/10/24 09:35 Analyzed: 12/17/24 13:55 | | | | | | | | | | **DCNT** |
| QC Source Sample: MW-6-7 (A4L1255-02) | | | | | | | | | | | | |
| NWTPH-Gx (MS) | | | | | | | | | | | | |
| Gasoline Range Organics | **304** | --- | 7.78 | mg/kg dry | 50 | --- | 347 | --- | --- | 13 | 30% | |
| *Surr: 4-Bromofluorobenzene (Sur)* | | *Recovery: 106 %* | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | | | |
| *1,4-Difluorobenzene (Sur)* | | *96 %* | *50-150 %* | | *"* | | | | | | | |

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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Blank (24L0596-BLK1)** | | Prepared: 12/16/24 13:24 | | Analyzed: 12/17/24 04:19 | | | | | | | | |
| **5035A/8260D** | | | | | | | | | | | | |
| Acetone | ND | --- | 1.00 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Acrylonitrile | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Benzene | ND | --- | 0.0100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromochloromethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromodichloromethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromoform | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromomethane | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Butanone (MEK) | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| n-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| sec-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| tert-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Carbon disulfide | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Carbon tetrachloride | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloroethane | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloroform | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloromethane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Chlorotoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Chlorotoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dibromochloromethane | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dibromomethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,4-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dichlorodifluoromethane | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| cis-1,2-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| trans-1,2-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Blank (24L0596-BLK1)** | | Prepared: 12/16/24 13:24 | | Analyzed: 12/17/24 04:19 | | | | | | | | |
| 1,2-Dichloropropane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2,2-Dichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| cis-1,3-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| trans-1,3-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Hexachlorobutadiene | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Hexanone | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Isopropylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Isopropyltoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Methylene chloride | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| n-Propylbenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Styrene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Tetrachloroethene (PCE) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,1-Trichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,2-Trichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Trichloroethene (TCE) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Trichlorofluoromethane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| m,p-Xylene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| o-Xylene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |

*Surr: 1,4-Difluorobenzene (Surr)* *Recovery: 100 %* *Limits: 80-120 %* *Dilution: 1x*

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ANALYTICAL REPORT

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | | | Soil | | | |
| **Blank (24L0596-BLK1)** | | | Prepared: 12/16/24 13:24 Analyzed: 12/17/24 04:19 | | | | | | | | | |
| *Surr: Toluene-d8 (Surr)* | | | *Recovery: 97 %* | *Limits: 80-120 %* | | | | *Dilution: 1x* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *99 %* | *79-120 %* | | | | *"* | | | | |
| **LCS (24L0596-BS1)** | | | Prepared: 12/16/24 13:24 Analyzed: 12/17/24 02:57 | | | | | | | | | |
| **5035A/8260D** | | | | | | | | | | | | |
| Acetone | 1.69 | --- | 1.00 | mg/kg wet | 50 | 2.00 | --- | 85 | 80 - 120% | --- | --- | |
| Acrylonitrile | 0.886 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| Benzene | 0.934 | --- | 0.0100 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| Bromobenzene | 0.948 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| Bromochloromethane | 0.953 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| Bromodichloromethane | 0.884 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 88 | 80 - 120% | --- | --- | |
| Bromoform | 0.873 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 87 | 80 - 120% | --- | --- | |
| Bromomethane | 1.34 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | **134** | **80 - 120%** | --- | --- | Q-56 |
| 2-Butanone (MEK) | 1.66 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | 83 | 80 - 120% | --- | --- | |
| n-Butylbenzene | 0.889 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| sec-Butylbenzene | 0.944 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| tert-Butylbenzene | 0.885 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 88 | 80 - 120% | --- | --- | |
| Carbon disulfide | 0.847 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 85 | 80 - 120% | --- | --- | |
| Carbon tetrachloride | 1.12 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 112 | 80 - 120% | --- | --- | |
| Chlorobenzene | 0.962 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| Chloroethane | 0.836 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 84 | 80 - 120% | --- | --- | |
| Chloroform | 0.997 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 100 | 80 - 120% | --- | --- | |
| Chloromethane | 0.790 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | **79** | **80 - 120%** | --- | --- | Q-55 |
| 2-Chlorotoluene | 0.966 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| 4-Chlorotoluene | 0.908 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 91 | 80 - 120% | --- | --- | |
| Dibromochloromethane | 0.880 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 88 | 80 - 120% | --- | --- | |
| 1,2-Dibromo-3-chloropropane | 0.760 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | **76** | **80 - 120%** | --- | --- | Q-55 |
| 1,2-Dibromoethane (EDB) | 0.990 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| Dibromomethane | 0.986 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| 1,2-Dichlorobenzene | 0.952 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| 1,3-Dichlorobenzene | 0.977 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| 1,4-Dichlorobenzene | 0.945 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| Dichlorodifluoromethane | 0.864 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 86 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethane | 0.956 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **LCS (24L0596-BS1)** | | Prepared: 12/16/24 13:24 | | Analyzed: 12/17/24 02:57 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | 0.974 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethene | 0.954 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| cis-1,2-Dichloroethene | 0.917 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| trans-1,2-Dichloroethene | 0.931 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 1,2-Dichloropropane | 0.916 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| 1,3-Dichloropropane | 0.928 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 2,2-Dichloropropane | 0.939 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| 1,1-Dichloropropene | 0.974 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| cis-1,3-Dichloropropene | 0.860 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 86 | 80 - 120% | --- | --- | |
| trans-1,3-Dichloropropene | 0.866 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 87 | 80 - 120% | --- | --- | |
| Ethylbenzene | 0.955 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| Hexachlorobutadiene | 0.987 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| 2-Hexanone | 1.54 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | **77** | **80 - 120%** | --- | --- | Q-55 |
| Isopropylbenzene | 0.958 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| 4-Isopropyltoluene | 0.948 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| Methylene chloride | 0.890 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | 1.73 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | 87 | 80 - 120% | --- | --- | |
| Methyl tert-butyl ether (MTBE) | 0.944 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| Naphthalene | 0.874 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 87 | 80 - 120% | --- | --- | |
| n-Propylbenzene | 0.928 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| Styrene | 0.936 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| 1,1,1,2-Tetrachloroethane | 0.946 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| 1,1,2,2-Tetrachloroethane | 0.877 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 88 | 80 - 120% | --- | --- | |
| Tetrachloroethene (PCE) | 1.03 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 103 | 80 - 120% | --- | --- | |
| Toluene | 0.904 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 90 | 80 - 120% | --- | --- | |
| 1,2,3-Trichlorobenzene | 0.956 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| 1,2,4-Trichlorobenzene | 0.948 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| 1,1,1-Trichloroethane | 1.03 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 103 | 80 - 120% | --- | --- | |
| 1,1,2-Trichloroethane | 0.969 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| Trichloroethene (TCE) | 1.05 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 105 | 80 - 120% | --- | --- | |
| Trichlorofluoromethane | 0.858 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 86 | 80 - 120% | --- | --- | |
| 1,2,3-Trichloropropane | 0.984 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| 1,2,4-Trimethylbenzene | 0.958 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| 1,3,5-Trimethylbenzene | 0.965 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |

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Cameron O'Brien, Project Manager

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | Soil | | | | | |
| **LCS (24L0596-BS1)** | | Prepared: 12/16/24 13:24 Analyzed: 12/17/24 02:57 | | | | | | | | | | |
| Vinyl chloride | 0.947 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| m,p-Xylene | 1.94 | --- | 0.0500 | mg/kg wet | 50 | 2.00 | --- | 97 | 80 - 120% | --- | --- | |
| o-Xylene | 0.940 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 100 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *98 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *98 %* | | *79-120 %* | | | *"* | | | | | |
| **Duplicate (24L0596-DUP1)** | | Prepared: 12/10/24 09:35 Analyzed: 12/17/24 13:55 | | | | | | | | | | DCNT |
| QC Source Sample: MW-6-7 (A4L1255-02) | | | | | | | | | | | | |
| 5035A/8260D | | | | | | | | | | | | |
| Acetone | ND | --- | 1.56 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Acrylonitrile | ND | --- | 0.156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Benzene | ND | --- | 0.0156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Bromobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Bromochloromethane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Bromodichloromethane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Bromoform | ND | --- | 0.156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Bromomethane | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 2-Butanone (MEK) | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| n-Butylbenzene | **1.71** | --- | 0.0778 | mg/kg dry | 50 | --- | 2.12 | --- | --- | 22 | 30% | |
| sec-Butylbenzene | **1.28** | --- | 0.0778 | mg/kg dry | 50 | --- | 1.58 | --- | --- | 21 | 30% | |
| tert-Butylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Carbon disulfide | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Carbon tetrachloride | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Chlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Chloroethane | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Chloroform | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Chloromethane | ND | --- | 0.389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 2-Chlorotoluene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 4-Chlorotoluene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Dibromochloromethane | ND | --- | 0.156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Dibromomethane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Duplicate (24L0596-DUP1)** | | Prepared: 12/10/24 09:35 | | Analyzed: 12/17/24 13:55 | | | | | | | | **DCNT** |
| **QC Source Sample: MW-6-7 (A4L1255-02)** | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,3-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,4-Dichlorobenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Dichlorodifluoromethane | ND | --- | 0.156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1-Dichloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| cis-1,2-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| trans-1,2-Dichloroethene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2-Dichloropropane | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,3-Dichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 2,2-Dichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| cis-1,3-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| trans-1,3-Dichloropropene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Ethylbenzene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Hexachlorobutadiene | ND | --- | 0.156 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 2-Hexanone | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Isopropylbenzene | **0.172** | --- | 0.0778 | mg/kg dry | 50 | --- | 0.204 | --- | --- | 17 | 30% | |
| 4-Isopropyltoluene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Methylene chloride | ND | --- | 0.778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 1.17 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | R-02 |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Naphthalene | **0.659** | --- | 0.156 | mg/kg dry | 50 | --- | 0.730 | --- | --- | 10 | 30% | |
| n-Propylbenzene | **1.06** | --- | 0.0389 | mg/kg dry | 50 | --- | 1.32 | --- | --- | 22 | 30% | |
| Styrene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.136 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | R-02 |
| Tetrachloroethene (PCE) | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Toluene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,1,1-Trichloroethane | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |

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Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0596 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Duplicate (24L0596-DUP1)** | | Prepared: 12/10/24 09:35 | | Analyzed: 12/17/24 13:55 | | | | | | | | **DCNT** |
| **QC Source Sample: MW-6-7 (A4L1255-02)** | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | ND | --- | 0.0467 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | R-02 |
| Trichloroethene (TCE) | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Trichlorofluoromethane | ND | --- | 0.389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2,3-Trichloropropane | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | 0.0459 | --- | --- | *** | 30% | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| Vinyl chloride | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| m,p-Xylene | ND | --- | 0.0778 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| o-Xylene | ND | --- | 0.0389 | mg/kg dry | 50 | --- | ND | --- | --- | --- | 30% | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *101 %* | *Limits:* | *80-120 %* | | *Dilution:* | *1x* | | | | |
| *Toluene-d8 (Surr)* | | | *95 %* | | *80-120 %* | | | *"* | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *100 %* | | *79-120 %* | | | *"* | | | | |

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0973 - EPA 3051A** | | | | | | | Soil | | | | | |
| **Blank (24L0973-BLK1)** | | Prepared: 12/27/24 08:49 Analyzed: 12/27/24 21:11 | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Copper | ND | --- | 2.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Selenium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| **LCS (24L0973-BS1)** | | Prepared: 12/27/24 08:49 Analyzed: 12/27/24 21:16 | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | 50.6 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 101 | 80 - 120% | --- | --- | |
| Barium | 51.2 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 102 | 80 - 120% | --- | --- | |
| Cadmium | 50.3 | --- | 0.200 | mg/kg wet | 10 | 50.0 | --- | 101 | 80 - 120% | --- | --- | |
| Chromium | 50.3 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 101 | 80 - 120% | --- | --- | |
| Copper | 53.6 | --- | 2.00 | mg/kg wet | 10 | 50.0 | --- | 107 | 80 - 120% | --- | --- | |
| Lead | 53.4 | --- | 0.200 | mg/kg wet | 10 | 50.0 | --- | 107 | 80 - 120% | --- | --- | |
| Mercury | 1.03 | --- | 0.0800 | mg/kg wet | 10 | 1.00 | --- | 103 | 80 - 120% | --- | --- | |
| Selenium | 25.5 | --- | 1.00 | mg/kg wet | 10 | 25.0 | --- | 102 | 80 - 120% | --- | --- | |
| Silver | 26.8 | --- | 0.200 | mg/kg wet | 10 | 25.0 | --- | 107 | 80 - 120% | --- | --- | |
| **Duplicate (24L0973-DUP1)** | | Prepared: 12/27/24 08:49 Analyzed: 12/27/24 21:26 | | | | | | | | | | |
| QC Source Sample: MW-6-5 (A4L1255-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | **10.4** | --- | 1.34 | mg/kg dry | 10 | --- | 8.29 | --- | --- | **23** | **20%** | Q-04 |
| Barium | **60.0** | --- | 1.34 | mg/kg dry | 10 | --- | 80.1 | --- | --- | **29** | **20%** | Q-04 |
| Cadmium | ND | --- | 0.268 | mg/kg dry | 10 | --- | 0.283 | --- | --- | *** | **20%** | |
| Chromium | **13.6** | --- | 1.34 | mg/kg dry | 10 | --- | 16.9 | --- | --- | **22** | **20%** | Q-04 |
| Copper | **21.4** | --- | 2.68 | mg/kg dry | 10 | --- | 31.6 | --- | --- | **38** | **20%** | Q-04 |
| Lead | **8.80** | --- | 0.268 | mg/kg dry | 10 | --- | 15.3 | --- | --- | **54** | **20%** | Q-04 |
| Mercury | ND | --- | 0.107 | mg/kg dry | 10 | --- | 0.102 | --- | --- | *** | **20%** | |
| Selenium | ND | --- | 1.34 | mg/kg dry | 10 | --- | ND | --- | --- | --- | 20% | |

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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|---|---|---|
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| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0973 - EPA 3051A** | | | | | | | Soil | | | | | |
| **Duplicate (24L0973-DUP1)** | | Prepared: 12/27/24 08:49 | | Analyzed: 12/27/24 21:26 | | | | | | | | |
| QC Source Sample: MW-6-5 (A4L1255-01) | | | | | | | | | | | | |
| Silver | ND | --- | 0.268 | mg/kg dry | 10 | --- | ND | --- | --- | --- | 20% | |
| **Matrix Spike (24L0973-MS1)** | | Prepared: 12/27/24 08:49 | | Analyzed: 12/27/24 21:32 | | | | | | | | |
| QC Source Sample: MW-6-5 (A4L1255-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | 75.9 | --- | 1.34 | mg/kg dry | 10 | 67.2 | 8.29 | 101 | 75 - 125% | --- | --- | |
| Barium | 145 | --- | 1.34 | mg/kg dry | 10 | 67.2 | 80.1 | 97 | 75 - 125% | --- | --- | |
| Cadmium | 67.1 | --- | 0.269 | mg/kg dry | 10 | 67.2 | 0.283 | 99 | 75 - 125% | --- | --- | |
| Chromium | 85.3 | --- | 1.34 | mg/kg dry | 10 | 67.2 | 16.9 | 102 | 75 - 125% | --- | --- | |
| Copper | 98.8 | --- | 2.69 | mg/kg dry | 10 | 67.2 | 31.6 | 100 | 75 - 125% | --- | --- | |
| Lead | 80.9 | --- | 0.269 | mg/kg dry | 10 | 67.2 | 15.3 | 98 | 75 - 125% | --- | --- | |
| Mercury | 1.40 | --- | 0.107 | mg/kg dry | 10 | 1.34 | 0.102 | 97 | 75 - 125% | --- | --- | |
| Selenium | 33.6 | --- | 1.34 | mg/kg dry | 10 | 33.6 | ND | 100 | 75 - 125% | --- | --- | |
| Silver | 35.1 | --- | 0.269 | mg/kg dry | 10 | 33.6 | ND | 104 | 75 - 125% | --- | --- | |

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| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0615 - Dry Weight Prep (EPA 8000D)** | | | | | | | | | | | | **Soil** |
| **Duplicate (24L0615-DUP5)** | | Prepared: 12/17/24 08:46 | | Analyzed: 12/18/24 05:13 | | | | | | | | |
| QC Source Sample: MW-6-5 (A4L1255-01) | | | | | | | | | | | | |
| EPA 8000D | | | | | | | | | | | | |
| % Solids | **75.5** | --- | 1.00 | % | 1 | --- | 77.0 | --- | --- | 2 | 10% | |
| **Duplicate (24L0615-DUP6)** | | Prepared: 12/17/24 08:46 | | Analyzed: 12/18/24 05:13 | | | | | | | | **DCNT** |
| QC Source Sample: MW-6-7 (A4L1255-02) | | | | | | | | | | | | |
| EPA 8000D | | | | | | | | | | | | |
| % Solids | **70.8** | --- | 1.00 | % | 1 | --- | 73.4 | --- | --- | 4 | 10% | |
| **Duplicate (24L0615-DUP7)** | | Prepared: 12/17/24 08:46 | | Analyzed: 12/18/24 05:13 | | | | | | | | |
| QC Source Sample: MW-6-12 (A4L1255-04) | | | | | | | | | | | | |
| EPA 8000D | | | | | | | | | | | | |
| % Solids | **70.9** | --- | 1.00 | % | 1 | --- | 70.3 | --- | --- | 0.8 | 10% | |
| **Duplicate (24L0615-DUP8)** | | Prepared: 12/17/24 08:46 | | Analyzed: 12/18/24 05:13 | | | | | | | | |
| QC Source Sample: MW-7-5 (A4L1255-06) | | | | | | | | | | | | |
| EPA 8000D | | | | | | | | | | | | |
| % Solids | **71.5** | --- | 1.00 | % | 1 | --- | 71.7 | --- | --- | 0.3 | 10% | |

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**503-718-2323**
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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## SAMPLE PREPARATION INFORMATION

### Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3546 (Fuels)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0573 | | | | | | | |
| A4L1255-08 | Soil | NWTPH-HCID | 12/10/24 11:40 | 12/16/24 10:56 | 10.58g/10mL | 10g/10mL | 0.95 |
| A4L1255-10 | Soil | NWTPH-HCID | 12/10/24 12:35 | 12/16/24 10:56 | 10.53g/10mL | 10g/10mL | 0.95 |
| A4L1255-13 | Soil | NWTPH-HCID | 12/10/24 15:05 | 12/16/24 10:56 | 10.29g/10mL | 10g/10mL | 0.97 |
| A4L1255-16 | Soil | NWTPH-HCID | 12/11/24 08:45 | 12/16/24 10:56 | 10.07g/10mL | 10g/10mL | 0.99 |
| A4L1255-20 | Soil | NWTPH-HCID | 12/11/24 10:25 | 12/16/24 10:56 | 10.61g/10mL | 10g/10mL | 0.94 |
| A4L1255-23 | Soil | NWTPH-HCID | 12/11/24 12:45 | 12/16/24 10:56 | 10.02g/10mL | 10g/10mL | 1.00 |
| A4L1255-26 | Soil | NWTPH-HCID | 12/11/24 14:35 | 12/16/24 10:56 | 10.37g/10mL | 10g/10mL | 0.96 |

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0717 | | | | | | | |
| A4L1255-02 | Soil | NWTPH-Dx | 12/10/24 09:35 | 12/19/24 07:42 | 11.62g/5mL | 10g/5mL | 0.86 |
| A4L1255-04 | Soil | NWTPH-Dx | 12/10/24 09:40 | 12/19/24 07:42 | 11.15g/5mL | 10g/5mL | 0.90 |
| A4L1255-26 | Soil | NWTPH-Dx | 12/11/24 14:35 | 12/19/24 07:42 | 11.79g/5mL | 10g/5mL | 0.85 |

### Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0596 | | | | | | | |
| A4L1255-02 | Soil | NWTPH-Gx (MS) | 12/10/24 09:35 | 12/10/24 09:35 | 5.71g/5mL | 5g/5mL | 0.88 |
| A4L1255-04 | Soil | NWTPH-Gx (MS) | 12/10/24 09:40 | 12/10/24 09:40 | 5.92g/5mL | 5g/5mL | 0.85 |

### Volatile Organic Compounds by EPA 8260D

Prep: EPA 5035A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0596 | | | | | | | |
| A4L1255-02 | Soil | 5035A/8260D | 12/10/24 09:35 | 12/10/24 09:35 | 5.71g/5mL | 5g/5mL | 0.88 |
| A4L1255-04 | Soil | 5035A/8260D | 12/10/24 09:40 | 12/10/24 09:40 | 5.92g/5mL | 5g/5mL | 0.85 |
| A4L1255-13 | Soil | 5035A/8260D | 12/10/24 15:05 | 12/10/24 15:05 | 6.03g/5mL | 5g/5mL | 0.83 |
| A4L1255-16 | Soil | 5035A/8260D | 12/11/24 08:45 | 12/11/24 08:45 | 6.98g/5mL | 5g/5mL | 0.72 |

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ANALYTICAL REPORT

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|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1255 - 01 06 25 1919 |

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0973 | | | | | | | |
| A4L1255-01 | Soil | EPA 6020B | 12/10/24 09:30 | 12/27/24 08:49 | 0.484g/50mL | 0.5g/50mL | 1.03 |
| A4L1255-02 | Soil | EPA 6020B | 12/10/24 09:35 | 12/27/24 08:49 | 0.466g/50mL | 0.5g/50mL | 1.07 |
| A4L1255-04 | Soil | EPA 6020B | 12/10/24 09:40 | 12/27/24 08:49 | 0.47g/50mL | 0.5g/50mL | 1.06 |
| A4L1255-06 | Soil | EPA 6020B | 12/10/24 11:30 | 12/27/24 08:49 | 0.456g/50mL | 0.5g/50mL | 1.10 |
| A4L1255-09 | Soil | EPA 6020B | 12/10/24 12:30 | 12/27/24 08:49 | 0.481g/50mL | 0.5g/50mL | 1.04 |
| A4L1255-10 | Soil | EPA 6020B | 12/10/24 12:35 | 12/27/24 08:49 | 0.487g/50mL | 0.5g/50mL | 1.03 |
| A4L1255-12 | Soil | EPA 6020B | 12/10/24 15:00 | 12/27/24 08:49 | 0.461g/50mL | 0.5g/50mL | 1.08 |
| A4L1255-13 | Soil | EPA 6020B | 12/10/24 15:05 | 12/27/24 08:49 | 0.51g/50mL | 0.5g/50mL | 0.98 |
| A4L1255-15 | Soil | EPA 6020B | 12/11/24 08:40 | 12/27/24 08:49 | 0.472g/50mL | 0.5g/50mL | 1.06 |
| A4L1255-16 | Soil | EPA 6020B | 12/11/24 08:45 | 12/27/24 08:49 | 0.476g/50mL | 0.5g/50mL | 1.05 |
| A4L1255-19 | Soil | EPA 6020B | 12/11/24 10:20 | 12/27/24 08:49 | 0.484g/50mL | 0.5g/50mL | 1.03 |
| A4L1255-22 | Soil | EPA 6020B | 12/11/24 12:40 | 12/27/24 08:49 | 0.498g/50mL | 0.5g/50mL | 1.00 |
| A4L1255-25 | Soil | EPA 6020B | 12/11/24 14:30 | 12/27/24 08:49 | 0.472g/50mL | 0.5g/50mL | 1.06 |
| A4L1255-26 | Soil | EPA 6020B | 12/11/24 14:35 | 12/27/24 08:49 | 0.508g/50mL | 0.5g/50mL | 0.98 |

### Percent Dry Weight

Prep: Dry Weight Prep (EPA 8000D)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0615 | | | | | | | |
| A4L1255-01 | Soil | EPA 8000D | 12/10/24 09:30 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-02 | Soil | EPA 8000D | 12/10/24 09:35 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-04 | Soil | EPA 8000D | 12/10/24 09:40 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-06 | Soil | EPA 8000D | 12/10/24 11:30 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-08 | Soil | EPA 8000D | 12/10/24 11:40 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-09 | Soil | EPA 8000D | 12/10/24 12:30 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-10 | Soil | EPA 8000D | 12/10/24 12:35 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-12 | Soil | EPA 8000D | 12/10/24 15:00 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-13 | Soil | EPA 8000D | 12/10/24 15:05 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-15 | Soil | EPA 8000D | 12/11/24 08:40 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-16 | Soil | EPA 8000D | 12/11/24 08:45 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-19 | Soil | EPA 8000D | 12/11/24 10:20 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-20 | Soil | EPA 8000D | 12/11/24 10:25 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-22 | Soil | EPA 8000D | 12/11/24 12:40 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-23 | Soil | EPA 8000D | 12/11/24 12:45 | 12/17/24 08:46 | 1g | 1g | 1.00 |
| A4L1255-25 | Soil | EPA 8000D | 12/11/24 14:30 | 12/17/24 08:46 | 1g | 1g | 1.00 |

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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## SAMPLE PREPARATION INFORMATION

### Percent Dry Weight

Prep: Dry Weight Prep (EPA 8000D)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A4L1255-26 | Soil | EPA 8000D | 12/11/24 14:35 | 12/17/24 08:46 | 1g | 1g | 1.00 |

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## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **DCNT** | Sample decanted due to the presence of sediment in water samples, or water in sediment or soil samples. (Note: Decanted aqueous sample bottles are not solvent rinsed.) |
| **Q-04** | Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix. |
| **Q-39** | Results for sample duplicate are higher than the sample results. See duplicate results in QC section of the report. |
| **Q-55** | Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level. |
| **Q-56** | Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted. |
| **R-02** | The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample. |
| **S-05** | Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference. |

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

Apex Laboratories

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Cameron O'Brien, Project Manager

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**Apex Laboratories, LLC**
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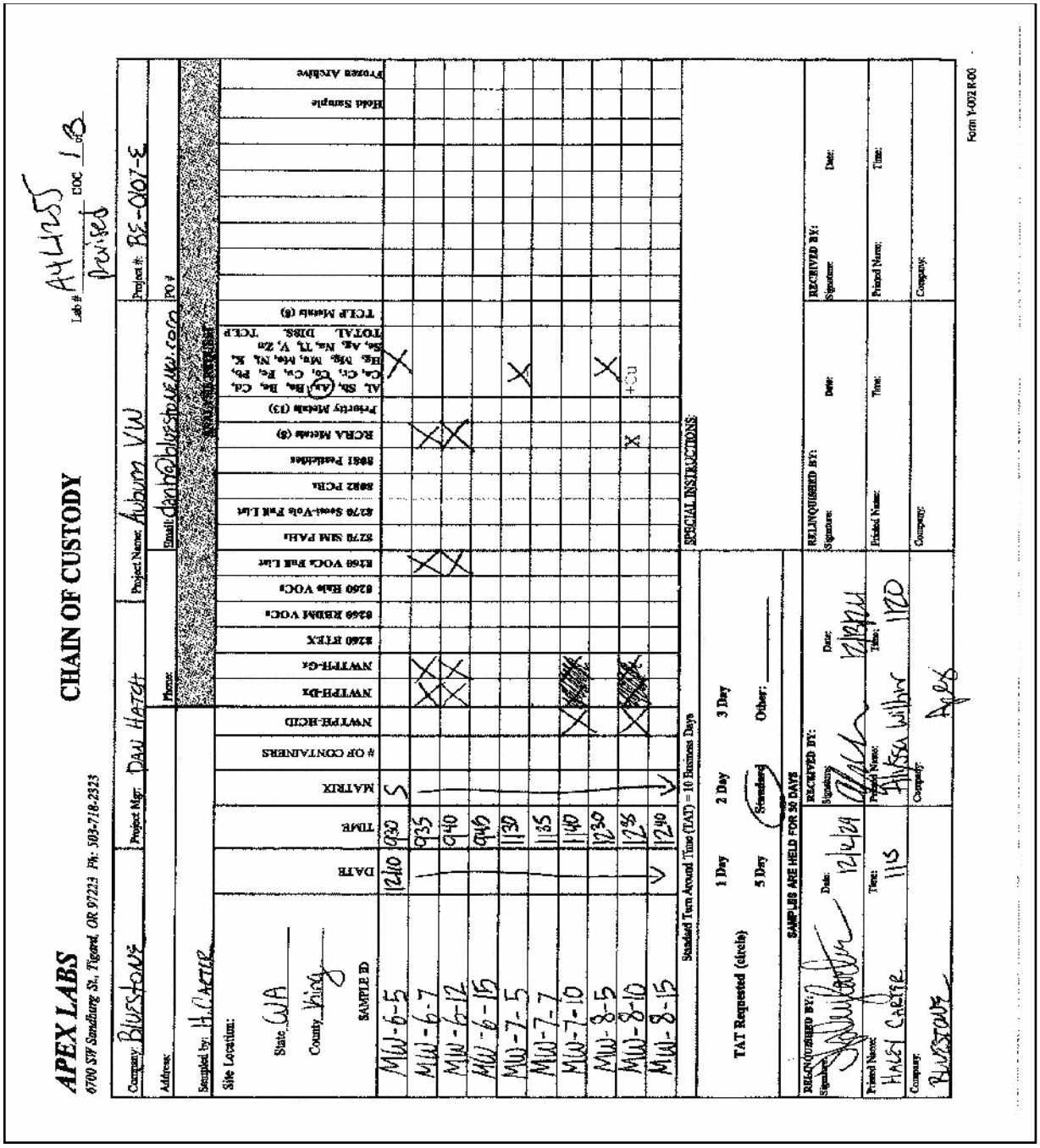
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |



APEX LABS
6700 SW Sandburg St. Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4L1255 COC 1 of 1 revised

Company: Bluestone | Project Mgr: Dan Hatch | Project Name: Auburn VW | Project #: BE-0107-E
Address: | Phone: | Email: dan@bluestonenw.com | PO #
Sampled by: H. Carter
Site Location: State: WA County: King

| SAMPLE ID | DATE | TIME | MATRIX | # OF CONTAINERS | NWTPH-HCID | NWTPH-Dx | NWTPH-Gx | 8260 BTEX | 8260 RMBM VOCs | 8260 Halo VOCs | 8260 VOCs Full List | 8270 SIM PAHs | 8270 Semi-Vols Full List | 8082 PCBs | 8081 Pesticides | RCRA Metals (8) | Priority Metals (13) | Al, Sb, (As), Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn | TOTAL DISS. TCLP | TCLP Metals (8) | Hold Sample | Frozen Archive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-6-5 | 12/4 | 930 | S | | | | X | | | | | | | | | X | | X | | | | |
| MW-6-7 | | 935 | | | | | X | | | | | | | | | X | | | | | | |
| MW-6-12 | | 940 | | | | | X | | | | | | | | | X | | | | | | |
| MW-6-15 | | 945 | | | | | | | | | | | | | | | | | | | | |
| MW-7-5 | | 1130 | | | | | | | | | | | | | | X | | X | | | | |
| MW-7-7 | | 1135 | | | | | | | | | | | | | | | | | | | | |
| MW-7-10 | | 1140 | | | | X | | | | | | | | | | | | | | | | |
| MW-8-5 | | 1230 | | | | | | | | | | | | | | X | | X | +Cu | | | |
| MW-8-10 | | 1235 | | | | X | | | | | | | | | | X | | | | | | |
| MW-8-15 | V | 1240 | V | | | | | | | | | | | | | | | | | | | |

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

| | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|
| Signature: | | |
| Date: | 12/4/24 | 12/5/24 |
| Time: | 1115 | 1120 |
| Printed Name: | Hazel Carter | Chelsea Wilbur |
| Company: | Bluestone | Apex |

| | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|
| Signature: | | |
| Date: | | |
| Time: | | |
| Printed Name: | | |
| Company: | | |

| | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|
| Signature: | | |
| Date: | | |
| Time: | | |
| Printed Name: | | |
| Company: | | |

Form 7-002 R-00

Apex Laboratories

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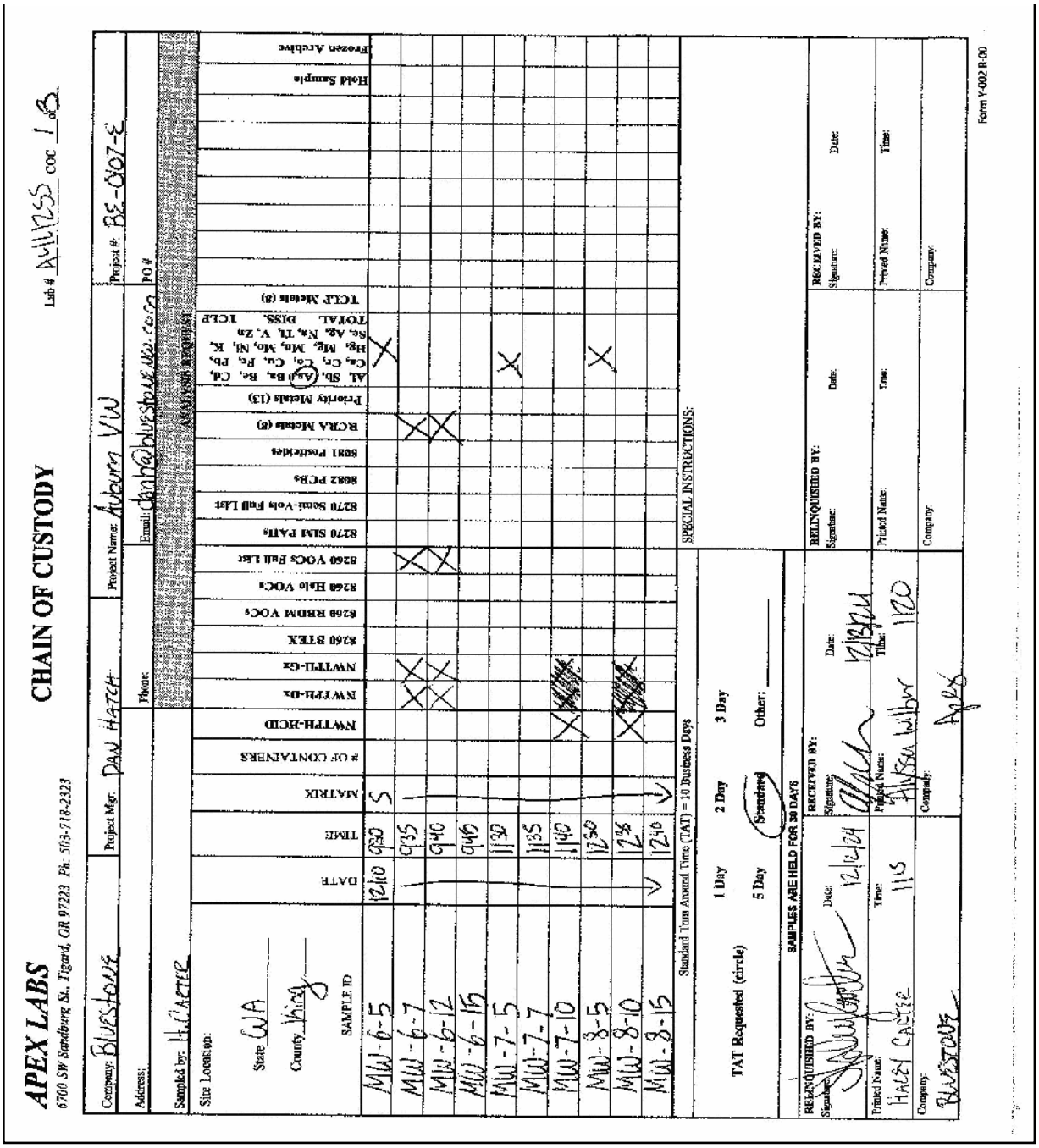
Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |



APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A4L1255 COC 1 of 3

Company: Bluestone | Project Mgr: Dan Hatch | Project Name: Auburn VW | Project #: BE-0107-E
Address: | Phone: | Email: dan@bluestonenw.com | PO #
Sampled by: H. Castle
Site Location: State WA County King

| SAMPLE ID | DATE | TIME | MATRIX | # OF CONTAINERS | NWTFH-HCID | NWTFH-Dx | NWTFH-Gx | 8260 BTEX | 8260 RBDM VOCs | 8260 Halo VOCs | 8260 VOCs Full List | 8270 SIM PAHs | 8270 Semi-Vols Full List | 8082 PCBs | 8081 Pesticides | RCRA Metals (8) | Priority Metals (13) | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP | TCLP Metals (8) | Hold Sample | Frozen Archive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-6-5 | 12/10 | 0930 | S | 5 | | | | | | | | | | | | | | X | | | |
| MW-6-7 | | 0935 | | | | X | X | | | | X | | | | | X | X | | | | |
| MW-6-12 | | 0940 | | | | X | X | | | | X | | | | | X | X | | | | |
| MW-6-15 | | 0945 | | | | | | | | | | | | | | | | | | | |
| MW-7-5 | | 1130 | | | | | | | | | | | | | | | | X | | | |
| MW-7-7 | | 1135 | | | X | | | | | | | | | | | | | | | | |
| MW-7-10 | | 1140 | | | X | | | | | | | | | | | | | | | | |
| MW-8-5 | | 1230 | | | | X | X | | | | X | | | | | | | X | | | |
| MW-8-10 | | 1235 | | | X | | | | | | | | | | | | | | | | |
| MW-8-15 | | 1240 | | | | | | | | | | | | | | | | | | | |

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: ____

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY: Signature: | Date: | Time:
Printed Name: Haley Castle
Company: Bluestone

RECEIVED BY: Signature: | Date: 12/16/24 | Time: 1115
Printed Name:
Company: Apex

RELINQUISHED BY: Signature: | Date: 12/18/24 | Time: 1120
Printed Name: Melissa Wilbur
Company: Apex

RECEIVED BY: Signature: | Date: | Time:
Printed Name:
Company:

Form V-002 R-00

Apex Laboratories

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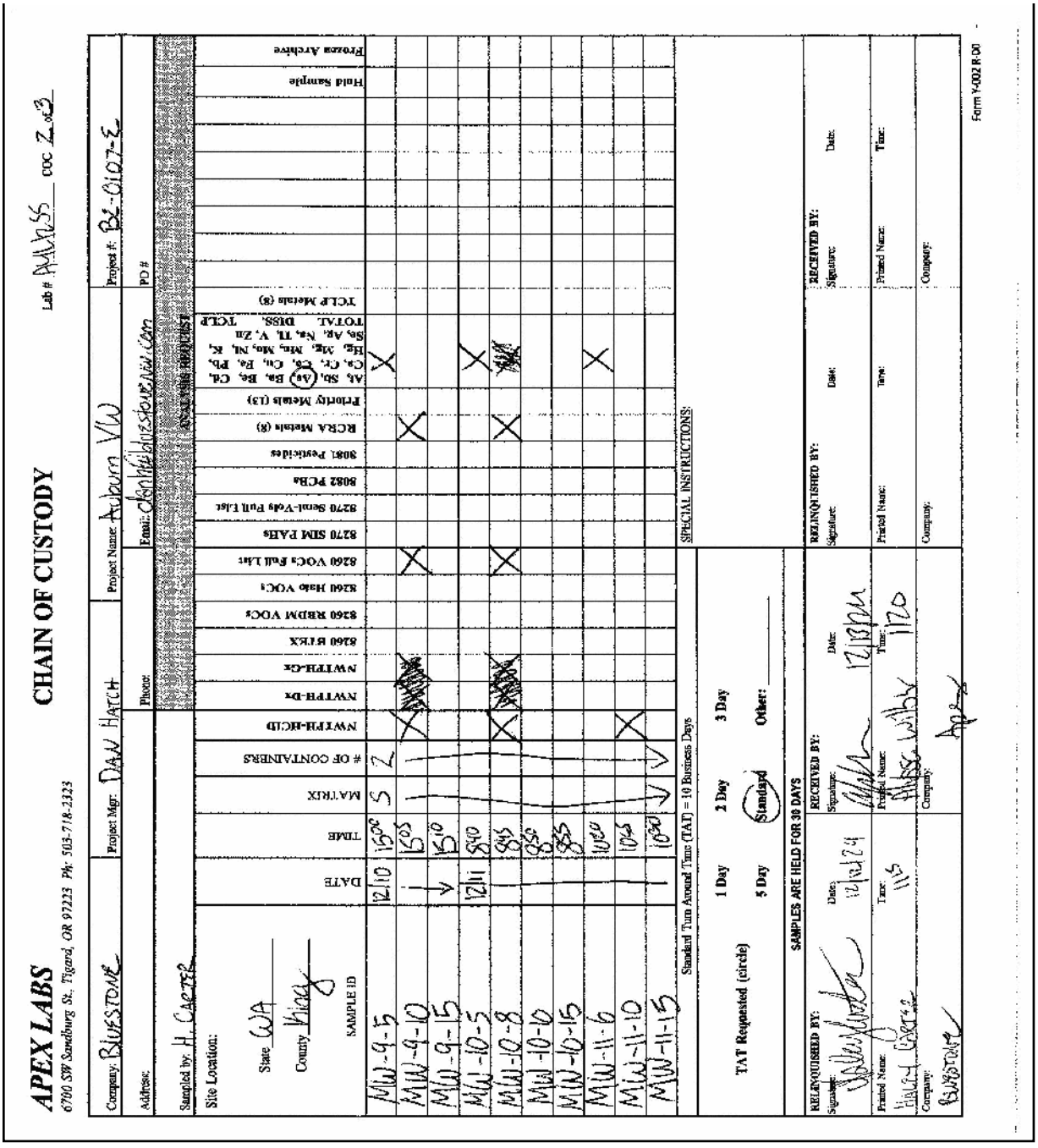
Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |




Apex Laboratories

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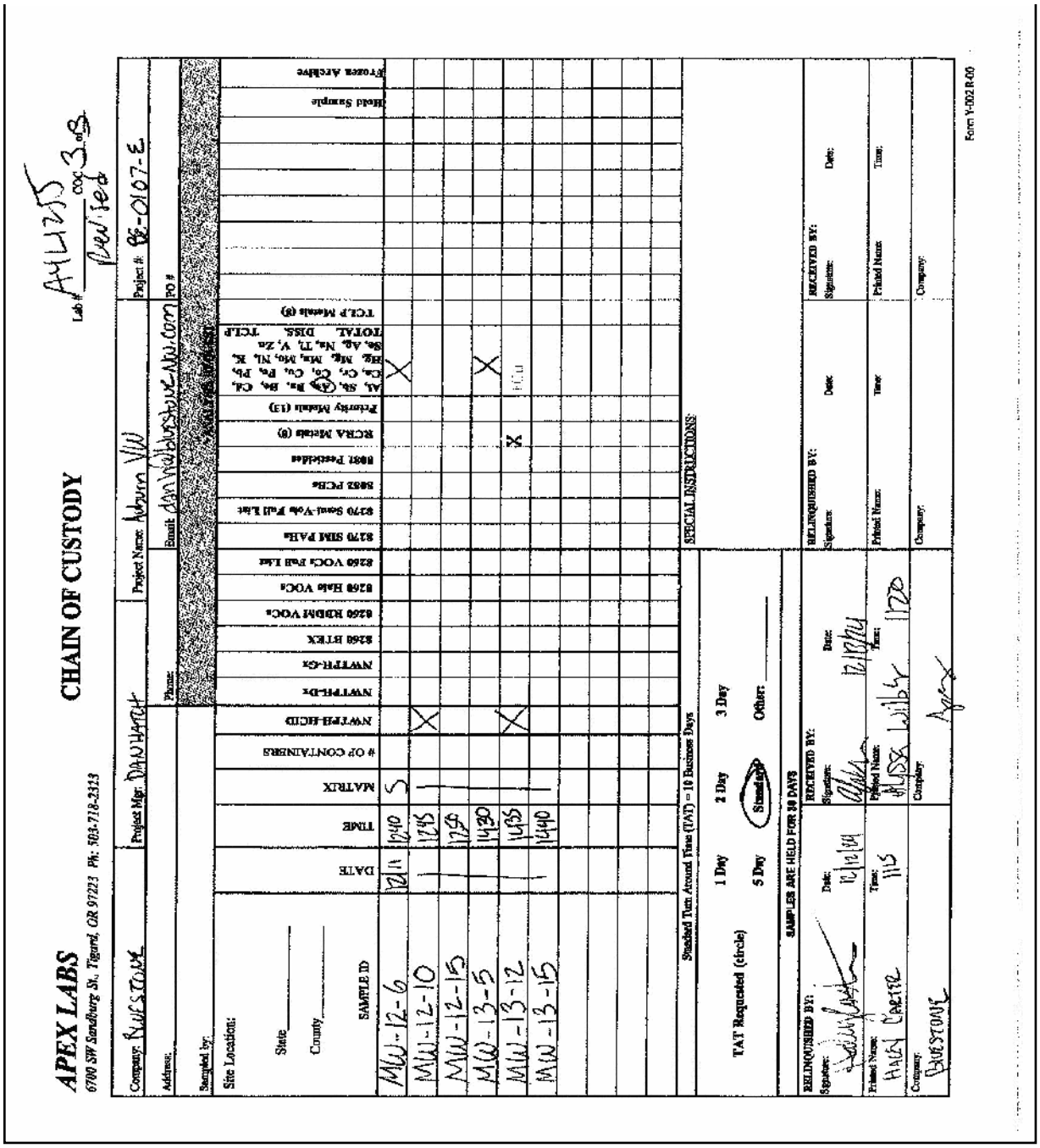
Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |




Apex Laboratories

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Cameron O'Brien, Project Manager

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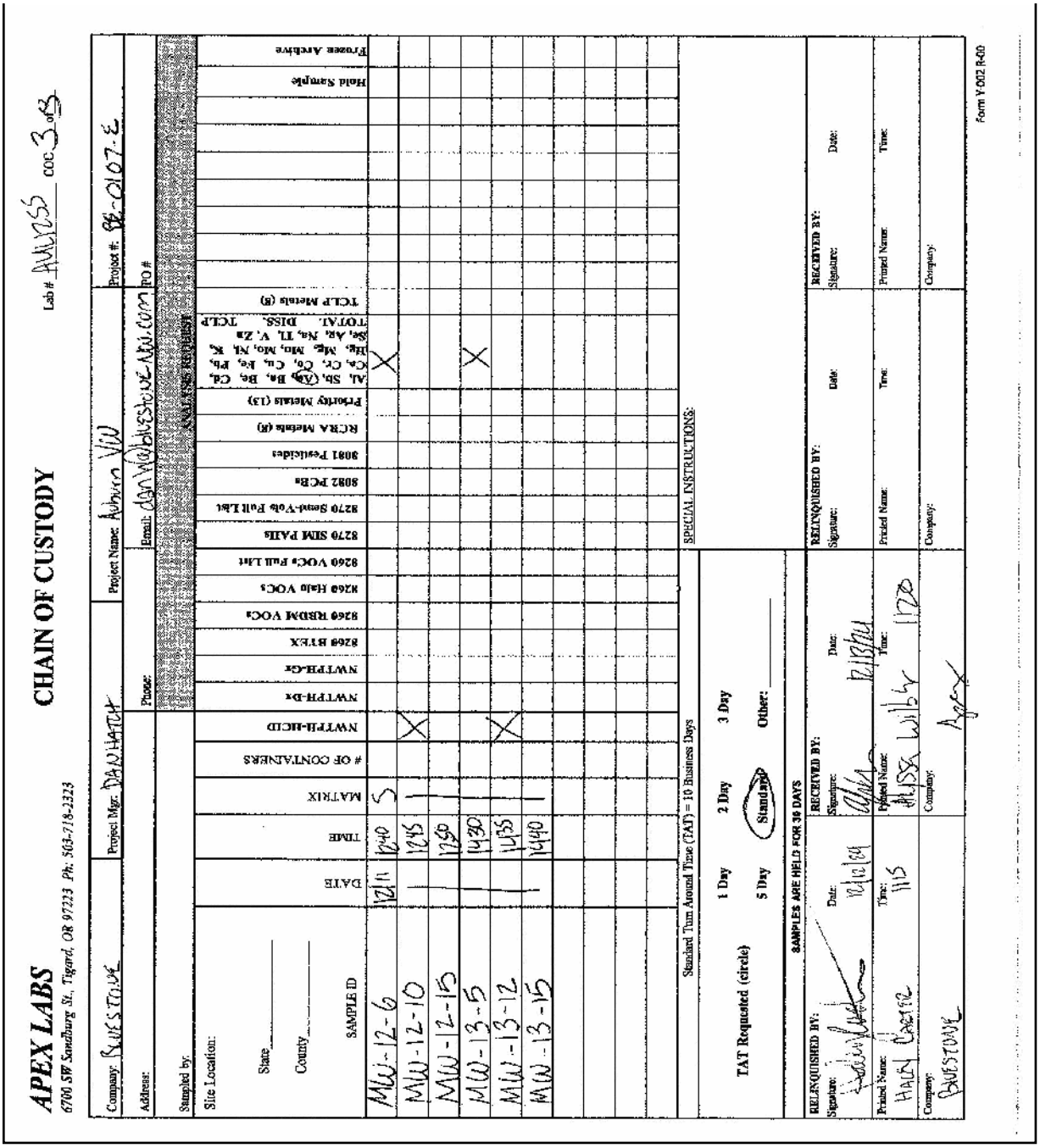
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |



APEX LABS
6700 SW Sandburg St, Tigard, OR 97223 Ph. 503-718-2323

CHAIN OF CUSTODY

Lab # A4L1255 COC 3 of 3

Company: BLUESTONE | Project Mgr: DAN HATCH | Project Name: Auburn VW | Project #: BE-0107-E
Address: | Phone: | Email: dan.w@bluestone-nw.com | PO #
Sampled by: | ANALYSIS REQUEST

Site Location:
State
County

| SAMPLE ID | DATE | TIME | MATRIX | # OF CONTAINERS | NWTPH-HCID | NWTPH-Dx | NWTPH-Gx | 8260 BTEX | 8260 RSDM VOCs | 8260 Halo VOCs | 8260 VOCs Full List | 8270 SIM PAHs | 8270 Semi-Vols Full List | 8082 PCBs | 8081 Pesticides | RCRA Metals (8) | Priority Metals (13) | Al, Sb, (As) Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP | TCLP Metals (8) | Hold Sample | Freeze Archive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-12-6 | 12/11 | 1240 | S | 5 | | | | | | | | | | | | | | X | | | |
| MW-12-10 | | 1245 | | 1 | X | | | | | | | | | | | | | | | | |
| MW-12-15 | | 1250 | | 1 | | | | | | | | | | | | | | | | | |
| MW-13-5 | | 1430 | | 1 | | | | | | | | | | | | | | X | | | |
| MW-13-12 | | 1435 | | 1 | X | | | | | | | | | | | | | | | | |
| MW-13-15 | | 1440 | | 1 | | | | | | | | | | | | | | | | | |

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

| RELINQUISHED BY: | RECEIVED BY: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|---|
| Signature: | Signature: | Signature: | Signature: |
| Date: 12/12/24 | Date: 12/13/24 | Date: | Date: |
| Printed Name: HALEY CASTLE | Printed Name: ALISSA WILEY | Printed Name: | Printed Name: |
| Time: 1115 | Time: 1120 | Time: | Time: |
| Company: BLUESTONE | Company: APEX | Company: | Company: |

Form Y 002 R-00

Apex Laboratories

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1255 - 01 06 25 1919** |

## APEX LABS COOLER RECEIPT FORM

**Client:** Bluestone Element WO#: A4L1255

**Project/Project #:** Auburn VW BE-0107-E

**Delivery Info:**

Date/time received: 12/13/24 @ 1120 By: AMW

Delivered by: Apex__Client__ESS__FedEx__UPS X Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ___ No X

**Cooler Inspection** Date/time inspected: 12/13/24 @ 1120 By: AMW

Chain of Custody included? Yes X No ___

Signed/dated by client? Yes X No ___

Contains USDA Reg. Soils? Yes ___ No X Unsure (email RegSoils) ___

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 4.6 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | N | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: ___

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 12/13/24 @ 1151 By: AMW

All samples intact? Yes X No ___ Comments: ___

Bottle labels/COCs agree? Yes ___ No X Comments: MW-7-S (ml. T read 1105. received extra Sample MW-6-10 12/12/24 @ 0855

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ___

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments ___

Water samples: pH checked: Yes ___ No ___ NA X pH appropriate? Yes ___ No ___ NA X pH ID: ___

Comments: ___

12 CIB 0605 01 1795 5095

Labeled by: AMW Witness: ZA Cooler Inspected by: AMW

Form Y-003 R-02

Apex Laboratories

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Thursday, January 2, 2025

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A4L1385 - Auburn VW - BE-0107-E

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A4L1385, which was received by the laboratory on 12/16/2024 at 11:20:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: mpoquiz@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information | | |
|---|---|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. | | |
| (See Cooler Receipt Form for details) | | |
| Default Cooler | 2.4 | degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

Apex Laboratories

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Michele Poquiz For Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-14-6 | A4L1385-01 | Soil | 12/12/24 08:50 | 12/16/24 11:20 |
| MW-15-5 | A4L1385-04 | Soil | 12/12/24 10:50 | 12/16/24 11:20 |
| MW-15-11 | A4L1385-05 | Soil | 12/12/24 10:55 | 12/16/24 11:20 |
| MW-16-5 | A4L1385-07 | Soil | 12/12/24 12:50 | 12/16/24 11:20 |
| MW-16-10 | A4L1385-08 | Soil | 12/12/24 12:55 | 12/16/24 11:20 |
| MW-17-5 | A4L1385-10 | Soil | 12/12/24 14:20 | 12/16/24 11:20 |
| MW-17-10 | A4L1385-11 | Soil | 12/12/24 14:25 | 12/16/24 11:20 |
| MW-18-5 | A4L1385-13 | Soil | 12/13/24 08:40 | 12/16/24 11:20 |
| MW-18-10 | A4L1385-14 | Soil | 12/13/24 08:45 | 12/16/24 11:20 |
| MW-19-5 | A4L1385-16 | Soil | 12/13/24 10:10 | 12/16/24 11:20 |
| MW-19-10 | A4L1385-17 | Soil | 12/13/24 10:15 | 12/16/24 11:20 |
| MW-20-5 | A4L1385-19 | Soil | 12/13/24 12:30 | 12/16/24 11:20 |
| MW-20-10 | A4L1385-20 | Soil | 12/13/24 12:35 | 12/16/24 11:20 |
| SWP | A4L1385-22 | Soil | 12/13/24 10:45 | 12/16/24 11:20 |

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Michele Poquiz For Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-15-11 (A4L1385-05)** | | | | **Matrix: Soil** | | **Batch: 24L0674** | | **CONT** |
| Gasoline Range Organics | ND | --- | 28.5 | mg/kg dry | 1 | 12/19/24 01:24 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 71.3 | mg/kg dry | 1 | 12/19/24 01:24 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 143 | mg/kg dry | 1 | 12/19/24 01:24 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *81 %* | *Limits: 50-150 %* | *1* | *12/19/24 01:24* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *77 %* | *50-150 %* | *1* | *12/19/24 01:24* | *NWTPH-HCID* | |
| **MW-16-10 (A4L1385-08)** | | | | **Matrix: Soil** | | **Batch: 24L0674** | | **CONT** |
| Gasoline Range Organics | ND | --- | 27.1 | mg/kg dry | 1 | 12/19/24 01:47 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 67.6 | mg/kg dry | 1 | 12/19/24 01:47 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 135 | mg/kg dry | 1 | 12/19/24 01:47 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *84 %* | *Limits: 50-150 %* | *1* | *12/19/24 01:47* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *57 %* | *50-150 %* | *1* | *12/19/24 01:47* | *NWTPH-HCID* | |
| **MW-17-10 (A4L1385-11)** | | | | **Matrix: Soil** | | **Batch: 24L0674** | | **CONT** |
| Gasoline Range Organics | ND | --- | 26.5 | mg/kg dry | 1 | 12/19/24 02:10 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 66.2 | mg/kg dry | 1 | 12/19/24 02:10 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 132 | mg/kg dry | 1 | 12/19/24 02:10 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *87 %* | *Limits: 50-150 %* | *1* | *12/19/24 02:10* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *80 %* | *50-150 %* | *1* | *12/19/24 02:10* | *NWTPH-HCID* | |
| **MW-18-10 (A4L1385-14)** | | | | **Matrix: Soil** | | **Batch: 24L0674** | | **CONT** |
| Gasoline Range Organics | ND | --- | 23.1 | mg/kg dry | 1 | 12/19/24 03:20 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 57.7 | mg/kg dry | 1 | 12/19/24 03:20 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 115 | mg/kg dry | 1 | 12/19/24 03:20 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *97 %* | *Limits: 50-150 %* | *1* | *12/19/24 03:20* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *92 %* | *50-150 %* | *1* | *12/19/24 03:20* | *NWTPH-HCID* | |
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | **Batch: 24L0674** | | **CONT** |
| Gasoline Range Organics | ND | --- | 25.6 | mg/kg dry | 1 | 12/19/24 02:34 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 64.0 | mg/kg dry | 1 | 12/19/24 02:34 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 128 | mg/kg dry | 1 | 12/19/24 02:34 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *92 %* | *Limits: 50-150 %* | *1* | *12/19/24 02:34* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *84 %* | *50-150 %* | *1* | *12/19/24 02:34* | *NWTPH-HCID* | |
| **MW-20-10 (A4L1385-20)** | | | | **Matrix: Soil** | | **Batch: 24L1045** | | **CONT, H-02** |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-20-10 (A4L1385-20)** | | | | **Matrix: Soil** | | **Batch: 24L1045** | | **CONT, H-02** |
| Gasoline Range Organics | ND | --- | 30.1 | mg/kg dry | 1 | 12/30/24 16:37 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 75.1 | mg/kg dry | 1 | 12/30/24 16:37 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 150 | mg/kg dry | 1 | 12/30/24 16:37 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *70 %* | *Limits: 50-150 %* | *1* | *12/30/24 16:37* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *70 %* | *50-150 %* | *1* | *12/30/24 16:37* | *NWTPH-HCID* | |

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**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **SWP (A4L1385-22RE1)** | | | | **Matrix: Soil** | | **Batch: 24L0737** | | **CONT** |
| Diesel | ND | --- | 23.7 | mg/kg dry | 1 | 12/20/24 09:21 | NWTPH-Dx | |
| **Oil** | **56.5** | --- | 47.3 | mg/kg dry | 1 | 12/20/24 09:21 | NWTPH-Dx | **F-17** |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery: 90 %* | | *Limits: 50-150 %* | *1* | *12/20/24 09:21* | *NWTPH-Dx* | |

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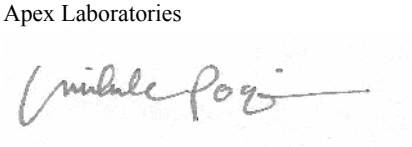

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ANALYTICAL REPORT

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-16-10 (A4L1385-08)** | | | | **Matrix: Soil** | | **Batch: 24L0659** | | |
| Acetone | ND | --- | 1.44 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Benzene | ND | --- | 0.0144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Bromobenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Bromoform | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Bromomethane | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| n-Butylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| sec-Butylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Chloroethane | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Chloroform | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-16-10 (A4L1385-08)** | | | | **Matrix: Soil** | | **Batch: 24L0659** | | |
| cis-1,3-Dichloropropene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Hexachlorobutadiene | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Isopropylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 4-Isopropyltoluene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Methylene chloride | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Naphthalene | ND | --- | 0.144 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| n-Propylbenzene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Styrene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Toluene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| m,p-Xylene | ND | --- | 0.0720 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0360 | mg/kg dry | 50 | 12/18/24 15:03 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *101 %* | *Limits: 80-120 %* | *1* | *12/18/24 15:03* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *97 %* | *80-120 %* | *1* | *12/18/24 15:03* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *97 %* | *79-120 %* | *1* | *12/18/24 15:03* | *5035A/8260D* | |
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | **Batch: 24L0659** | | **CONT** |
| Acetone | ND | --- | 2.15 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Acrylonitrile | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Benzene | ND | --- | 0.0215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | **Batch: 24L0659** | | **CONT** |
| Bromobenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Bromochloromethane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Bromodichloromethane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Bromoform | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Bromomethane | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 2-Butanone (MEK) | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| n-Butylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| sec-Butylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| tert-Butylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Carbon disulfide | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Carbon tetrachloride | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Chlorobenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Chloroethane | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Chloroform | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Chloromethane | ND | --- | 0.537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 2-Chlorotoluene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 4-Chlorotoluene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Dibromochloromethane | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Dibromomethane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2-Dichlorobenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,3-Dichlorobenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,4-Dichlorobenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Dichlorodifluoromethane | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1-Dichloroethane | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1-Dichloroethene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| cis-1,2-Dichloroethene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| trans-1,2-Dichloroethene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2-Dichloropropane | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,3-Dichloropropane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 2,2-Dichloropropane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1-Dichloropropene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| cis-1,3-Dichloropropene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| trans-1,3-Dichloropropene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Ethylbenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |

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Michele Poquiz For Cameron O'Brien, Project Manager

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | **Batch: 24L0659** | | **CONT** |
| Hexachlorobutadiene | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 2-Hexanone | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Isopropylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 4-Isopropyltoluene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Methylene chloride | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 1.07 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Naphthalene | ND | --- | 0.215 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| n-Propylbenzene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Styrene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Tetrachloroethene (PCE) | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Toluene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1,1-Trichloroethane | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,1,2-Trichloroethane | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Trichloroethene (TCE) | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Trichlorofluoromethane | ND | --- | 0.537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2,3-Trichloropropane | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| Vinyl chloride | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| m,p-Xylene | ND | --- | 0.107 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| o-Xylene | ND | --- | 0.0537 | mg/kg dry | 50 | 12/18/24 15:30 | 5035A/8260D | |
| *Surrogate: 1,4-Difluorobenzene (Surr)* | | *Recovery:* | *101 %* | *Limits: 80-120 %* | *1* | *12/18/24 15:30* | *5035A/8260D* | |
| *Toluene-d8 (Surr)* | | | *94 %* | *80-120 %* | *1* | *12/18/24 15:30* | *5035A/8260D* | |
| *4-Bromofluorobenzene (Surr)* | | | *98 %* | *79-120 %* | *1* | *12/18/24 15:30* | *5035A/8260D* | |

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Michele Poquiz For Cameron O'Brien, Project Manager

APEX LABORATORIES

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-14-6 (A4L1385-01)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **9.52** | --- | 1.52 | mg/kg dry | 10 | 12/30/24 18:43 | EPA 6020B | |
| **MW-15-5 (A4L1385-04)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **4.76** | --- | 1.22 | mg/kg dry | 10 | 12/30/24 18:59 | EPA 6020B | **CONT** |
| **MW-16-5 (A4L1385-07)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **4.33** | --- | 1.25 | mg/kg dry | 10 | 12/30/24 19:14 | EPA 6020B | **CONT** |
| **MW-16-10 (A4L1385-08)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **3.17** | --- | 1.53 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | **CONT** |
| **Barium** | **69.8** | --- | 1.53 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | **CONT** |
| Cadmium | ND | --- | 0.306 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | CONT |
| **Chromium** | **18.1** | --- | 1.53 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | **CONT** |
| **Copper** | **32.7** | --- | 3.06 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | **CONT** |
| **Lead** | **4.25** | --- | 0.306 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | **CONT** |
| Mercury | ND | --- | 0.123 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | CONT |
| Selenium | ND | --- | 1.53 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | CONT |
| Silver | ND | --- | 0.306 | mg/kg dry | 10 | 12/30/24 19:20 | EPA 6020B | CONT |
| **MW-17-5 (A4L1385-10)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **3.03** | --- | 1.24 | mg/kg dry | 10 | 12/30/24 19:25 | EPA 6020B | **CONT** |
| **MW-18-5 (A4L1385-13)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **4.70** | --- | 1.30 | mg/kg dry | 10 | 12/30/24 19:30 | EPA 6020B | **CONT** |
| **MW-19-5 (A4L1385-16)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **5.44** | --- | 1.31 | mg/kg dry | 10 | 12/30/24 19:36 | EPA 6020B | **CONT** |

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APEX LABORATORIES

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **7.85** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | **CONT** |
| **Barium** | **91.5** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | **CONT** |
| Cadmium | ND | --- | 0.287 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | CONT |
| **Chromium** | **16.2** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | **CONT** |
| **Copper** | **30.8** | --- | 2.87 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | **CONT** |
| **Lead** | **4.78** | --- | 0.287 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | **CONT** |
| Mercury | ND | --- | 0.115 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | CONT |
| Selenium | ND | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | CONT |
| Silver | ND | --- | 0.287 | mg/kg dry | 10 | 12/30/24 19:41 | EPA 6020B | CONT |
| **MW-20-5 (A4L1385-19)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **4.81** | --- | 1.33 | mg/kg dry | 10 | 12/30/24 19:46 | EPA 6020B | **CONT** |
| **SWP (A4L1385-22)** | | | | **Matrix: Soil** | | | | |
| Batch: 24L1028 | | | | | | | | |
| **Arsenic** | **3.63** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | **CONT** |
| **Barium** | **63.0** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | **CONT** |
| Cadmium | ND | --- | 0.286 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | CONT |
| **Chromium** | **13.2** | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | **CONT** |
| **Lead** | **7.93** | --- | 0.286 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | **CONT** |
| Mercury | ND | --- | 0.114 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | CONT |
| Selenium | ND | --- | 1.43 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | CONT |
| Silver | ND | --- | 0.286 | mg/kg dry | 10 | 12/30/24 19:51 | EPA 6020B | CONT |

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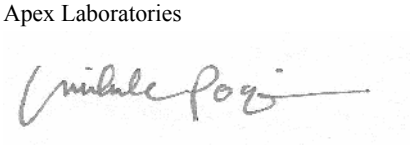

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1385 - 01 02 25 1503 |

## ANALYTICAL SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-14-6 (A4L1385-01)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | |
| % Solids | 70.4 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-15-5 (A4L1385-04)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 80.7 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-15-11 (A4L1385-05)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 69.3 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-16-5 (A4L1385-07)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 83.9 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-16-10 (A4L1385-08)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 69.4 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-17-5 (A4L1385-10)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 81.7 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-17-10 (A4L1385-11)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 70.6 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-18-5 (A4L1385-13)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 83.9 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-18-10 (A4L1385-14)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 83.1 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-19-5 (A4L1385-16)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 80.8 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-19-10 (A4L1385-17)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 71.2 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-20-5 (A4L1385-19)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | CONT |
| % Solids | 78.8 | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |
| **MW-20-10 (A4L1385-20)** | | | | **Matrix: Soil** | | **Batch: 24L1081** | | CONT, H-01 |

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ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## ANALYTICAL SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-20-10 (A4L1385-20)** | | | | **Matrix: Soil** | | **Batch: 24L1081** | | **CONT, H-01** |
| **% Solids** | **64.3** | --- | 1.00 | % | 1 | 01/02/25 06:08 | EPA 8000D | |
| **SWP (A4L1385-22)** | | | | **Matrix: Soil** | | **Batch: 24L0679** | | **CONT** |
| **% Solids** | **72.2** | --- | 1.00 | % | 1 | 12/19/24 05:22 | EPA 8000D | |

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**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0674 - EPA 3546 (Fuels)** | | | | | | | **Soil** | | | | | |
| **Blank (24L0674-BLK1)** | | Prepared: 12/18/24 10:53 Analyzed: 12/18/24 19:09 | | | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 20.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 50.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 100 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 96 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *98 %* | | *50-150 %* | | | *"* | | | | | |
| **Duplicate (24L0674-DUP2)** | | Prepared: 12/18/24 10:53 Analyzed: 12/19/24 02:57 | | | | | | | | | | **CONT** |
| **QC Source Sample: MW-19-10 (A4L1385-17)** | | | | | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 25.6 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Diesel Range Organics | ND | --- | 64.1 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Oil Range Organics | ND | --- | 128 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 91 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *89 %* | | *50-150 %* | | | *"* | | | | | |
| **Batch 24L1045 - EPA 3546 (Fuels)** | | | | | | | **Soil** | | | | | |
| **Blank (24L1045-BLK1)** | | Prepared: 12/30/24 12:11 Analyzed: 12/30/24 16:14 | | | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 20.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 50.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 100 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 77 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *77 %* | | *50-150 %* | | | *"* | | | | | |
| **Duplicate (24L1045-DUP1)** | | Prepared: 12/30/24 12:11 Analyzed: 12/30/24 17:00 | | | | | | | | | | **CONT** |
| **QC Source Sample: MW-20-10 (A4L1385-20)** | | | | | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 30.4 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Diesel Range Organics | ND | --- | 76.0 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| Oil Range Organics | ND | --- | 152 | mg/kg dry | 1 | --- | ND | --- | --- | --- | 30% | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 75 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |

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Michele Poquiz For Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1045 - EPA 3546 (Fuels)** | | | | | | | **Soil** | | | | | |
| **Duplicate (24L1045-DUP1)** | Prepared: 12/30/24 12:11 Analyzed: 12/30/24 17:00 | | | | | | | | | | | **CONT** |
| **QC Source Sample: MW-20-10 (A4L1385-20)** | | | | | | | | | | | | |
| *Surr: 4-Bromofluorobenzene (Surr)* | *Recovery: 75 %* | | *Limits: 50-150 %* | | *Dilution: 1x* | | | | | | | |

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0737 - EPA 3546 (Fuels)** | | | | | | | **Soil** | | | | | |
| **Blank (24L0737-BLK1)** | | Prepared: 12/19/24 10:15 Analyzed: 12/19/24 20:24 | | | | | | | | | | |
| **NWTPH-Dx** | | | | | | | | | | | | |
| Diesel | ND | --- | 20.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| Oil | ND | --- | 40.0 | mg/kg wet | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 81 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| **LCS (24L0737-BS1)** | | Prepared: 12/19/24 10:15 Analyzed: 12/19/24 20:44 | | | | | | | | | | |
| **NWTPH-Dx** | | | | | | | | | | | | |
| Diesel | 107 | --- | 20.0 | mg/kg wet | 1 | 125 | --- | 86 | 38 - 132% | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 86 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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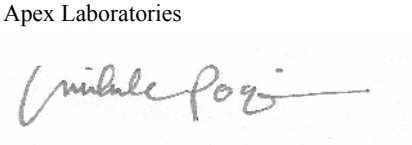

Michele Poquiz For Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1385 - 01 02 25 1503 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0659 - EPA 5035A** | | | | | | | Soil | | | | | |
| **Blank (24L0659-BLK1)** | | Prepared: 12/18/24 09:00 Analyzed: 12/18/24 11:51 | | | | | | | | | | |
| 5035A/8260D | | | | | | | | | | | | |
| Acetone | ND | --- | 1.00 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Acrylonitrile | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Benzene | ND | --- | 0.0100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromochloromethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromodichloromethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromoform | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Bromomethane | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Butanone (MEK) | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| n-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| sec-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| tert-Butylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Carbon disulfide | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Carbon tetrachloride | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloroethane | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloroform | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Chloromethane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Chlorotoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Chlorotoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dibromochloromethane | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromo-3-chloropropane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dibromoethane (EDB) | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dibromomethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,4-Dichlorobenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Dichlorodifluoromethane | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2-Dichloroethane (EDC) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| cis-1,2-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| trans-1,2-Dichloroethene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |

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Michele Poquiz For Cameron O'Brien, Project Manager

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**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0659 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Blank (24L0659-BLK1)** | | Prepared: 12/18/24 09:00 | | Analyzed: 12/18/24 11:51 | | | | | | | | |
| 1,2-Dichloropropane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3-Dichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2,2-Dichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| cis-1,3-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| trans-1,3-Dichloropropene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Ethylbenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Hexachlorobutadiene | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 2-Hexanone | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Isopropylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Isopropyltoluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Methylene chloride | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | ND | --- | 0.500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Methyl tert-butyl ether (MTBE) | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Naphthalene | ND | --- | 0.100 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| n-Propylbenzene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Styrene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,1,2-Tetrachloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,2,2-Tetrachloroethane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Tetrachloroethene (PCE) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Toluene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichlorobenzene | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trichlorobenzene | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,1-Trichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,1,2-Trichloroethane | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Trichloroethene (TCE) | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Trichlorofluoromethane | ND | --- | 0.250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,3-Trichloropropane | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,2,4-Trimethylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| 1,3,5-Trimethylbenzene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| Vinyl chloride | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| m,p-Xylene | ND | --- | 0.0500 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |
| o-Xylene | ND | --- | 0.0250 | mg/kg wet | 50 | --- | --- | --- | --- | --- | --- | |

*Surr: 1,4-Difluorobenzene (Surr)* *Recovery: 100 %* *Limits: 80-120 %* *Dilution: 1x*

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APEX LABORATORIES

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**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

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|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0659 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **Blank (24L0659-BLK1)** | | Prepared: 12/18/24 09:00 Analyzed: 12/18/24 11:51 | | | | | | | | | | |
| *Surr: Toluene-d8 (Surr)* | | *Recovery: 96 %* | *Limits: 80-120 %* | | *Dilution: 1x* | | | | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *98 %* | *79-120 %* | | | | | | | | |
| **LCS (24L0659-BS1)** | | Prepared: 12/18/24 09:00 Analyzed: 12/18/24 10:29 | | | | | | | | | | |
| **5035A/8260D** | | | | | | | | | | | | |
| Acetone | 1.67 | --- | 1.00 | mg/kg wet | 50 | 2.00 | --- | 83 | 80 - 120% | --- | --- | |
| Acrylonitrile | 0.897 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 90 | 80 - 120% | --- | --- | |
| Benzene | 0.951 | --- | 0.0100 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| Bromobenzene | 0.949 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| Bromochloromethane | 0.970 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| Bromodichloromethane | 0.918 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| Bromoform | 0.932 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| Bromomethane | 1.42 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | **142** | **80 - 120%** | --- | --- | Q-56 |
| 2-Butanone (MEK) | 1.68 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | 84 | 80 - 120% | --- | --- | |
| n-Butylbenzene | 0.914 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 91 | 80 - 120% | --- | --- | |
| sec-Butylbenzene | 0.965 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| tert-Butylbenzene | 0.893 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| Carbon disulfide | 0.898 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 90 | 80 - 120% | --- | --- | |
| Carbon tetrachloride | 1.18 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 118 | 80 - 120% | --- | --- | |
| Chlorobenzene | 0.978 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| Chloroethane | 0.886 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| Chloroform | 1.01 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 101 | 80 - 120% | --- | --- | |
| Chloromethane | 0.797 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 80 | 80 - 120% | --- | --- | |
| 2-Chlorotoluene | 0.970 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| 4-Chlorotoluene | 0.909 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 91 | 80 - 120% | --- | --- | |
| Dibromochloromethane | 0.931 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 1,2-Dibromo-3-chloropropane | 0.796 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 80 | 80 - 120% | --- | --- | |
| 1,2-Dibromoethane (EDB) | 1.01 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 101 | 80 - 120% | --- | --- | |
| Dibromomethane | 1.02 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 102 | 80 - 120% | --- | --- | |
| 1,2-Dichlorobenzene | 0.962 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| 1,3-Dichlorobenzene | 0.984 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| 1,4-Dichlorobenzene | 0.966 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| Dichlorodifluoromethane | 0.926 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethane | 0.974 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |

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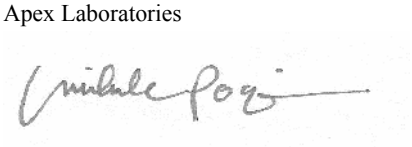

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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0659 - EPA 5035A** | | | | | | | **Soil** | | | | | |
| **LCS (24L0659-BS1)** | | Prepared: 12/18/24 09:00 | | Analyzed: 12/18/24 10:29 | | | | | | | | |
| 1,2-Dichloroethane (EDC) | 0.980 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| 1,1-Dichloroethene | 0.984 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 98 | 80 - 120% | --- | --- | |
| cis-1,2-Dichloroethene | 0.944 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| trans-1,2-Dichloroethene | 0.947 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| 1,2-Dichloropropane | 0.927 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 1,3-Dichloropropane | 0.934 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| 2,2-Dichloropropane | 1.22 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | **122** | **80 - 120%** | --- | --- | Q-56 |
| 1,1-Dichloropropene | 0.991 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| cis-1,3-Dichloropropene | 0.901 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 90 | 80 - 120% | --- | --- | |
| trans-1,3-Dichloropropene | 0.920 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| Ethylbenzene | 0.965 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| Hexachlorobutadiene | 1.04 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 104 | 80 - 120% | --- | --- | |
| 2-Hexanone | 1.53 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | **77** | **80 - 120%** | --- | --- | Q-55 |
| Isopropylbenzene | 0.969 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| 4-Isopropyltoluene | 0.962 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| Methylene chloride | 0.893 | --- | 0.500 | mg/kg wet | 50 | 1.00 | --- | 89 | 80 - 120% | --- | --- | |
| 4-Methyl-2-pentanone (MiBK) | 1.72 | --- | 0.500 | mg/kg wet | 50 | 2.00 | --- | 86 | 80 - 120% | --- | --- | |
| Methyl tert-butyl ether (MTBE) | 0.964 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| Naphthalene | 0.860 | --- | 0.100 | mg/kg wet | 50 | 1.00 | --- | 86 | 80 - 120% | --- | --- | |
| n-Propylbenzene | 0.935 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 93 | 80 - 120% | --- | --- | |
| Styrene | 0.949 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 95 | 80 - 120% | --- | --- | |
| 1,1,1,2-Tetrachloroethane | 0.992 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| 1,1,2,2-Tetrachloroethane | 1.01 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 101 | 80 - 120% | --- | --- | |
| Tetrachloroethene (PCE) | 1.05 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 105 | 80 - 120% | --- | --- | |
| Toluene | 0.918 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| 1,2,3-Trichlorobenzene | 0.968 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| 1,2,4-Trichlorobenzene | 0.944 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| 1,1,1-Trichloroethane | 1.07 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 107 | 80 - 120% | --- | --- | |
| 1,1,2-Trichloroethane | 0.986 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 99 | 80 - 120% | --- | --- | |
| Trichloroethene (TCE) | 1.00 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 100 | 80 - 120% | --- | --- | |
| Trichlorofluoromethane | 0.923 | --- | 0.250 | mg/kg wet | 50 | 1.00 | --- | 92 | 80 - 120% | --- | --- | |
| 1,2,3-Trichloropropane | 0.998 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 100 | 80 - 120% | --- | --- | |
| 1,2,4-Trimethylbenzene | 0.955 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |
| 1,3,5-Trimethylbenzene | 0.962 | --- | 0.0500 | mg/kg wet | 50 | 1.00 | --- | 96 | 80 - 120% | --- | --- | |

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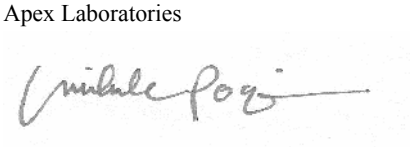

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Michele Poquiz For Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Volatile Organic Compounds by EPA 8260D

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0659 - EPA 5035A** | | | | | | | | | | | | **Soil** |
| **LCS (24L0659-BS1)** | | Prepared: 12/18/24 09:00 Analyzed: 12/18/24 10:29 | | | | | | | | | | |
| Vinyl chloride | 0.974 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| m,p-Xylene | 1.96 | --- | 0.0500 | mg/kg wet | 50 | 2.00 | --- | 98 | 80 - 120% | --- | --- | |
| o-Xylene | 0.944 | --- | 0.0250 | mg/kg wet | 50 | 1.00 | --- | 94 | 80 - 120% | --- | --- | |
| *Surr: 1,4-Difluorobenzene (Surr)* | | *Recovery: 100 %* | | *Limits: 80-120 %* | | | *Dilution: 1x* | | | | | |
| *Toluene-d8 (Surr)* | | *97 %* | | *80-120 %* | | | *"* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | *98 %* | | *79-120 %* | | | *"* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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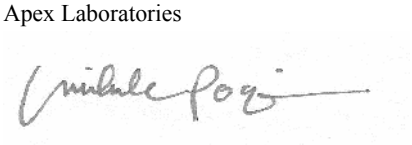

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1385 - 01 02 25 1503 |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1028 - EPA 3051A** | | | | | | | Soil | | | | | |
| **Blank (24L1028-BLK1)** | | Prepared: 12/30/24 09:27 Analyzed: 12/30/24 18:32 | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Barium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Copper | ND | --- | 2.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Selenium | ND | --- | 1.00 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| Silver | ND | --- | 0.200 | mg/kg wet | 10 | --- | --- | --- | --- | --- | --- | |
| **LCS (24L1028-BS1)** | | Prepared: 12/30/24 09:27 Analyzed: 12/30/24 18:38 | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | 49.7 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 99 | 80 - 120% | --- | --- | |
| Barium | 52.6 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 105 | 80 - 120% | --- | --- | |
| Cadmium | 48.9 | --- | 0.200 | mg/kg wet | 10 | 50.0 | --- | 98 | 80 - 120% | --- | --- | |
| Chromium | 51.5 | --- | 1.00 | mg/kg wet | 10 | 50.0 | --- | 103 | 80 - 120% | --- | --- | |
| Copper | 50.8 | --- | 2.00 | mg/kg wet | 10 | 50.0 | --- | 102 | 80 - 120% | --- | --- | |
| Lead | 50.3 | --- | 0.200 | mg/kg wet | 10 | 50.0 | --- | 101 | 80 - 120% | --- | --- | |
| Mercury | 0.975 | --- | 0.0800 | mg/kg wet | 10 | 1.00 | --- | 97 | 80 - 120% | --- | --- | |
| Selenium | 24.9 | --- | 1.00 | mg/kg wet | 10 | 25.0 | --- | 99 | 80 - 120% | --- | --- | |
| Silver | 25.4 | --- | 0.200 | mg/kg wet | 10 | 25.0 | --- | 102 | 80 - 120% | --- | --- | |
| **Duplicate (24L1028-DUP1)** | | Prepared: 12/30/24 09:27 Analyzed: 12/30/24 18:48 | | | | | | | | | | |
| QC Source Sample: MW-14-6 (A4L1385-01) | | | | | | | | | | | | |
| EPA 6020B | | | | | | | | | | | | |
| Arsenic | **10.5** | --- | 1.47 | mg/kg dry | 10 | --- | 9.52 | --- | --- | 10 | 20% | |
| Barium | **90.5** | --- | 1.47 | mg/kg dry | 10 | --- | 87.4 | --- | --- | 3 | 20% | |
| Cadmium | ND | --- | 0.293 | mg/kg dry | 10 | --- | ND | --- | --- | --- | 20% | |
| Chromium | **20.6** | --- | 1.47 | mg/kg dry | 10 | --- | 17.5 | --- | --- | 16 | 20% | |
| Copper | **46.4** | --- | 2.93 | mg/kg dry | 10 | --- | 43.3 | --- | --- | 7 | 20% | |
| Lead | **5.12** | --- | 0.293 | mg/kg dry | 10 | --- | 4.91 | --- | --- | 4 | 20% | |
| Mercury | ND | --- | 0.117 | mg/kg dry | 10 | --- | ND | --- | --- | --- | 20% | |
| Selenium | ND | --- | 1.47 | mg/kg dry | 10 | --- | 0.950 | --- | --- | *** | 20% | |

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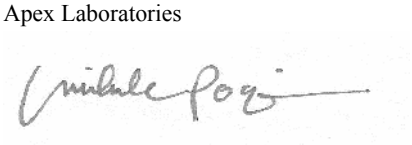

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Michele Poquiz For Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1028 - EPA 3051A** | | | | | | | **Soil** | | | | | |
| **Duplicate (24L1028-DUP1)** | | Prepared: 12/30/24 09:27 | | Analyzed: 12/30/24 18:48 | | | | | | | | |
| **QC Source Sample: MW-14-6 (A4L1385-01)** | | | | | | | | | | | | |
| Silver | ND | --- | 0.293 | mg/kg dry | 10 | --- | ND | --- | --- | --- | 20% | |
| **Matrix Spike (24L1028-MS1)** | | Prepared: 12/30/24 09:27 | | Analyzed: 12/30/24 18:53 | | | | | | | | |
| **QC Source Sample: MW-14-6 (A4L1385-01)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 84.8 | --- | 1.52 | mg/kg dry | 10 | 75.8 | 9.52 | 99 | 75 - 125% | --- | --- | |
| Barium | 170 | --- | 1.52 | mg/kg dry | 10 | 75.8 | 87.4 | 109 | 75 - 125% | --- | --- | |
| Cadmium | 73.3 | --- | 0.303 | mg/kg dry | 10 | 75.8 | ND | 97 | 75 - 125% | --- | --- | |
| Chromium | 97.8 | --- | 1.52 | mg/kg dry | 10 | 75.8 | 17.5 | 106 | 75 - 125% | --- | --- | |
| Copper | 119 | --- | 3.03 | mg/kg dry | 10 | 75.8 | 43.3 | 100 | 75 - 125% | --- | --- | |
| Lead | 77.4 | --- | 0.303 | mg/kg dry | 10 | 75.8 | 4.91 | 96 | 75 - 125% | --- | --- | |
| Mercury | 1.47 | --- | 0.121 | mg/kg dry | 10 | 1.52 | ND | 97 | 75 - 125% | --- | --- | |
| Selenium | 36.2 | --- | 1.52 | mg/kg dry | 10 | 37.9 | 0.950 | 93 | 75 - 125% | --- | --- | |
| Silver | 36.5 | --- | 0.303 | mg/kg dry | 10 | 37.9 | ND | 96 | 75 - 125% | --- | --- | |

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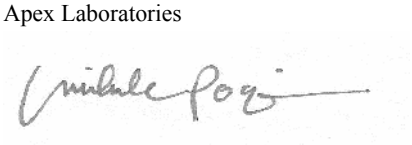

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**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L0679 - Dry Weight Prep (EPA 8000D)** | | | | | | | **Soil** | | | | | |
| **Duplicate (24L0679-DUP1)** | | Prepared: 12/18/24 11:23 | | Analyzed: 12/19/24 05:22 | | | | | | | | **CONT** |
| **QC Source Sample: MW-16-10 (A4L1385-08)** | | | | | | | | | | | | |
| **EPA 8000D** | | | | | | | | | | | | |
| % Solids | **72.3** | --- | 1.00 | % | 1 | --- | 69.4 | --- | --- | 4 | 10% | |
| **Duplicate (24L0679-DUP2)** | | Prepared: 12/18/24 11:23 | | Analyzed: 12/19/24 05:22 | | | | | | | | **CONT** |
| **QC Source Sample: MW-15-5 (A4L1385-04)** | | | | | | | | | | | | |
| **EPA 8000D** | | | | | | | | | | | | |
| % Solids | **77.5** | --- | 1.00 | % | 1 | --- | 80.7 | --- | --- | 4 | 10% | |
| **Duplicate (24L0679-DUP3)** | | Prepared: 12/18/24 11:23 | | Analyzed: 12/19/24 05:22 | | | | | | | | **CONT** |
| **QC Source Sample: MW-15-11 (A4L1385-05)** | | | | | | | | | | | | |
| **EPA 8000D** | | | | | | | | | | | | |
| % Solids | **67.6** | --- | 1.00 | % | 1 | --- | 69.3 | --- | --- | 3 | 10% | |
| **Duplicate (24L0679-DUP4)** | | Prepared: 12/18/24 11:23 | | Analyzed: 12/19/24 05:22 | | | | | | | | **CONT** |
| **QC Source Sample: MW-16-5 (A4L1385-07)** | | | | | | | | | | | | |
| **EPA 8000D** | | | | | | | | | | | | |
| % Solids | **83.4** | --- | 1.00 | % | 1 | --- | 83.9 | --- | --- | 0.6 | 10% | |

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503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Percent Dry Weight

| Analyte | Result | Detection L Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 24L1081 - Dry Weight Prep (EPA 8000D)** | | | | | | | **Soil** | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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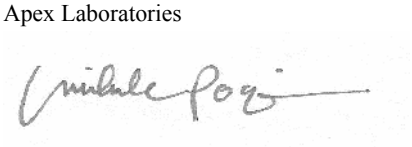

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ANALYTICAL REPORT

| | | |
|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A4L1385 - 01 02 25 1503 |

## SAMPLE PREPARATION INFORMATION

### Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3546 (Fuels)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0674 | | | | | | | |
| A4L1385-05 | Soil | NWTPH-HCID | 12/12/24 10:55 | 12/18/24 10:55 | 10.12g/10mL | 10g/10mL | 0.99 |
| A4L1385-08 | Soil | NWTPH-HCID | 12/12/24 12:55 | 12/18/24 10:55 | 10.65g/10mL | 10g/10mL | 0.94 |
| A4L1385-11 | Soil | NWTPH-HCID | 12/12/24 14:25 | 12/18/24 10:55 | 10.71g/10mL | 10g/10mL | 0.93 |
| A4L1385-14 | Soil | NWTPH-HCID | 12/13/24 08:45 | 12/18/24 10:55 | 10.42g/10mL | 10g/10mL | 0.96 |
| A4L1385-17 | Soil | NWTPH-HCID | 12/13/24 10:15 | 12/18/24 10:55 | 10.97g/10mL | 10g/10mL | 0.91 |
| Batch: 24L1045 | | | | | | | |
| A4L1385-20 | Soil | NWTPH-HCID | 12/13/24 12:35 | 12/30/24 12:14 | 10.35g/10mL | 10g/10mL | 0.97 |

### Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0737 | | | | | | | |
| A4L1385-22RE1 | Soil | NWTPH-Dx | 12/13/24 10:45 | 12/19/24 10:15 | 11.71g/5mL | 10g/5mL | 0.85 |

### Volatile Organic Compounds by EPA 8260D

Prep: EPA 5035A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0659 | | | | | | | |
| A4L1385-08 | Soil | 5035A/8260D | 12/12/24 12:55 | 12/12/24 12:55 | 7.2g/5mL | 5g/5mL | 0.69 |
| A4L1385-17 | Soil | 5035A/8260D | 12/13/24 10:15 | 12/13/24 10:15 | 4.03g/5mL | 5g/5mL | 1.24 |

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L1028 | | | | | | | |
| A4L1385-01 | Soil | EPA 6020B | 12/12/24 08:50 | 12/30/24 09:27 | 0.467g/50mL | 0.5g/50mL | 1.07 |
| A4L1385-04 | Soil | EPA 6020B | 12/12/24 10:50 | 12/30/24 09:27 | 0.508g/50mL | 0.5g/50mL | 0.98 |
| A4L1385-07 | Soil | EPA 6020B | 12/12/24 12:50 | 12/30/24 09:27 | 0.475g/50mL | 0.5g/50mL | 1.05 |
| A4L1385-08 | Soil | EPA 6020B | 12/12/24 12:55 | 12/30/24 09:27 | 0.47g/50mL | 0.5g/50mL | 1.06 |
| A4L1385-10 | Soil | EPA 6020B | 12/12/24 14:20 | 12/30/24 09:27 | 0.493g/50mL | 0.5g/50mL | 1.01 |
| A4L1385-13 | Soil | EPA 6020B | 12/13/24 08:40 | 12/30/24 09:27 | 0.46g/50mL | 0.5g/50mL | 1.09 |
| A4L1385-16 | Soil | EPA 6020B | 12/13/24 10:10 | 12/30/24 09:27 | 0.471g/50mL | 0.5g/50mL | 1.06 |
| A4L1385-17 | Soil | EPA 6020B | 12/13/24 10:15 | 12/30/24 09:27 | 0.49g/50mL | 0.5g/50mL | 1.02 |

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**ANALYTICAL REPORT**

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## SAMPLE PREPARATION INFORMATION

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| A4L1385-19 | Soil | EPA 6020B | 12/13/24 12:30 | 12/30/24 09:27 | 0.476g/50mL | 0.5g/50mL | 1.05 |
| A4L1385-22 | Soil | EPA 6020B | 12/13/24 10:45 | 12/30/24 09:27 | 0.485g/50mL | 0.5g/50mL | 1.03 |

### Percent Dry Weight

Prep: Dry Weight Prep (EPA 8000D)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 24L0679 | | | | | | | |
| A4L1385-01 | Soil | EPA 8000D | 12/12/24 08:50 | 12/18/24 12:58 | 1g | 1g | 1.00 |
| A4L1385-04 | Soil | EPA 8000D | 12/12/24 10:50 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-05 | Soil | EPA 8000D | 12/12/24 10:55 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-07 | Soil | EPA 8000D | 12/12/24 12:50 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-08 | Soil | EPA 8000D | 12/12/24 12:55 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-10 | Soil | EPA 8000D | 12/12/24 14:20 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-11 | Soil | EPA 8000D | 12/12/24 14:25 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-13 | Soil | EPA 8000D | 12/13/24 08:40 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-14 | Soil | EPA 8000D | 12/13/24 08:45 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-16 | Soil | EPA 8000D | 12/13/24 10:10 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-17 | Soil | EPA 8000D | 12/13/24 10:15 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-19 | Soil | EPA 8000D | 12/13/24 12:30 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| A4L1385-22 | Soil | EPA 8000D | 12/13/24 10:45 | 12/18/24 11:23 | 1g | 1g | 1.00 |
| Batch: 24L1081 | | | | | | | |
| A4L1385-20 | Soil | EPA 8000D | 12/13/24 12:35 | 12/31/24 09:59 | 1g | 1g | 1.00 |

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Michele Poquiz For Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **CONT** | The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System. |
| **F-17** | No fuel pattern detected. The Diesel result represents carbon range C10 to C25, and the Oil result represents >C25 to C40. |
| **H-01** | Analyzed outside the recommended holding time. |
| **H-02** | This sample was extracted outside of the recommended holding time. |
| **Q-55** | Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level. |
| **Q-56** | Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260. Samples that are ND (Non-Detect) are not impacted. |

Apex Laboratories

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**ANALYTICAL REPORT**

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## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

Apex Laboratories

Michele Poquiz For Cameron O'Brien, Project Manager

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
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## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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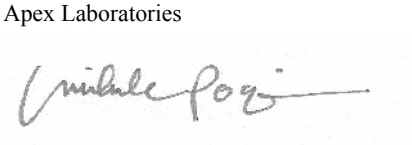

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ANALYTICAL REPORT

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**Decanted Samples:**

Soils/Sediments:

Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:

Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)

Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

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503-718-2323
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**ANALYTICAL REPORT**

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## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Michele Poquiz For Cameron O'Brien, Project Manager

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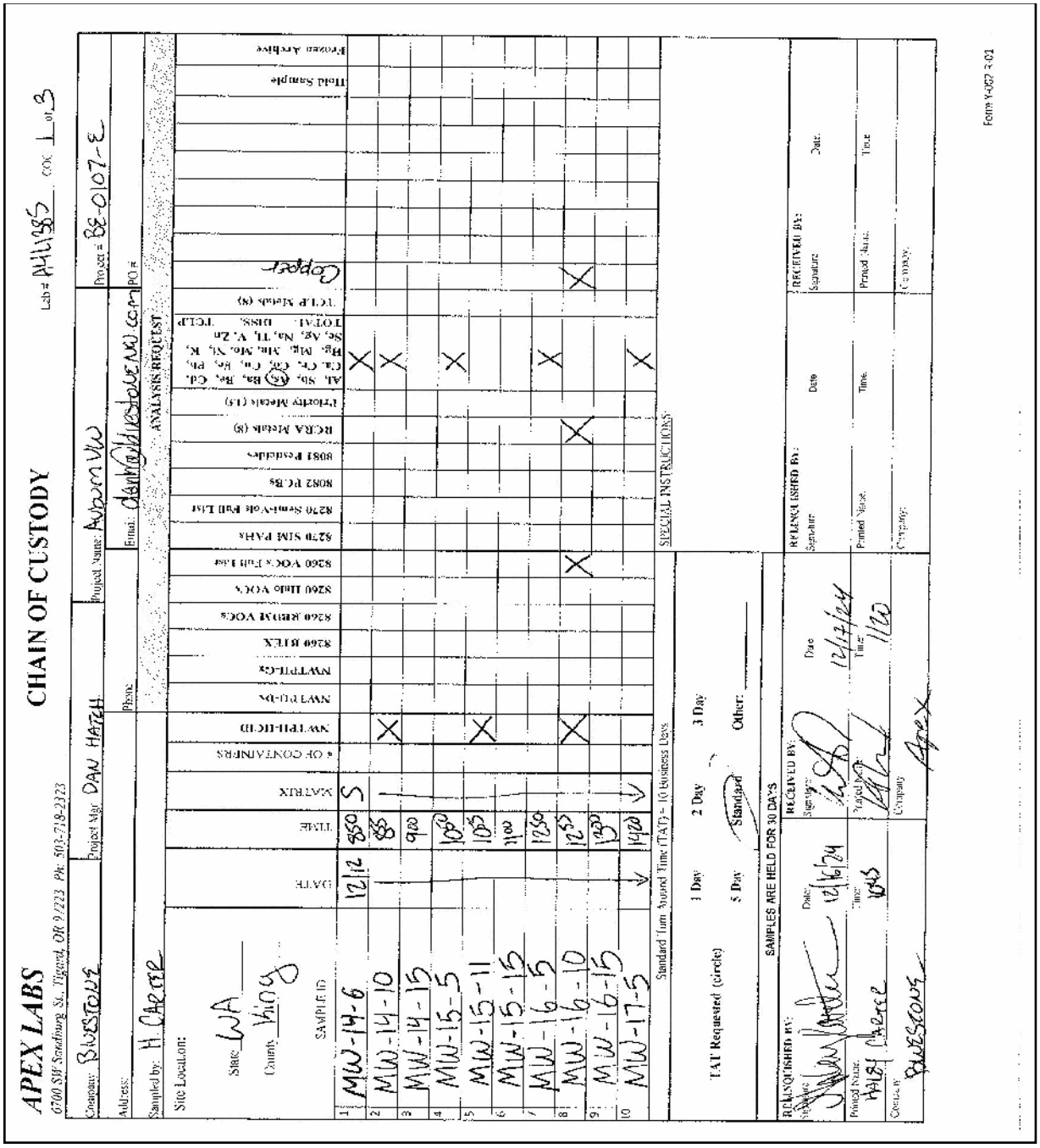

APEX LABS — CHAIN OF CUSTODY

6700 SW Sandburg St. Tigard, OR 97223 Ph: 503-718-2323

Lab # A4L1385 COC 1 of 3

Company: Bluestone — Project Mgr: Dan Hatch — Project Name: Auburn VW — Project #: BE-0107-E

Address: — Phone: — Email: dhatch@bluestoneNW.com — PO #:

Sampled by: H Carere

Site Location: State: WA County: King

| # | SAMPLE ID | DATE | TIME | MATRIX | # OF CONTAINERS | NWTPH-HCID | NWTPH-Dx | NWTPH-Gx | 8260 BTEX | 8260 RHOA VOCs | 8260 Halo VOCs | 8260 VOCs Full List | 8270 SIM PAHs | 8270 Semi-Vols Full List | 8082 PCBs | 8081 Pesticides | RCRA Metals (8) | Priority Metals (13) | Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn | TOTAL DISS. TCLP | TCLP Metals (8) | Copper | Field Sample | Frozen Archive |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-14-6 | 12/12 | 850 | S | | X | | | | | | | | | | | | | X | | | | |
| 2 | MW-14-10 | | 855 | | | | | | | | | | | | | | | | | | | | |
| 3 | MW-14-15 | | 900 | | | | | | | | | | | | | | | | | | | | |
| 4 | MW-15-5 | | 1000 | | | | | | | | | | | | | | | | X | | | | |
| 5 | MW-15-11 | | 1005 | | | X | | | | | | | | | | | | | | | | | |
| 6 | MW-15-15 | | 1100 | | | | | | | | | | | | | | | | | | | | |
| 7 | MW-16-5 | | 1230 | | | | | | | | | | | | | | | | X | | | | |
| 8 | MW-16-10 | | 1255 | | | X | | | | | | | | | | | | | | | X | | |
| 9 | MW-16-15 | | 1300 | | | | | | | | | | | | | | | | | | | | |
| 10 | MW-17-5 | ↓ | 1400 | ↓ | | ↓ | | | | | | | | | | | | | X | | | | |

Standard Turn Around Time (TAT) = 10 business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other:

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Date: 12/16/24 Time: 1045 Printed Name: H Carere Company: Bluestone

RECEIVED BY: Signature: Date: 12/17/24 Time: 1120 Printed Name: Company: Apex

RELINQUISHED BY: Signature: Date: Time: Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Form V-027 3.01

Apex Laboratories

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Michele Poquiz For Cameron O'Brien, Project Manager

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**ANALYTICAL REPORT**

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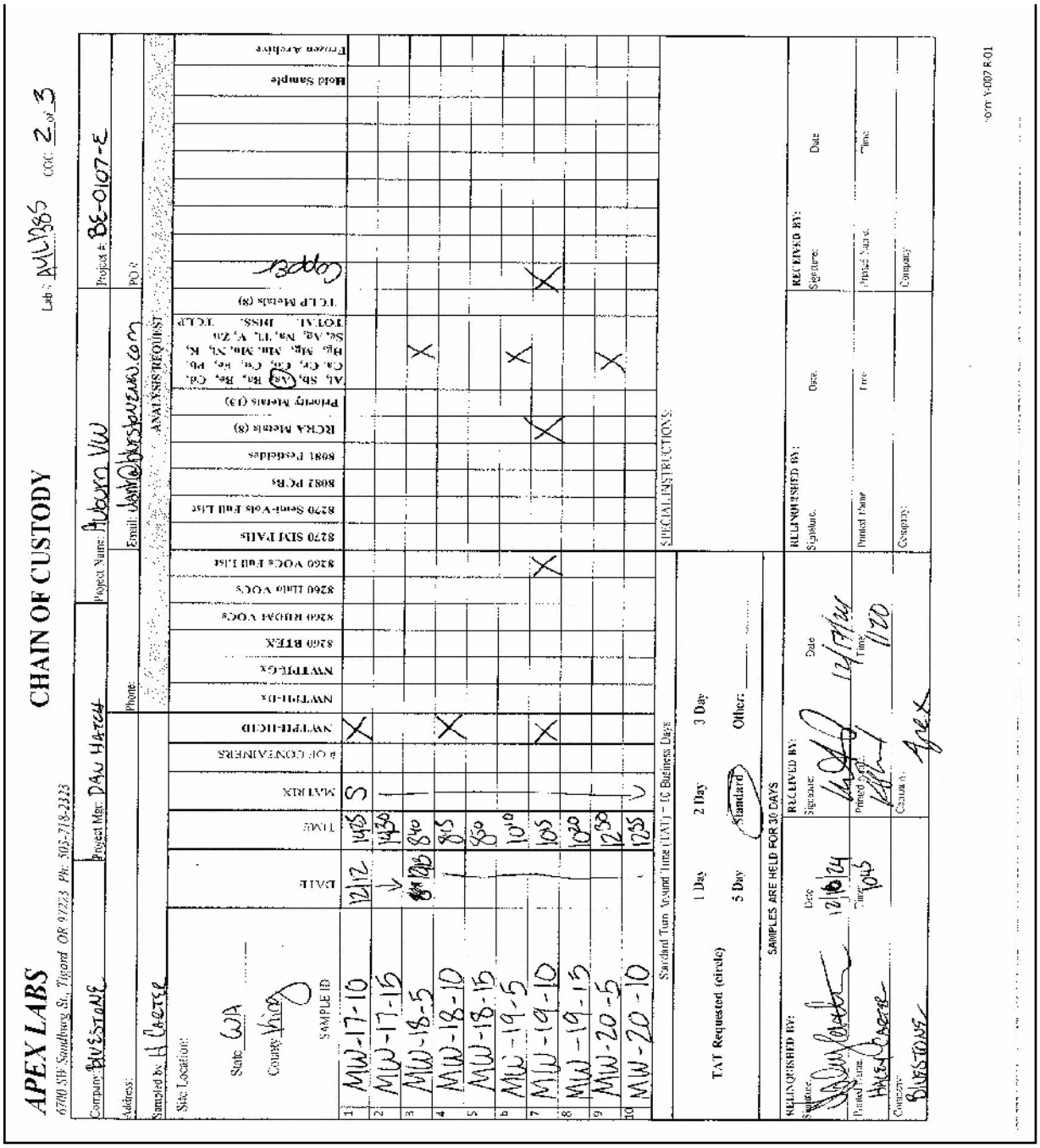
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A4L1385 - 01 02 25 1503** |

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**Apex Laboratories, LLC**
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**Tigard, OR 97223**
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# ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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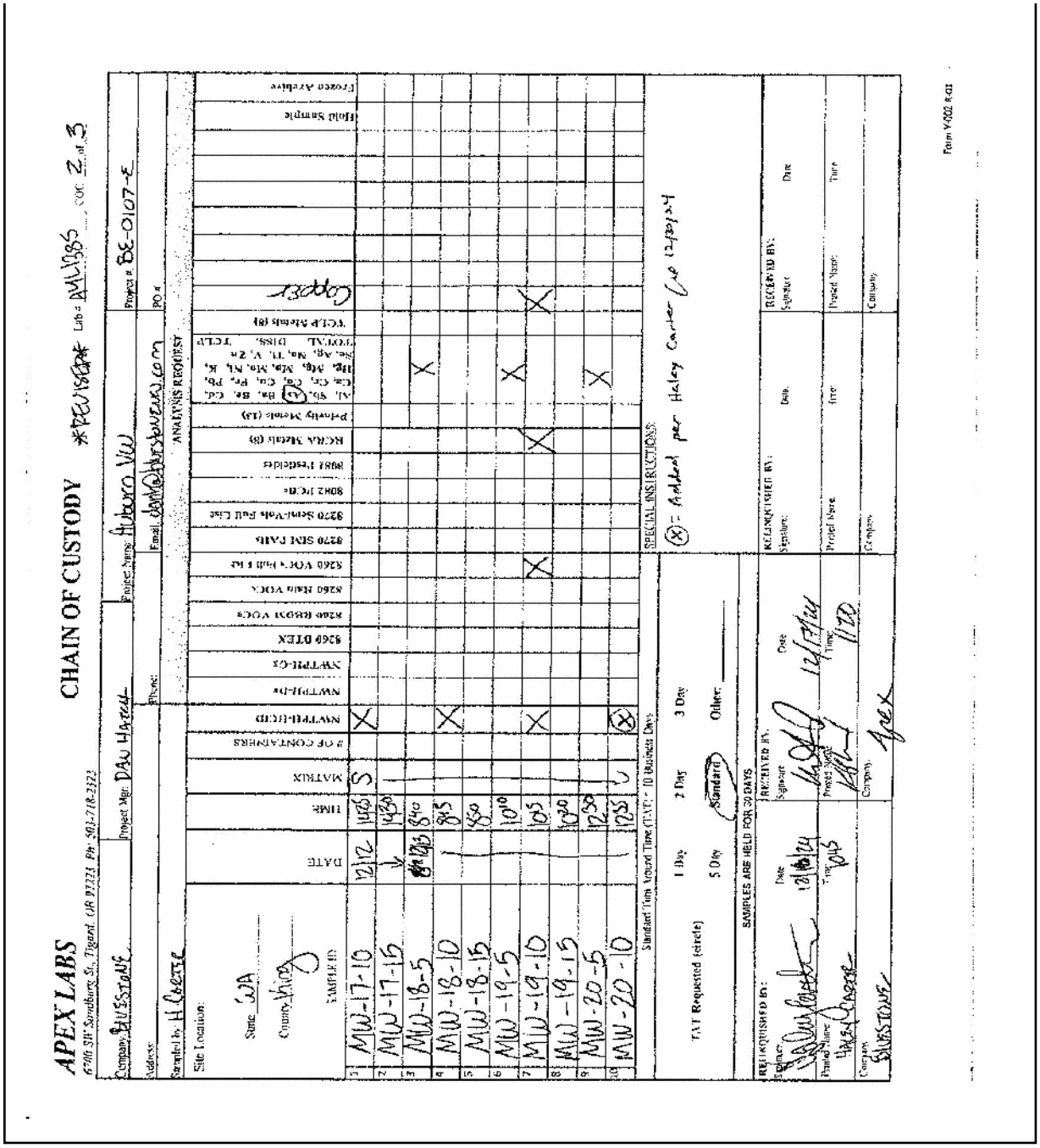


Apex Laboratories

Michele Poquiz

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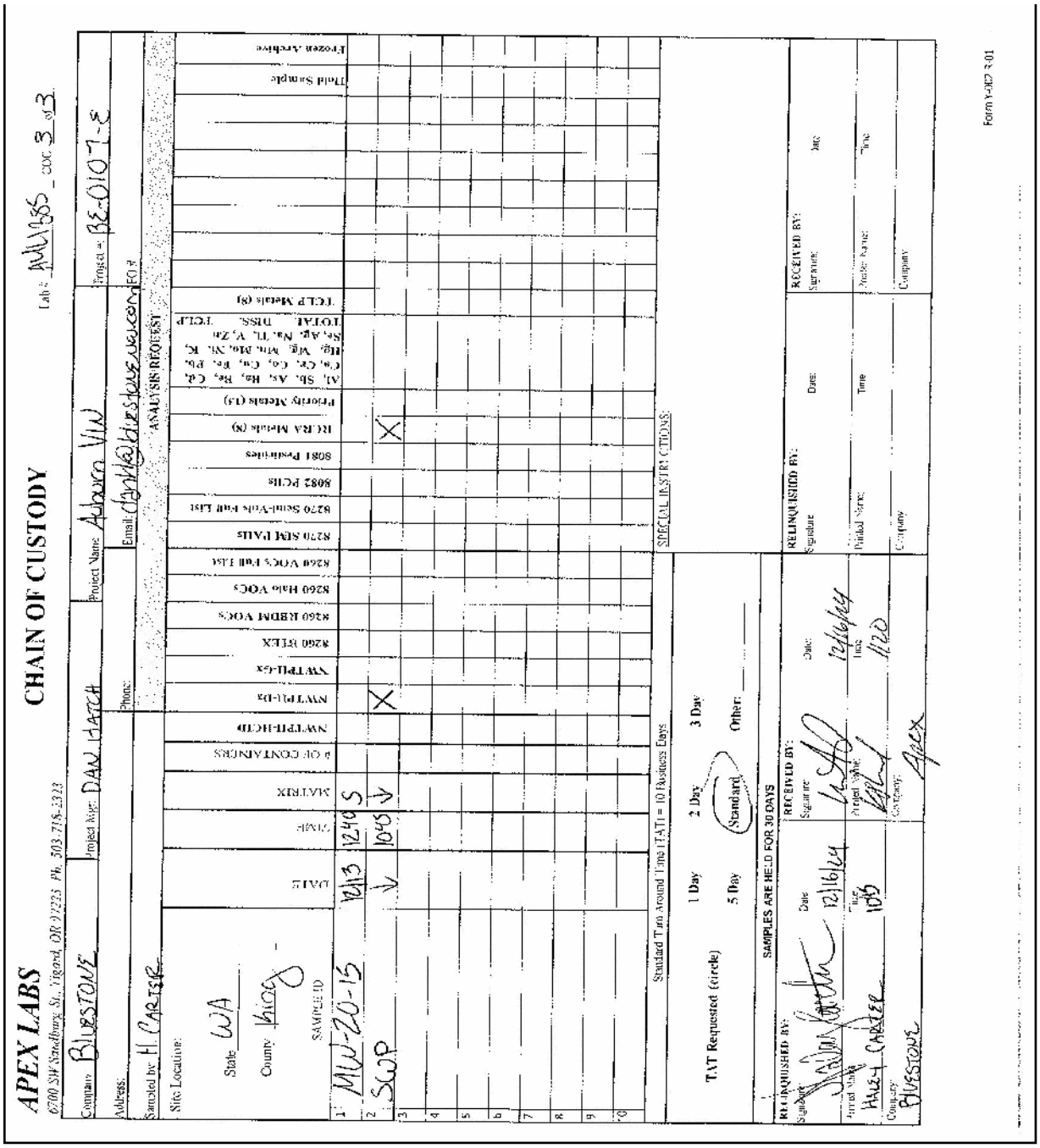


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## APEX LABS COOLER RECEIPT FORM

**Client:** Bluestone Element WO#: A4L1385

**Project/Project #:** Auburn VW

**Delivery Info:**

Date/time received: 12/16/24 @ 1120 By: KS

Delivered by: Apex__Client__ESS__FedEx__UPS X Radio__Morgan__SDS__Evergreen__Other__

From USDA Regulated Origin? Yes ___ No X

**Cooler Inspection** Date/time inspected: 12/16/24 @ 1120 By: KS

Chain of Custody included? Yes X No ___

Signed/dated by client? Yes X No ___

Contains USDA Reg. Soils? Yes ___ No X Unsure (email RegSoils) ___

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 2.4 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | Y | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why:

Green dots applied to out of temperature samples? Yes No

Out of temperature samples form initiated? Yes No

**Sample Inspection:** Date/time inspected: 12/17/24 @ 1154 By: AMW

All samples intact? Yes X No ___ Comments:

Bottle labels/COCs agree? Yes X No ___ Comments:

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes ___ No X Comments: MW-14-10 we didn't receive 4oz jar, only a Methl VOA.

Do VOA vials have visible headspace? Yes ___ No ___ NA X

Comments

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X pH ID:

Comments:

12 CLP 0965 01 11336 6551

Labeled by: AMW Witness: MW Cooler Inspected by: AMW

190m Y-003 R-02

Apex Laboratories

Michele Poquiz

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Michele Poquiz For Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

Friday, January 24, 2025

Dan Hatch
Bluestone Environmental NW
20204 SE 284th Street
Kent, WA 98042

RE: A5A1121 - Auburn VW - BE-0107-E

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A5A1121, which was received by the laboratory on 1/14/2025 at 10:28:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: cobrien@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

| Cooler Receipt Information |
|---|
| Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling. |
| (See Cooler Receipt Form for details) |
| Default Cooler 1.9 degC |

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.
All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## ANALYTICAL REPORT FOR SAMPLES

### SAMPLE INFORMATION

| Client Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| MW-2 | A5A1121-01 | Water | 01/10/25 12:50 | 01/14/25 10:28 |
| MW-15 | A5A1121-02 | Water | 01/10/25 11:30 | 01/14/25 10:28 |
| MW-16 | A5A1121-03 | Water | 01/10/25 12:15 | 01/14/25 10:28 |

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## ANALYTICAL CASE NARRATIVE

Work Order: **A5A1121** **Apex Laboratories**

Subcontract

This report is complete only if it includes the attached subcontract laboratory report from ALS Kelso .

Cameron O'Brien
Project Manager

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## ANALYTICAL SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-2 (A5A1121-01RE1)** | | | | **Matrix: Water** | | **Batch: 25A0539** | | |
| Gasoline Range Organics | ND | --- | 0.147 | mg/L | 1 | 01/17/25 20:45 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.245 | mg/L | 1 | 01/17/25 20:45 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.245 | mg/L | 1 | 01/17/25 20:45 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *91 %* | *Limits: 50-150 %* | *1* | *01/17/25 20:45* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *53 %* | *10-120 %* | *1* | *01/17/25 20:45* | *NWTPH-HCID* | |
| **MW-15 (A5A1121-02RE1)** | | | | **Matrix: Water** | | **Batch: 25A0539** | | |
| Gasoline Range Organics | ND | --- | 0.144 | mg/L | 1 | 01/17/25 21:08 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.240 | mg/L | 1 | 01/17/25 21:08 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.240 | mg/L | 1 | 01/17/25 21:08 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *93 %* | *Limits: 50-150 %* | *1* | *01/17/25 21:08* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *49 %* | *10-120 %* | *1* | *01/17/25 21:08* | *NWTPH-HCID* | |
| **MW-16 (A5A1121-03RE1)** | | | | **Matrix: Water** | | **Batch: 25A0539** | | |
| Gasoline Range Organics | ND | --- | 0.144 | mg/L | 1 | 01/17/25 21:32 | NWTPH-HCID | |
| Diesel Range Organics | ND | --- | 0.240 | mg/L | 1 | 01/17/25 21:32 | NWTPH-HCID | |
| Oil Range Organics | ND | --- | 0.240 | mg/L | 1 | 01/17/25 21:32 | NWTPH-HCID | |
| *Surrogate: o-Terphenyl (Surr)* | | *Recovery:* | *92 %* | *Limits: 50-150 %* | *1* | *01/17/25 21:32* | *NWTPH-HCID* | |
| *4-Bromofluorobenzene (Surr)* | | | *44 %* | *10-120 %* | *1* | *01/17/25 21:32* | *NWTPH-HCID* | |

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## ANALYTICAL SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-2 (A5A1121-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0682 | | | | | | | | |
| **Arsenic** | **66.4** | --- | 1.00 | ug/L | 1 | 01/21/25 15:18 | EPA 6020B | |
| **MW-15 (A5A1121-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0682 | | | | | | | | |
| **Arsenic** | **9.41** | --- | 1.00 | ug/L | 1 | 01/21/25 15:24 | EPA 6020B | |
| **MW-16 (A5A1121-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0682 | | | | | | | | |
| **Arsenic** | **12.0** | --- | 1.00 | ug/L | 1 | 01/21/25 15:40 | EPA 6020B | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/21/25 15:40 | EPA 6020B | |
| **Chromium** | **3.17** | --- | 2.00 | ug/L | 1 | 01/21/25 15:40 | EPA 6020B | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/21/25 15:40 | EPA 6020B | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/21/25 15:40 | EPA 6020B | |

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ANALYTICAL REPORT

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|---|---|---|
| Bluestone Environmental NW | Project: Auburn VW | |
| 20204 SE 284th Street | Project Number: BE-0107-E | Report ID: |
| Kent, WA 98042 | Project Manager: Dan Hatch | A5A1121 - 01 24 25 1343 |

## ANALYTICAL SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-2 (A5A1121-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0441 | | | | | | | | |
| **Arsenic** | **66.5** | --- | 1.00 | ug/L | 1 | 01/14/25 23:06 | EPA 6020B (Diss) | |
| **MW-15 (A5A1121-02)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0441 | | | | | | | | |
| **Arsenic** | **8.86** | --- | 1.00 | ug/L | 1 | 01/14/25 23:11 | EPA 6020B (Diss) | |
| **MW-16 (A5A1121-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0441 | | | | | | | | |
| **Arsenic** | **10.2** | --- | 1.00 | ug/L | 1 | 01/14/25 23:27 | EPA 6020B (Diss) | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | 01/14/25 23:27 | EPA 6020B (Diss) | |
| Lead | ND | --- | 0.200 | ug/L | 1 | 01/14/25 23:27 | EPA 6020B (Diss) | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | 01/14/25 23:27 | EPA 6020B (Diss) | |
| **MW-16 (A5A1121-03RE1)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0723 | | | | | | | | |
| **Chromium** | **2.79** | --- | 2.00 | ug/L | 1 | 01/22/25 12:09 | EPA 6020B (Diss) | |

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**ANALYTICAL REPORT**

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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## ANALYTICAL SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Sample Result | Detection Limit | Reporting Limit | Units | Dilution | Date Analyzed | Method Ref. | Notes |
|---|---|---|---|---|---|---|---|---|
| **MW-2 (A5A1121-01)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0440 | | | | | | | | |
| **Total Suspended Solids** | **68000** | --- | 5000 | ug/L | 1 | 01/14/25 14:08 | SM 2540 D | |
| **MW-16 (A5A1121-03)** | | | | **Matrix: Water** | | | | |
| Batch: 25A0440 | | | | | | | | |
| **Total Suspended Solids** | **178000** | --- | 5000 | ug/L | 1 | 01/14/25 14:08 | SM 2540 D | |

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Hydrocarbon Identification Screen by NWTPH-HCID

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0539 - EPA 3510C (Fuels/Acid Ext.)** | | | | | | | | | | | **Water** | |
| **Blank (25A0539-BLK2)** | | Prepared: 01/01/25 11:10 | | Analyzed: 01/17/25 20:22 | | | | | | | | |
| **NWTPH-HCID** | | | | | | | | | | | | |
| Gasoline Range Organics | ND | --- | 0.135 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Diesel Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| Oil Range Organics | ND | --- | 0.250 | mg/L | 1 | --- | --- | --- | --- | --- | --- | |
| *Surr: o-Terphenyl (Surr)* | | *Recovery: 89 %* | | *Limits: 50-150 %* | | | *Dilution: 1x* | | | | | |
| *4-Bromofluorobenzene (Surr)* | | | *42 %* | | *10-120 %* | | *"* | | | | | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Total Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0682 - EPA 3015A** | | | | | | | **Water** | | | | | |
| **Blank (25A0682-BLK1)** | | Prepared: 01/21/25 07:56 | | Analyzed: 01/21/25 15:03 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25A0682-BS1)** | | Prepared: 01/21/25 07:56 | | Analyzed: 01/21/25 15:08 | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 53.4 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 96 | 80 - 120% | --- | --- | |
| Cadmium | 55.3 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 100 | 80 - 120% | --- | --- | |
| Chromium | 52.8 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 95 | 80 - 120% | --- | --- | |
| Lead | 55.0 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 99 | 80 - 120% | --- | --- | |
| Mercury | 1.09 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 98 | 80 - 120% | --- | --- | |
| **Duplicate (25A0682-DUP1)** | | Prepared: 01/21/25 07:56 | | Analyzed: 01/21/25 15:29 | | | | | | | | |
| **QC Source Sample: MW-15 (A5A1121-02)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | **9.59** | --- | 1.00 | ug/L | 1 | --- | 9.41 | --- | --- | 2 | 20% | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | 1.62 | --- | --- | *** | 20% | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| **Matrix Spike (25A0682-MS1)** | | Prepared: 01/21/25 07:56 | | Analyzed: 01/21/25 15:34 | | | | | | | | |
| **QC Source Sample: MW-15 (A5A1121-02)** | | | | | | | | | | | | |
| **EPA 6020B** | | | | | | | | | | | | |
| Arsenic | 65.3 | --- | 1.00 | ug/L | 1 | 55.6 | 9.41 | 101 | 75 - 125% | --- | --- | |
| Cadmium | 55.9 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 101 | 75 - 125% | --- | --- | |
| Chromium | 55.3 | --- | 2.00 | ug/L | 1 | 55.6 | 1.62 | 97 | 75 - 125% | --- | --- | |
| Lead | 53.9 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 97 | 75 - 125% | --- | --- | |
| Mercury | 1.10 | --- | 0.0800 | ug/L | 1 | 1.11 | ND | 99 | 75 - 125% | --- | --- | |

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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0441 - Matrix Matched Direct Inject** | | | | | | | **Water** | | | | | |
| **Blank (25A0441-BLK1)** | | Prepared: 01/14/25 14:30 | | Analyzed: 01/14/25 22:50 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | ND | --- | 1.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | B-02 |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25A0441-BS1)** | | Prepared: 01/14/25 14:30 | | Analyzed: 01/14/25 22:56 | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | 53.6 | --- | 1.00 | ug/L | 1 | 55.6 | --- | 97 | 80 - 120% | --- | --- | |
| Cadmium | 53.6 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 96 | 80 - 120% | --- | --- | |
| Chromium | 53.0 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 95 | 80 - 120% | --- | --- | B-02 |
| Lead | 54.4 | --- | 0.200 | ug/L | 1 | 55.6 | --- | 98 | 80 - 120% | --- | --- | |
| Mercury | 1.09 | --- | 0.0800 | ug/L | 1 | 1.11 | --- | 98 | 80 - 120% | --- | --- | |
| **Duplicate (25A0441-DUP1)** | | Prepared: 01/14/25 14:30 | | Analyzed: 01/14/25 23:17 | | | | | | | | |
| QC Source Sample: MW-15 (A5A1121-02) | | | | | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | **8.93** | --- | 1.00 | ug/L | 1 | --- | 8.86 | --- | --- | 0.8 | 20% | |
| Cadmium | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | 1.43 | --- | --- | *** | 20% | |
| Lead | ND | --- | 0.200 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| Mercury | ND | --- | 0.0800 | ug/L | 1 | --- | ND | --- | --- | --- | 20% | |
| **Matrix Spike (25A0441-MS1)** | | Prepared: 01/14/25 14:30 | | Analyzed: 01/14/25 23:22 | | | | | | | | |
| QC Source Sample: MW-15 (A5A1121-02) | | | | | | | | | | | | |
| EPA 6020B (Diss) | | | | | | | | | | | | |
| Arsenic | 64.2 | --- | 1.00 | ug/L | 1 | 55.6 | 8.86 | 100 | 75 - 125% | --- | --- | |
| Cadmium | 54.9 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 99 | 75 - 125% | --- | --- | |
| Chromium | 54.3 | --- | 2.00 | ug/L | 1 | 55.6 | 1.43 | 95 | 75 - 125% | --- | --- | B-02 |
| Lead | 53.0 | --- | 0.200 | ug/L | 1 | 55.6 | ND | 95 | 75 - 125% | --- | --- | |
| Mercury | 0.970 | --- | 0.0800 | ug/L | 1 | 1.11 | ND | 87 | 75 - 125% | --- | --- | |

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| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Dissolved Metals by EPA 6020B (ICPMS)

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0723 - Matrix Matched Direct Inject** | | | | | | | | | | | | **Water** |
| **Blank (25A0723-BLK1)** | | Prepared: 01/22/25 09:46 | | Analyzed: 01/22/25 11:47 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Chromium | ND | --- | 2.00 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **LCS (25A0723-BS1)** | | Prepared: 01/22/25 09:46 | | Analyzed: 01/22/25 12:03 | | | | | | | | |
| **EPA 6020B (Diss)** | | | | | | | | | | | | |
| Chromium | 53.1 | --- | 2.00 | ug/L | 1 | 55.6 | --- | 96 | 80 - 120% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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|---|---|---|
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## QUALITY CONTROL (QC) SAMPLE RESULTS

### Solid and Moisture Determinations

| Analyte | Result | Detection Limit | Reporting Limit | Units | Dilution | Spike Amount | Source Result | % REC | % REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch 25A0440 - Total Suspended Solids - 2022** | | | | | | | | | | | | **Water** |
| **Blank (25A0440-BLK1)** | | Prepared: 01/14/25 14:08 | | Analyzed: 01/14/25 14:08 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | ND | --- | 5000 | ug/L | 1 | --- | --- | --- | --- | --- | --- | |
| **Reference (25A0440-SRM1)** | | Prepared: 01/14/25 14:08 | | Analyzed: 01/14/25 14:08 | | | | | | | | |
| **SM 2540 D** | | | | | | | | | | | | |
| Total Suspended Solids | 836 | --- | | mg/L | 1 | 854 | | 97.9 | 85 - 115% | --- | --- | |

*No Client related Batch QC samples analyzed for this batch. See notes page for more information.*

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|---|---|---|
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## SAMPLE PREPARATION INFORMATION

### Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Fuels/Acid Ext.)

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0539 | | | | | | | |
| A5A1121-01RE1 | Water | NWTPH-HCID | 01/10/25 12:50 | 01/16/25 11:10 | 1020mL/5mL | 1000mL/5mL | 0.98 |
| A5A1121-02RE1 | Water | NWTPH-HCID | 01/10/25 11:30 | 01/16/25 11:10 | 1040mL/5mL | 1000mL/5mL | 0.96 |
| A5A1121-03RE1 | Water | NWTPH-HCID | 01/10/25 12:15 | 01/16/25 11:10 | 1040mL/5mL | 1000mL/5mL | 0.96 |

### Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3015A

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0682 | | | | | | | |
| A5A1121-01 | Water | EPA 6020B | 01/10/25 12:50 | 01/21/25 07:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5A1121-02 | Water | EPA 6020B | 01/10/25 11:30 | 01/21/25 07:56 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5A1121-03 | Water | EPA 6020B | 01/10/25 12:15 | 01/21/25 07:56 | 45mL/50mL | 45mL/50mL | 1.00 |

### Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0441 | | | | | | | |
| A5A1121-01 | Water | EPA 6020B (Diss) | 01/10/25 12:50 | 01/14/25 14:30 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5A1121-02 | Water | EPA 6020B (Diss) | 01/10/25 11:30 | 01/14/25 14:30 | 45mL/50mL | 45mL/50mL | 1.00 |
| A5A1121-03 | Water | EPA 6020B (Diss) | 01/10/25 12:15 | 01/14/25 14:30 | 45mL/50mL | 45mL/50mL | 1.00 |
| Batch: 25A0723 | | | | | | | |
| A5A1121-03RE1 | Water | EPA 6020B (Diss) | 01/10/25 12:15 | 01/22/25 09:46 | 45mL/50mL | 45mL/50mL | 1.00 |

### Solid and Moisture Determinations

Prep: Total Suspended Solids - 2022

| Lab Number | Matrix | Method | Sampled | Prepared | Sample Initial/Final | Default Initial/Final | RL Prep Factor |
|---|---|---|---|---|---|---|---|
| Batch: 25A0440 | | | | | | | |
| A5A1121-01 | Water | SM 2540 D | 01/10/25 12:50 | 01/14/25 14:08 | 100mL | 100mL | 1.00 |
| A5A1121-03 | Water | SM 2540 D | 01/10/25 12:15 | 01/14/25 14:08 | 100mL | 100mL | 1.00 |

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Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## QUALIFIER DEFINITIONS

### Client Sample and Quality Control (QC) Sample Qualifier Definitions:

**Apex Laboratories**

| | |
|---|---|
| **B-02** | Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.) |

Apex Laboratories

Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ANALYTICAL REPORT

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## REPORTING NOTES AND CONVENTIONS:

**Abbreviations:**

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported.

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

**Detection Limits: Limit of Detection (LOD)**

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

**Reporting Limits: Limit of Quantitation (LOQ)**

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

**Reporting Conventions:**

Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.

" dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.

" wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

" " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

**QC Source:**

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) are not included in this report. Please request a Full QC report if this data is required.

**Miscellaneous Notes:**

" --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

**Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to one half of the Reporting Limit (RL).
Blank results for gravimetric analyses are evaluated to the Reporting Level, not to half of the Reporting Level.
-For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

Apex Laboratories

Cameron O'Brien, Project Manager

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
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## REPORTING NOTES AND CONVENTIONS (Cont.):

**Blanks (Cont.):**

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.
'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

**Preparation Notes:**

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

**Sampling and Preservation Notes:**

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Cameron O'Brien, Project Manager

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| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

**Decanted Samples:**

Soils/Sediments:
Unless TCLP analysis is required or there is notification otherwise for a specific project, all Soil and Sediments containing excess water are decanted prior to analysis in order to provide the most representative sample for analysis.

Water Samples:
Water samples containing solids and sediment may need to be decanted in order to eliminate these particulates from the water extractions. In the case of organics extractions, a solvent rinse of the container will not be performed.

Volatiles Soils (5035s)
Samples that are field preserved by 5035 for volatiles are dry weight corrected using the same dry weight corretion as for normal analyses. In the case of decanted samples, the dry weight may be performed on a decanted sample, while the aliquot for 5035 may not have been treated the same way. If this is a concern, please submit separate containers for dry weight analysis for volatiles can be provided.

All samples decanted in the laboratory are noted in this report with the DCNT qualifier indicating the sample was decanted.

Apex Laboratories

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| | | |
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| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## LABORATORY ACCREDITATION INFORMATION

**ORELAP Certification ID: OR100062 (Primary Accreditation)**
**EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

### Apex Laboratories

| Matrix | Analysis | TNI_ID | Analyte | TNI_ID | Accreditation |
|---|---|---|---|---|---|

All reported analytes are included in Apex Laboratories' current ORELAP scope.

### Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

### Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.
Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

### Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

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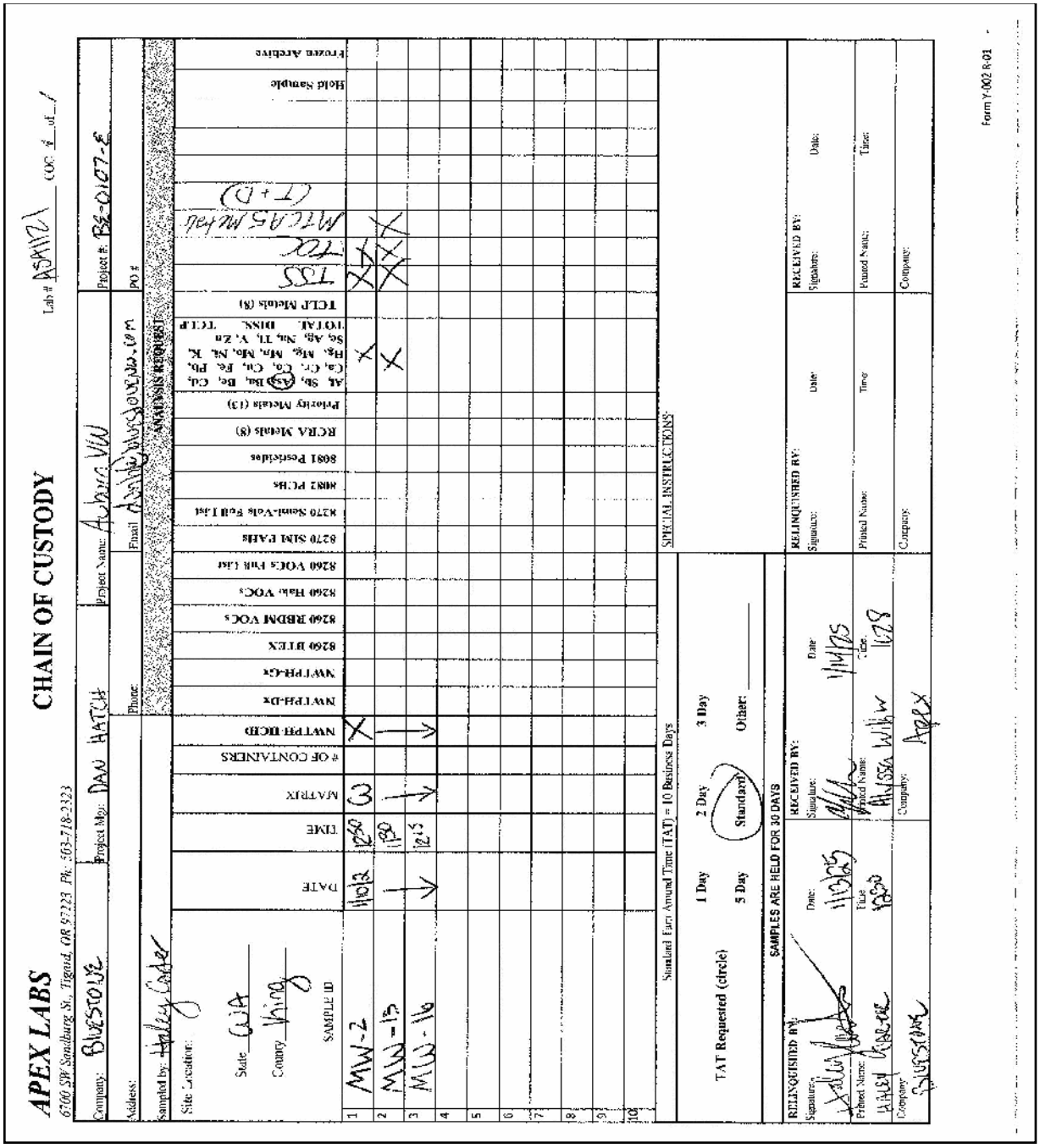
Cameron O'Brien, Project Manager

**Apex Laboratories, LLC**
**6700 S.W. Sandburg Street**
**Tigard, OR 97223**
**503-718-2323**
ORELAP ID: **OR100062**

**ANALYTICAL REPORT**

| | | |
|---|---|---|
| **Bluestone Environmental NW** | Project: **Auburn VW** | |
| **20204 SE 284th Street** | Project Number: **BE-0107-E** | **Report ID:** |
| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |




Apex Laboratories

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Cameron O'Brien, Project Manager

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| | | |
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| **Kent, WA 98042** | Project Manager: **Dan Hatch** | **A5A1121 - 01 24 25 1343** |

## APEX LABS COOLER RECEIPT FORM

**Client:** Bluestone Element WO#: A5A1121

**Project/Project #:** Auburn VW

**Delivery Info:**

Date/time received: 1/14/25 @ 1028 By: AM

Delivered by: Apex Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

From USDA Regulated Origin? Yes ____ No X

**Cooler Inspection** Date/time inspected: 1/14/25 @ 1028 By: AM

Chain of Custody included? Yes X No ____

Signed/dated by client? Yes X No ____

Contains USDA Reg. Soils? Yes ____ No X Unsure (email RegSoils) ____

| | Cooler #1 | Cooler #2 | Cooler #3 | Cooler #4 | Cooler #5 | Cooler #6 | Cooler #7 |
|---|---|---|---|---|---|---|---|
| Temperature (°C) | 1.9 | | | | | | |
| Custody seals? (Y/N) | N | | | | | | |
| Received on ice? (Y/N) | Y | | | | | | |
| Temp. blanks? (Y/N) | N | | | | | | |
| Ice type: (Gel/Real/Other) | Real | | | | | | |
| Condition (In/Out): | In | | | | | | |

Cooler out of temp? (Y/N) Possible reason why: ____

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

**Sample Inspection:** Date/time inspected: 1/14/25 @ 1049 By: AM

All samples intact? Yes X No ___ Comments: ____

Bottle labels/COCs agree? Yes X No ___ Comments: ____

COC/container discrepancies form initiated? Yes ___ No X

Containers/volumes received appropriate for analysis? Yes X No ___ Comments: ____

Do VOA vials have visible headspace? Yes ___ No X NA ___

Comments ____

Water samples: pH checked: Yes X No ___ NA ___ pH appropriate? Yes X No ___ NA ___ pH ID: AC3I72

Comments: ____

12 CIB 065 34 0507 1111

Labeled by: AM Witness: [illegible] Cooler Inspected by: AM

Form Y-003 R-02

Apex Laboratories

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Cameron O'Brien, Project Manager

January 23, 2025 Service Request No:K2500536

Cameron O'Brien
Apex Laboratories
6700 SW Sandburg St.
Tigard, OR 97223

**Laboratory Results for: A5A1121**

Dear Cameron,

Enclosed are the results of the sample(s) submitted to our laboratory January 16, 2025
For your reference, these analyses have been assigned our service request number **K2500536.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Luke Rahn
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

# Narrative Documents

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Environmental

**Client:** Apex Laboratories
**Project:** A5A1121
**Sample Matrix:** Water

**Service Request:** K2500536
**Date Received:** 01/16/2025

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Two water samples were received for analysis at ALS Environmental on 01/16/2025. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**General Chemistry:**

No significant anomalies were noted with this analysis.

Approved by  Date 01/23/2025

## SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

| CLIENT ID: MW-2 | | | Lab ID: K2500536-001 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 31.0 | | 0.8 | 5.0 | mg/L | SM 5310 C |

| CLIENT ID: MW-16 | | | Lab ID: K2500536-002 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Carbon, Total Organic | 52.0 | | 0.8 | 5.0 | mg/L | SM 5310 C |

# Sample Receipt Information

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

**Client:** Apex Laboratories **Service Request:**K2500536
**Project:** A5A1121

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| K2500536-001 | MW-2 | 1/10/2025 | 1250 |
| K2500536-002 | MW-16 | 1/10/2025 | 1215 |

W25005326 EST

# SUBCONTRACT ORDER

**Apex Laboratories**

CMB 1/14/25 **A5A1121**

| SENDING LABORATORY: | RECEIVING LABORATORY: |
|---|---|
| Apex Laboratories | ALS Group USA - Kelso |
| 6700 S.W. Sandburg Street | 1317 S 13th Avenue |
| Tigard, OR 97223 | Kelso, WA 98626 |
| Phone: (503) 718-2323 | Phone :(360) 577-7222 |
| Fax: (503) 336-0745 | Fax: (360) 636-1068 |
| Project Manager: Cameron O'Brien | |

**Sample Name: MW-2** **Sampled: 01/10/25 12:50** (A5A1121-01)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/27/25 17:00 | 02/07/25 12:50 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

**Sample Name: MW-16** **Sampled: 01/10/25 12:15** (A5A1121-03)

| Analysis | Due | Expires | Comments |
|---|---|---|---|
| **Total Organic Carbon - H2O (5310C)** | 01/27/25 17:00 | 02/07/25 12:15 | |
| *Containers Supplied:* | | | |
| (F)250 mL Poly - Sulfuric (H2SO4) | | | |

Standard TAT

| Released By | Date | Received By | Date |
|---|---|---|---|
| [signature] | 1/16/25 13:12 | [signature] | 1-16-25 1312 |
| [signature] | 1-16-25 1430 | [signature] | 1/16/25 1430 |

PM VM

# Cooler Receipt and Preservation Form

Client APEX Service Request K25 005360

Received: 1/16/25 Opened: 1/16/25 By: VM Unloaded: 1/16/25 By: VM

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

| Temp Blank | Sample Temp | IR Gun | Cooler #/COC ID / NA | Out of temp Indicate with "X" | PM Notified If out of temp | Tracking Number NA | Filed |
|---|---|---|---|---|---|---|---|
| | 5.6 | IR06 | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
   If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":
5. Were samples received within the method specified temperature ranges? NA Y N
   If no, were they received on ice and same day as collected? If not, notate the cooler # above and notify the PM. NA Y N

If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*

6. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
7. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
8. Were samples received in good condition (unbroken) NA Y N
9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA Y N
10. Did all sample labels and tags agree with custody papers? NA Y N
11. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
12. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
13. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
14. Was C12/Res negative? NA Y N
15. Were samples received within the method specified time limit? If not, notate the error below and notify the PM NA Y N
16. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Underfilled Overfilled

| Sample ID on Bottle | Sample ID on COC | Identified by: |
|---|---|---|
| | | |
| | | |
| | | |

| Sample ID | Bottle Count Bottle Type | Head-space | Broke | pH | Reagent | Volume added | Reagent Lot Number | Initials | Time |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Notes, Discrepancies, Resolutions: _____

G:\SMO\2024 Forms SOP: SMO-GEN Reviewed: NP 1/2/2025

# Miscellaneous Forms

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

## Inorganic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| E | The result is an estimate amount because the value exceeded the instrument calibration range. |
| J | The result is an estimated value. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |
| H | The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory. |

## Metals Data Qualifiers

| | |
|---|---|
| # | The control limit criteria is not applicable. |
| J | The result is an estimated value. |
| E | The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample. |
| M | The duplicate injection precision was not met. |
| N | The Matrix Spike sample recovery is not within control limits. See case narrative. |
| S | The reported value was determined by the Method of Standard Additions (MSA). |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| W | The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a matrix interference. |
| X | See case narrative. |
| + | The correlation coefficient for the MSA is less than 0.995. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Organic Data Qualifiers

| | |
|---|---|
| * | The result is an outlier. See case narrative. |
| # | The control limit criteria is not applicable. See case narrative. |
| A | A tentatively identified compound, a suspected aldol-condensation product. |
| B | The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards. |
| C | The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data. |
| D | The reported result is from a dilution. |
| E | The result is an estimated value over the calibration range. |
| J | The result is an estimated value between the MDL and the MRL. |
| N | The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed. |
| P | The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results. |
| U | The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.<br>*DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution. |
| i | The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference. |
| X | See case narrative. |
| Q | See case narrative. One or more quality control criteria was outside the limits. |

## Additional Petroleum Hydrocarbon Specific Qualifiers

| | |
|---|---|
| F | The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard. |
| L | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard. |
| H | The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard. |
| O | The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard. |
| Y | The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard. |
| Z | The chromatographic fingerprint does not resemble a petroleum product. |

**ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso**
**State Certifications, Accreditations, and Licenses**

| Agency | Web Site | Number |
|---|---|---|
| Alaska DEH | http://dec.alaska.gov/eh/lab/cs/csapproval.htm | UST-040 |
| Arizona DHS | http://www.azdhs.gov/lab/license/env.htm | AZ0339 |
| Arkansas - DEQ | http://www.adeq.state.ar.us/techsvs/labcert.htm | 88-0637 |
| California DHS (ELAP) | http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx | 2795 |
| DOD ELAP | http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm | L16-58-R4 |
| Florida DOH | http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm | E87412 |
| Hawaii DOH | http://health.hawaii.gov/ | - |
| ISO 17025 | http://www.pjlabs.com/ | L16-57 |
| Louisiana DEQ | http://www.deq.louisiana.gov/page/la-lab-accreditation | 03016 |
| Maine DHS | http://www.maine.gov/dhhs/ | WA01276 |
| Minnesota DOH | http://www.health.state.mn.us/accreditation | 053-999-457 |
| Nevada DEP | http://ndep.nv.gov/bsdw/labservice.htm | WA01276 |
| New Jersey DEP | http://www.nj.gov/dep/enforcement/oqa.html | WA005 |
| New York - DOH | https://www.wadsworth.org/regulatory/elap | 12060 |
| North Carolina DEQ | https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification | 605 |
| Oklahoma DEQ | http://www.deq.state.ok.us/CSDnew/labcert.htm | 9801 |
| Oregon – DEQ (NELAP) | http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx | WA100010 |
| South Carolina DHEC | http://www.scdhec.gov/environment/EnvironmentalLabCertification/ | 61002 |
| Texas CEQ | http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html | T104704427 |
| Washington DOE | http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html | C544 |
| Wyoming (EPA Region 8) | https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water- | - |
| Kelso Laboratory Website | www.alsglobal.com | NA |

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

## Acronyms

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LOD | Limit of Detection |
| LOQ | Limit of Quantitation |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2500536 |
| **Project:** | A5A1121/ | | |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-2 | **Date Collected:** | 01/10/25 |
| **Lab Code:** | K2500536-001 | **Date Received:** | 01/16/25 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

| | | | |
|---|---|---|---|
| **Sample Name:** | MW-16 | **Date Collected:** | 01/10/25 |
| **Lab Code:** | K2500536-002 | **Date Received:** | 01/16/25 |
| **Sample Matrix:** | Water | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| SM 5310 C | | MSPECHT |

# Sample Results

**ALS Environmental—Kelso Laboratory**
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

# General Chemistry

**ALS Environmental—Kelso Laboratory**
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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2500536 |
| **Project:** | A5A1121 | **Date Collected:** | 01/10/25 12:50 |
| **Sample Matrix:** | Water | **Date Received:** | 01/16/25 14:30 |
| **Sample Name:** | MW-2 | **Basis:** | NA |
| **Lab Code:** | K2500536-001 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **31.0** | mg/L | 5.0 | 0.8 | 10 | 01/21/25 15:12 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2500536 |
| **Project:** | A5A1121 | **Date Collected:** | 01/10/25 12:15 |
| **Sample Matrix:** | Water | **Date Received:** | 01/16/25 14:30 |
| **Sample Name:** | MW-16 | **Basis:** | NA |
| **Lab Code:** | K2500536-002 | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | **52.0** | mg/L | 5.0 | 0.8 | 10 | 01/21/25 15:12 | |

# QC Summary Forms

**ALS Environmental—Kelso Laboratory**
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# General Chemistry

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www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2500536 |
| **Project:** | A5A1121 | **Date Collected:** | NA |
| **Sample Matrix:** | Water | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | NA |
| **Lab Code:** | K2500536-MB | | |

## General Chemistry Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | MDL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|---|---|---|
| Carbon, Total Organic | SM 5310 C | ND U | mg/L | 0.50 | 0.08 | 1 | 01/21/25 15:12 | |

**ALS Group USA, Corp.**
**dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Apex Laboratories | **Service Request:** | K2500536 |
| **Project:** | A5A1121 | **Date Analyzed:** | 01/21/25 |
| **Sample Matrix:** | Water | **Date Extracted:** | NA |

**Lab Control Sample Summary**
**Carbon, Total Organic**

| | | | |
|---|---|---|---|
| **Analysis Method:** | SM 5310 C | **Units:** | mg/L |
| **Prep Method:** | None | **Basis:** | NA |
| | | **Analysis Lot:** | 867580 |

| Sample Name | Lab Code | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Lab Control Sample | K2500536-LCS | 23.2 | 25.0 | 93 | 83-117 |

# Appendix F

# Voluntary Cleanup Program

**Washington State Department of Ecology**
**Toxics Cleanup Program**

# TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

***Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.***

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation.

| **Step 1: IDENTIFY HAZARDOUS WASTE SITE** | |
|---|---|
| Please identify below the hazardous waste site for which you are documenting an evaluation. | |
| Facility/Site Name: Auburn VW | |
| Facility/Site Address: 3109 Auburn Way North, Auburn, WA 98002 | |
| Facility/Site No: 57361549 | VCP Project No.: TBD |

| **Step 2: IDENTIFY EVALUATOR** | | | |
|---|---|---|---|
| Please identify below the person who conducted the evaluation and their contact information. | | | |
| Name: Dan Hatch | | Title: President | |
| Organization: Bluestone Environmental NW | | | |
| Mailing address: 27177 185th Avenue SE, Suite 111-224 | | | |
| City: Covington | State: WA | Zip code: 98042 | |
| Phone: 260-641-9603 | Fax: | E-mail: danh@bluestonenw.com | |

## Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

### A. Exclusion from further evaluation.

**1. Does the Site qualify for an exclusion from further evaluation?**

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UNKNOWN,"** then skip to **Step 3B** of this form.*

**2. What is the basis for the exclusion?** *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☒ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

## B. Simplified evaluation.

**1. Does the Site qualify for a simplified evaluation?**

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

**2. Did you conduct a simplified evaluation?**

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

**3. Was further evaluation necessary?**

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

**4. If further evaluation was necessary, what did you do?**

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

**5. If no further evaluation was necessary, what was the reason?** *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

**C. Site-specific evaluation.** A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

**1. Was there a problem?** *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

**2. What did you do to resolve the problem?** *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

**3. If you conducted further site-specific evaluations, what methods did you use?**
*Check all that apply. See* WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

**4. What was the result of those evaluations?**

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

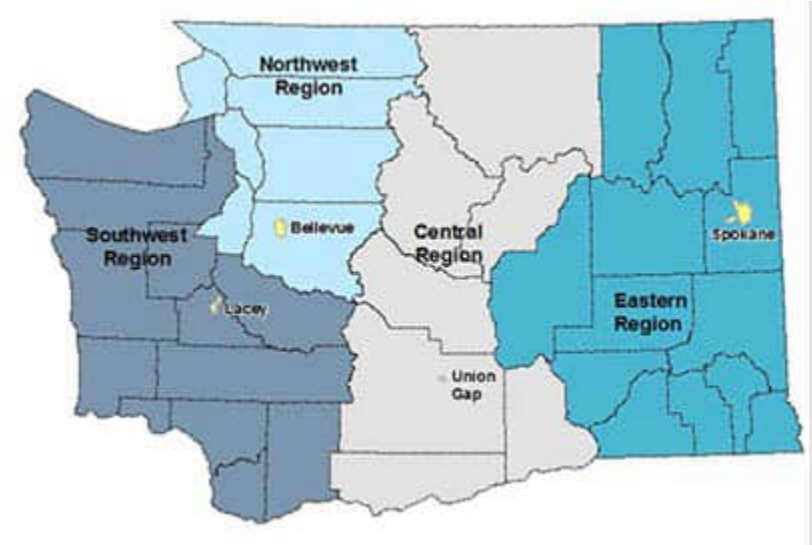
**5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?**

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

## Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.




| | |
|---|---|
| **Northwest Region:**<br>Attn: VCP Coordinator<br>3190 160th Ave. SE<br>Bellevue, WA 98008-5452 | **Central Region:**<br>Attn: VCP Coordinator<br>1250 West Alder St.<br>Union Gap, WA 98903-0009 |
| **Southwest Region:**<br>Attn: VCP Coordinator<br>P.O. Box 47775<br>Olympia, WA 98504-7775 | **Eastern Region:**<br>Attn: VCP Coordinator<br>N. 4601 Monroe<br>Spokane WA 99205-1295 |

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.