

Leaking Underground Storage Tank Investigation

**Grange Co-op South Medford Store
2531 South Pacific Highway
Medford, Oregon 97501
LUST File # 15-21-1104**

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ALPINE ENVIRONMENTAL CONSULTANTS, LLC

EXECUTIVE SUMMARY

Alpine Environmental Consultants, LLC (AEC) conducted a Leaking Underground Storage Tank (LUST) Investigation at the Grange Co-op South Medford Store located at 2531 South Pacific Highway in Medford, Oregon (the Site) on behalf of Grange Co-op. The Site is located in Township 38 South, Range 1 West, Section 5 and occupies tax lot 200, identified as Map and Taxlot 381W05B TL 200. The Site occupies a total of approximately 4.38 acres of developed land, consisting of a large retail store and warehouse structure, paved parking, and landscaped areas.

An underground storage tank (UST) system was located at the Site and was registered as Facility Number 4751. The Site's UST system consisted of two 15,000-gallon diesel USTs, one 15,000-gallon gasoline UST, fill and vent lines, fuel pipelines, and dispensers. The UST system was decommissioned by removal by M&M Services, LLC of Medford, Oregon in October 2021. A total of approximately 2,090 gallons of combined water, sludge product, and wastewater were removed from the USTs and from the cleanup of the tanks. These liquids were pumped and appropriately disposed of by Oil Re-Refining Company, Inc. (ORRCO) of Portland, Oregon. Approximately 282 tons of petroleum contaminated soil (PCS) were excavated in October and approximately 51 tons of PCS in November 2021. The excavated PCS was transported to Dry Creek Landfill in Eagle Point, Oregon. The USTs were cleaned, crushed at the Site, and transported for recycling at Rogue Metals and Supply in White City, Oregon.

Several soil sampling rounds were conducted during UST decommissioning and soil removal activities in October and November 2021. A total of 21 soil samples (S1 through S20 and a duplicate of sample S12) were collected and submitted for relevant laboratory analyses to determine if the UST cleanup was complete. The soil samples were submitted to Apex Laboratories (Apex) and analyzed for several or all of the following analyses: total petroleum hydrocarbons (TPH) in the diesel-range (TPH-d) and oil-range (TPH-o) by Method NWTPH-Dx; TPH in the gasoline-range (TPH-g) by Method NWTPH-Gx; polycyclic aromatic hydrocarbons (PAHs) by U.S. Environmental Protection Agency (USEPA) Method 8270E with Selective Ion Monitoring (SIM); volatile organic compounds (VOCs) in gas-range by USEPA Method 5035A/8260D; and/or total lead by USEPA Method 6020A with inductively coupled plasma-mass spectrometer (ICP-MS). The analytical data of the confirmatory soil samples collected during UST decommissioning and soil removal activities reported several constituents at concentrations above the generic risk-based concentrations (RBCs) developed by the Oregon Department of Environmental Quality (DEQ) for urban residential and occupational receptors, and construction workers. Based on the field observations during the UST removal, as well as on the analytical data of the confirmation soil samples, it was concluded that a petroleum release associated with the Site's UST system occurred at the Site; therefore, the Site was enrolled into the LUST program on November 5, 2021.

During UST decommissioning activities, the pit water was not sampled. However, DEQ approved groundwater sampling from temporary borings instead of from the UST pit. Therefore, AEC conducted additional subsurface investigations at the Site in December 2021. Based on the analytical results of the soil samples collected in October and November 2021, and on a



conservative investigation approach to determine if groundwater at the Site had been negatively impacted by residual petroleum contaminants, the additional LUST investigation included the advancement of nine soil borings, installation of nine temporary wells, and the collection of soil and groundwater samples. The additional LUST investigation was conducted to gather supplemental data to evaluate potential risks at the Site and to obtain a No Further Action (NFA) determination for the Site from DEQ.

In December 2021, nine borings were advanced at the Site by push-probe method to a depth of 18 and 25 feet below ground surface (bgs). Temporary wells were set in all these borings. A total of 10 soil samples (B1 through B9 and a duplicate of sample B8) were collected from the nine borings, from depths of 11.0 to 14.0 feet bgs. A total of 11 groundwater samples were collected, including one from each of the nine temporary wells (B1-GW through B9-GW), a duplicate of groundwater sample B1-GW, and a rinsate blank sample. All soil and groundwater samples were submitted to Apex for several or all of the following analyses: TPH-d and TPH-o by Method NWTPH-Dx; TPH-g by Method NWTPH-Gx; PAHs by USEPA Method 8270E with SIM; VOCs in the gasoline-range by USEPA Method 5035A/8260D; and total lead by USEPA Method 6020B ICP-MS. The groundwater samples were also analyzed for dissolved lead.

All soil and groundwater analytical results were compared to the relevant DEQ generic RBCs. The methods used to develop RBCs are described in DEQ's guidance entitled Risk-Based Decision Making (RBDM) for the Remediation of Contaminated Sites (DEQ, 2017). The generic RBCs used for data evaluation are consistent with the current and anticipated future commercial land use and zoning, and assume occupational receptors and construction and excavation workers will be present on the Site. A multi-unit residential complex is located to the north of the Site across Lowry Lane. Therefore, the urban residential receptors were added to the data evaluation for a more stringent risk evaluation.

Based on an evaluation of the analytical results for the soil samples collected at the Site, no analytes were reported above the laboratory method reporting limits (MRLs) in the following samples: no TPH-d, TPH-o, or PAHs were reported in any of the soil samples S4 through S9 collected along the diesel pipeline running from the USTs to the satellite dispensers; no TPH-d, TPH-o, TPH-g, PAHs, gasoline-range VOCs, or lead were reported in any of the soil samples B1 through B5 collected around the USTs excavation area; and no TPH-d, TPH-o, TPH-g, PAHs, gasoline-range VOCs, or lead were reported in any of the soil samples B6 through B9 collected around the diesel satellite dispensers area. Nevertheless, the following exceedances of generic RBCs were reported:

In the USTs excavation area and its vicinity:

- The concentration of TPH-d in soil sample S14 exceeded the RBC for the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential receptors.
- The concentrations of TPH-g in soil samples S12, S14, and S16 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential receptors.



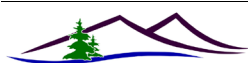
- The concentration of TPH-g in soil sample S16 also exceeded the RBCs for the *vapor intrusion into buildings exposure pathway* for urban residential receptors.
- The concentration of TPH-d in groundwater samples B2-GW and B3-GW exceeded the RBC for the *ingestion and inhalation from tapwater exposure pathway* for urban residential receptors.
- The concentration of methyl t-butyl ether (MTBE) in groundwater sample B4-GW exceeded the generic RBC for *ingestion and inhalation from tapwater exposure pathway* for urban residential and occupational receptors.

In the diesel satellite dispensers excavation area and its vicinity:

- The concentration of TPH-d in soil sample S2 exceeded the RBC for the *ingestion, dermal contact and inhalation exposure pathway* for urban residential receptors and construction workers, and the *leaching to groundwater exposure pathway* for urban residential receptors.
- The concentration of naphthalene in soil sample S2 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential and occupational receptors.
- The concentrations of TPH-d in soil sample S17 exceeded the RBC for the *ingestion, dermal contact and inhalation exposure pathway* for urban residential receptors and for construction workers.
- The concentration of TPH-d in groundwater sample B6-GW exceeded the RBC for the *ingestion and inhalation from tapwater exposure pathway* for urban residential receptors.

While generic RBCs for urban residential and occupational receptors and construction workers were exceeded in soil for the aforementioned constituents and exposure pathways, potential risks to human health associated with these constituents and exposure pathways can be managed, mitigated, and/or eliminated from further concern, as follows:

- The soil in the location of soil sample S2 was excavated and removed from the Site; therefore, the reported contaminants in this sample can be eliminated from further concern.
- The ingestion, dermal contact and inhalation exposure pathway for urban residential receptors applies to contaminants found in the upper 3 feet of soil in an area occupied by urban residential receptors. The concentrations of TPH-d reported in soil samples S14 and S17, collected from approximately 8.0 to 10.0 feet bgs and 6.0 to 8.0 feet bgs, respectively, can be eliminated from further concern for two reasons. First, these two soil samples were collected on the Site where urban residential receptors are not present. Second, these two soil samples were collected from depths greater than 3 feet bgs.
- For TPH-d in the former diesel satellite dispensers area, the *ingestion, dermal contact, and inhalation exposure pathway* for construction workers can be managed with proper communication to future construction workers. Workers should be informed and required they wear appropriate personal protective equipment (PPE) and follow proper decontamination procedures subsequent to working in order to avoid exposure and

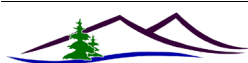


health risks. The procedures documenting proper communication, appropriate PPE, and proper decontamination could be documented in a Health and Safety Plan (HASP) and a Contaminated Media Management Plan (CMMP) approved by DEQ.

- The concentrations of TPH-g reported in soil samples S12, S14, and S16 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential receptors. The concentration of TPH-d reported in soil sample S16 also exceeded the RBCs for the *vapor intrusion into buildings exposure pathway* for urban residential receptors.
- The *vapor intrusion into buildings exposure pathway* is included whenever vadose zone soils are contaminated with volatile compounds and are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building. For TPH-g in soil sample S16, the *vapor intrusion into buildings exposure pathway* can be eliminated from further concern because the distance between the location of sample S16 and the nearest building where urban residential receptors are present is approximately 80 feet.
- For TPH-g in soil and MTBE and TPH-d in groundwater in the vicinity of the former USTs area, and for TPH-d in water to the southwest of the former diesel satellite dispensers area, the *leaching to groundwater exposure pathway* and the *ingestion and inhalation from tapwater exposure pathway* for urban residential and occupational receptors can be eliminated from further concern due to the fact that no water supply wells exist at the Site or proximal to the Site. Furthermore, the Site and adjacent properties are serviced with municipal water by the Medford Water Commission, and it is reasonable and likely to assume that the Site and adjacent properties will continue to utilize municipal water in the future. Accordingly, it is highly unlikely that residual Site-related contamination in groundwater would generate any unacceptable health risks to urban residential and occupational receptors at the Site and proximal to the Site via the *leaching to groundwater exposure pathway* and the *ingestion and inhalation from tapwater exposure pathway*. To completely eliminate the potential risks these constituents might pose to urban residential proximal to the Site and to occupational receptors at the Site, a deed notice could be developed and applied that prohibits the installation of wells to supply water to urban residential receptors proximal to the Site and to occupational receptors at the Site.

Based on these findings, AEC concludes the following:

- The presence of residual petroleum hydrocarbons and associated contaminants in soil and groundwater at the Site indicates the historical use of USTs at the Site impacted the Site's subsurface. However, most of the impacted soil was removed during UST decommissioning activities and the remaining concentrations in soil and groundwater do not present unacceptable risks to human receptors given the current and reasonably likely future commercial use of the Site.
- Based on soil sample analytical results, soil at the Site in the former USTs and fuel dispensers areas does not qualify as Clean Fill. Soil from these areas should not be exported off-Site, though the soil can be reused on-Site as fill. It should be noted that per *Clean Fill Determinations* Internal Management Directive (DEQ, 2019), any soil with



petroleum-like staining or a petroleum-like odor does not qualify as Clean Fill and should not be exported from the Site.

- To completely eliminate the potential risks residual petroleum contaminants might pose to occupational receptors at the Site and to urban residential receptors proximal to the Site, deed notices could be developed and applied that prohibits the installation of wells to supply water at the Site and proximal properties.
- To manage potential risks to construction workers associated with TPH-d in soil in the former diesel satellite dispensers area, a HASP and CMMP should be prepared and implemented at the Site.
- AEC anticipates the data collected under this LUST Investigation will be adequate to obtain a No Further Action (NFA) letter from DEQ for LUST file number 15-21-1104.



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LIST OF ACRONYMS AND ABBREVIATIONS

AEC	Alpine Environmental Consultants, LLC
bgs	below ground surface
CMMP	Contaminated Media Management Plan
DEQ	Department of Environmental Quality
HASP	Health and Safety Plan
ICP-MS	inductively coupled plasma mass spectrometry
LUST	Leaking Underground Storage Tank
MCL	Maximum Contaminant Level
mg/kg	milligrams per kilogram
MRL	method reporting limit
NFA	No Further Action
OHA	Oregon Health Authority
PAHs	polycyclic aromatic hydrocarbons
PCS	petroleum contaminated soil
PID	photoionization detector
ppm	parts per million
PVC	polyvinyl chloride
RBC	risk-based concentration
RBDM	Risk-Based Decision Making
SIM	Selective Ion Monitoring
TL	tax lot
TPH	total petroleum hydrocarbon
TPH-d	total petroleum hydrocarbon in diesel-range
TPH-g	total petroleum hydrocarbon in gasoline-range
TPH-o	total petroleum hydrocarbon in oil-range
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOCs	volatile organic compounds
WRD	Water Resources Department



1 INTRODUCTION

On behalf of Grange Co-op, Alpine Environmental Consultants, LLC (AEC) has prepared this report to present the findings of the Leaking Underground Storage Tank (LUST) Investigation conducted at the Grange Co-op property located at 2531 South Pacific Highway in Medford, Oregon (hereinafter referred to as the Site). The LUST Investigation involved subsurface soil and groundwater sampling to characterize the potential presence of residual petroleum hydrocarbon and associated contamination due to former petroleum storage and fueling at the Site.

1.1 Site Description

The Site is located at 2531 South Pacific Highway in Medford, Oregon and in Township 38 South, Range 1 West, Section 5 and occupies tax lot (TL) 200, identified as Map and Taxlot 381W05B TL 200. The Site occupies a total of approximately 4.38 acres of developed land, consisting of a large retail store and warehouse structure, paved parking, and landscaped areas. The Site is occupied by Grange Co-op.

The Site is zoned as general commercial. The surrounding properties are zoned as general commercial, regional community commercial, light industrial, and general commercial planned unit development with restricted zoning. The general topography at the Site and in its vicinity is relatively flat. Bear Creek is located approximately 0.2 miles to the east of the Site and flows in an approximately north-northwest direction. It is assumed groundwater in the vicinity of the Site flows to the east-northeast towards Bear Creek.

The Site location is illustrated on **Figure 1** and **Figure 2**.

1.2 Site Background

The Site's UST system is registered as Facility Number 4751. The Site's UST system consisted of two 15,000-gallon diesel USTs and a 15,000-gallon gasoline UST, fill and vent lines, fuel pipelines, and dispensers. The three USTs were located along the northern boundary of the Site, approximately 160 feet northeast of the Site's building, and approximately 80 feet south of the closest neighboring apartment building (i.e. where urban residential receptors live). Two gasoline and diesel fueling dispensers were located above these USTs. Three additional diesel fueling dispensers for trucks were located approximately 110 feet to the southeast of the USTs, approximately 230 feet northeast of the Site's building, and approximately 180 feet south-southwest of the closest neighboring apartment building.



1.3 Site Investigations

Several activities related to the UST system were conducted at the Site. These included the following:

- The decommissioning by removal of the UST system, presented in **Section 2.1**.
- The confirmatory sampling events conducted subsequent to the USTs and ancillary equipment removal, presented in **Section 2.2**.
- The subsurface soil and groundwater additional LUST investigation, presented in **Section 3**.
- The data evaluation pertaining to the additional LUST investigation, presented in **Section 4**.

The USTs documents are included in **Appendix 1**. The photographic documentation is included in **Appendix 2**. The AEC Boring Logs are included in **Appendix 3**. The complete laboratory soil and groundwater results are included in **Appendix 4**. The location of the UST system and the location of the soil and groundwater sampling points are shown on **Figure 2**.

The analytical results for all soil and groundwater samples are summarized in **Table 1** through **Table 12**. In addition to presenting the analytical results, **Table 1** through **Table 12** also identify Oregon Department of Environmental Quality's (DEQ's) relevant generic risk-based concentration (RBC) for soil and groundwater. The generic RBCs identified in these tables include those for occupational receptors, which are consistent with the current and anticipated future commercial land use and zoning, and assume occupational receptors will be present on the Site. However, because multi-unit residential buildings are located proximal to and north of the former USTs location, **Table 1** through **Table 12** also includes the more stringent RBCs for urban residential receptors.



2 UST DECOMMISSIONING

2.1 Decommissioning Activities

The UST decommissioning was conducted by M&M Services (DEQ Service Provider's License Number 21812) in accordance with OAR-340-150. The Change-in-Service Notice was submitted to DEQ on August 12, 2021. The UST decommissioning field activities were conducted on November 12, 13, 14, and 15, 2021. Petroleum contamination was reported to DEQ on November 5, 2021, and LUST incident number 15-21-1104 was allocated to the Site.

Approximately 270 gallons of wastewater and 1,820-gallons of "commercial chemicals," (which included product, sludge, and water from the tanks) were pumped and removed from the Site for recycling by Oil Re-Refining Company, Inc. (ORRCo) on October 23 and 28 and November 1, 2021. Approximately 282 tons of petroleum contaminated soil (PCS) associated with the Site's UST system was excavated, mostly from the USTs area. The PCS was transported off-Site to the Dry Creek Landfill in Eagle Point, Oregon, on November 1, 2, and 10, 2021. This PCS was stored on plastic sheeting and under plastic sheeting at the landfill pending waste permit approval. Approval to dispose of the PCS was obtained from Dry Creek Landfill on February 3, 2022. The USTs were removed from the Site and disposed of at Rogue Metals on November 1, 2021. The UST and dispensers excavation pits were backfilled and compacted with clean fill by M&M Services in late November 2021.

Groundwater entered the USTs excavation. On November 2, 2021, approximately 20,000 gallons of water were present in the bottom of the tank pit. The depth to water was approximately 12 feet bgs. This depth was consistent with the expected groundwater depth in the area based on AEC experience working in this part of Medford. A slight petroleum-like sheen was visible on the water. A diesel-like odor was present, with an occasional intermittent gasoline-like odor. AEC proposed to DEQ that instead of pumping out the pit water, letting the water recharge, and collecting a groundwater sample, a more robust and cost-effective dataset could be collected by drilling temporary borings and collecting soil and groundwater samples around the excavation. This approach was proposed because it would have the following benefits:

- It would save money used for pumping, storing, and properly discharging of this water;
- It would avoid sampling the pit recharge groundwater, which would likely be cross-contaminated by the impacted loose native soil on the bottom of the pit; and
- By sampling the soil and groundwater from temporary borings, it would be more representative of the actual subsurface conditions and be more useful in evaluating potential risks.

Ms. Andrea Garcia of DEQ approved this proposed in an email dated on November 4, 2021. The soil and groundwater sampling from temporary borings is described in **Section 3** and the data evaluation in **Section 4**.



The location of the UST system is shown on **Figure 2**. All forms and documents pertaining to the UST decommissioning process are included in **Appendix 1**. These forms include the following: DEQ forms (specifically the 30-Day Notice of Intent to Decommission USTs and the UST Decommissioning Checklist and Site Assessment Report; Dry Creek Landfill approved waste permit and soil disposal receipts; Rogue Metals and Supply tank recycling receipt; the ORRCO products removal invoices; and photographs of UST decommissioning activities.

2.2 Confirmatory Sampling and Data Evaluation

Confirmatory sampling was conducted subsequent to the UST decommissioning and PCS removal, specifically on October 22 and November 1 and 2, 2021. Based on the analytical results of these samples, additional PCS soil was excavated in one area and soil sampling was conducted on November 12, 2021. In addition, composite soil samples were collected from the PCS stockpiles for landfill waste characterization. Soil sampling during UST decommissioning activities was conducted by Mr. Toby Shallcross while under the direction of Mr. Mike Haflich of M&M Services, LLC, who holds the UST Decommissioning License.

The soil samples for the analyses of total petroleum hydrocarbons (TPHs) in the gasoline-range (TPH-g) and volatile organic compounds (VOCs) were collected directly from the bucket of the excavator or from the open trench using disposable soil syringes in accordance with United States Environmental Protection Agency (USEPA) Method 5035 and USEPA Method 8260, and placed directly into laboratory-supplied and preserved containers. These soil samples were not homogenized in order to prevent volatilization of compounds. The remaining soil sample volume intended for other analyses was placed in a new disposable plastic bag and homogenized. Larger-sized material (i.e., gravel greater than approximately ¼ to ½ inch in diameter) was removed by hand. The soil samples were then transferred to appropriate laboratory-supplied containers. All soil samples were labeled and placed in iced coolers and submitted to Apex Laboratories (Apex) of Tigard, Oregon for specific analyses. Laboratory-provided standard chains-of-custody accompanied all samples. The temperatures of the coolers recorded by the laboratory upon receipt were 2.3, 3.0, and 2.1 degree Celsius (°C), which are within the EPA's recommended limit (which is specifically less than or equal to 6°C and above the freezing point).

The laboratory analytical results of the soil samples are included in **Appendix 4** and summarized in **Table 1** through **Table 4** and **Table 9** through **Table 12**. In addition to presenting the analytical results, these tables also identify relevant DEQ generic RBCs for soil. The methods used to develop RBCs are described in DEQ's guidance entitled Risk-Based Decision Making (RBDM) for the Remediation of Contaminated Sites (DEQ, 2017). The generic RBCs identified in this table are consistent with the current commercial land use and zoning, and assume occupational receptors and construction and excavation workers will be present on the Site. These generic RBCs for occupational receptors and construction and excavation workers are also consistent with the anticipated future use of the Site. A multi-unit residential complex is located to the north of the Site across Lowry Lane. Therefore, the generic RBCs for urban residential receptors were added to the results tables for a more stringent risk evaluation.

The reported constituents in soil were compared to relevant generic RBCs, including the following exposure pathways and receptors: the *ingestion, dermal contact, and inhalation exposure*



pathway for urban residential and occupational receptors, and construction and excavation workers; the *volatilization to outdoor air exposure pathway* for urban residential and occupational receptors; the *vapor intrusion into buildings exposure pathway* for urban residential and occupational receptors; and the *leaching to groundwater exposure pathway* for urban residential and occupational receptors. The concentrations of metals in soil were also compared to the naturally occurring background concentrations in the Klamath Mountains region of Oregon, which includes the Medford area and the Site (DEQ, 2013).

2.2.1 Post-UST Decommissioning Sampling

Subsequent to the decommissioning of the UST system and PCS excavation, AEC collected confirmation samples. On October 22, 2021, AEC collected soil samples S1 through S9 and on November 1 and 2, 2021, collected soil samples S10 through S16 (and a duplicate of sample S12).

The location and depth of these samples were as follows:

- S1 - collected from the fuel line trench, south of the southeastern dispenser excavation boundary, under a diesel dispenser, from a depth of 1.0 to 2.0 feet bgs;
- S2 - collected from the center area of the southeastern dispenser excavation, under a diesel dispenser, from a depth of 1.0 to 2.0 feet bgs;
- S3 - collected from the fuel line trench, north of the southeastern dispenser excavation boundary, under a diesel dispenser, from a depth of 1.0 to 2.0 feet bgs;
- S4 through S9 - collected from the former underground diesel pipeline trench running between the southeastern dispenser area and the northwestern dispenser area and USTs, from a depth of 1.0 to 2.0 feet bgs; and
- S10 through S16 - collected from the sidewalls of the UST excavation, from a depth of 8.0 to 10.0 feet bgs.

All soil samples were analyzed for several or all of the following analyses:

- TPH in the diesel-range (TPH-d) and oil-range (TPH-o) by Method NWTPH-Dx (all samples S1 through S16);
- TPH-g by Method NWTPH-Gx (samples collected in the gasoline UST and gasoline dispensers area, specifically samples S10 through S16);
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA Method 8270E with selective ion monitoring (SIM) (all samples S1 through S16);
- VOCs by USEPA Method 5035A/8260D, specifically the gasoline-range VOCs, which include benzene, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), ethylbenzene, isopropylbenzene, methyl t-butyl ether (MTBE), naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes (samples collected in the gasoline UST and gasoline dispensers area, specifically samples S10 through S16); and
- Total lead by USEPA Method 6020B with inductively coupled plasma mass spectrometry (ICP-MS) (samples collected in the gasoline UST and gasoline dispensers area, specifically samples S10 through S16).



The analytical results of the confirmatory samples S1 through S16 reported several constituents at concentrations that exceed the laboratory method reporting limits (MRLs) in several soil samples. The reported data are summarized in the following paragraphs.

➤ **Total Petroleum Hydrocarbons**

The laboratory results reported TPH-d in several analyzed soil confirmation samples at concentrations above the laboratory MRLs. The reported TPH-d concentrations exceeded several generic applicable RBCs, as follows:

- TPH-d in soil sample S2 (9,960 milligrams per kilogram [mg/kg]) exceeded the generic RBC for the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential receptors of 2,500 mg/kg and construction workers of 4,600 mg/kg, and the generic RBC for the *leaching to groundwater exposure pathway* for urban residential receptors of 9,500 mg/kg.
- TPH-d in soil sample S14 (2,810 mg/kg) exceeded the generic RBC for the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential receptors of 2,500 mg/kg.

The laboratory results reported TPH-g in several analyzed soil confirmation samples at concentrations above the laboratory MRLs. The reported TPH-d concentrations exceeded several generic applicable RBCs as follows:

- TPH-g in soil samples S12 (92.2 mg/kg) and S14 (40.1 mg/kg) exceeded the generic RBC for the *leaching to groundwater exposure pathway* for urban residential receptors of 31 mg/kg.
- TPH-g in soil sample S16 (99.1 mg/kg) exceeded the generic RBC for the *leaching to groundwater exposure pathway* for urban residential receptors of 31 mg/kg and the *vapor intrusion into buildings exposure pathway* for urban residential receptors of 94 mg/kg.

The TPHs MRLs were below relevant generic RBCs. The TPHs soil results are summarized in **Table 1**.

➤ **Polycyclic Aromatic Hydrocarbons**

The laboratory results reported several PAHs at concentrations that exceeded the laboratory MRLs in several soil samples. One PAH was reported at a concentration above the generic RBCs, specifically naphthalene. Naphthalene was reported at a concentration of 0.583 mg/kg in soil sample S2, which exceeded the generic RBCs for the *leaching to groundwater exposure pathway* for urban residential of 0.37 mg/kg and occupational receptors of 0.34 mg/kg. The PAHs MRLs were below relevant generic RBCs. The PAHs soil results are summarized in **Table 2**.

➤ **Volatile Organic Compounds**



The laboratory results reported no VOCs at concentrations above the laboratory MRLs in any of the analyzed soil samples. Several VOCs MRLs exceeded the relevant generic RBCs, specifically the residential and occupational RBCs for the *leaching to groundwater exposure pathway*. The VOCs soil results are summarized in **Table 3**.

➤ **Metals**

The laboratory results reported lead at concentrations above the laboratory MRLs in all analyzed soil samples. The reported concentrations of lead were all below the generic applicable RBCs. The lead soil results are summarized in **Table 4**.

2.2.2 Post-Additional Excavation Sampling

Based on the analytical results of the confirmation samples S1 through S16, it was concluded that additional petroleum impacted soil should be excavated from the southeastern satellite diesel dispensers area. Approximately 51 tons of PCS were excavated and removed from the Site to Dry Creek Landfill on November 12, 2021. The waste disposal tickets are included in **Appendix 1**. Subsequently, AEC collected soil samples S17 through S20 as confirmatory sampling on November 12, 2021. These samples were collected from a depth of 6.0 to 8.0 feet bgs.

Soil samples S17 through S20 were analyzed for the following analyses:

- TPH-d and TPH-o by Method NWTPH-Dx; and
- PAHs by USEPA Method 8270E with SIM.

The analytical results of the confirmatory samples S17 through S20 indicated the following:

➤ **Total Petroleum Hydrocarbons**

The laboratory results reported TPH-d in several analyzed soil confirmation samples at concentrations above the laboratory MRLs. The reported TPH-d concentrations exceeded several generic applicable RBCs as follows:

- TPH-d in soil sample S17 (7,620 milligrams per kilogram [mg/kg]) exceeded the generic RBC for the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential receptors of 2,500 mg/kg and construction workers of 4,600 mg/kg.

The TPHs MRLs were below relevant generic RBCs. The TPHs soil results are summarized in **Table 1**.

➤ **Polycyclic Aromatic Hydrocarbons**

The laboratory results reported several PAHs at concentrations that exceeded the laboratory MRLs in several soil samples. No PAHs were reported at concentrations above the generic RBCs. The PAHs MRLs were below relevant generic RBCs. The PAHs soil results are summarized in **Table 2**.



2.3 Landfill Soil Characterization Sampling and Data Evaluation

On November 15, 2021, AEC collected soil samples from the petroleum impacted soil excavated from the Site and stored at Dry Creek Landfill. Multiple subsamples were collected from the stockpiled soil and composited into four soil samples identified as COMP 1 through COMP4. These samples were collected in order to obtain analytical data required by the landfill in order to issue a waste permit for the disposal of the contaminated soil.

The four composite soil samples were analyzed for the following analyses:

- TPH-d and TPH-o by Method NWTPH-Dx;
- TPH-g by Method NWTPH-Gx;
- PAHs by USEPA Method 8270E with SIM;
- VOCs by USEPA Method 5035A/8260D, specifically the gasoline-range VOCs, which include benzene, EDB, EDC, ethylbenzene, iso-propylbenzene, MTBE, naphthalene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes; and
- Toxicity Characteristic Leachate Procedure (TCLP) Metals by USEPA Method 6020B with ICP-MS (which included arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).

The analytical results of the confirmatory samples COMP1 through COMP4 indicated that several constituents were reported above the laboratory MRLs. Of these reported constituents, only TPH-d was reported at a concentration above the generic RBCs. TPH-d was reported in sample COMP2 at a concentration of 2,730 mg/kg, which exceeded the RBC for the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential receptors (2,500 mg/kg).

The TPHs results of the composites soil samples are summarized in **Table 9**. The PAHs results of the composites soil samples are summarized in **Table 10**. The VOCs results of the composites soil samples are summarized in **Table 11**. The TCLP Metals results of the composites soil samples are summarized in **Table 12**.

Based on the reported analytical results of these composite soil samples, Dry Creek Landfill accepted the solid waste under Waste Permit Number 2022-07. This permit is included in **Appendix 1**.

2.4 Quality Control

The results of all laboratory analyses of the soil samples collected in October and November 2021 underwent a data quality evaluation or data validation. The evaluations considered the following elements:

- Daily field notes and chain-of-custody records;
- Laboratory holding times;
- Method blank results;



- Surrogate recoveries;
- Matrix spikes and matrix spike duplicates (MS/MSD) or laboratory control samples and laboratory control samples duplicate (LCS/LCSD);
- Laboratory duplicate analyses;
- Field duplicate analyses;
- Quantitation limits and ranges; and
- Completeness.

Data precision was evaluated through laboratory and field duplicates. Data accuracy was evaluated through laboratory control samples, surrogate spikes, and matrix spikes. Data qualifiers were assigned by the analytical laboratory, as necessary, during the data quality evaluations in accordance with EPA guidelines. Data qualifiers that were assigned during data validation are included in the complete analytical reports in **Appendix 4**.

Soil sample S12 was duplicated in the field. The duplicate sample was identified as DUP. It was analyzed for TPH-d, TPH-o, TPH-g, gasoline-range VOCs, PAHs, and total lead. The reported concentrations in the duplicate pair SB12/DUP had slight variations but overall were similar. These included the following:

- TPH-d was reported at a concentration of 1,710 mg/kg in S12 and 1,380 mg/kg in DUP;
- Dibenzofuran was reported at a concentration of 0.47 mg/kg in S12 and 0.138 mg/kg in DUP;
- Fluoranthene was reported at a concentration of 0.0373 mg/kg in S12 and 0.0398 mg/kg in DUP;
- Fluorene was reported at a concentration of 0.337 mg/kg in S12 and 0.324 mg/kg in DUP;
- Pyrene was reported at a concentration of 0.126 mg/kg in S12 and 0.120 mg/kg in DUP; and
- Total lead was reported at a concentration of 3.00 in S12 and 2.58 mg/kg in DUP.



3 LUST ADDITIONAL INVESTIGATION

During the UST decommissioning activities, the pit water was not sampled. However, DEQ approved groundwater sampling from temporary borings instead of from the UST pit. Therefore, AEC conducted an additional subsurface investigation at the Site in December 2021. This additional LUST investigation was completed consistent with the Work Plan prepared by AEC and dated December 1, 2021. This Work Plan was approved by Ms. Andrea Garcia of DEQ in an email to Mr. Jonathan of AEC dated December 2, 2021.

Based on the analytical results of the soil samples collected in October and November 2021, and following a conservative approach to determine if groundwater at the Site had been negatively impacted by residual petroleum contaminants, the additional investigation included the advancement of nine soil borings, installation of nine temporary wells, and the collection of soil and groundwater samples. A summary of the field work and observations are presented in **Section 3.1** through **Section 3.3**. The analytical results of the soil and groundwater samples and their interpretation are included in **Section 4**. Conclusions and recommendations are presented in **Section 5**. The photographic documentation is included in **Appendix 2** and the boring logs are included in **Appendix 3**. The complete laboratory results are included in **Appendix 4**. The location of the Site is shown on **Figure 1** and the sampling locations are shown on **Figure 2**. The analytical results of the soil samples are summarized in **Table 1** through **Table 4**. The analytical results of the groundwater samples are summarized in **Table 5** through **Table 8**.

3.1 LUST Additional Soil Investigation

3.1.1 Utility Clearance

Prior to the soil borings and subsurface disturbances, the underground infrastructure of pipes, mains, and utility lines were located at the Site. AEC contacted the Utility Notification Center in order to locate and trace any potential public underground utilities. In addition, Mr. Bennie Moore with Rogue Locating, LLC of Butte Falls, Oregon, was retained to visit the Site and identify private underground utilities in the vicinity of proposed boring locations.

3.1.2 Push-Probe Soil Sampling

On December 7, 2021, AEC supervised the advancement of nine soil borings at the Site. The soil borings were advanced by BB&A Environmental, Inc. (BB&A Environmental) of Coburg, Oregon using a track-mounted geoprobe (see the photographic documentation in **Appendix 2**). Soil samples, lithologic characterization, and field screening were logged every 5 feet, or more frequently at changes in lithology or visual contamination, by Mr. Toby Shallcross, Project Geologist of AEC and reviewed by Mr. Jonathan Williams (Oregon Registered Geologist) of AEC. Field screening for the presence of VOCs in soil was conducted during drilling activities using an RKI GX-6000 photoionization detector (PID). The lithology of the soil, visual observations, PID



readings, and depth of the collected samples are included on the boring logs, located in **Appendix 3**. The locations of the soil borings are shown on **Figure 2**.

One soil sample was obtained from each boring from various depths based on field observations and PID readings. If no elevated PID readings were observed and no petroleum-like soil staining was observed, the soil samples were collected a depth of approximately 12 feet bgs, which was the approximate depth to the water table at the Site based on UST pit observations.

The locations and depths of the soil borings and the depths of the collected soil samples are as follows:

- Boring B1 was advanced to the west of the USTs pit to a depth of 25 feet bgs; soil sample B1 was collected from 11.0 to 12.0 feet bgs;
- Borings B2 was advanced to the south of the USTs pit to a depth of 23 feet bgs; soil sample B2 was collected from 11.5 to 12.5 feet bgs;
- Borings B3 was advanced to the east of the USTs pit to a depth of 18 feet bgs; soil sample B3 was collected from 12.0 to 13.0 feet bgs;
- Borings B4 was advanced to the north-northeast of the USTs pit to a depth of 20 feet bgs; soil sample B4 was collected from 12.0 to 13.0 feet bgs;
- Borings B5 was advanced to the north-northwest of the USTs pit to a depth of 23 feet bgs; soil sample B5 was collected from 11.5 to 12.5 feet bgs;
- Borings B6 was advanced to the southwest of the former diesel fueling canopy to a depth of 18.5 feet bgs; soil sample B6 was collected from 11.0 to 13.0 feet bgs;
- Boring B7 was advanced to the west-northwest of the former diesel fueling canopy to a depth of 19.0 feet bgs; soil sample B7 was collected from 11.5 to 14.0 feet bgs;
- Boring B8 was advanced to the northeast of the former diesel fueling canopy to a depth of 20 feet bgs; soil sample B8 was collected from 12.0 to 14.0 feet bgs; and
- Boring B9 was advanced to the east of the former diesel fueling canopy to a depth of 20 feet bgs; soil sample B9 was collected from 12.0 to 14.0 feet bgs.

Each soil sample was placed into laboratory supplied containers. Soil samples collected for the analyses TPH-g and VOCs were collected directly from the push-probe rods' acrylic liners using disposable soil syringes in accordance with the USEPA Method 5035 and DEQ Guidance, and USEPA Method 8260D, and placed directly into laboratory-supplied containers. These soil samples were not homogenized in order to minimize volatilization of VOCs. The remaining soil sample volume was placed in a new disposable plastic bag and homogenized. Larger sized material (i.e., gravel greater than approximately ¼ to ½ inch in diameter) was removed by hand. The soil samples were then transferred to appropriate laboratory-supplied containers. Lithologies for the soil samples are described in the boring logs presented in **Appendix 4**.

The general lithology at the Site consisted of a thin layer of asphalt underlain by a mixture of gravel, sand, silt, and clay to the maximum depth drilled of 25.0 feet bgs. An increase in moisture content was visually identified in borings B1, B6, and B7 at 14 feet bgs, in boring B2 at 17 feet



bgs, in boring B4 at 13.5 feet bgs, and in boring B8 at 19 feet bgs. This moisture content was potentially suggestive of groundwater saturation. All PID readings in the soil encountered within the borings were 0.0 parts per million (ppm) with the exception of the PID reading in boring B4. The PID reading in boring B4 was 0.7 ppm at 1.5 to 2.5 feet bgs. This boring was advanced to the west of the UST pit.

Following completion of sampling at each boring, the boreholes were abandoned using bentonite chips. Before and between the drilling of each boring and at the completion of the project, down-hole drilling equipment was decontaminated using a self-contained pressure washing unit provided by the driller. No re-usable equipment was used in the field for sample collection besides the drill rods and drill shoe, which were decontaminated under AEC supervision between borings and sampling.

All of the soil cuttings not collected for laboratory analyses were placed on the ground adjacent to the respective boring for lithologic logging, then placed in coolers labeled as non-hazardous waste. Water generated during purging or cleansing and decontaminating the drilling equipment was placed in a labeled 5-gallon buckets. The coolers and buckets were stored at AEC's office and disposed of appropriately after receipt of the analytical results.

3.1.3 Soil Laboratory Analyses

The soil samples were placed in iced coolers and submitted to Apex for several analyses. The temperatures of the coolers recorded by the laboratory upon receipt were 4.9, 3.2, 5.0, and 4.5 degree Celsius (°C), which are within the EPA's recommended limit (which is specifically less than or equal to 6°C and above freezing point). The analyses conducted on each soil sample included the following:

- TPH-d and the TPH-o by Method NWTPH-Dx;
- TPH-g by Method NWTPH-Gx;
- PAHs by USEPA Method 8270E SIM;
- VOCs by EPA Method 5035A/8260D; and
- Total lead by USEPA Method 6020B with ICP-MS.

3.1.4 Soil Data Evaluation

The soil samples analytical results of the December sampling events are included in **Appendix 4** and summarized in **Table 1** through **Table 4**. In addition to presenting the analytical results, these tables also identify relevant DEQ generic RBCs for soil. The methods used to develop RBCs are described in DEQ's guidance entitled RBDM for the Remediation of Contaminated Sites (DEQ, 2017). The generic RBCs identified in these tables are consistent with the current commercial land use and zoning, and assume occupational receptors and construction and excavation workers will be present on the Site. These generic RBCs for occupational receptors and construction and excavation workers are also consistent with the anticipated future use of the Site. A multi-unit residential complex is located to the north of the Site across Lowry Lane.



Therefore, the generic RBCs for urban residential receptors were added to the results tables for a more stringent risk evaluation.

The reported constituents in soil were compared to relevant generic RBCs, including the following exposure pathways and receptors: the *ingestion, dermal contact, and inhalation exposure pathway* for urban residential and occupational receptors, and construction and excavation workers; the *volatilization to outdoor air exposure pathway* for urban residential and occupational receptors; the *vapor intrusion into buildings exposure pathway* for urban residential and occupational receptors; and the *leaching to groundwater exposure pathway* for urban residential and occupational receptors. The concentrations of metals in soil were also compared to the naturally occurring background concentrations in the Klamath Mountains region of Oregon, which includes the Medford area and the Site (DEQ, 2013), as well as with the DEQ's Clean Fill Values (DEQ, 2019).

The analytical results reported several constituents at concentrations that exceed the laboratory method reporting limits (MRLs) in several soil samples. The reported data are summarized in the following paragraphs.

➤ **Total Petroleum Hydrocarbons**

The laboratory results reported TPH-o at concentrations above the laboratory MRLs in soil samples B2, B3, B7, B8, and B9. The reported concentrations were below any generic applicable RBCs for urban residential and occupational receptors, and construction and excavation workers. The TPHs MRLs were below the relevant generic RBCs. The TPHs soil results are summarized in **Table 1**.

➤ **Polycyclic Aromatic Hydrocarbons**

The laboratory results reported several PAHs at concentrations above the laboratory MRLs in soil samples B7, B8, and B9. The concentrations of these PAHs were below any generic applicable RBCs for urban residential and occupational receptors, and construction and excavation workers. The PAHs MRLs were below relevant generic RBCs. The PAHs soil results are summarized in **Table 2**.

➤ **Volatile Organic Compounds**

The laboratory results reported no gasoline-range VOCs at concentrations above the laboratory MRLs in any of the analyzed soil samples B1 through B9. Several VOCs MRLs exceeded the relevant generic RBCs, specifically the occupational RBCs for the *leaching to groundwater exposure pathway*. The VOCs soil results are summarized in **Table 3**.

➤ **Total Lead**

The analytical results reported lead at concentrations that exceeded the laboratory MRLs in all analyzed soil samples B1 through B9. The reported concentrations ranged from 2.13 mg/kg to 3.51 mg/kg, which were below the generic applicable RBCs. The total lead soil results are summarized in **Table 4**.



3.1.5 Soil Clean Fill Determination

Based on the analytical results for the soil samples collected at the Site, which are presented in **Table 1** through **Table 4**, the soil at the Site qualifies as Clean Fill with the following exceptions:

- In and in the vicinity of the USTs excavation, the soil from approximately 8.0 to 14.0 feet bgs (TPH-d, TPH-g, and dibenzofuran were reported at concentrations above the Clean Fill Values); and
- In and in the vicinity of the diesel satellite dispensers excavation, the soil from approximately 6.0 to 8.0 feet bgs (TPH-d, dibenzofuran, fluorene, 1-methylnaphthalene, and 2-methylnaphthalene were reported at concentrations above the Clean Fill Values).

Soil at these locations should not be exported off-Site, though the soil can be reused on-Site as fill. It should be noted that per the *Clean Fill Determinations* Internal Management Directive (DEQ, 2019), any soil with petroleum-like staining or a petroleum-like odor does not qualify as Clean Fill and should not be exported from the Site.

3.2 LUST Additional Groundwater Investigation

3.2.1 Push-Probe Drilling and Groundwater Sampling

On December 7, 2021, subsequent to the advancement of soil borings, a temporary well was installed in each of the nine borings B1 through B9. The temporary wells were constructed of 0.75-inch diameter polyvinyl chloride (PVC) casing with one 5-foot sections of 0.020-inch slotted screen set on the bottom of the wells. Upon the installation of the PVC casing and screen, three of the boreholes had some minor slough. The final depths of the screens in each temporary well were at the following depths: from approximately 19.0 to 24.0 feet bgs in temporary well B1; from approximately 17.5 to 22.5 feet bgs in temporary well B2; from approximately 13.0 to 18.0 feet bgs in temporary well B3; from approximately 14.0 to 19.0 feet bgs in temporary wells B4, B7, and B8; from approximately 18.0 to 23.0 feet bgs in temporary well B5; from approximately 13.5 to 18.5 feet bgs in temporary well B6; and from approximately 14.5 to 19.5 feet bgs in temporary well B9.

Prior to well purging, AEC measured the depth to groundwater in each temporary well. The depth to water was 11.4 feet bgs in temporary well B1, 17.3 feet bgs in temporary well B2, 9.3 feet bgs in temporary well B3, 9.9 feet bgs in temporary well B4, 17.0 feet bgs in temporary well B5, 13.9 feet bgs in temporary well B6, 18.6 feet bgs in temporary well B7, 9.3 feet in temporary well B8, and 17.9 feet bgs in temporary well B9.

AEC purged the temporary wells B1 through B4 using a peristaltic pump and disposable polyethylene tubing in order to lower the turbidity prior to sampling. Approximately 0.5 to 3.0 gallons of water were purged from each of these temporary wells prior to collecting the groundwater samples. Groundwater turbidity visibly cleared in these wells after purging, though the water was still mildly turbid when the groundwater samples were collected. Due to poor yield, temporary wells B5 through B9 were not purged prior to sampling. All water in the well casings was collected for the water sample and thus, the water was relatively turbid.



On December 7 and 8, 2021, AEC collected groundwater samples from each of the temporary wells using a peristaltic pump and disposable polyethylene tubing. The intakes of the tubing were placed at the approximate midpoint of the saturated screened intervals in the temporary wells. However, in the wells with poor yield, the sampling tubing was lowered as the groundwater dropped. The groundwater samples were collected and contained in appropriately preserved, laboratory-prepared sample bottles and labeled with unique sample identifications (i.e. B1-GW through B9-GW). The water samples designated for dissolved lead analyses were filtered in the field using disposable single-use 0.45-micron filters.

At the conclusion of groundwater sampling, the PVC temporary well casings were removed and the boreholes were backfilled (plugged) with 3/8-inch diameter hydrated bentonite chips consistent with relevant Oregon Water Resources Department (WRD) well decommissioning rules.

3.2.2 Groundwater Laboratory Analyses

The groundwater samples were placed in iced coolers and submitted to Apex using standard AEC chain-of-custody protocols. All of the groundwater samples were submitted for all of the following analyses:

- TPH-d and TPH-o by Method NWTPH-Dx;
- TPH-g by Method NWTPH-Gx;
- PAHs by USEPA Method 8270E with SIM;
- VOCs by EPA Method 8260D;
- Total and dissolved lead by USEPA Method 6020B using ICP-MS.

A trip blank prepared by the analytical laboratory was provided with the sample containers from the lab. The trip blank was kept with all of the other sample containers throughout the field work and returned to the laboratory for VOCs analyses. In addition, a rinsate blank sample was obtained by collecting water from the drive shoe of the drilling rod.

A copy of the final analytical laboratory report for the Site is included in **Appendix 4**. The analytical results for soil samples are summarized in **Table 5** through **Table 8**. The TPHs results are presented in **Table 5**, the PAHs in **Table 6**, the VOCs in **Table 7**, and total and dissolved lead in **Table 8**.

3.2.3 Groundwater Data Evaluation

The groundwater samples analytical results of the December sampling event are included in **Appendix 4** and summarized in **Table 5** through **Table 8**. In addition to presenting the analytical results, these tables also identify relevant DEQ generic RBCs for groundwater. The methods used to develop RBCs are described in DEQ's guidance entitled RBDM for the Remediation of Contaminated Sites (DEQ, 2017). The generic RBCs identified in this table are consistent with the current commercial land use and zoning, and assume occupational receptors and construction



and excavation workers will be present on the Site. These generic RBCs for occupational receptors and construction and excavation workers are also consistent with the anticipated future use of the Site. A multi-unit residential complex is located to the north of the Site across Lowry Lane. Therefore, the generic RBCs for urban residential receptors were added to the results tables for a more stringent risk evaluation.

The reported constituents in groundwater were compared to relevant generic RBCs, including the following exposure pathways and receptors: the *ingestion and inhalation from tapwater exposure pathway* for urban residential and occupational receptors; the *volatilization to outdoor air exposure pathway* for urban residential and occupational receptors; the *vapor intrusion into buildings exposure pathway* for urban residential and occupational receptors; and the *groundwater in excavation exposure pathway* for urban residential and construction and excavation workers. The reported data are summarized in the following paragraphs. The concentrations of lead in groundwater samples were also compared to the USEPA and Oregon Health Authority (OHA) Maximum Contaminant Level (MCL).

The laboratory analytical results of the groundwater samples collected from temporary wells B1 through B9 reported several constituents at concentrations that exceeded the laboratory MRLs in several groundwater samples. The reported data are summarized in the following paragraphs.

➤ **Total Petroleum Hydrocarbons**

The laboratory results reported TPH-d at concentrations above the laboratory MRLs in groundwater samples B2-GW, B3-GW, B4-GW, and B6-GW. The reported TPH-d concentrations in groundwater sample B2-GW (245 micrograms per liter [$\mu\text{g/L}$]), B3-GW (212 $\mu\text{g/L}$), and B6-GW (104 $\mu\text{g/L}$) exceeded the RBC for the *ingestion and inhalation from tapwater exposure pathway* for urban residential receptors of 100 $\mu\text{g/L}$. The TPHs MRLs were below relevant generic RBCs. The TPHs groundwater results are summarized in **Table 5**.

➤ **Polycyclic Aromatic Hydrocarbons**

The laboratory results reported two PAHs at concentrations above the laboratory MRLs in groundwater samples B8-GW and B9-GW. The reported PAHs concentrations in these two samples were below the generic applicable RBCs. The PAHs MRLs were below relevant generic RBCs. The PAHs groundwater results are summarized in **Table 6**.

➤ **Volatile Organic Compounds**

The laboratory results reported one gasoline-range VOC, specifically methyl t-butyl ether (MTBE), at concentrations above the laboratory MRLs in groundwater samples B3-GW, B4-GW, and B5-GW. The reported concentrations were below any relevant generic RBCs, with one exception. The concentration of MTBE in groundwater sample B4-GW (109 $\mu\text{g/L}$) exceeded the generic RBCs for the ingestion and inhalation from tapwater exposure pathway of for occupational and urban residential receptors of 64 $\mu\text{g/L}$ and 68 $\mu\text{g/L}$, respectively. Several VOCs MRLs exceeded the relevant generic RBCs, specifically the occupational RBCs for the *ingestion and inhalation from tapwater exposure pathway*. The VOCs groundwater results are summarized in **Table 7**.



➤ Total Lead

Total lead was reported in all groundwater samples B1-GW through B9-GW at concentrations ranging from 0.660 µg/L to 10.1 µg/L, which were below any relevant generic RBCs and below USEPA MCLs or the Treatment Technique. The total lead groundwater results are summarized in **Table 8**.

➤ Dissolved Lead

Dissolved lead was not reported above the laboratory MRL in groundwater samples B1-GW through B9-GW. The dissolved lead MRL was below relevant generic RBCs. The total metals groundwater results are summarized in **Table 8**.

3.3 Quality Control

The results of all laboratory analyses of the soil and groundwater samples collected in December 2021 underwent a data quality evaluation or data validation. The evaluations considered the following elements:

- Daily field notes, boring logs, and chain-of-custody records;
- Laboratory holding times;
- Trip and method blank results;
- Rinsate blank;
- Surrogate recoveries;
- Matrix spikes and matrix spike duplicates (MS/MSD) or laboratory control samples and laboratory control samples duplicate (LCS/LCSD);
- Laboratory duplicate analyses;
- Field duplicate analyses;
- Quantitation limits and ranges; and
- Completeness.

Data precision was evaluated through laboratory and field duplicates. Data accuracy was evaluated through laboratory control samples, surrogate spikes, and matrix spikes. Data qualifiers were assigned, as necessary, during the data quality evaluations in accordance with EPA guidelines. Data qualifiers that were assigned by the analytical laboratory during data validation are included in the complete analytical report in **Appendix 4**.

One field duplicate soil sample (labeled as DUP) was collected from borehole B8. One field duplicate groundwater sample (labeled as DUP) was collected from the temporary well installed in borehole B1. An equipment rinsate blank sample was also collected from deionized water poured over the decontaminated drill shoe. The soil duplicate sample, the groundwater duplicate sample, and the equipment rinsate blank water sample were analyzed for TPH-d, TPH-o, TPH-g,



gasoline-range VOCs, PAHs, and total lead. The trip blank was also analyzed for gasoline-range VOCs.

The reported concentrations in the duplicate pairs B8/DUP and B1-GW/DUP had slight variations but overall were similar, with the exception of TPH-d, whose concentration was much higher in the duplicate soil sample than in soil sample B8.

The reported concentrations in the soil duplicate pair included the following:

- TPH-d was reported at a concentration of 89.0 mg/kg in B8 and 501 mg/kg in DUP, which indicates poor duplication of TPH-d results;
- Chrysene was reported at a concentration of 0.0247 mg/kg in B8 and 0.0193 mg/kg in DUP;
- Phenanthrene was reported at a concentration of 0.0417 mg/kg in B8 and 0.0350 mg/kg in DUP;
- Pyrene was reported at a concentration of 0.0179 mg/kg in B8 and 0.0142 mg/kg in DUP; and
- Total lead was reported at a concentration of 3.39 mg/kg in B8 and 3.51 mg/kg in DUP.

The reported concentrations in the groundwater duplicate pair included the following:

- Total lead was reported at a concentration of 3.51 µg/L in B1-GW and 4.66 µg/L in DUP.

No constituents were reported above their respective MRLs in the equipment rinsate blank, indicating decontamination procedures for the drilling equipment were adequate. No gasoline-range VOCs were detected in the trip blank, indicating there was no cross contamination by VOCs during sample shipment.



4 CONCLUSIONS AND RECOMMENDATIONS

The Site's UST system (Facility Number 4751) was decommissioned by removal by M&M Services, LLC of Medford, Oregon in October 2021. The UST system consisted of two 15,000-gallon diesel USTs and one 15,000-gallon gasoline UST, fill and vent lines, fuel pipelines, and dispensers. Approximately 333 tons of petroleum impacted soil were excavated in October and November 2021 and transported to Dry Creek Landfill in Eagle Point, Oregon. Several confirmatory soil sampling rounds were conducted at the Site. Based on the field observations and analytical data of the confirmation soil samples, a petroleum release associated was reported to DEQ and the LUST incident file number 15-21-1104 was allocated to the Site.

A total of 21 confirmation soil samples (S1 through S20 and a duplicate of sample S12) were collected and submitted for relevant laboratory analyses to determine if the UST cleanup was complete. The soil samples were submitted to Apex and analyzed for several or all of the following analyses: TPH-d and TPH-o by Method NWTPH-Dx; TPH-g by Method NWTPH-Gx; PAHs by USEPA Method 8270E with SIM; VOCs in gasoline-range by USEPA Method 5035A/8260D; and/or total lead by USEPA Method 6020A with ICP-MS. The analytical data of the confirmatory soil samples reported several constituents at concentrations above the generic RBCs for urban residential and occupational receptors, and construction workers.

The following exceedances were reported in the USTs excavation area: the concentration of TPH-d in soil sample S14 exceeded the RBC for the *ingestion, dermal contact and inhalation exposure pathway* for urban residential receptors; the concentrations of TPH-g in soil samples S12, S14, and S16 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential receptors; and the concentration of TPH-g in soil sample S16 also exceeded the RBCs for the *vapor intrusion into buildings exposure pathway* for urban residential receptors.

The following exceedances were reported in the diesel satellite dispensers excavation area: the concentration of TPH-d in soil sample S2 exceeded the RBC for the *ingestion, dermal contact and inhalation exposure pathway* for urban residential receptors and construction workers, and the *leaching to groundwater exposure pathway* for urban residential receptors; the concentration of naphthalene in soil sample S2 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential and occupational receptors; and the concentrations of TPH-d in soil sample S17 exceeded the RBC for the *ingestion, dermal contact and inhalation exposure pathway* for urban residential receptors and for construction workers.

During the UST decommissioning activities, the pit water was not sampled. However, DEQ approved groundwater sampling from temporary borings instead of from the UST pit. AEC conducted additional LUST investigation activities at the Site in December 2021. These investigation activities included the advancement of nine soil borings, installation of nine temporary wells, and the collection of soil and groundwater samples. The additional LUST investigation was conducted to gather data to evaluate potential risks at the Site and to obtain an NFA determination for the Site from DEQ.



The nine borings were advanced at the Site by push-probe method to depths ranging from 18 to 25 feet bgs. Temporary wells were set in all these borings. A total of 10 soil samples (B1 through B9 and a duplicate of sample B8) were collected from depths of 11.0 to 14.0 feet bgs. A total of 11 groundwater samples were collected (B1-GW through B9-GW, a duplicate of groundwater sample B1-GW, and a rinsate blank sample). All soil and groundwater samples were submitted to Apex and analyzed for the following analyses:

- TPH-d and TPH-o by Method NWTPH-Dx;
- TPH-g by Method NWTPH-Gx;
- PAHs by USEPA Method 8270E with SIM;
- VOCs in the gasoline-range by USEPA Method 5035A/8260D; and
- Total lead by USEPA Method 6020A ICP-MS. The groundwater samples were also analyzed for dissolved lead.

The analytical data of the soil and groundwater samples collected in December 2021 reported several constituents at concentrations above the generic RBCs for urban residential and occupational receptors.

The following exceedances were reported in the USTs excavation area: the concentration of TPH-d in groundwater samples B2-GW and B3-GW exceeded the generic RBC for the *ingestion and inhalation from tapwater exposure pathway* for urban residential receptors; and the concentration of MTBE in groundwater sample B4-GW exceeded the generic RBC for *ingestion and inhalation from tapwater exposure pathway* for urban residential and occupational receptors. The following exceedance was reported in the diesel satellite dispensers excavation area: the concentration of TPH-d in groundwater sample B6-GW exceeded the RBC for the *ingestion and inhalation from tapwater exposure pathway* for urban residential receptors.

While generic RBCs for urban residential and occupational receptors and construction workers were exceeded for the aforementioned constituents and exposure pathways, potential risks to human health associated with these constituents and exposure pathways can be managed, mitigated, and/or eliminated from further concern, as follows:

- The soil in the location of soil sample S2 was excavated and removed from the Site; therefore, the reported contaminants in this sample can be eliminated from further concern.
- The ingestion, dermal contact and inhalation exposure pathway for urban residential receptors applies to contaminants found in the upper 3 feet of soil in an area occupied by urban residential receptors. The concentrations of TPH-d reported in soil samples S14 and S17, collected from approximately 8.0 to 10.0 feet bgs and 6.0 to 8.0 feet bgs, respectively, can be eliminated from further concern for two reasons. First, these two soil samples were collected on the Site where urban residential receptors are not present. Second, these two soil samples were collected from depths greater than 3 feet bgs.
- For TPH-d in the former diesel satellite dispensers area, the *ingestion, dermal contact, and inhalation exposure pathway* for construction workers can be managed with proper



communication to future construction workers. Workers should be informed and required they wear appropriate personal protective equipment (PPE) and follow proper decontamination procedures subsequent to working in order to avoid exposure and health risks. The procedures documenting proper communication, appropriate PPE, and proper decontamination could be documented in a Health and Safety Plan (HASP) and a Contaminated Media Management Plan (CMMP) approved by DEQ.

- The concentrations of TPH-g reported in soil samples S12, S14, and S16 exceeded the RBCs for the *leaching to groundwater exposure pathway* for urban residential receptors. The concentration of TPH-d reported in soil sample S16 also exceeded the RBCs for the *vapor intrusion into buildings exposure pathway* for urban residential receptors.
- The *vapor intrusion into buildings exposure pathway* is included whenever vadose zone soils are contaminated with volatile compounds and are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building. For TPH-g in soil sample S16, the *vapor intrusion into buildings exposure pathway* can be eliminated from further concern because the distance between the location of sample S16 and the nearest building where urban residential receptors are present is approximately 80 feet.
- For TPH-g in soil and MTBE and TPH-d in groundwater in the vicinity of the former USTs area, and for TPH-d in water to the southwest of the former diesel satellite dispensers area, the *leaching to groundwater exposure pathway* and the *ingestion and inhalation from tapwater exposure pathway* for urban residential and occupational receptors can be eliminated from further concern due to the fact that no water supply wells exist at the Site or proximal to the Site. Furthermore, the Site and adjacent properties are serviced with municipal water by the Medford Water Commission, and it is reasonable and likely to assume that the Site and adjacent properties will continue to utilize municipal water in the future. Accordingly, it is highly unlikely that residual Site-related contamination in groundwater would generate any unacceptable health risks to urban residential and occupational receptors at the Site and proximal to the Site via the *leaching to groundwater exposure pathway* and the *ingestion and inhalation from tapwater exposure pathway*. To completely eliminate the potential risks these constituents might pose to urban residential proximal to the Site and to occupational receptors at the Site, a deed notice could be developed and applied that prohibits the installation of wells to supply water to urban residential receptors proximal to the Site and to occupational receptors at the Site.

Based on these findings, AEC concludes the following:

- The presence of residual petroleum hydrocarbons and associated contaminants in soil and groundwater at the Site indicates the historical use of USTs at the Site impacted the Site's subsurface. However, most of the impacted soil was removed during UST decommissioning activities and the remaining concentrations in soil and groundwater do not present unacceptable risks to human receptors given the current and reasonably likely future commercial use of the Site.
- Based on soil sample analytical results, soil at the Site in the former USTs and fuel dispensers areas does not qualify as Clean Fill. Soil from these areas should not be



exported off-Site, though the soil can be reused on-Site as fill. It should be noted that per *Clean Fill Determinations* Internal Management Directive (DEQ, 2019), any soil with petroleum-like staining or a petroleum-like odor does not qualify as Clean Fill and should not be exported from the Site.

- To completely eliminate the potential risks residual petroleum contaminants might pose to occupational receptors at the Site and to urban residential receptors proximal to the Site, deed notices could be developed and applied that prohibits the installation of wells to supply water at the Site and proximal properties.
- To manage potential risks to construction workers associated with TPH-d in soil in the former diesel satellite dispensers area, a HASP and CMMP should be prepared and implemented at the Site.
- AEC anticipates the data collected under this LUST Investigation will be adequate to obtain a No Further Action (NFA) letter from DEQ for LUST file number 15-21-1104.

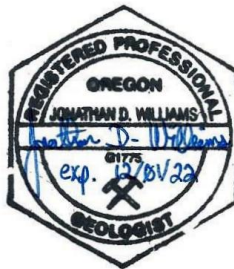
Please feel free to contact Jonathan Williams at 541-944-4685 or jwilliams@alpine-env-llc.com if you have any questions about this Phase II ESA report.

Sincerely,

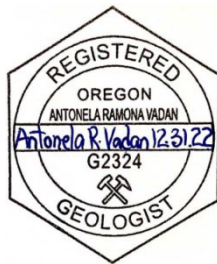
Alpine Environmental Consultants, LLC



Jonathan D. Williams, R.G.
Senior Hydrogeologist



Antonela Vadan, R.G.
Project Geologist



5 REFERENCES

Oregon Department of Environmental Quality (DEQ). March 2013. *Development of Oregon Background Metals Concentrations in Soil*, Technical report. Land Quality Division, Cleanup Program. (DEQ, 2013).

Oregon DEQ. October 2, 2017. *Risk-Based Decision Making for the Remediation of Contaminated Sites*. Environmental Cleanup and Tanks Program, Oregon DEQ. (DEQ, 2017).

Oregon DEQ. February 21, 2019. Clean Fill Determinations, Internal Management Directive. (DEQ, 2019).



6 LIMITATIONS

The purpose of an environmental assessment is to reasonably evaluate the potential for or actual impact of past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. This environmental assessment contains professional opinions as to the environmental issues of concern and/or additional actions, which may be addressed to the property. In rendering its professional opinion, we warrant that services provided hereunder were performed, within the limits described, consistent with current generally accepted environmental consulting principles and practices. No other warranty, express or implied, is made. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

Any opinions or recommendations presented apply to site conditions existing when services were performed. We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to investigate, or conditions not generally recognized as environmentally unacceptable when services were performed.

Environmental conditions may exist at the site that cannot be identified by visual observation. Where the scope of services was limited to observations made during site reconnaissance, interviews, review of readily available reports and literature or any combination, any conclusions or recommendations or both are necessarily based in part on information supplied by others, the accuracy or sufficiency of which we may not have independently reviewed.

Where subsurface work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

Except where there is express concern of our client, or where specific environmental contaminants have been previously reported by others, naturally occurring toxic substances, potential environmental contaminants inside buildings, or contaminant concentrations that are not of current environmental concern may not be reflected in this document.

We are not responsible for any potential impact of changes in applicable environmental standards, practices, or regulations following performance of services, on the conclusions or recommendations, or both, of the study.

Services hereunder were performed consistent with our agreement and understanding with, and solely for the use of, our client. Opinions and recommendations are intended for the client, purpose, site, location, time frame, and project parameters indicated. We are not responsible



for subsequent separation, detachment, or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.



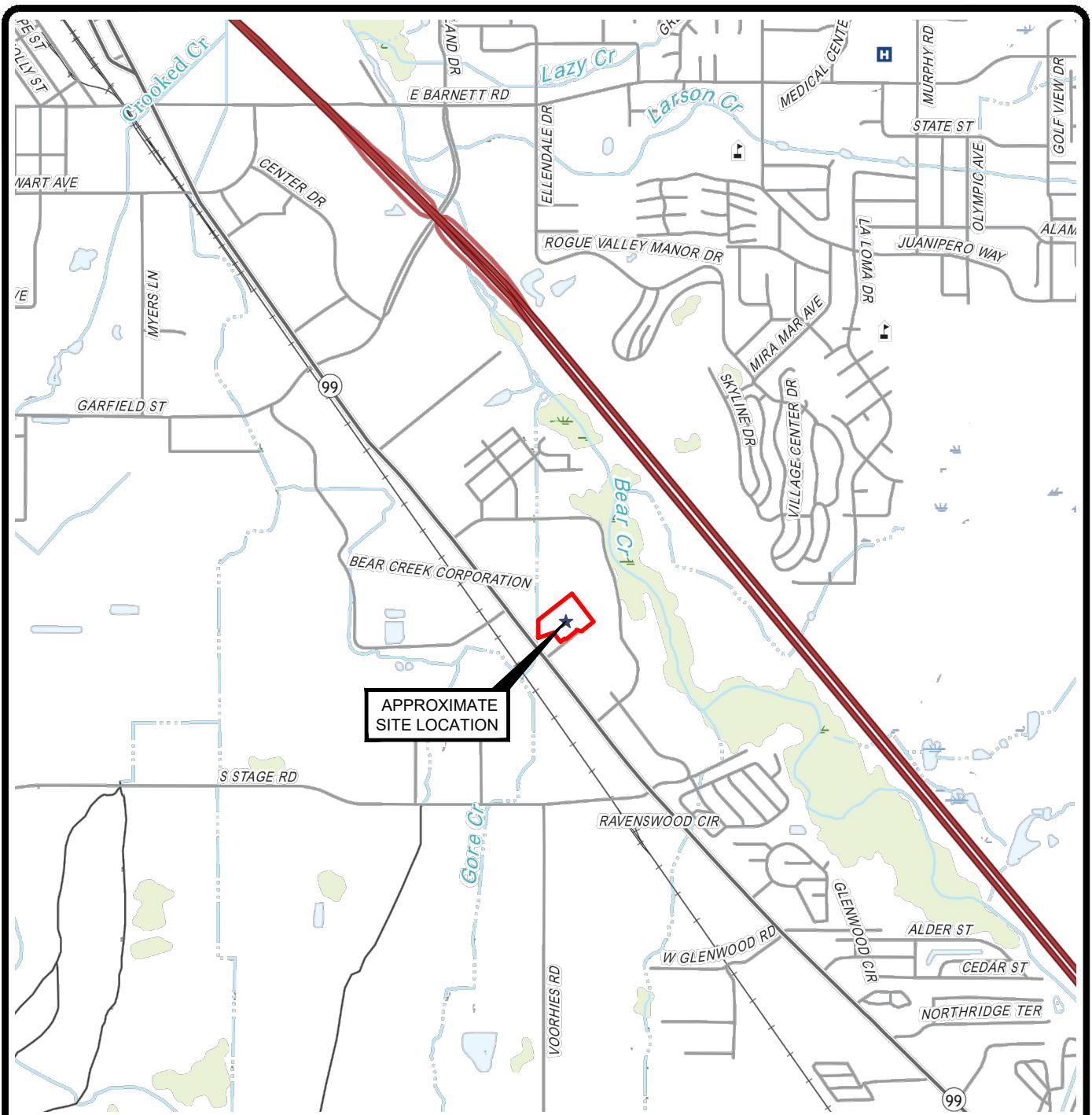
7 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Mr. Jonathan Williams received a Bachelor of Science degree in Geology, with honors, from Duke University in 1987. He has over 28 years experience working with geologic and environmental reports, including Phase I ESAs. Mr. Williams has been a Registered Geologist in the State of Oregon since 1996, and has 40-hour HAZWOPER training.

Ms. Antonela Vadan holds a Bachelor of Arts and Science in Earth and Environmental Sciences from the University of Illinois at Chicago. She has over 19 years of experience in both the private and public sector. Ms. Vadan has conducted multiple Phase I ESAs. Additional project activities have included risk assessments, remedial investigations/feasibility studies, soil and groundwater investigations, and indoor air quality investigations. Ms. Vadan is a Registered Geologist in the States of Oregon and Washington and has 40-hour HAZWOPER training.




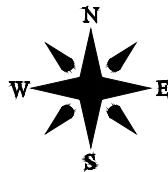
FIGURES



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
MEDFORD EAST, OR (2020)

LEGEND

 Approximate Site Boundary




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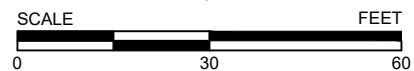
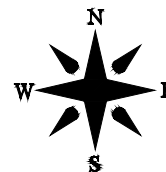
Figure 1
Site Location Map
LUST Investigation
2531 South Pacific Highway
Medford, Oregon



SOURCE: GOOGLE EARTH (2020)

LEGEND

- B1 ■ Soil Boring Location
- S1 ● Soil Sample Location
- Approximate Site Boundary
- UST Underground Storage Tank



ALPINE ENVIRONMENTAL CONSULTANTS, LLC

DATE: 3/11/22 DRAWN BY: SRM

Figure 2
Soil Sample and Soil Boring Location Map
LUST Investigation
2531 South Pacific Highway
Medford, Oregon

TABLES

**Table 1. Soil Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling				
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			S1	S2	S3	S4	S5
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Southern Area of the Former Diesel Satellite Dispensers	Center Area of the Former Diesel Satellite Dispensers	Northern Area of the Former Diesel Satellite Dispensers	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs		10/22/21	10/22/21	10/22/21	10/22/21	10/22/21
TPHs (mg/kg)																
Method																
NWTPH-Dx and NWTPH-Gx																
Diesel-range	2,500	14,000	4,600	>Max	>Max	>Max	>Max	>Max	9,500	>Max	1,100	39.2 F-11	9,960	45.0 F-11	25.0U	25.0U
Oil-range	2,500	14,000	4,600	>Max	>Max	>Max	>Max	>Max	9500	>Max	1,100	50.0U	936U	50.0U	50.0U	50.0U
Gasoline-range	2,500	20,000	9,700	>Max	5,900	69,000	94	>Max	31	130	31	NA	NA	NA	NA	NA

See notes on next page.

**Table 1. Soil Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	Hand Sampling							
	S6	S7	S8	S9	S10	S11	S12	DUP
	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Northern Sidewall UST Excavation	Eastern Sidewall UST Excavation	Western Sidewall UST Excavation	Duplicate of S12, Western Sidewall UST Excavation
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs
	10/22/21	10/22/21	10/22/21	10/22/21	11/01/21	11/01/21	11/01/21	11/01/21
TPHs (mg/kg) Method NWTPH-Dx and NWTPH-Gx								
Diesel-range	25.0U	25.0U	25.0U	25.0U	25.0U	25.9U	1,710	1,380 Q-39, Q-42
Oil-range	50.0U	50.0U	50.0U	50.0U	50.0U	51.9U	50.0U	50.0U
Gasoline-range	NA	NA	NA	NA	8.58U	6.60U	92.2 F-09	77.4 F-09

See notes on next page.

**Table 1. Soil Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	Hand Sampling							
	S13	S14	S15	S16	S17	S18	S19	S20
	Northern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Western Boundary of the Dispenser Excavation	Southern Boundary of the Dispenser Excavation	Western Boundary of the Dispenser Excavation	Northern Boundary of the Dispenser Excavation
	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs
	11/01/21	11/02/21	11/02/21	11/02/21	11/12/21	11/12/21	11/12/21	11/12/21
TPHs (mg/kg)								
Method								
NWTPH-Dx and NWTPH-Gx								
Diesel-range	25.0U	2,810	25.0U	1,980U	7,620	986	1,740	25.0U
Oil-range	50.0U	89.5U	50.0U	50.0U	480U	50.0U	50.0U	50.0U
Gasoline-range	5.40U	40.1 F-13, Q-42	6.92U	99.1	NA	NA	NA	NA

See notes on next page.

**Table 1. Soil Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

	Push-Probe Sampling									
	B1	B2	B3	B4	B5	B6	B7	B8	DUP	B9
	West of the UST Excavation Boundary	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary	Southwest of the Former Diesel Satellite Dispensers Area	West-Northwest of the Former Diesel Satellite Dispensers Area	Northeast of the Former Diesel Satellite Dispensers Area	Duplicate Sample of Soil Sample B8	East of the Former Diesel Satellite Dispensers Area
Parameter	11.0-12.0 ft bgs	11.5-12.5 ft bgs	12.0-13.0 ft bgs	12.0-13.0 ft bgs	11.5-12.5 ft bgs	11.0-13.0 ft bgs	11.5-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs
	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21
TPHs (mg/kg) Method NWTPH-Dx and NWTPH-Gx										
Diesel-range	25.0U	25.0U	25.0U	25.0U	25.0U	25.0U	25.0U	25.0U	25.0U	25.0U
Oil-range	50.0U	189	295	50.0U	50.0U	50.0U	886	89.0	501	156
Gasoline-range	6.41U	5.26U	6.51U	6.77U	8.03U	4.43U	6.67U	4.53U	5.66U	4.96U

See notes on next page.

Table 1. Soil Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory's method reporting limit.

Analytical data highlighted in yellow indicates the value exceeded a generic RBC.

Analytical data highlighted in blue indicates the value exceeded the Clean Fill Value.

Analytical data highlighted in both yellow and blue indicates the value exceeded one or more generic RBCs and the Clean Fill Value.

Data Qualifiers:

F-09 - Results in the Gasoline Range are impacted by the overlap of a heavier fuel hydrocarbon product.

F-11 - The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.

F-13 - The chromatographic pattern does not resemble the fuel standard used for quantitation.

Q-39 - Results for sample duplicate are significantly higher than the sample results. See duplicate results in QC section of the report.

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.)

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all contaminants found in the top three feet of soil.

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

(f) Clean Fill Values are referenced from the DEQ's Clean Fill Determinations guidance document dated February 2019.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>C_{sat} - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

Table 2. Soil Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling				
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			S1	S2	S3	S4	S5
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Southern Area of the Former Diesel Satellite Dispensers	Center Area of the Former Diesel Satellite Dispensers	Northern Area of the Former Diesel Satellite Dispensers	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs		10/22/21	10/22/21	10/22/21	10/22/21	10/22/21
PAHs (mg/kg) USEPA Method 8270E SIM																
Acenaphthene	9,400	70,000	21,000	590,000	>Max	>Max	>Max	>Max	>Csat	>Csat	0.25	0.0113U	0.114U, R-02	0.0113U	0.0113U	0.0120U
Acenaphthylene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	120	0.0113U	0.0517U, R-02	0.0113U	0.0113U	0.0120U
Anthracene	47,000	350,000	110,000	>Max	>Max	>Max	>Max	>Max	>Csat	>Csat	6.8	0.0113U	0.141U, R-02	0.0113U	0.0113U	0.0120U
Benz(a)anthracene	2.5	21	170	4,800	>Csat	>Csat	>Csat	>Csat	6.0	>Csat	0.73	0.0113U	0.0120U	0.0113U	0.0113U	0.0120U
Benzo(a)pyrene	0.25	2.1	17	490	NV	NV	NV	NV	>Csat	>Csat	0.11	0.0113U	0.0120U	0.0113U	0.0113U	0.0120U
Benzo(b)fluoranthene	2.5	21	170	4,900	NV	NV	NV	NV	>Csat	>Csat	1.1	0.0113U	0.0181 M-05	0.0113U	0.0113U	0.0120U
Benzo(k)fluoranthene	11	210	1,700	49,000	NV	NV	NV	NV	>Csat	>Csat	11	0.0113U	0.0120U	0.0113U	0.0113U	0.0120U
Benzo(g,h,i)perylene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	25	0.0113U	0.0172	0.0113U	0.0113U	0.0120U
Chrysene	250	2,100	17,000	490,000	NV	NV	NV	NV	>Csat	>Csat	3.1	0.0113U	0.0688 M-05	0.0113	0.0113U	0.0120U
Dibenz(a,h)anthracene	0.25	2.1	17	490	NV	NV	NV	NV	>Csat	>Csat	0.11	0.0113U	0.0120U	0.0113U	0.0113U	0.0120U
Dibenzofuran	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.002	0.0113U	0.268	0.0139	0.0113U	0.0120U
Fluoranthene	4,800	30,000	10,000	280,000	NV	NV	NV	NV	>Csat	>Csat	10	0.0117	0.0590	0.0177	0.0113U	0.0120U
Fluorene	6,300	47,000	14,000	390,000	>Max	>Max	>Max	>Max	>Csat	>Csat	3.7	0.0113U	0.274	0.0113U	0.0113U	0.0120U
Indeno(1,2,3-cd)pyrene	2.5	21	170	4,900	NV	NV	NV	NV	>Csat	>Csat	1.1	0.0113U	0.0120U	0.0113U	0.0113U	0.0120U
1-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.36	0.0300	0.961	0.0469	0.0113U	0.0120U
2-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	11	0.0469	2.12	0.166	0.0113U	0.0120U
Naphthalene	25	23	580	16,000	15	83	15	83	0.37	0.34	0.077	0.0308	0.583	0.114	0.0113U	0.0120U
Phenanthrene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.5	0.0133	0.628	0.0453	0.0113U	0.0120U
Pyrene	1,800	23,000	7,500	210,000	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	10	0.0121	0.709	0.0202	0.0113U	0.0120U

See notes on next page.

Table 2. Soil Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S6	S7	S8	S9	S10	S11	S12	DUP
	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Northern Sidewall UST Excavation	Eastern Sidewall UST Excavation	Western Sidewall UST Excavation	Duplicate of S12, Western Sidewall UST Excavation
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs
10/22/21	10/22/21	10/22/21	10/22/21	11/01/21	11/01/21	11/01/21	11/01/21	
PAHs (mg/kg) USEPA Method 8270E SIM								
Acenaphthene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.112U, R-02	0.0946U, R-02
Acenaphthylene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0309U, R-02	0.0286U, R-02
Anthracene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0961U, R-02	0.0858U, R-02
Benz(a)anthracene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0320U, R-02	0.0319U, R-02
Benzo(a)pyrene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
Benzo(b)fluoranthene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
Benzo(k)fluoranthene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
Benzo(g,h,i)perylene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
Chrysene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0320U, R-02	0.0319U, R-02
Dibenz(a,h)anthracene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
Dibenzofuran	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.147	0.138
Fluoranthene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0373	0.0398
Fluorene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.337	0.324
Indeno(1,2,3-cd)pyrene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0114U	0.0110U
1-Methylnaphthalene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0298U, R-02	0.0297U, R-02
2-Methylnaphthalene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0309U, R-02	0.0319U, R-02
Naphthalene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.0492U, R-02	0.0363U, R, 02
Phenanthrene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.111U, R-02	0.149U, R-02
Pyrene	0.0114U	0.0115U	0.0113U	0.0109U	0.0126U	0.0122U	0.126	0.120

See notes on next page.

Table 2. Soil Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S13	S14	S15	S16	S17	S18	S19	S20
	Northern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Western Boundary of the Dispenser Excavation	Southern Boundary of the Dispenser Excavation	Western Boundary of the Dispenser Excavation	Northern Boundary of the Dispenser Excavation
	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs
	11/01/21	11/02/21	11/02/21	11/02/21	11/12/21	11/12/21	11/12/21	11/12/21
PAHs (mg/kg)								
USEPA Method 8270E SIM								
Acenaphthene	0.0116U	0.0529U, R-02	0.0113U	0.165U, R-02	4.31U, R-02	0.0637U, R-02	0.526U, R-02	0.0118U
Acenaphthylene	0.0116U	0.0282U, R-02	0.0113U	0.0534U, R-02	0.838U, R-02	0.0114U	0.134U, R-02	0.0118U
Anthracene	0.0116U	0.0270U, R-02	0.0113U	0.0788U, R-02	0.427U, R-02	0.0614U, R-02	0.0579U, R-02	0.0118U
Benz(a)anthracene	0.0116U	0.0118U	0.0113U	0.0218U, R-02	0.0665U, R-02	0.0114U	0.290U, R-02	0.0118U
Benzo(a)pyrene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
Benzo(b)fluoranthene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
Benzo(k)fluoranthene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
Benzo(g,h,i)perylene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
Chrysene	0.0116U	0.0118U	0.0113U	0.0218U, R-02	0.0677U, R-02	0.0114U	0.0290U, R-02	0.0118U
Dibenz(a,h)anthracene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
Dibenzofuran	0.0116U	0.0423U, R-02	0.0113U	0.220	2.36	0.0772	0.386	0.0118U
Fluoranthene	0.0116U	0.0118U	0.0113U	0.0223	0.0875	0.0138	0.0281	0.0118U
Fluorene	0.0116U	0.0118U	0.0113U	0.385	4.50	0.171	0.698	0.0118U
Indeno(1,2,3-cd)pyrene	0.0116U	0.0118U	0.0113U	0.0121U	0.0117U	0.0114U	0.0107U	0.0118U
1-Methylnaphthalene	0.0116U	0.0118U	0.0113U	0.284	36.2	0.0823	1.26	0.0118U
2-Methylnaphthalene	0.0116U	0.0118U	0.0113U	0.0218U, R-02	12.4	0.0114U	0.0795	0.0118U
Naphthalene	0.0116U	0.0118U	0.0113U	0.0291U, R-02	0.306U, R-02	0.0114U	0.0461U, R-02	0.0118U
Phenanthrene	0.0116U	0.0282U, R-02	0.0113U	0.445	5.11	0.0591U, R-02	0.223U, R-02	0.0118U
Pyrene	0.0116U	0.172	0.0113U	0.0592	0.275	0.111	0.0613	0.0118U

See notes on next page.

Table 2. Soil Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Push-Probe Sampling									
	B1	B2	B3	B4	B5	B6	B7	B8	DUP	B9
	West of the UST Excavation Boundary	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary	Southwest of the Former Diesel Satellite Dispensers Area	West-Northwest of the Former Diesel Satellite Dispensers Area	Northeast of the Former Diesel Satellite Dispensers Area	Duplicate Sample of Soil Sample B8	East of the Former Diesel Satellite Dispensers Area
	11.0-12.0 ft bgs	11.5-12.5 ft bgs	12.0-13.0 ft bgs	12.0-13.0 ft bgs	11.5-12.5 ft bgs	11.0-13.0 ft bgs	11.5-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs
12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	
PAHs (mg/kg) USEPA Method 8270E SIM										
Acenaphthene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Acenaphthylene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Anthracene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Benzo(a)anthracene	0.0109U	0.0132U, R-02	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Benzo(a)pyrene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0178	0.0115U	0.0109U	0.0110U
Benzo(b)fluoranthene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0204	0.0115U	0.0109U	0.0110U
Benzo(k)fluoranthene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Benzo(g,h,i)perylene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0198	0.0115U	0.0109U	0.0110U
Chrysene	0.0109U	0.0132U, R-02	0.0111U	0.0119U	0.0115U	0.0102U	0.0424	0.0247	0.0193 M-05	0.0110U
Dibenz(a,h)anthracene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Dibenzofuran	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Fluoranthene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Fluorene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Indeno(1,2,3-cd)pyrene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
1-Methylnaphthalene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
2-Methylnaphthalene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Naphthalene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0115U	0.0115U	0.0109U	0.0110U
Phenanthrene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0725	0.0417	0.0350	0.0110U
Pyrene	0.0109U	0.0110U	0.0111U	0.0119U	0.0115U	0.0102U	0.0277	0.0179	0.0142	0.0110U

See notes on next page.

Table 2. Soil Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory's method reporting limit.

Analytical data highlighted in yellow indicates the value exceeded a generic RBC.

Analytical data highlighted in blue indicates the value exceeded the Clean Fill Value.

Data Qualifiers:

M-05 - Due to matrix interference, this analyte cannot be accurately quantified. The reported result may contain a high bias.

R-02 - The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all contaminants found in the top three feet of soil.

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a residential building.

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

(f) Clean Fill Values are referenced from the DEQ's Clean Fill Determinations guidance document dated February 2019.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>Csat - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

Table 3. Soil Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling				
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			S1	S2	S3	S4	S5
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Southern Area of the Former Diesel Satellite Dispensers	Center Area of the Former Diesel Satellite Dispensers	Northern Area of the Former Diesel Satellite Dispensers	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs		10/22/21	10/22/21	10/22/21	10/22/21	10/22/21
VOCs (mg/kg) USEPA Method 5035A/8260D																
Benzene	24	37	380	11,000	27	50	0.38	2.1	0.10	0.10	0.023	NA	NA	NA	NA	NA
1,2-dibromoethane (EDB)	0.53	0.73	9.0	250	0.35	0.65	0.028	0.16	0.00056	0.00056	0.00012	NA	NA	NA	NA	NA
1,2-dichloroethane (EDC)	12	16	200	5,600	8.1	15	0.18	1.0	0.013	0.013	0.0028	NA	NA	NA	NA	NA
Ethylbenzene	110	150	1,700	49,000	85	150	3.0	17	0.94	0.90	0.22	NA	NA	NA	NA	NA
iso-Propylbenzene (cumene)	7,000	57,000	27,000	750,000	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	96	NA	NA	NA	NA	NA
methyl t-butyl ether (MTBE)	730	1,100	12,000	320,000	810	1,500	20	110	0.50	0.54	NE	NA	NA	NA	NA	NA
Naphthalene	25	23	580	16,000	15	83	15	83	0.37	0.34	0.077	NA	NA	NA	NA	NA
Toluene	5,800	88,000	28,000	770,000	>Csat	>Csat	>Csat	>Csat	150	490	23	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	860	6,900	2,900	81,000	>Csat	>Csat	140	>Csat	43	48	10	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	860	6,900	2,900	81,000	>Csat	>Csat	98	>Csat	45	53	11	NA	NA	NA	NA	NA
Xylenes, total	2,900	25,000	20,000	560,000	>Csat	>Csat	160	>Csat	87	100	1.4	NA	NA	NA	NA	NA

See notes on next page.

Table 3. Soil Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S6	S7	S8	S9	S10	S11	S12	DUP
	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Northern Sidewall UST Excavation	Eastern Sidewall UST Excavation	Western Sidewall UST Excavation	Duplicate of S12, Western Sidewall UST Excavation
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs
	10/22/21	10/22/21	10/22/21	10/22/21	11/01/21	11/01/21	11/01/21	11/01/21
VOCs (mg/kg) USEPA Method 5035A/8260								
Benzene	NA	NA	NA	NA	0.0172U	0.0132U	0.0126U	0.0101U
1,2-dibromoethane (EDB)	NA	NA	NA	NA	0.0858U	0.0660U	0.0629U	0.0507U
1,2-dichloroethane (EDC)	NA	NA	NA	NA	0.0429U	0.0330U	0.0315U	0.0253U
Ethylbenzene	NA	NA	NA	NA	0.0429U	0.0330U	0.0315U	0.0253U
iso-Propylbenzene (cumene)	NA	NA	NA	NA	0.0858U	0.0660U	0.0629U	0.0507U
methyl t-butyl ether (MTBE)	NA	NA	NA	NA	0.0858U	0.0660U	0.0629U	0.0507U
Naphthalene	NA	NA	NA	NA	0.172U	0.132U	0.220U, R-02	0.139U, R-02
Toluene	NA	NA	NA	NA	0.0858U	.0660U	0.0629U	0.0507U
1,2,4-Trimethylbenzene	NA	NA	NA	NA	0.0858U	0.0660U	0.0629U	0.0507U
1,3,5-Trimethylbenzene	NA	NA	NA	NA	0.0858U	0.0660U	0.0629U	0.0507U
Xylenes, total	NA	NA	NA	NA	0.129U	0.0990U	0.0944U	0.0760U

See notes on next page.

Table 3. Soil Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S13	S14	S15	S16	S17	S18	S19	S20
	Northern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Western Boundary of the Dispenser Excavation	Southern Boundary of the Dispenser Excavation	Western Boundary of the Dispenser Excavation	Northern Boundary of the Dispenser Excavation
	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs
	11/01/21	11/02/21	11/02/21	11/02/21	11/12/21	11/12/21	11/12/21	11/12/21
VOCs (mg/kg) USEPA Method 5035A/8260								
Benzene	0.0108U	0.0122U	0.0138U	0.0128U	NA	NA	NA	NA
1,2-dibromoethane (EDB)	0.0540U	0.0160U	0.0692U	0.0642U	NA	NA	NA	NA
1,2-dichloroethane (EDC)	0.0270U	0.0305U	0.0346U	0.0321U	NA	NA	NA	NA
Ethylbenzene	0.0270U	0.0305U	0.0346U	0.0321U	NA	NA	NA	NA
iso-Propylbenzene (cumene)	0.0540U	0.0610U	0.0692U	0.0642U	NA	NA	NA	NA
methyl t-butyl ether (MTBE)	0.0540U	0.0610U	0.0692U	0.0642U	NA	NA	NA	NA
Naphthalene	0.108U	0.122U	0.138U	0.209U, R-02	NA	NA	NA	NA
Toluene	0.0540U	0.0610U	0.0692U	0.0642U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	0.0540U	0.0610U	0.0692U	0.0642U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	0.0540U	0.0610U	0.0692U	0.0642U	NA	NA	NA	NA
Xylenes, total	0.0810U	0.0915U	0.104U	0.0962U	NA	NA	NA	NA

See notes on next page.

Table 3. Soil Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Push-Probe Sampling									
	B1	B2	B3	B4	B5	B6	B7	B8	DUP	B9
	West of the UST Excavation Boundary	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary	Southwest of the Former Diesel Satellite Dispensers Area	West-Northwest of the Former Diesel Satellite Dispensers Area	Northeast of the Former Diesel Satellite Dispensers Area	Duplicate Sample of Soil Sample B8	East of the Former Diesel Satellite Dispensers Area
	11.0-12.0 ft bgs	11.5-12.5 ft bgs	12.0-13.0 ft bgs	12.0-13.0 ft bgs	11.5-12.5 ft bgs	11.0-13.0 ft bgs	11.5-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs
	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21
VOCs (mg/kg) USEPA Method 5035A/8260										
Benzene	0.0128U	0.0105U	0.0130U	0.0135U	0.0161U	0.00887U	0.0133U	0.00907U	0.0113U	0.00991U
1,2-dibromoethane (EDB)	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
1,2-dichloroethane (EDC)	0.0321U	0.0263U	0.0325U	0.0338U	0.0402U	0.0222U	0.0333U	0.0227U	0.0283U	0.0248U
Ethylbenzene	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
iso-Propylbenzene (cumene)	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
methyl t-butyl ether (MTBE)	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
Naphthalene	0.128U	0.105U	0.130U	0.135U	0.161U	0.0887U	0.133U	0.0907U	0.113U	0.0991U
Toluene	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
1,2,4-Trimethylbenzene	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
1,3,5-Trimethylbenzene	0.0641U	0.0526U	0.0651U	0.0677U	0.0803U	0.0443U	0.0667U	0.0453U	0.0566U	0.0496U
Xylenes, total	0.0962U	0.0788U	0.0976U	0.101U	0.120U	0.0665U	0.100U	0.0680U	0.0849U	0.0744U

See notes on next page.

Table 3. Soil Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

The laboratory method reporting limits that exceed one or more RBCs are indicated with bold blue font.

Data Qualifiers:

R-02 - The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>Csat - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

Table 4. Soil Samples Analytical Results - Total Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ's Clean fill screening levels for Klamath Mountains province and background metals in Soil (f), (g)	Hand Sampling									
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			S1	S2	S3	S4	S5					
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Southern Area of the Former Diesel Satellite Dispensers	Center Area of the Former Diesel Satellite Dispensers	Northern Area of the Former Diesel Satellite Dispensers	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench					
Total Metals (mg/kg) USEPA 6020B (ICPMS)																					
Lead	400	800	800	800	NV	NV	NV	NV	30	30	36	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	10/22/21	10/22/21	10/22/21	10/22/21	10/22/21
												NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

See notes on next page.

Table 4. Soil Samples Analytical Results - Total Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S6	S7	S8	S9	S10	S11	S12	DUP
	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Former Underground Diesel Pipeline Trench	Northern Sidewall UST Excavation	Eastern Sidewall UST Excavation	Western Sidewall UST Excavation	Duplicate of S12, Western Sidewall UST Excavation
	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	1.0-2.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs
	10/22/21	10/22/21	10/22/21	10/22/21	11/01/21	11/01/21	11/01/21	11/01/21
Total Metals (mg/kg) USEPA 6020B (ICPMS)								
Lead	NA	NA	NA	NA	3.41	2.48	3.00	2.58

See notes on next page.

Table 4. Soil Samples Analytical Results - Total Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	Hand Sampling							
	S13	S14	S15	S16	S17	S18	S19	S20
	Northern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Southern Sidewall UST Excavation	Western Boundary of the Dispenser Excavation	Southern Boundary of the Dispenser Excavation	Western Boundary of the Dispenser Excavation	Northern Boundary of the Dispenser Excavation
	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	8.0-10.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs	6.0-8.0 ft bgs
	11/01/21	11/02/21	11/02/21	11/02/21	11/12/21	11/12/21	11/12/21	11/12/21
Total Metals (mg/kg) USEPA 6020B (ICPMS)								
Lead	2.52	3.65	3.04	2.87	NA	NA	NA	NA

See notes on next page.

Table 4. Soil Samples Analytical Results - Total Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

	Push-Probe Sampling									
	B1	B2	B3	B4	B5	B6	B7	B8	DUP	B9
	West of the UST Excavation Boundary	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary	Southwest of the Former Diesel Satellite Dispensers Area	West-Northwest of the Former Diesel Satellite Dispensers Area	Northeast of the Former Diesel Satellite Dispensers Area	Duplicate Sample of Soil Sample B8	East of the Former Diesel Satellite Dispensers Area
	11.0-12.0 ft bgs	11.5-12.5 ft bgs	12.0-13.0 ft bgs	12.0-13.0 ft bgs	11.5-12.5 ft bgs	11.0-13.0 ft bgs	11.5-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs	12.0-14.0 ft bgs
Parameter	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21	12/07/21
Total Metals (mg/kg) USEPA 6020B (ICPMS)										
Lead	2.13	2.83	2.69	2.27	2.49	3.10	2.62	3.39	3.51	3.12

See notes on next page.

Table 4. Soil Samples Analytical Results - Total Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory method reporting limit.

* - Leaching to groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

Data Qualifiers:

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making (RBDM) for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all contaminants found in the top three feet of soil.

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a residential building.

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

(f) DEQ's Background Concentrations in Soil are referenced from the DEQ's Development of Oregon Background Metals Concentrations in Soil technical report dated March 2013. The background concentrations included in this table are 95% Upper Prediction Limit (UPL) for the Klamath Mountains region, which includes the Medford area and the Site.

(g) Clean Fill Values are referenced from the DEQ's Clean Fill Determinations guidance document dated February 2019.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

ICPMS - Inductively Coupled Plasma Mass Spectroscopy

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

NV - The chemical is considered "nonvolatile" for the purposes of the exposure calculations.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

**Table 5. Groundwater Samples Analytical Results - Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples					
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B1-GW	DUP	B2-GW	B3-GW	B4-GW	B5-GW
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.	West of the UST Excavation Boundary	Duplicate Sample of Groundwater Sample B1-GW	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary
								12/07/21	12/07/21	12/08/21	12/08/21	12/08/21	12/08/21
TPHs (µg/L) Method NWTPH-Dx and NWTPH-Gx													
Diesel-range	100	430	>S	>S	>S	>S	>S	78.4U	77.7U	245 F-11	212 F-11	95.8 F-11	NA
Oil-range	100	430	>S	>S	>S	>S	>S	157U	155U	157U	167U	167U	NA
Gasoline-range	110	450	>S	>S	22,000	>S	14,000	100U	100U	100U	100U	100U	100U

See notes on next page.

**Table 5. Groundwater Samples Analytical Results - Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples				R	Trip
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B6-GW	B7-GW	B8-GW	B9-GW		
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.	Southwest of the Former Diesel Satellite Dispensers	West-Northwest of the Former Diesel Satellite Dispensers	Northeast of the Former Diesel Satellite Dispensers	East of the Former Diesel Satellite Dispensers	Rinsate Blank from the drive shoe of the drilling rod	Trip Blank
								12/08/21	12/08/21	12/08/21	12/08/21	12/07/21	12/07/21
TPHs (µg/L) Method NWTPH-Dx and NWTPH-Gx													
Diesel-range	100	430	>S	>S	>S	>S	>S	104 F-11	NA	84.2U	NA	76.2U	NA
Oil-range	100	430	>S	>S	>S	>S	>S	188U	NA	168U	NA	152U	NA
Gasoline-range	110	450	>S	>S	22,000	>S	14,000	100U	100U	100U	100U	100U	NA

See notes on next page.

Table 5. Groundwater Samples Analytical Results - Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory method reporting limit.

Analytical data highlighted in yellow indicates the value exceeded a generic RBC.

Data Qualifiers:

F-11 - The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime groundwater contamination is found in an aquifer that is currently used or is reasonably likely to be used for drinking water.

(c) This pathway is applicable whenever the groundwater is contaminated with volatile compounds.

(d) This pathway is applicable whenever volatile compounds in groundwater are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building, or may be in such a location in the future.

(e) This pathway is applicable in cases where construction or excavation workers may come into contact with contaminated groundwater in a semi-enclosed space such as an excavation.

Symbols/Acronyms:

bgs - below ground surface

C.&E.W. - construction and excavation worker receptor

DEQ - Department of Environmental Quality

ft - feet

LUST - leaking underground storage tank

NA - Sample was not analyzed for this analyte.

µg/L - micrograms per liter

OCC. - occupational receptor

RBC - risk-based concentration

>S - This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present.

U.R. - urban residential receptors

Table 6. Groundwater Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples					
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B1-GW	DUP	B2-GW	B3-GW	B4-GW	B5-GW
	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.	C.&E.W.	West of the UST Excavation Boundary	Duplicate Sample of Groundwater Sample B1-GW	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary
								12/07/21	12/07/21	12/08/21	12/08/21	12/08/21	12/08/21
PAHs (µg/L) USEPA Method 8270E SIM													
Acenaphthene	2,400	2,500	>S	>S	>S	>S	>S	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Acenaphthylene	NE	NE	NE	NE	NE	NE	NE	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Anthracene	>S	>S	>S	>S	>S	>S	>S	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Benz(a)anthracene	0.11	0.38	>S	>S	>S	>S	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Benzo(a)pyrene	0.080	0.47	NV	NV	NV	NV	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Benzo(b)fluoranthene	>S	>S	NV	NV	NV	NV	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Benzo(k)fluoranthene	>S	>S	NV	NV	NV	NV	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Benzo(g,h,i)perylene	NE	NE	NE	NE	NE	NE	NE	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Chrysene	>S	>S	NV	NV	NV	NV	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Dibenz(a,h)anthracene	0.080	0.47	NV	NV	NV	NV	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
Fluoranthene	NE	NE	NE	NE	NE	NE	NE	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Fluorene	>S	>S	NV	NV	NV	NV	>S	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Indeno(1,2,3-cd)pyrene	1,400	1,300	>S	>S	>S	>S	>S	0.0193U	0.0213U	0.0217U	0.0196U	0.0190U	0.0207U
1-Methylnaphthalene	>S	>S	NV	NV	NV	NV	>S	0.0774U, Q-30	0.0850U, Q-30	0.0869U	0.0782U	0.0759U	0.0830U
2-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	0.0774U, Q-30	0.0850U, Q-30	0.0869U	0.0782U	0.0759U	0.0830U
Naphthalene	NE	NE	NE	NE	NE	NE	NE	0.0774U	0.0850U	0.0869U	0.0782U	0.0759U	0.0830U
Phenanthrene	0.78	0.72	8,500	16,000	2,000	11,000	500	0.0774U	0.0850U	0.0869U	0.0782U	0.0759U	0.0830U
Pyrene	NE	NE	NE	NE	NE	NE	NE	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U
Dibenzofuran	>S	>S	>S	>S	>S	>S	>S	0.0387U	0.0425U	0.0435U	0.0391U	0.0380U	0.0415U

See notes on next page.

Table 6. Groundwater Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples				R	Trip
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B6-GW	B7-GW	B8-GW	B9-GW		
	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.	C.&E.W.	Southwest of the Former Diesel Satellite Dispensers	West-Northwest of the Former Diesel Satellite Dispensers	Northeast of the Former Diesel Satellite Dispensers	East of the Former Diesel Satellite Dispensers	Rinsate Blank from the drive shoe of the drilling rod	Trip Blank
PAHs (µg/L) USEPA Method 8270E SIM													
Acenaphthene	2,400	2,500	>S	>S	>S	>S	>S	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Acenaphthylene	NE	NE	NE	NE	NE	NE	NE	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Anthracene	>S	>S	>S	>S	>S	>S	>S	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Benz(a)anthracene	0.11	0.38	>S	>S	>S	>S	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Benzo(a)pyrene	0.080	0.47	NV	NV	NV	NV	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Benzo(b)fluoranthene	>S	>S	NV	NV	NV	NV	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Benzo(k)fluoranthene	>S	>S	NV	NV	NV	NV	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Benzo(g,h,i)perylene	NE	NE	NE	NE	NE	NE	NE	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Chrysene	>S	>S	NV	NV	NV	NV	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Dibenz(a,h)anthracene	0.080	0.47	NV	NV	NV	NV	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
Fluoranthene	NE	NE	NE	NE	NE	NE	NE	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Fluorene	>S	>S	NV	NV	NV	NV	>S	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Indeno(1,2,3-cd)pyrene	1,400	1,300	>S	>S	>S	>S	>S	0.0209U	NA	0.0224U	0.0194U	0.0159U	NA
1-Methylnaphthalene	>S	>S	NV	NV	NV	NV	>S	0.0835U	NA	0.0896U	0.0774U	0.0637U, Q-30	NA
2-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	0.0835U	NA	0.0896U	0.0949	0.0637U, Q-30	NA
Naphthalene	NE	NE	NE	NE	NE	NE	NE	0.0835U	NA	0.126	0.0828	0.0637U	NA
Phenanthrene	0.78	0.72	8,500	16,000	2,000	11,000	500	0.0835U	NA	0.0896U	0.0774U	0.0637U	NA
Pyrene	NE	NE	NE	NE	NE	NE	NE	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA
Dibenzofuran	>S	>S	>S	>S	>S	>S	>S	0.0417U	NA	0.0448U	0.0387U	0.0319U	NA

See notes on next page.

Table 6. Groundwater Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory method reporting limit.

Data Qualifiers:

Q-30 - Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime groundwater contamination is found in an aquifer that is currently used or is reasonably likely to be used for drinking water.

(c) This pathway is applicable whenever the groundwater is contaminated with volatile compounds.

(d) This pathway is applicable whenever volatile compounds in groundwater are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building, or may be in such a location in the future.

(e) This pathway is applicable in cases where construction or excavation workers may come into contact with contaminated groundwater in a semi-enclosed space such as an excavation.

Symbols/Acronyms:

bgs - below ground surface

C.&E.W. - construction and excavation worker receptor

DEQ - Department of Environmental Quality

ft - feet

LUST - leaking underground storage tank

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

µg/L - micrograms per liter

OCC. - occupational receptor

RBC - risk-based concentration

>S - This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present.

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

**Table 7. Groundwater Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples					
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B1-GW	DUP	B2-GW	B3-GW	B4-GW	B5-GW
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.	West of the UST Excavation Boundary	Duplicate Sample of Groundwater Sample B1-GW	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North-northeast of the UST Excavation Boundary	North-northwest of the UST Excavation Boundary
VOCs (µg/L) USEPA Method 8260C													
Benzene	2.0	2.1	7,400	14,000	510	2,800	1,800	0.200U	0.200U	0.200U	0.200U	0.200U	0.200U
1,2-dibromoethane (EDB)	0.034	0.034	430	790	110	590	27	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
1,2-dichloroethane (EDC)	0.78	0.78	4,900	9,000	700	3,900	630	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
Ethylbenzene	6.7	6.4	23,000	43,000	1,500	8,200	4,500	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
iso-Propylbenzene (cumene)	1,800	2,000	>S	>S	>S	>S	51,000	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
methyl t-butyl ether (MTBE)	64	68	830,000	1,500,000	160,000	870,000	63,000	1.00U	1.00U	1.00U	4.57	109	20.7
Naphthalene	0.78	0.72	8,500	16,000	2,000	11,000	500	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U
Toluene	4,400	6,300	>S	>S	>S	>S	220,000	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
1,2,4-Trimethylbenzene	230	250	>S	>S	50,000	>S	6,300	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
1,3,5-Trimethylbenzene	240	280	>S	>S	36,000	>S	7,500	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
Xylenes	710	830	>S	>S	86,000	>S	23,000	1.50U	1.50U	1.50U	1.50U	1.50U	1.50U

See notes on next page.

**Table 7. Groundwater Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							Temporary Wells Groundwater Samples				R	Trip
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Groundwater in Excavation (e)	B6-GW	B7-GW	B8-GW	B9-GW		
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.	Southwest of the Former Diesel Satellite Dispensers	West-Northwest of the Former Diesel Satellite Dispensers	Northeast of the Former Diesel Satellite Dispensers	East of the Former Diesel Satellite Dispensers	Rinsate Blank from the drive shoe of the drilling rod	Trip Blank
VOCs (µg/L) USEPA Method 8260C													
Benzene	2.0	2.1	7,400	14,000	510	2,800	1,800	0.200U	0.200U	0.200U	0.200U	0.200U	0.200U
1,2-dibromoethane (EDB)	0.034	0.034	430	790	110	590	27	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
1,2-dichloroethane (EDC)	0.78	0.78	4,900	9,000	700	3,900	630	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
Ethylbenzene	6.7	6.4	23,000	43,000	1,500	8,200	4,500	0.500U	0.500U	0.500U	0.500U	0.500U	0.500U
iso-Propylbenzene (cumene)	1,800	2,000	>S	>S	>S	>S	51,000	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
methyl t-butyl ether (MTBE)	64	68	830,000	1,500,000	160,000	870,000	63,000	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
Naphthalene	0.78	0.72	8,500	16,000	2,000	11,000	500	2.00U	2.00U	2.00U	2.00U	2.00U	2.00U
Toluene	4,400	6,300	>S	>S	>S	>S	220,000	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
1,2,4-Trimethylbenzene	230	250	>S	>S	50,000	>S	6,300	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
1,3,5-Trimethylbenzene	240	280	>S	>S	36,000	>S	7,500	1.00U	1.00U	1.00U	1.00U	1.00U	1.00U
Xylenes	710	830	>S	>S	86,000	>S	23,000	1.50U	1.50U	1.50U	1.50U	1.50U	1.50U

See notes on next page.

Table 7. Groundwater Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory method reporting limit.

The laboratory method reporting limits that exceed one or more RBCs are indicated with bold blue font.

Analytical data highlighted in yellow indicates the value exceeded a generic RBC.

Data Qualifiers:

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime groundwater contamination is found in an aquifer that is currently used or is reasonably likely to be used for drinking water.

(c) This pathway is applicable whenever the groundwater is contaminated with volatile compounds.

(d) This pathway is applicable whenever volatile compounds in groundwater are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building, or may be in such a location in the future.

(e) This pathway is applicable in cases where construction or excavation workers may come into contact with contaminated groundwater in a semi-enclosed space such as an excavation.

Symbols/Acronyms:

bgs - below ground surface

C.&E.W. - construction and excavation worker receptor

DEQ - Department of Environmental Quality

ft - feet

LUST - leaking underground storage tank

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

µg/L - micrograms per liter

OCC. - occupational receptor

RBC - risk-based concentration

>S - This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present.

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

**Table 8. Groundwater Samples Analytical Results - Total and Dissolved Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							USEPA MCL (f)(g) or as noted	Temporary Wells Groundwater Samples					
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Ground water in Excavati on (e)		B1-GW	DUP	B2-GW	B3-GW	B4-GW	B5-GW
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.		West of the UST Excavation Boundary	Duplicate Sample of Groundwater Sample B1- GW	South of the UST Excavation Boundary	East of the UST Excavation Boundary	North- northeast of the UST Excavation Boundary	North- northwest of the UST Excavation Boundary
									12/07/21	12/07/21	12/08/21	12/08/21	12/08/21	12/08/21
Total Metals (µg/L) USEPA Method 6020B (ICPMS)														
Lead	15	15	NV	NV	NV	NV	>S	15 (h)(i)	3.51	4.66	5.05	0.964	2.10	1.78
Dissolved Metals (µg/L) USEPA Method 6020B (ICPMS)														
Lead	15	15	NV	NV	NV	NV	>S	15 (h)(i)	0.200U	0.200U	0.200U	0.200U	0.200U	0.200U

See notes on next page.

**Table 8. Groundwater Samples Analytical Results - Total and Dissolved Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Groundwater (a)							USEPA MCL (f)(g) or as noted	Temporary Wells Groundwater Samples				R	Trip
	Ingestion and Inhalation from Tapwater (b)		Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Ground water in Excavation (e)		B6-GW	B7-GW	B8-GW	B9-GW		
	U.R.	OCC.	U.R.	OCC	U.R.	OCC	C.&E.W.		Southwest of the Former Diesel Satellite Dispensers	West-Northwest of the Former Diesel Satellite Dispensers	Northeast of the Former Diesel Satellite Dispensers	East of the Former Diesel Satellite Dispensers	12/07/21	12/07/21
Total Metals (µg/L) USEPA Method 6020B (ICPMS)														
Lead	15	15	NV	NV	NV	NV	>S	15 (h)(i)	0.660	2.69	10.1	0.813	0.200U	NA
Dissolved Metals (µg/L) USEPA Method 6020B (ICPMS)														
Lead	15	15	NV	NV	NV	NV	>S	15 (h)(i)	0.200U	0.200U	0.200U	0.200U	0.200U	NA

See notes on next page.

Table 8. Groundwater Samples Analytical Results - Total and Dissolved Lead
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory's method reporting limit.

Data Qualifiers:

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

- (a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.
- (b) This pathway is applicable anytime groundwater contamination is found in an aquifer that is currently used or is reasonably likely to be used for drinking water.
- (c) This pathway is applicable whenever the groundwater is contaminated with volatile compounds.
- (d) This pathway is applicable whenever volatile compounds in groundwater are located beneath or within 10 feet of a commercial building, or beneath or within 50 feet of a residential building, or may be in such a location in the future.
- (e) This pathway is applicable in cases where construction or excavation workers may come into contact with contaminated groundwater in a semi-enclosed space such as an excavation.
- (f) USEPA MCLs are referenced from the National Primary Drinking Water Regulations for arsenic, barium, cadmium, chromium (total), lead, mercury, and selenium and the National Secondary Drinking Water Regulations for silver.
- (g) MCL is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards. (MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.)
- (h) Lead is regulated by a TT that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. For lead, the action level is 15 µg/L.
- (i) TT is a required process intended to reduce the level of a contaminant in drinking water.

Symbols/Acronyms:

bgs - below ground surface

C.&E.W. - construction and excavation worker receptor

DEQ - Department of Environmental Quality

ft - feet

ICPMS - Inductively Coupled Plasma Mass Spectroscopy

LUST - leaking underground storage tank

NA - Sample was not analyzed for this analyte.

NV - The chemical is considered "nonvolatile" for the purposes of the exposure calculations.

µg/L - micrograms per liter

RBC - risk-based concentration

>S - This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present.

TT - Treatment Technique

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

**Table 9. Landfill Soil Characterization Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling			
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			COMP1	COMP2	COMP3	COMP4
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill
												11/15/21	11/15/21	11/15/21	11/15/21
TPHs (mg/kg)															
DEQ Method NWTPH-Dx and NWTPH-Gx															
Diesel-range	2,500	14,000	4,600	>Max	>Max	>Max	>Max	>Max	9,500	>Max	1,100	446	2,730	1,740	1,540
Oil-range	2,500	14,000	4,600	>Max	>Max	>Max	>Max	>Max	9500	>Max	1,100	50.0U	50.0U	50.0U	50.0U
Gasoline-range	2,500	20,000	9,700	>Max	5,900	69,000	94	>Max	31	130	31	16.1 F-09	26.7 F-09	104 F-09	47.6 F-09

See notes on next page.

**Table 9. Landfill Soil Characterization Samples Analytical Results -Total Petroleum Hydrocarbons (TPHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory's method reporting limit.

Analytical data highlighted in yellow indicates the value exceeded a generic RBC.

Analytical data highlighted in blue indicates the value exceeded the Clean Fill Value.

Analytical data highlighted in both yellow and blue indicates the value exceeded one or more generic RBCs and the Clean Fill Value.

Data Qualifiers:

F-09 - Results in the Gasoline Range are impacted by the overlap of a heavier fuel hydrocarbon product.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all contaminants found in the top three feet of soil.

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

(f) Clean Fill Values are referenced from the DEQ's Clean Fill Determinations guidance document dated February 2019.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>C_{sat} - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

RBC - risk-based concentration

OCC - occupational receptors

U.R. - urban residential receptors

**Table 10. Landfill Soil Characterization Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling							
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			COMP1	COMP2	COMP3	COMP4				
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill				
PAHs (mg/kg) USEPA Method 8270E SIM																			
Acenaphthene	9,400	70,000	21,000	590,000	>Max	>Max	>Max	>Max	>Csat	>Csat	0.25	0.0108U	0.0163U, R-02	0.217U, R-02	0.634U, R-02				
Acenaphthylene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	120	0.0108U	0.0257U, R-02	0.0475U, R-02	0.117U				
Anthracene	47,000	350,000	110,000	>Max	>Max	>Max	>Max	>Max	>Csat	>Csat	6.8	0.0108U	0.0128U, R-02	0.0544U, R-02	0.117U				
Benz(a)anthracene	2.5	21	170	4,800	>Csat	>Csat	>Csat	>Csat	6.0	>Csat	0.73	0.0108U	0.0140U, R-02	0.0278U, R-02	0.117U				
Benzo(a)pyrene	0.25	2.1	17	490	NV	NV	NV	NV	>Csat	>Csat	0.11	0.0108U	0.0177U	0.0116U	0.117U				
Benzo(b)fluoranthene	2.5	21	170	4,900	NV	NV	NV	NV	>Csat	>Csat	1.1	0.0108U	0.0177U	0.0116U	0.117U				
Benzo(k)fluoranthene	11	210	1,700	49,000	NV	NV	NV	NV	>Csat	>Csat	11	0.0108U	0.0177U	0.0116U	0.117U				
Benzo(g,h,i)perylene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	25	0.0108U	0.0177U	0.0116U	0.117U				
Chrysene	250	2,100	17,000	490,000	NV	NV	NV	NV	>Csat	>Csat	3.1	0.0108U	0.0152U, R-02	0.0116U, R-02	0.117U				
Dibenz(a,h)anthracene	0.25	2.1	17	490	NV	NV	NV	NV	>Csat	>Csat	0.11	0.0108U	0.0177U	0.0116U	0.117U				
Dibenzofuran	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.002	0.0193	0.0443U, R-02	0.189	0.300				
Fluoranthene	4,800	30,000	10,000	280,000	NV	NV	NV	NV	>Csat	>Csat	10	0.0108U	0.0177U	0.0251	0.117U				
Fluorene	6,300	47,000	14,000	390,000	>Max	>Max	>Max	>Max	>Csat	>Csat	3.7	0.0108U	0.0152U, R-02	0.436	0.626				
Indeno(1,2,3-cd)pyrene	2.5	21	170	4,900	NV	NV	NV	NV	>Csat	>Csat	1.1	0.0108U	0.0177U	0.0116U	0.117U				
1-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.36	0.0184	0.229U, R-02	1.50	2.00				
2-Methylnaphthalene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	11	0.0224	0.0177U	0.169	1.55				
Naphthalene	25	23	580	16,000	15	83	15	83	0.37	0.34	0.077	0.0145 M-04	0.0117U	0.0348U, R-02	0.117U				
Phenanthrene	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	5.5	0.0145	0.0233U, R-02	0.328	0.519				
Pyrene	1,800	23,000	7,500	210,000	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	10	0.0454	0.266	0.0918	0.117U				

See notes on next page.

**Table 10. Landfill Soil Characterization Samples Analytical Results - Polycyclic Aromatic Hydrocarbons (PAHs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory's method reporting limit.

Analytical data highlighted in blue indicates the value exceeded the Clean Fill Value.

Data Qualifiers:

M-04 - Due to matrix interference, this analyte cannot be accurately quantified. The reported result may contain a high bias.

R-02 - The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all contaminants found in the top three feet of soil.

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a residential building.

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

(f) Clean Fill Values are referenced from the DEQ's Clean Fill Determinations guidance document dated February 2019.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>C_{sat} - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

**Table 11. Landfill Soil Characterization Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Parameter	DEQ Risk-Based Concentrations for Soil (a)										DEQ Clean Fill Values (f)	Hand Sampling			
	Ingestion, Dermal Contact and Inhalation (b)				Volatilization to Outdoor Air (c)		Vapor Intrusion into Buildings (d)		Leaching to Groundwater (e)			COMP1	COMP2	COMP3	COMP4
	U.R.	OCC.	C.W.	E.W.	U.R.	OCC.	U.R.	OCC.	U.R.	OCC.		11/15/21	11/15/21	11/15/21	11/15/21
VOCs (mg/kg) USEPA Method 5035A/8260D															
Benzene	24	37	380	11,000	27	50	0.38	2.1	0.10	0.10	0.023	0.0109U	0.0105U	0.0113U	0.0126U
1,2-dibromoethane (EDB)	0.53	0.73	9.0	250	0.35	0.65	0.028	0.16	0.00056	0.00056	0.00012	0.0546U	0.0527U	0.0567U	0.0632U
1,2-dichloroethane (EDC)	12	16	200	5,600	8.1	15	0.18	1.0	0.013	0.013	0.0028	0.0273U	0.0264U	0.0284U	0.0316U
Ethylbenzene	110	150	1,700	49,000	85	150	3.0	17	0.94	0.90	0.22	0.0273U	0.0264U	0.0426U, R-06	0.0316U
iso-Propylbenzene (cumene)	7,000	57,000	27,000	750,000	>Csat	>Csat	>Csat	>Csat	>Csat	>Csat	96	0.0546U	0.0527U	0.0567U	0.0632U
methyl t-butyl ether (MTBE)	730	1,100	12,000	320,000	810	1,500	20	110	0.50	0.54	NE	0.0546U	0.0527U	0.0567U	0.0632U
Naphthalene	25	23	580	16,000	15	83	15	83	0.37	0.34	0.077	0.109U	0.105U	0.270U, R-02	0.221 R-02
Toluene	5,800	88,000	28,000	770,000	>Csat	>Csat	>Csat	>Csat	150	490	23	0.0546U	0.0527U	0.0567U	0.0632U
1,2,4-Trimethylbenzene	860	6,900	2,900	81,000	>Csat	>Csat	140	>Csat	43	48	10	0.0546U	0.0527U	0.340U, R-06	0.0657
1,3,5-Trimethylbenzene	860	6,900	2,900	81,000	>Csat	>Csat	98	>Csat	45	53	11	0.0546U	0.527U	0.113U, R-06	0.0632U
Xylenes, total	2,900	25,000	20,000	560,000	>Csat	>Csat	160	>Csat	87	100	1.4	0.0819U	0.0791U	0.213U, R-06	0.0947

See notes on next page.

**Table 11. Landfill Soil Characterization Samples Analytical Results - Volatile Organic Compounds (VOCs)
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon**

Notes:

The laboratory method reporting limits that exceed one or more RBCs are indicated with bold blue font.

Data Qualifiers:

R-02 - The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

R-06 - Reporting level raised due to possible carryover from a previous sample.

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) Risk-Based Concentrations are referenced from the May 2018 update to the DEQ's Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites guidance document dated September 2003.

(b) This pathway is applicable anytime someone is likely to come into contact with contaminated soil. For the occupational scenario, exposure to contaminated soils should be considered for all

(c) This pathway is applicable whenever vadose zone soils are contaminated with volatile compounds.

(d) This pathway is applicable whenever vadose zone soils contaminated with volatile compounds are located beneath or within 10 feet of a commercial building or beneath or within 50 feet of a

(e) This pathway is applicable whenever vadose zone contamination is found overlying an aquifer that is currently used or is reasonably likely to be used in the future for drinking water.

Symbols/Acronyms:

bgs - below ground surface

C.W. - construction worker receptor

>Csat - The soil RBC exceeds the limit of three-phase equilibrium partitioning. Soil concentrations in excess of this value indicate free product might be present.

DEQ - Department of Environmental Quality

E.W. - excavation worker receptor

ft - feet

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/kg - milligrams per kilogram

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

RBC - risk-based concentration

OCC. - occupational receptors

U.R. - urban residential receptors

USEPA - United States Environmental Protection Agency

Table 12. Landfill Soil Characterization Samples Analytical Results - TCLP
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Parameter	USEPA's Maximum Concentration of Contamination for the "toxicity" Characteristic (a)	Hand Sampling			
		COMP1	COMP2	COMP3	COMP4
		Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill	Soil Stockpile Located at Dry Creek Landfill
		11/15/21	11/15/21	11/15/21	11/15/21
Toxicity Characteristic Leachate Procedure Metals (TCLP) (mg/L) USEPA 6020B (ICPMS)					
Arsenic	5.0	0.100U	0.100U	0.100U	0.100U
Barium	100.0	5.00U	5.00U	5.00U	5.00U
Cadmium	1.0	0.100U	0.100U	0.100U	0.100U
Chromium (III)	5.0	0.100U	0.100U	0.100U	0.100U
Lead	5.0	0.0500U	0.0500U	0.0500U	0.0500U
Mercury	0.20	0.00700U	0.00700U	0.00700U	0.00700U
Selenium	1.0	0.100U	0.100U	0.100U	0.100U
Silver	5.0	0.100U	0.100U	0.100U	0.100U

See notes on next page.

Table 12. Landfill Soil Characterization Samples Analytical Results - TCLP Metals
LUST Subsurface Investigation - Grange Co-Op South Medford Store: 2531 S. Pacific Hwy., Medford, Oregon

Notes:

Analytical data in bold font indicates that the value exceeds the laboratory method reporting limit.

Analytical data or DEQ background concentrations data highlighted in yellow indicates the value exceeded a generic RBC.

* - Leaching to groundwater RBCs are not provided for inorganic chemicals. If this pathway is of concern, then site-specific leaching tests must be performed.

Data Qualifiers:

U - The analyte was analyzed for, but was not detected above the analytical laboratory method reporting limit.

Footnotes:

(a) The USEPA 's TCLP limits are used to define whether a waste is hazardous or non-hazardous.

Symbols/Acronyms:

bgs - below ground surface

CONST. WORKER - construction worker receptor

DEQ - Department of Environmental Quality

EXC. WORKER - excavation worker receptor

ft - feet

ICPMS - Inductively Coupled Plasma Mass Spectroscopy

LUST - leaking underground storage tank

>Max - The constituent RBC for this pathway is greater than 1,000,000 mg/Kg or 1,000,000 mg/L. Therefore, these substances are not expected to pose risks in the scenario shown.

mg/L - milligram per liter

NA - Sample was not analyzed for this analyte.

NE - No RBC levels are established for this chemical.

NV - The chemical is considered "nonvolatile" for the purposes of the exposure calculations.

RBC - risk-based concentration

OCC - occupational receptors

TCLP - Toxicity Characteristic Leachate Procedure

USEPA - United States Environmental Protection Agency

APPENDIX 1

UST Decommissioning Documents



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

UNDERGROUND STORAGE TANK DECOMMISSIONING
CHECKLIST AND SITE ASSESSMENT REPORT

A. FACILITY INFORMATION:

This report **MUST** be submitted by the underground storage tank permittee or tank owner, or the licensed DEQ Service Provider on their behalf, **within 30 days following completion of the tank decommissioning or change-in-service regardless of ongoing cleanup work.**

DEQ FACILITY NUMBER:	4751		
FACILITY NAME:	Grange CO-OP		
FACILITY ADDRESS:	2531 S. PACIFIC HWY. MEDFORD, OR 97501		
PERMITTEE PHONE:		DATE:	11-15-21

B. WORK PERFORMED BY:

The checklist and site assessment report should be completed and signed by the DEQ licensed supervisor and signed by an executive officer of the DEQ licensed Service Provider on page 6. The tank owner or permittee must review and sign the report on page 6. **NOTE: AN OWNER OR PERMITTEE MAY PERFORM UST SERVICES ONLY IF THEY HAVE TAKEN AND PASSED THE APPROPRIATE UST SUPERVISOR EXAMINATION OFFERED BY A NATIONAL TESTING SERVICE (SEE OAR 340-150-0156 for requirements).**

DEQ Service Provider's License #:	21812	Construction Contractors Board License #:	143960
Name:	M&M SERVICES, LLC		
Telephone:	(541)618-8536		
DEQ Decommissioning Supervisor's License #:	26928		
Name:	MIKE HAFLICH		
Telephone:	(541)-618-8536		
DEQ Soil Matrix Service Provider's License #:			(If applicable)
Name:			
Telephone:			
DEQ Soil Matrix Supervisor's License #:			(If applicable)
Name:			
Telephone:			

C. DATES:

Decommissioning/Change-in-Service Notice - Date Submitted: 8/12/21 (30 days before work starts).
 Work Start Telephone Notice - Number issued by DEQ: 15-3D-21-047 (3 working days before work starts).
 DEQ Person Notified: ANDREA GARCIA
 Date Work Started: 10/12/21 Date Work Completed: 10/15/21

Note: Provide the following information if any soil or water contamination is found during the decommissioning or change-in-service. Contamination must be reported by the UST permittee within 24 hours. The licensed service provider must report contamination within 72 hours after discovery unless previously reported.

Date Contamination Reported: 11/5/21 By: ALPINE ENVIRONMENTAL
 DEQ Person Notified: ONLINE REPORTING/JESSICA CLAWSON

D. OTHER DEQ PERMITS MAY BE NEEDED WHERE SOIL OR WATER CLEANUP IS REQUIRED.

DEQ Water Discharge Permit #: N/A Date: _____
 Water Disposed to (Location): ORRICO
 DEQ Solid Waste Disposal Permit #: _____ Date: _____
 Soil Disposal or Treatment Location: DRY CREEK LANDFILL

E. TANK INFORMATION:

TANK ID#	DEQ-UST PERMIT #	TANK SIZE IN GALLONS	PRODUCT: GASOLINE, DIESEL, USED OIL, OTHER?		CLOSURE OR CHANGE-IN-SERVICE?			TANK TO BE REPLACED?	
			PRESENT	NEW	TANK REMOVAL	CLOSURE IN PLACE*	CHANGE IN SERVICE*	YES	NO
1	AACFF	15,000	DIESEL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	AACFG	15,000	DIESEL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	AACFH	15,000	GAS		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTE 1: Where decommissioned tank(s) are replaced by new underground storage tanks the UST permittee must submit a *General Permit Registration Form to Install and Operate USTs* containing information on the new tanks 30 days before installing them.

NOTE 2: Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if 1) tank is to be decommissioned in-place, 2) tank contents are changed to a non-regulated substance, 3) tank contains a regulated substance other than petroleum, or 4) tank changed to non-regulated use.

F. DISPOSAL INFORMATION:

TANK ID #	TANK AND PIPING DISPOSAL METHOD				DISPOSAL LOCATION OF TANK CONTENTS	
	SCRAP	LAND-FILL	OTHER	IDENTIFY LOCATION & PROPERTY OWNER	LIQUIDS	SLUDGES
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ROGUE METALS	ORRCO	ORRCO
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	"
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"	"
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

NOTE 1: The tank contents, the tank and the piping may be subject to the requirements of Hazardous Waste regulations. If you have questions, contact the DEQ regional office for your area.

NOTE 2: Attach copies of the disposal receipts for the tanks and piping. If the tanks are shipped off-site for reuse provide the name, address and phone number of the person or business receiving the tanks for reuse.

NOTE 3: Attach copies of the disposal receipts for the disposal or treatment of liquid or sludge removed from the tanks

G. CONTAMINATION INFORMATION:

TANK ID #	GROUND WATER IN PIT ?	PRODUCT ODOR IN SOIL ?	PRODUCT STAINS IN SOIL ?	NUMBER OF SAMPLES	LABORATORY (NAME, CITY, STATE, PHONE)
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		PLEASE SEE ALPINE ENVIRONMENTAL ATTACHED
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		ANALYTICAL REPORT AND SITE MAP.
3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		ONGOING INVESTIGATION WILL BE PERFORMED BY
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		ALPINE ENVIRONMENTAL..

NOTE 1: Attach a copy of the laboratory report showing the results of all tests on all soil and water samples. The laboratory report must identify sample collection methods, sample location, sample depth, sample type (soil or water), type of sample container, sample temperature during transportation, types of tests, and copies of analytical laboratory reports, including QA/QC information. Include laboratory name, address and copies of chain-of-custody forms.

NOTE 2: If contamination is detected and a Level 2 or Level 3 soil matrix cleanup standard is applied to the site, attach a copy of the soil matrix analysis including methods of determining soil type, depth to groundwater, and sensitivity of uppermost aquifer.

II. SITE SKETCH: (Show location of adjacent roads, property lines, structures, dispensers, & all USTs. Show North, general direction of ground slope and soil sample locations. Sketch does not need to be drawn to scale. You may attach a separate drawing.)

see attached

I. SAFETY EQUIPMENT ON JOB SITE:

Fire Extinguisher:	Type/Size: <u>ABC 10 LB</u>	Recharge Date: <u>2021</u>
Combustible Gas Detector:	Model: <u>RKI</u>	Calibration Date: <u>11/1/21</u>
Oxygen Analyzer:	Model: <u>RKI</u>	Calibration Date: <u>11/1/21</u>

J. DECOMMISSIONING:

All Tanks: N/A = Not Applicable (Check (√) Appropriate Box)	YES	NO	UNKNOWN	N/A
1. All electrical equipment grounded and explosion proof?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Safety equipment on job site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Overhead electrical lines located?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Subsurface electrical lines off or disconnected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Natural gas lines off or disconnected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. No open fires or smoking material in area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Vehicle and pedestrian traffic controlled?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Excavation material area cleared?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Rainwater runoff directed to treatment area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Drained and collected product from lines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Removed product and residual from tank?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Cleaned tank?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Excavated to top of tank?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Removed tank fixtures? (pumps, leak detection equipment)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Removed product, fill and vent lines?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

K. TANK ABANDONMENT IN-PLACE:

All Tanks: N/A = Not Applicable (Check (√) Appropriate Box)	YES	NO	UNKNOWN	N/A
16. Sampling plan approved by DEQ? Date: _____ DEQ Staff: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. Contamination concerns fully resolved?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Fill Material? Type: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

L. TANK REMOVAL:

All Tanks: N/A = Not Applicable (Check (✓) Appropriate Box)	YES	NO	UNKNOWN	N/A
19. Tank placement area cleared, chocks placed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Purged or ventilated tank to prevent explosion? Method used: <u>CGI</u> Meter reading: <u>LEL 0% ALL 3 TANKS</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Were chains or steel cables wrapped around tank for removal?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Tank removed, set on ground, blocked to prevent movement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Tank set on truck and secured with straps(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Tank labeled before leaving site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

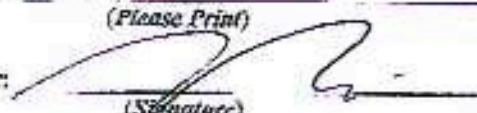
M. SITE ASSESSMENT:

All Tanks: N/A = Not Applicable (Check (✓) Appropriate Box)	YES	NO	UNKNOWN	N/A
25. Site assessed for contamination? See OAR 340-123-0340	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Soil samples taken and analyzed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Was contamination found? Date/Time: <u>11/5/21</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Was hazardous waste determination made for tank contents (Liquids/Solids)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

N. REQUIRED SIGNATURES:

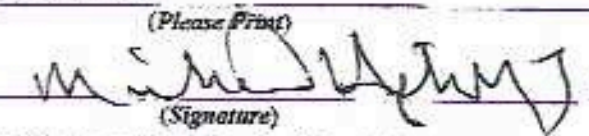
I have personally reviewed this decommissioning checklist and site assessment report and the attachments and find them to be true and complete.

Permittee or Tank Owner: KEVIN WALTZ
(Please Print)

Permittee or Tank Owner:  Date: 11-15-21
(Signature)


I have personally reviewed this decommissioning checklist and site assessment report and the attachments and find them to be true and complete.

Licensed Supervisor: MIKE HAFLICH
(Please Print)

Licensed Supervisor:  Date: 11-15-21
(Signature)

I have personally reviewed this decommissioning checklist and site assessment report and the attachments and find them to be true and complete.

Executive Officer: TODD MARTIUSKI
Licensed Service Provider (Please Print)

Executive Officer:  Date: 11/15/21
Licensed Service Provider (Signature)

O. REPORT FILING:

This report signed by the permittee or tank owner, licensed supervisor and executive officer of the Service Provider, complete with all applicable attachments, must be filed with the DEQ regional office within 30 days after the excavation is backfilled or change-in-service is complete. **Do not wait until any site related cleanup project is completed.** Contact the DEQ regional office prior to filing this report where special circumstances exist at the site (such as water in pit, remaining pockets of contamination, etc.).

P. HELP WITH THIS REPORT:

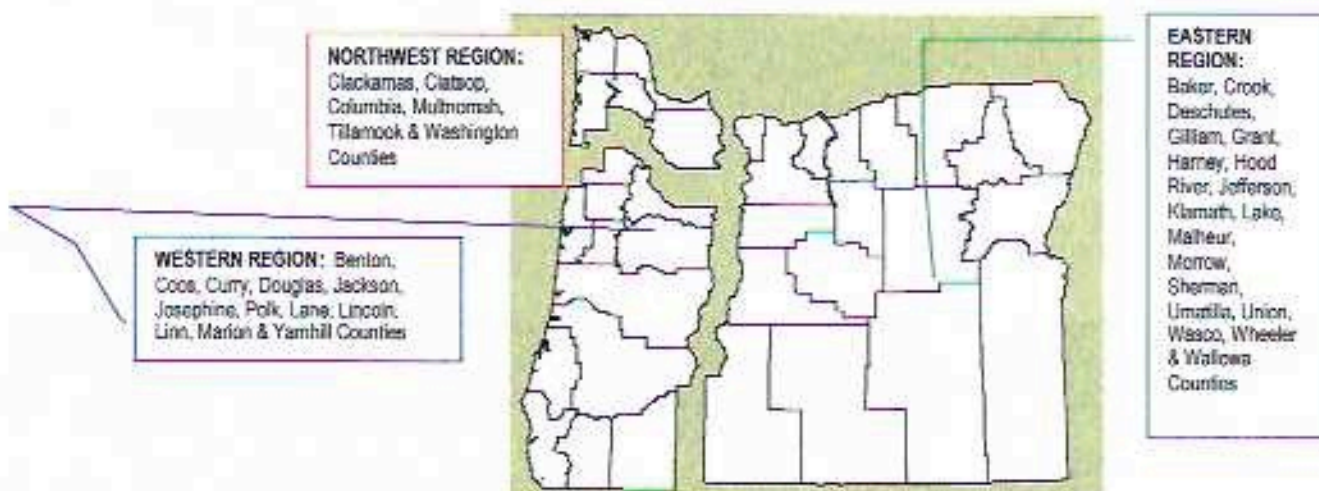
If you have any questions about this decommissioning checklist and site assessment report, please phone your DEQ Regional Office. You can also phone the UST Program's toll-free number, 1-800-742-7878. This is a message answering machine for calls made within Oregon. Underground Storage Tank Program staff will return your calls within 24 hours. You can also send an e-mail to tanks.info@deq.state.or.us. Our regional staff are also available to answer questions regarding tank decommissioning or change-in-service requirements (see below for telephone numbers).

Q. COPIES OF THE GENERAL PERMIT TO DECOMMISSION OR COMPLETE A CHANGE-IN-SERVICE:

Obtain copies of the general permit to decommission or complete a change-in-service conditions and requirements, UST Program rules and laws and UST Cleanup rules and laws at:

1. Any of the DEQ offices listed below,
2. By calling the UST HELPLINE at 1-800-742-7878,
3. Send an e-mail to tanks.info@deq.state.or.us or
4. Downloading from the UST home page at:

<http://www.deq.state.or.us/lq/tanks/ust/index.htm>



EASTERN REGION / BEND
475 NE BELLEVUE, SUITE 110
BEND, OR 97701
Phone: 541-388-6146
Fax: 541-388-8283

WESTERN REGION / COOS BAY
381 N SECOND STREET
COOS BAY 97420
Phone: 541-269-2721
Fax: 541-269-7984

WESTERN REGION / MEDFORD
221 STEWART AVE., SUITE 201
MEDFORD, OR 97501
Phone: 541-776-6010
Fax: 541-776-6262

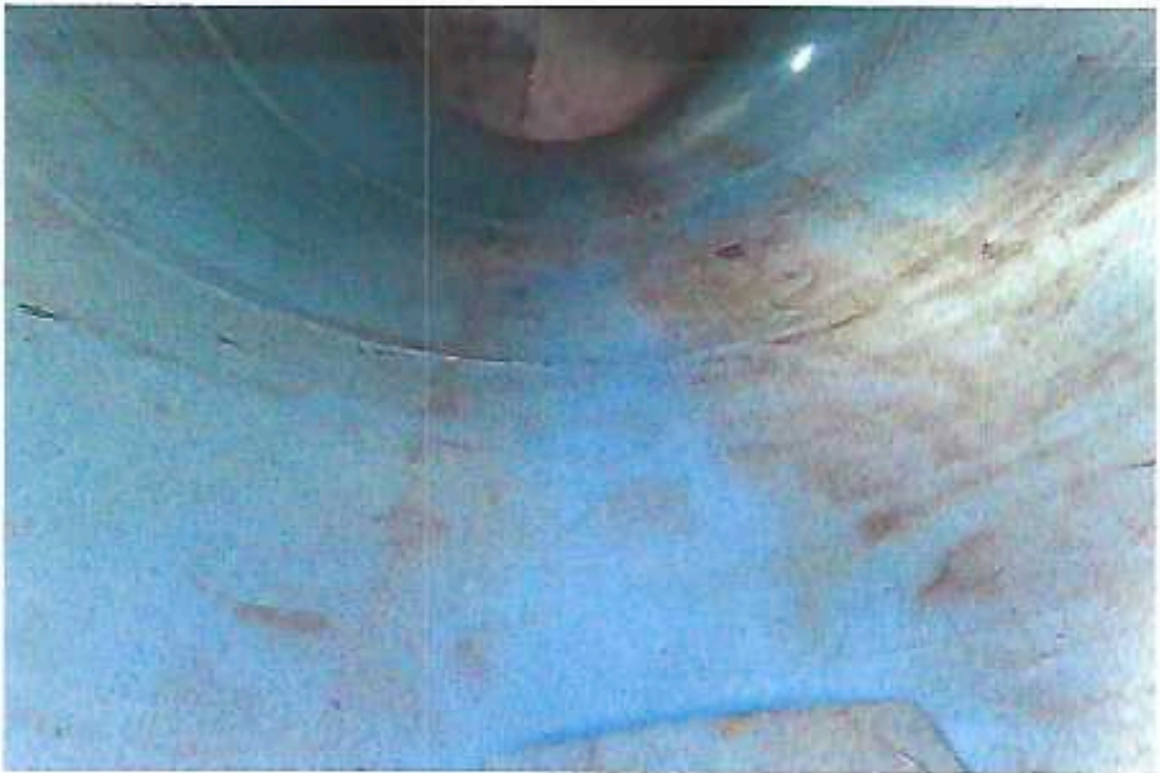
NORTHWEST REGION
700 NE MULTNOMAH ST.
PORTLAND, OR 97232
Phone: 503-229-5263
Fax: 503-229-6945

WESTERN REGION / EUGENE
165 EAST 7TH AVE., SUITE 100
EUGENE, OR 97401
Phone: 541-686-7838
Fax: 541-686-7551



















OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

30-DAY NOTICE OF INTENT TO DECOMMISSION USTS
OR COMPLETE A CHANGE-IN-SERVICE

1. FACILITY (Location of Tanks) (Please Print)		2. PERMITTEE (Please Print)	
Name:	GRANGE CO OP	Name:	RHONDA TERRY Kevin Waltz
Address:	2531 S PACIFIC HWY MEDFORD, OR 97501	Address:	PO BOX 3637 CENTRAL POINT, OR 97501
Phone:	541-664-1261	Phone:	
DEQ General Permit Operating Certificate Number:		15-4751-2021-OPER	
Work To Be Performed By:	M&M SERVICES, LLC	License #	21812
	(Permittee, Tank Owner, Property Owner or Licensed Service Provider)		(Service Provider)
Phone:	(541) 618-8536	Mobile Phone:	

THIS FORM MUST BE SUBMITTED BY UST PERMITTEE 30 DAYS BEFORE START OF WORK
YOU MUST CONTACT YOUR LOCAL DEQ REGIONAL OFFICE 3-DAYS BEFORE STARTING ANY
DECOMMISSIONING WORK. (Phone numbers are listed on Page 2)

Will tank removal or potential cleanup affect adjacent property or Right-of-Way property? Yes No
Date decommissioning is scheduled to begin: 9/27/21

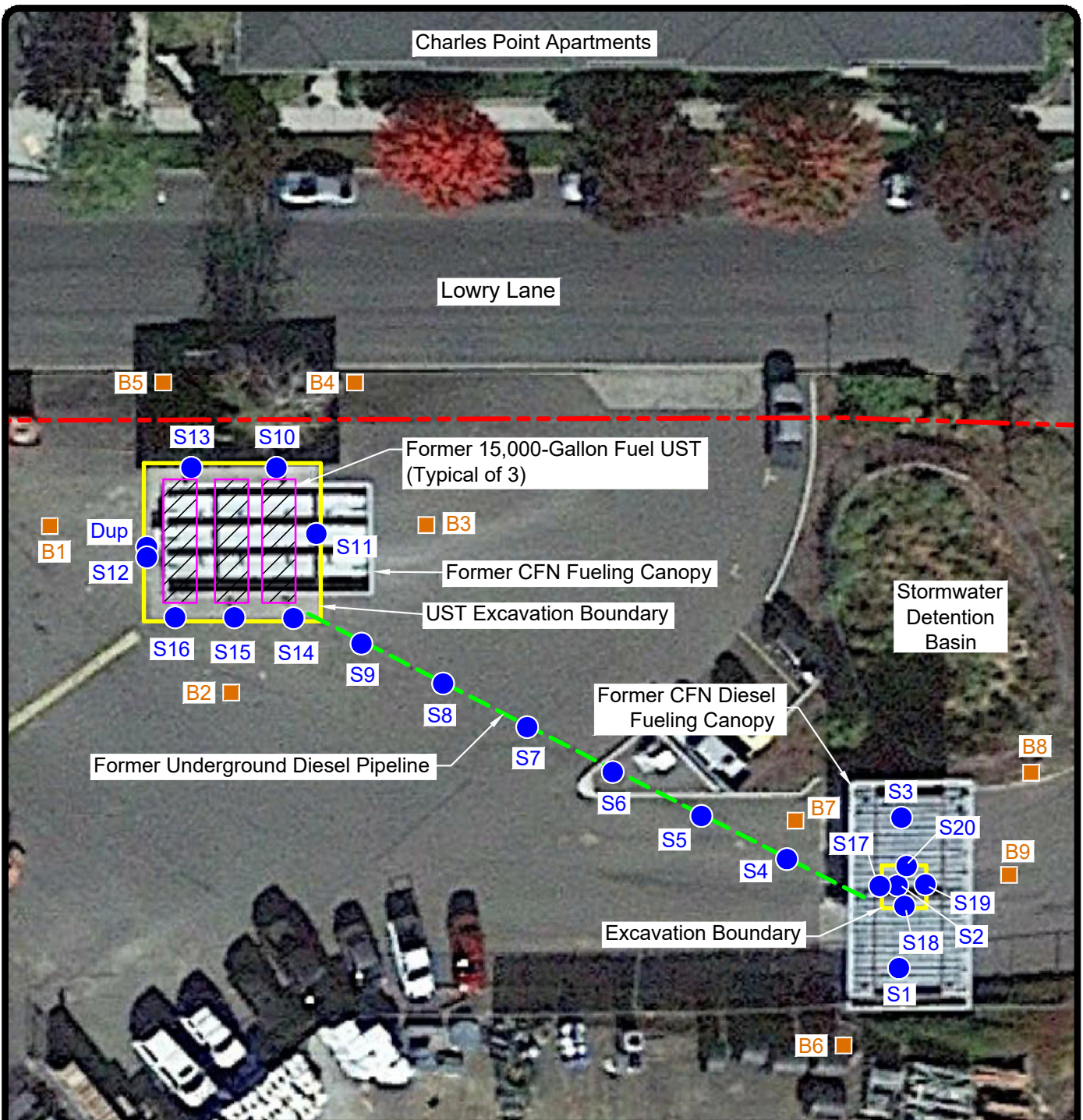
TANK ID #	DEQ-UST PERMIT #	TANK SIZE IN GALLONS	PRODUCT: GASOLINE, DIESEL, USED OIL, OTHER?		CLOSURE OR CHANGE-IN-SERVICE?			TANK TO BE REPLACED?	
			PRESENT	NEW	TANK REMOVAL	CLOSURE IN PLACE*	CHANGE IN SERVICE*	YES*	NO
1	AACFF	15000	DIESEL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	AACFG	15000	DIESEL		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	AACFH	15000	GAS		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- If decommissioned tank(s) are to be replaced by new underground storage tanks you must submit a *General Permit Registration Form to Install and Operate USTs* for the new tanks 30 days before installing them.
- ♦ Submit a soil sampling plan to the DEQ regional office and receive plan approval prior to starting work if (1) tank is to be decommissioned in-place, (2) tank contents are changed to an unregulated substance or (3) tank contains a regulated substance other than petroleum.

Permittee: ~~RHONDA TERRY~~ Kevin Waltz
(Please Print)

Permittee:
(Signature)

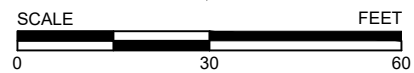
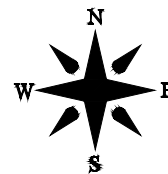
Date: 8/12/2021



SOURCE: GOOGLE EARTH (2020)

LEGEND

- B1 ■ Proposed Soil Boring Location
- S1 ● Soil Sample Location
- Approximate Site Boundary
- UST Underground Storage Tank



DATE: 11/21/21

DRAWN BY: SRM

Figure 2
Soil Sample and Proposed Boring Location Map
UST Decommissioning Project
2531 South Pacific Highway
Medford, Oregon

DRY CREEK LANDFILL		INVOICE NO.
Soil on Plastic		220006
HAULER NAME:		INVOICE DATE
Grange Co-op		11.12.21
JOB NAME/DESCRIPTION:		TRUCK NO.
2531 S. Pac Hwy		M+M 1
RD. #:		

WEIGHT IN:	54940
WEIGHT OUT:	25360

~~29.58~~

CUSTOMER'S SIGNATURE	X
14.79	

TEK 117 309

DRY CREEK LANDFILL		INVOICE NO.
Soil on Plastic		220009
HAULER NAME:		INVOICE DATE
Grange S. med.		11.12.21
JOB NAME/DESCRIPTION:		TRUCK NO.
S. Pac. Hwy		JRW 8
RD. #:		

WEIGHT IN:	62700
WEIGHT OUT:	40820

10.94

CUSTOMER'S SIGNATURE	X

TEK 117 309

DRY CREEK LANDFILL

Soil on
Plastic

INVOICE NO.	220007
INVOICE DATE	11.12.21
TRUCK NO.	M+M 15

HAULER NAME	Grange S. med.
JOB NAME/DESCRIPTION	2531 S. Pac Hwy
P.O. #	

WEIGHT IN:	48360
	23580
WEIGHT OUT:	
	1239

CUSTOMER'S SIGNATURE	X
----------------------	---

TEK 117 300

DRY CREEK LANDFILL

Soil on
Plastic

INVOICE NO.	220005
INVOICE DATE	11.12.21
TRUCK NO.	M+M semi

HAULER NAME	Grange Co-Op. 15
JOB NAME/DESCRIPTION	2531 S. Pac Hwy
P.O. #	

WEIGHT IN:	49180
WEIGHT OUT:	23670
	2556

CUSTOMER'S SIGNATURE	X
	1278

TEK 117 300

DRY CREEK LANDFILL

INVOICE NO.

219925

INVOICE DATE

11/1/2021

TRUCK NO.

m3m 15

HAULER NAME:

South medford Grange Co-OP

JOB NAME/DESCRIPTION:

Contaminated Soil On Plastic

P.O. #:

South Grange Pacific Hwy

WEIGHT IN:

52420

WEIGHT OUT:

23640

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219926

INVOICE DATE

11/1/2021

TRUCK NO.

m3m 1

HAULER NAME:

South medford Grange

JOB NAME/DESCRIPTION:

Cont. Soil On Plastic

P.O. #:

South Pacific Hwy South Grange

WEIGHT IN:

57820

WEIGHT OUT:

25560

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219927

INVOICE DATE

11/1/21

TRUCK NO.

m3m 1

HAULER NAME:

South Medford Grange Co-op

JOB NAME/DESCRIPTION:

Soil on Plastic

POB: South Pac Hwy.

WEIGHT IN:

60460

25300

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219928

INVOICE DATE

11/1/2021

TRUCK NO.

m3m 15

HAULER NAME:

S. Grange Co-op

JOB NAME/DESCRIPTION:

Soil on Plastic

POB: S Pac Hwy Medford

WEIGHT IN:

50120

23540

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219931

INVOICE DATE

11/1/21

TRUCK NO.

m3m1

HAULER NAME

S. Med. Grange

JOB NAME/DESCRIPTION

Cont Soil on Plastic

PO #

S Paci Hwy

WEIGHT IN:

57080

WEIGHT OUT:

28420

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219934

INVOICE DATE

11/2/21

TRUCK NO.

m3m15

HAULER NAME

S. Pacific Hwy

JOB NAME/DESCRIPTION

Cont Soil on Plastic

PO #

S. Medford Grange Co-op

WEIGHT IN:

50700

WEIGHT OUT:

23640

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.
219935
INVOICE DATE
11/2/21
TRUCK NO.
m&m #1

HAULER NAME:
S. Medford Grange Co-op
JOB NAME/DESCRIPTION:
Cont Soil on Plastic
P.O. #
S. Pacific Hwy

WEIGHT IN:
56940
25400
WEIGHT OUT:

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.
219938
INVOICE DATE
11/2/21
TRUCK NO.
m&m #1

HAULER NAME:
S. medford Grange Co-op
JOB NAME/DESCRIPTION:
Soil on Plastic
P.O. #
S. Pacific Hwy

WEIGHT IN:
55300
25380
WEIGHT OUT:

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219933

INVOICE DATE

11/2/21

TRUCK NO.

m23m1

HAULER NAME:
S. medford Grange Co-op

JOB NAME/DESCRIPTION:
Cont. Soil on Plastic

R.O. #:
S. pacific Hwy

WEIGHT IN: 55880

25420

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219930

INVOICE DATE

11/1/21

TRUCK NO.

m23m1

HAULER NAME:
South med. Grange

JOB NAME/DESCRIPTION:
Cont. Soil on Plastic

R.O. #:
S. pac. Hwy medford

WEIGHT IN:

(61402)

25420

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.
219936
INVOICE DATE
11/2/2024
TRUCK NO.
M+M #15

HAULER NAME:
S. Medford Grange Co-OP
JOB NAME/DESCRIPTION:
Cont. Soil On Plastic.
PG. #:
S. Pacific Hwy

WEIGHT IN:
48260
23340
WEIGHT OUT:

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.
219990
INVOICE DATE
11/10
TRUCK NO.
M+M 1

HAULER NAME:
S. Medford Grange
JOB NAME/DESCRIPTION:
S. Pacific Hwy
PG. #:
Soil on plastic

WEIGHT IN:
50560
25300
WEIGHT OUT:

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219923

INVOICE DATE

11/1/2021

TRUCK NO.

m3m 15

HAULER NAME:

South med Grange

JOB NAME/DESCRIPTION:

Soil on plastic

P.O. #:

S. Pacific Hwy.

WEIGHT IN:

505600
23600

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219929

INVOICE DATE

11/1/21

TRUCK NO.

m3m 15

HAULER NAME:

S. med. Grange

JOB NAME/DESCRIPTION:

Cont Soil on plastic

P.O. #:

S. Pacific Hwy Medford

WEIGHT IN:

47300
23500

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219932

INVOICE DATE

11/2/21

TRUCK NO.

m3m 15

HAULER NAME:

S. med. Grange

JOB NAME/DESCRIPTION:

Cont. Soil on Plastic

P.O. #:

S. Pacific - Hwy med

WEIGHT IN:

45960

23440

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219945

INVOICE DATE

11/2/21

TRUCK NO.

m3m 1

HAULER NAME:

S. medford Grange Co-op

JOB NAME/DESCRIPTION:

Soil on Plastic

P.O. #:

S. Pacific Hwy

WEIGHT IN:

57560

25320

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117

DRY CREEK LANDFILL

INVOICE NO.	219944
INVOICE DATE	11/2/21
TRUCK NO.	Mtm 13

HAULER NAME:	S. Medford Grange Co-OP
JOB NAME/DESCRIPTION:	Soil on Plastic
P.O. #:	S. Pacific Hwy

WEIGHT IN:	46680
	23440
WEIGHT OUT:	

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.	219946
INVOICE DATE	11/2/21
TRUCK NO.	Mtm 1

HAULER NAME:	S. Medford Grange
JOB NAME/DESCRIPTION:	Soil on Plastic
P.O. #:	S. Pacific Hwy

WEIGHT IN:	56340
	25260
WEIGHT OUT:	

CUSTOMER'S SIGNATURE
X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

219947

INVOICE DATE

TRUCK NO.

m+m 15

HAULER NAME:

S. med. Grange

JOB NAME/DESCRIPTION:

Soil on Plastic

P.O. #:

S. Pacific Hwy

WEIGHT IN:

34940

23400

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309

DRY CREEK LANDFILL

INVOICE NO.

215749

INVOICE DATE

11/2/21

TRUCK NO.

m+m 15

HAULER NAME:

S. medford Grange Co-op

JOB NAME/DESCRIPTION:

Soil on Plastic

P.O. #:

S. Pacific Hwy

WEIGHT IN:

51340

23920

WEIGHT OUT:

CUSTOMER'S SIGNATURE

X

TEK 117 309



(541) 826-3242
info@roguemetalsandsupply.com

21983
7130 CRATER LAKE HWY.
WHITE CITY, OR 97508

Date 11/11 2021

QUAN.	ARTICLES PURCHASED & DESCRIPTION	@		
	#1 CU			
	#2 CU			
	#1 BRITE CU			
	#1 INSULATED			
	#2 INSULATED			
	BRASS (R) (Y)			
	BRASS CASINGS			
	BREAKAGE			
	RADIATORS			
	AL/CU RADIATORS			
	ALUM WHEELS			
	ALUMINIUM			
	EXTRUSION			
	STAINLESS STEEL			
	BATTERIES			
	PREPARED			
	UNPREPARED/MIX			
	TIN			
	APPLIANCES			

1200 BRCH CUT

102117 737.93
TOTAL 737.93

NAME M311 SERVICES PHONE _____

ADDRESS 5000 1st St Grange

DRIVER'S LICENSE NO. _____

PAID BY EMP CASH INIT. I affirm under penalty of law that the property I am selling in this transaction is not, to the best of my knowledge, stolen property. I understand that this statement is made under penalty of perjury and may be used as evidence in court.

CHECK # 10397 X M... [Signature]

SELLER FOR 400-018

Oil Re-refining Company, Inc

Oil Re-Refining Company, Inc
 4150 N. Suttle Road
 Portland, Oregon 97217-7717



Invoice

Date	Invoice #
10/23/2021	443496

Bill To
M & M Services PO Box 1093 Medford, OR 97501

Ship To
Grange Co-op 2531 S Pacific Hwy Medford, OR 97501-8760

Resell Expires	
----------------	--

Option	P.O. Number	Terms	Due Date	Ship Date	Bill of Lading	Account #
Email		10 Days Net	11/2/2021	10/21/2021		10372

Item Code	Description	U/M	Quantity	Price Each	Amount
CCP (fuel or fac...	Commercial chemical products for recycling, Flash Point > 200 F. CDT test: ND	Gal	1,255	1.00	1,255.00
Clor D Test Test...	Field test for chlorinated materials	EA	1	30.00	30.00
Truck & Gear L...	Per hour (includes stop fee, job time and travel time when applicable)	EA	1	120.00	120.00

Total \$1,405.00

Phone #	Fax #	E-mail
503-286-8352	503-286-5027	ar@orccorecycles.com

We accept all major credit cards.

--

PAID ONLINE 2/02/21

Oil Re-refining Company, Inc
 Oil Re-Refining Company, Inc
 4150 N. Suttle Road
 Portland, Oregon 97217-7717



Invoice

Date	Invoice #
10/28/2021	443659

Bill To
M & M Services PO Box 1093 Medford, OR 97501

Ship To
Grange Co-op 2531 S Pacific Hwy Medford, OR 97501-8760

Resell Expires	
----------------	--

Option	P.O. Number	Terms	Due Date	Ship Date	Bill of Lading	Account #
Email		10 Days Net	11/7/2021	10/27/2021		10372

Item Code	Description	U/M	Quantity	Price Each	Amount
CCP (fuel or fue...	Commercial chemical products for recycling. Flash Point > 200 F. CDT test: ND	Gal	565	1.00	565.00
Clor D Test Test	Field test for chlorinated materials	1/a	1	30.00	30.00
Truck & Gear L...	Per hour (includes stop fee, job time and travel time when applicable)	1/a	1	120.00	120.00

Total \$715.00

Phone #	Fax #	E-mail
503-286-8352	503-286-5027	ar@orrcorecycles.com

We accept all major credit cards.

--

Oil Re-refining Company, Inc
 Oil Re-Refining Company, Inc
 4150 N. Suttle Road
 Portland, Oregon 97217-7717



Invoice

Date	Invoice #
11/1/2021	443732

Bill To
M & M Services PO Box 1093 Medford, OR 97501

Ship To
Grange Co-op 2531 S Pacific Hwy Medford, OR 97501-8760

Resell Expires	
-----------------------	--

Option	P.O. Number	Terms	Due Date	Ship Date	Bill of Lading	Account #
Email		10 Days Net	11/11/2021	10/29/2021		10372

Item Code	Description	U/M	Quantity	Price Each	Amount
Wastewater (fuc...	For recycling, Flash Point > 200 F. CDT test: ND, pH 6	Gal	270	1.00	270.00
Clor D Test Test...	Field test for chlorinated materials	Ea	1	30.00	30.00
Truck & Gear 1....	Per hour (includes stop fee, job time and travel time when applicable).	Ea	1	120.00	120.00

Total \$420.00

Phone #	Fax #	E-mail
503-286-8352	503-286-5027	nr@orrcorecycles.com

We accept all major credit cards.

--

DRY CREEK LANDFILL, INC. SPECIAL WASTE PROFILE FORM



PAGE 1

OFFICE USE ONLY

Waste Permit No: <u>2022-07</u>	Date: <u>2/3/2022</u>
---------------------------------	-----------------------

One West Main • Suite 401
Medford, OR 97501
541-779-4161
specialwaste@drycreeklandfill.com

GENERATOR INFORMATION

1. Generator's Name:

Grange Co-Op

2. Generator's Mailing Address:

2833 North Pacific Highway; Medford, Oregon 97501

3. Name and Billing Address of Fiscally Responsible Party:

M&M Services, LLC; P.O. Box 1093; Medford, Oregon 97503. Contact is Todd Marthoski

Phone: 541-621-2158

Email: todd@mmservicesllc.com

4. Alternate Contact Name and Phone

Jonathan Williams, Alpine Environmental Consultants. 541-944-4685

*** Complete Account Application if you are a new customer**

SPECIAL WASTE INFORMATION

The information in this section will be compared to DEQ and EPA regulatory standards for hazardous waste.

5. Process generating the waste: Decommissioning of gasoline and diesel USTs

6. Waste name, address and county where generated:

Petroleum-contaminated soil; 2531 South Pacific Highway; Medford, Oregon 97501

7. Is this an EPA or State of Oregon hazardous waste? YES NO

8. Is this a hazardous or toxic waste under state regulations within the state it was generated? YES NO

9. Chemical composition: List constituents from generator knowledge and/or laboratory test data:

Constituents	Concentration Range	Units
TPH-Dx and TPH-Gx	446-2,730 (Dx) and 16.1-104 (Gx)	mg/kg
Various PAHs	Non-detect to 2.00 (1-methylnaphtha)	mg/kg
Gasoline-related VOCs	Non-detect to 0.0657 (1,2,4-trimethben)	mg/kg
RCRA 8 TCLP Metals	Non-detect	various MRLs in mg/L

DRY CREEK LANDFILL, INC. SPECIAL WASTE PROFILE FORM

PAGE 2

1. Does the waste contain PCBs, explosives, or infectious, carcinogenic, pyrophoric, oxidizing, or shock-sensitive compounds? YES NO

Note: If the waste contains asbestos, asbestos disposal policies must be followed and a chain-of-custody form must be attached.

2. Physical state at 70°F: Solid Liquid Sludge

3. List known waste characteristics

a) Flash Point: unknown

b) pH (if liquid): NA

c) Color: brown

d) Odor: petroleum-like

e) Other Descriptors:

Soil stockpiled on and under plastic at Dry Creek Landfill

4. Have you attached laboratory test results and chain-of-custody documentation to this waste profile form? YES NO

5. Have you attached an SDS or other characterizing information? YES NO

6. Have you attached a DEQ letter of approval to this waste profile form? (not required) YES NO

SHIPPING INFORMATION

6. Packaging: Bulk Solid Bulk Liquid Drum

Type/Size: Hauled by dump truck and appropriately stored on and under plastic at Dry Creek Landfill

7. Anticipated Volume: 322

Units: Tons

DRY CREEK LANDFILL, INC. SPECIAL WASTE PROFILE FORM

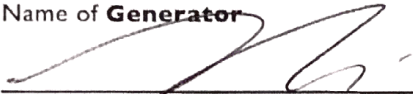
PAGE 3

GENERATOR'S CERTIFICATION AND APPROVAL

I hereby certify that all information submitted in this form and all attached documents contain true and accurate descriptions of the waste stream.

Grange Co-Op

Name of **Generator**



Signature of **Generator**

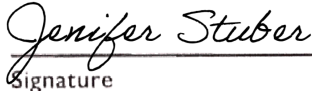
Kevin Waltz, Risk and Project Development Manager

Printed Name/Title

1-25-2022

Date

Dry Creek Landfill, Inc.



Signature

2/3/2022

Date

Waste Acceptance Fee: \$65.50

Per: Ton

Permit Expires: 8/3/2022

Waste Accepted Not to Exceed: 500 tons

No waste authorized under this profile will be accepted after the expiration date stated above without prior authorization.

DRY CREEK LANDFILL, INC. SPECIAL WASTE PROFILE FORM

PAGE 4

SPECIAL WASTE CHARACTERIZATION DECLARATION

(Please print clearly)

Name of Generator: Grange Co-Op

Address of Generator: 2833 North Pacific Highway; Medford, Oregon 97501

Name of Waste: Petroleum-contaminated soil

Source of Waste: Decommissioning of gasoline and diesel USTs

Approximate Amount of Waste (cubic yards or tons): 322 tons

The Generator listed above, by generator knowledge, confirmed by chemical and physical analysis, determined that the subject waste material (as named above) is not a hazardous waste by Oregon Department of Environmental Quality (DEQ) or US Environmental Protection Agency (EPA) or under the state of origin criteria (ref.: OAR 340-101 and 40 CFR Subparts B-D, Part 261).

The Generator also determined that the above-listed waste material is not "Flammable," "Corrosive," "Reactive," "Toxic," "EPA-Listed," or "DEQ-Listed," as defined in the above-referenced regulations.

The Generator assumes all environmental liabilities if this waste is later determined to be an EPA or DEQ hazardous waste.



Authorized Signature

Risk and Development Project Manager

Title

APPENDIX 2

Site Photographs

Site Photographs

November 2021

UST Removal and Hand-Sampling



1. Fuel tank pad, facing west, prior to tank removal.



4. Fuel line trench, to former fuel pump satellites, facing southeast from fuel tanks.



2. Fuel tank pad, facing south, prior to tank removal.



5. Fuel line trench, facing northwest from former fuel pump satellite location.



3. Fuel pump and electrical junking box.



6. Fuel line trench, facing southeast towards former fuel pump satellites.



7. S2 sample location at the former fuel pump satellite location, facing south.



10. Underground storage tanks, facing west.



8. S3 sample location, facing west.



11. Underground storage tanks, facing south.



9. S4 through S9 sample locations, along fuel line trench, facing southeast.



12. Underground storage tanks, facing north.



13. Tank pit after tank removal, facing west.



16. Tank pit, facing the north sidewall, and S10 and S13 sample locations.



14. Tank pit after tank removal, facing south.



17. Tank pit, facing the west sidewall, and S12 sample location.



15. Tank pit, facing the east sidewall, and S11 sample location.



18. Tank pit, facing the south sidewall, and S14, S15, and S16 sample locations.



19. Tank pit backfilled.



22. Fuel pump satellite pit, south sidewall, and S18 sample location.



20. Fuel pump satellite pit, west sidewall, and S17 sample location.



23. Fuel pump satellite, north sidewall, and S20 sample location.



21. Fuel pump satellite pit, east sidewall, and S19 sample location.

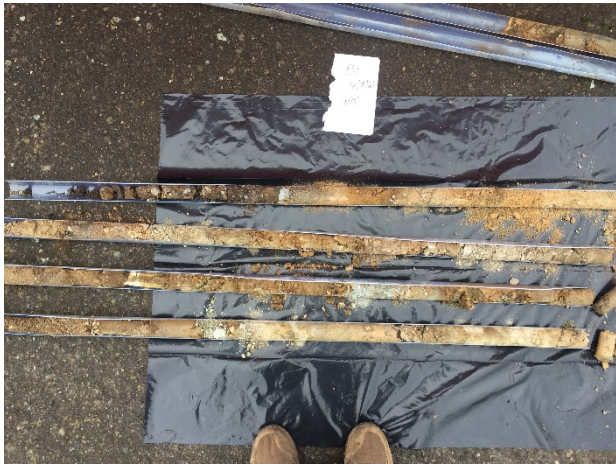


24. Backfilling fuel pump satellite pit.

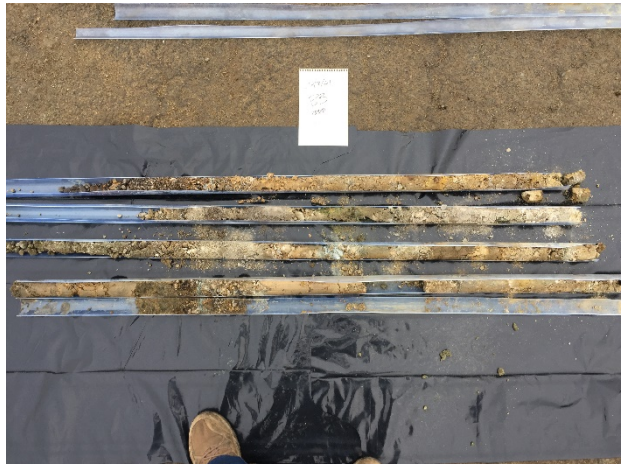
Site Photographs

December 2021

Subsurface Investigation - Push-Probe Drilling



1. B1 boring core.



4. B3 boring core.



2. B1 temporary well.



5. B3 temporary well.



3. B2 boring core.



6. B4 boring core.



7. B4 temporary well.



10. B6 boring core.



8. B5 boring core.



11. B6 temporary well.



9. B5 temporary well.



12. B7 boring core.



13. B7 temporary well.



16. B9 boring core.



14. B8 boring core.



17. Bent drilling road at B4.



15. B8 temporary well.

APPENDIX 3

Boring Logs



LOG OF BORING: B1

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 25.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling ▽ After Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/7/21, 11.4 ft bgs
DESCRIPTION								
0								0.0-0.3 ft bgs - ASPHALT.
1				80	CL			0.3-1.3 ft bgs - Gravelly CLAY: Dark brown; 50-60% medium-plastic fines; 30-40% fine to medium angular to subrounded gravel; 10-20% fine to coarse sand; firm; moist.
2					CL			
3			0.0	90	SM			1.3-2.0 ft bgs - Gravelly CLAY: Brown; 50-60% medium-plastic fines; 30-40% fine to medium angular to subrounded gravel; 10-20% fine to coarse sand; firm; moist.
4								
5				90	SM			2.0-8.0 ft bgs - Silty Gravelly SAND: Light brown; 50-60% fine to coarse sand; 20-30% low-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; firm; moist.
6			0.0					
7				90	GM			8.0-9.5 ft bgs - Silty Sandy GRAVEL: Brown to gray; 50-60% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; firm; moist.
8								
9				100	ML			9.5-10.0 ft bgs - SILT: Gray; 80-90% low-plastic fines; 10-20% fine to coarse sand; firm; moist.
10								
11	▼	B1	0.0	100	CL			10.0-20.0 ft bgs - Gravelly Sandy CLAY with Cobbles: Brown to light brown; 50-60% medium-plastic fines; 20-30% fine to coarse angular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.
12								
13				100	CL			14.0 ft bgs - Moisture increase to wet.
14								
15				100	CL			
16			0.0					
17				100	CL			
18								
19				0				
20								
21	▽			0				20.0-25.0 ft bgs - No recovery.
22								
23		B1-GW Dup (B1-GW)		0				
24								
25								Refusal at 25.0 ft bgs.

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 19.0-24.0 feet bgs. DTW prior to sampling was 11.4 feet bgs. Approximately 3.0 gallons of water purged prior to sampling. Water was clear prior to sampling.



LOG OF BORING: B2

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 23.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 17.3 ft bgs
DESCRIPTION								
0							0.0-0.3 ft bgs - ASPHALT.	
1				90	CL		0.3-0.5 ft bgs - FILL: Gravel and Sand; Gray; dry.	
2					ML		0.5-2.5 ft bgs - Sandy CLAY: Brown to gray; 70-80% medium-plastic fines; 20-30% fine to coarse sand; trace gravel; firm; moist.	
3			0.0	80	ML		2.5-3.0 ft bgs - Sandy SILT: Light brown; 60-70% non-plastic fines; 30-40% fine to coarse sand; trace gravel; loose; dry to moist.	
4							3.0-7.0 ft bgs - Sandy Gravelly SILT: Brown; 50-60% low-plastic fines; 20-30% fine to coarse sand; 20-30% fine to medium subangular to subrounded gravel; firm; moist.	
5								
6								
7								
8				80	CL		7.0-8.0 ft bgs - Gravelly CLAY: Brown; 50-60% medium-plastic fines; 30-40% fine to medium subangular to subrounded gravel; 10-20% fine to coarse sand; firm; moist.	
9			0.0		GC		8.0-11.0 ft bgs - Clayey Sandy GRAVEL: Brown; 50-60% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; firm; moist.	
10								
11				100	GM		11.0-23.0 ft bgs - Gravelly Sandy CLAY: Brown to gray; 50-60% medium-plastic fines; 20-30% fine to medium subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
12	B2		0.0					
13								
14								
15								
16								
17	▼			100	GM		17.0 ft bgs - Moisture increase to wet.	
18			0.0					
19							19.0 ft bgs - Moisture decrease.	
20								
21		B2-GW		100	GM			
22			0.0					
23							Refusal at 23.0 ft bgs.	

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 17.5-22.5 feet bgs. DTW prior to sampling was 17.3 feet bgs. Approximately 0.5 gallons of water purged prior to sampling. Due to poor yeild, water was turbid when collected.



LOG OF BORING: B3

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 18.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 9.3 ft bgs
DESCRIPTION								
0							0.0-0.3 ft bgs - ASPHALT.	
1					ML		0.3-1.0 ft bgs - FILL: Gravel and Sand; Gray to brown; moist.	
2				80	CL		1.0-1.5 ft bgs - SILT: Light brown; 100% low-plastic fines; firm; dry to moist.	
3			0.0				1.5-5.0 ft bgs - Sandy Gravelly CLAY: Light brown; 50-60% medium-plastic fines; 20-30% fine to coarse sand; 20-30% fine to medium subangular to subrounded gravel; firm; moist.	
4								
5								
6							5.0-10.0 ft bgs - Silty Sandy GRAVEL: Brown; 50-60% fine to coarse angular to subrounded gravel; 20-30% low-plastic fines; 20-30% fine to coarse sand; firm; moist.	
7			0.0	70	GM			
8							8.0-8.5 ft bgs - Greenish gray.	
9	▼							
10		B3-GW					10.0-18.0 ft bgs - Gravelly Sandy CLAY: Brown to grey; 50-60% medium-plastic fines; 20-30% fine to medium subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
11								
12		B3	0.0	90				
13								
14					CL			
15								
16				100				
17			0.0					
18							Refusal at 18.0 ft bgs.	

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 13.0-18.0 ft bgs.
Allowed to recover overnight. DTW prior to sampling was 9.3 feet bgs.
A total of 2.0 gallons was purged and water was clear prior to water sampling.



LOG OF BORING: B4

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 20.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 9.9 ft bgs
DESCRIPTION								
0					CL		0.0-1.2 ft bgs - Silty CLAY: Dark brown; 100% medium-plastic fines; firm; moist.	
1				80	GC		1.2-4.5 ft bgs - Clayey GRAVEL: Brown; 60-70% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 10-20% fine to coarse sand; firm; moist.	
2		0.7					1.5-2.0 ft bgs - Dark gray.	
3				100	CL		4.5-7.0 ft bgs - Sandy CLAY: Brown; 70-80% medium-plastic fines; 10-20% fine to coarse sand; firm; 10-20% fine to medium subangular to subrounded gravel; hard; moist.	
4								
5			0.0		GM		7.0-10.0 ft bgs - Silty Sandy GRAVEL: Brown to gray; 50-60% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; hard; moist.	
6								
7				100	CL		10.0-20.0 ft bgs - Gravelly Sandy CLAY: Brown; 50-60% medium-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
8								
9					CL		13.5 ft bgs - Moisture increase to wet.	
10	▼	B4	0.0					
11							Refusal at 20.0 ft bgs.	
12								
13		B4-GW						
14								
15			0.0					
16								
17								
18								
19								
20								

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 14.0-19.0 ft bgs. Allowed to recover overnight. DTW prior to sampling was 9.9 feet bgs. A total of 1.0 gallon was purged. Due to poor yeild the water sample was collected before the turbidity could clear up.



LOG OF BORING: B5

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 23.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 17.0 ft bgs
DESCRIPTION								
0					CL		0.0-1.0 ft bgs - Silty CLAY: Dark brown; 100% medium-plastic fines; firm; moist.	
1					GC		1.5-2.0 ft bgs - Clayey GRAVEL: Dark gray; 60-70% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 10-20% fine to coarse sand; firm; moist.	
2				50	CL		2.0-5.0 ft bgs - Gravelly Sandy CLAY: Brown; 50-60% medium-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
3			0.0		CL			
4					CL		5.0-8.0 ft bgs - Sandy CLAY: Brown; 70-80% medium-plastic fines; 20-30% fine to coarse sand; trace gravel; firm; moist.	
5					CL			
6			0.0		CL			
7				90	GM		8.0-12.0 ft bgs - Silty Sandy GRAVEL: Brown to gray; 50-60% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; hard; moist.	
8					GM			
9					GM			
10			0.0		GM			
11					GM			
12		B5		100	CL		12.0-23.0 ft bgs - Gravelly Sandy CLAY: Brown; 50-60% medium-plastic to high-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
13					CL			
14					CL			
15					CL			
16					CL			
17	▼		0.0	100	CL			
18					CL			
19		B5-GW			CL			
20					CL			
21				100	CL			
22					CL			
23					CL		Refusal at 23.0 ft bgs.	

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 18.0-23.0 ft bgs. Allowed to recover overnight. DTW prior to sampling was 17.0 feet bgs. Due to poor yield the water sample was collected before the turbidity could clear up.



ALPINE ENVIRONMENTAL CONSULTANTS, LLC

LOG OF BORING: B6

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 18.5 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 13.9 ft bgs
DESCRIPTION								
0					CL		0.0-2.0 ft bgs - Sandy CLAY: Dark brown to brown; 70-80% medium-plastic to high-plastic fines; 20-30% fine to coarse sand; trace gravel; firm; moist.	
1				60	GM		2.0-12.5 ft bgs - Silty Sandy GRAVEL: Light brown to gray; 50-60% fine to coarse angular to subrounded gravel; 20-30% low-plastic fines; 20-30% fine to coarse sand; firm; dry to moist.	
2								
3		0.0						
4								
5				90			12.5-18.5 ft bgs - Gravelly Sandy CLAY: Brown; 50-60% medium to high-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist.	
6								
7		0.0						
8								
9				100	CL		14.0 ft bgs - Moisture increase to wet.	
10								
11								
12		B6	0.0				Refusal at 18.5 ft bgs.	
13								
14	▼							
15		B6-GW			CL		Refusal at 18.5 ft bgs.	
16								
17		0.0		90				
18							Refusal at 18.5 ft bgs.	
19								

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 13.5-18.5 ft bgs. Allowed to recover overnight. DTW prior to sampling was 13.9 feet bgs. Due to poor yield the water sample was collected before the turbidity could clear up.



LOG OF BORING: B7

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 19.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 18.6 ft bgs
DESCRIPTION								
0							0.0-0.3 ft bgs - ASPHALT.	
1					ML		0.3-0.6 ft bgs - FILL: Gravel and Sand; Gray to brown; dry.	
2				30			0.6-3.0 ft bgs - Sandy Gravelly SILT: Brown; 50-60% low-plastic fines; 20-30% fine to coarse sand; 20-30% fine to coarse subangular to subrounded gravel; firm; moist.	
3							3.0-19.0 ft bgs - Gravelly Sandy CLAY: Brown to light brown; 50-60% medium-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist to wet.	
4			0.0					
5								
6								
7			0.0	70				
8								
9								
10					CL			
11								
12		B7	0.0	80				
13								
14							14.0-15.0 ft bgs - Wet.	
15							15.0-18.0 ft bgs - Moist.	
16			0.0					
17				100				
18							18.0-19.0 ft bgs - Wet.	
19	▼	B7-GW					Refusal at 19.0 ft bgs.	

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 14.0-19.0 ft bgs. Allowed to recover overnight. DTW prior to sampling was 18.6 feet bgs. Due to poor yeild all of the water in the well casing was collected for the water sample, water was turbid.



LOG OF BORING: B8

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 20.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 9.3 ft bgs
DESCRIPTION								
0								
1				50	CL		0.0-8.0 ft bgs - Sandy Gravelly CLAY: Brown; 60-70% medium-plastic fines; 10-20% fine to coarse sand; 10-20% fine to coarse subangular to subrounded gravel; firm; moist.	
2								
3			0.0				8.0-9.5 ft bgs - Sandy CLAY: Brown; 70-80% medium-plastic fines; 10-20% fine to coarse sand; trace gravel; hard; moist.	
4								
5					CL		9.5-12.5 ft bgs - Clayey Sandy GRAVEL: Brown; 50-60% fine to coarse subangular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; firm; moist.	
6			0.0					
7				100			12.5-15.0 ft bgs - Silty Sandy CLAY: Light brown to brown; 70-80% low to high-plastic fines; 20-30% fine to coarse sand; some gravel; hard; dry moist.	
8								
9	▼				GC		15.0-20.0 ft bgs - Gravelly Sandy CLAY: Brown to gray; 50-60% medium-plastic fines; 20-30% fine to coarse subangular to subrounded gravel; 20-30% fine to coarse sand; firm; moist to wet.	
10								
11					CL		19.0 ft bgs - Moisture increase to wet.	
12			0.0					
13		B8 Dup (12-14)	0.0				Refusal at 20.0 ft bgs.	
14								
15		B8-GW			CL		Refusal at 20.0 ft bgs.	
16								
17				90			Refusal at 20.0 ft bgs.	
18			0.0					
19							Refusal at 20.0 ft bgs.	
20								

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 14.0-19.0 ft bgs. Allowed to recover overnight. DTW prior to sampling was 9.3 feet bgs. Due to poor yeild all of the water in the well casing was collected for the water sample, water was turbid.



LOG OF BORING: B9

(Page 1 of 1)

UST Decommissioning Project
Grange Co-op
2531 South Pacific Highway
Medford, Oregon
Project Number: AEC2021-37

Date Started : 12/7/21
Date Completed : 12/7/21
Boring Diameter : 2.25-Inch
Total Depth : 20.0 ft bgs
Drilling Method : Direct-Push Geoprobe

Drilled By : BB&A
Sampling Method : Grab
Reference Elev. : Ground Surface
Logged By : Toby Shallcross
Checked By : Jonathan Williams

Depth in Feet	Water Level	Sample I.D.	PID (ppm)	Recovery (%)	USCS	GRAPHIC	Water Level	Location and Water Level Data:
							▼ Prior to Sampling	Location of Soil Boring: See Figure 2 Water Level Data: 12/8/21, 17.9 ft bgs
DESCRIPTION								
0							0.0-0.3 ft bgs - ASPHALT.	
1					GC		0.3-0.5 ft bgs - FILL: Gravel and Sand; Gray; dry.	
2				50	CL		0.5-1.0 ft bgs - Clayey Sandy GRAVEL: Brown; 50-60% fine to coarse angular to subrounded gravel; 20-30% medium-plastic fines; 20-30% fine to coarse sand; firm; moist.	
3							1.0-9.5 ft bgs - Gravelly Sandy CLAY: Brown to dark brown; 60-70% medium to high-plastic fines; 10-20% fine to medium subangular to subrounded gravel; 10-20% fine to coarse sand; firm; moist.	
4			0.0	80	CL			
5								
6			0.0	100	GC			
7								
8					CL			
9								
10					GC		9.5-15.0 ft bgs - Clayey Sandy GRAVEL: Light brown to brown; 50-60% fine to coarse angular to subrounded gravel; 20-30% low to medium-plastic fines; 20-30% fine to coarse sand; hard; moist.	
11								
12				100	CL			
13		B9	0.0					
14					CL			
15								
16					CL		15.0-20.0 ft bgs - Sandy Gravelly CLAY: Light brown to brown; 50-60% medium-plastic fines; 20-30% fine to coarse sand; 20-30% fine to coarse subangular to subrounded gravel; hard; moist.	
17								
18	▼			100	CL			
19		B9-GW	0.0					
20							Refusal at 20.0 ft bgs.	

ft bgs = feet below ground surface
ppm = parts per million
DTB = depth to bottom
DTW = depth to water
PID = photoionization detector

Notes: Temporary well: 0.75-inch PVC, screened at 14.5-19.5 ft bgs. Allowed to recover overnight. DTW prior to sampling was 17.9 feet bgs. Due to poor yield all of the water in the well casing was collected for the water sample, water was turbid.

APPENDIX 4

Complete Soil and Groundwater Laboratory Results

Complete Laboratory Analytical Results

October 22, 2021



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Sunday, December 19, 2021

Jonathan Williams
Alpine Environmental Consultants
12208 Antioch Road
White City, OR 97503

RE: A1K0080 - Grange - AEC2021-37

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 A1K0080, which was received by the laboratory on 10/26/2021 at 2:55:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@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	2.3 degC
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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.

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S1	A1K0080-01	Soil	10/22/21 14:20	10/26/21 14:55
S2	A1K0080-02	Soil	10/22/21 14:30	10/26/21 14:55
S3	A1K0080-03	Soil	10/22/21 14:40	10/26/21 14:55
S4	A1K0080-04	Soil	10/22/21 14:45	10/26/21 14:55
S5	A1K0080-05	Soil	10/22/21 14:50	10/26/21 14:55
S6	A1K0080-06	Soil	10/22/21 14:55	10/26/21 14:55
S7	A1K0080-07	Soil	10/22/21 15:00	10/26/21 14:55
S8	A1K0080-08	Soil	10/22/21 15:05	10/26/21 14:55
S9	A1K0080-09	Soil	10/22/21 15:10	10/26/21 14:55

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.

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
S1 (A1K0080-01)				Matrix: Soil		Batch: 21K0223		
Diesel	39.2	---	25.0	mg/kg dry	1	11/06/21 01:15	NWTPH-Dx	F-11
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 01:15	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 01:15</i>	<i>NWTPH-Dx</i>
S2 (A1K0080-02RE1)				Matrix: Soil		Batch: 21K0223		
Diesel	9960	---	468	mg/kg dry	20	11/08/21 09:15	NWTPH-Dx	
Oil	ND	---	936	mg/kg dry	20	11/08/21 09:15	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: %</i>		<i>Limits: 50-150 %</i>		<i>20</i>	<i>11/08/21 09:15</i>	<i>NWTPH-Dx</i>
S3 (A1K0080-03)				Matrix: Soil		Batch: 21K0223		
Diesel	45.0	---	25.0	mg/kg dry	1	11/06/21 01:55	NWTPH-Dx	F-11
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 01:55	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 75 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 01:55</i>	<i>NWTPH-Dx</i>
S4 (A1K0080-04)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 02:16	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 02:16	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 02:16</i>	<i>NWTPH-Dx</i>
S5 (A1K0080-05)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 02:36	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 02:36	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 02:36</i>	<i>NWTPH-Dx</i>
S6 (A1K0080-06)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 04:17	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 04:17	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 04:17</i>	<i>NWTPH-Dx</i>
S7 (A1K0080-07)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 04:37	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 04:37	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 04:37</i>	<i>NWTPH-Dx</i>

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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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
S8 (A1K0080-08)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 04:57	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 04:57	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 04:57</i>	<i>NWTPH-Dx</i>
S9 (A1K0080-09)				Matrix: Soil		Batch: 21K0223		
Diesel	ND	---	25.0	mg/kg dry	1	11/06/21 05:17	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/06/21 05:17	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/06/21 05:17</i>	<i>NWTPH-Dx</i>

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S1 (A1K0080-01)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Chrysene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Fluoranthene	0.0117	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Fluorene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
1-Methylnaphthalene	0.0300	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
2-Methylnaphthalene	0.0469	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Naphthalene	0.0308	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Phenanthrene	0.0133	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Pyrene	0.0121	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0113	mg/kg dry	1	11/04/21 17:48	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/04/21 17:48</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>68 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/04/21 17:48</i>	<i>EPA 8270E SIM</i>

S2 (A1K0080-02)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.114	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0517	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	R-02
Anthracene	ND	---	0.141	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Benzo(b)fluoranthene	0.0181	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	M-05
Benzo(k)fluoranthene	ND	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Benzo(g,h,i)perylene	0.0172	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Chrysene	0.0688	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	M-05
Dibenz(a,h)anthracene	ND	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S2 (A1K0080-02)		Matrix: Soil			Batch: 21K0196			
Fluoranthene	0.0590	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Fluorene	0.274	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
1-Methylnaphthalene	0.961	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
2-Methylnaphthalene	2.12	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Naphthalene	0.583	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Phenanthrene	0.628	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Pyrene	0.709	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
Dibenzofuran	0.268	---	0.0120	mg/kg dry	1	11/04/21 18:39	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>11/04/21 18:39</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>70 %</i>		<i>54-127 %</i>	<i>1</i>	<i>11/04/21 18:39</i>	<i>EPA 8270E SIM</i>	
S3 (A1K0080-03)		Matrix: Soil			Batch: 21K0196			
Acenaphthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Chrysene	0.0113	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Fluoranthene	0.0177	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Fluorene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
1-Methylnaphthalene	0.0469	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
2-Methylnaphthalene	0.166	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Naphthalene	0.114	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Phenanthrene	0.0453	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Pyrene	0.0202	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
Dibenzofuran	0.0139	---	0.0113	mg/kg dry	1	11/04/21 19:29	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>11/04/21 19:29</i>	<i>EPA 8270E SIM</i>	

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ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S3 (A1K0080-03)				Matrix: Soil		Batch: 21K0196		
<i>Surrogate: p-Terphenyl-d14 (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 54-127 %</i>		<i>1</i>		<i>11/04/21 19:29 EPA 8270E SIM</i>
S4 (A1K0080-04)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Chrysene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Fluoranthene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Fluorene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Naphthalene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Phenanthrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Pyrene	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0113	mg/kg dry	1	11/04/21 19:54	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 78 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>		<i>11/04/21 19:54 EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>74 %</i>		<i>54-127 %</i>		<i>1</i>		<i>11/04/21 19:54 EPA 8270E SIM</i>

S5 (A1K0080-05)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Anthracene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S5 (A1K0080-05)				Matrix: Soil		Batch: 21K0196		
Chrysene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Fluoranthene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Fluorene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Naphthalene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Phenanthrene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Pyrene	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0120	mg/kg dry	1	11/04/21 20:19	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/04/21 20:19</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>73 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/04/21 20:19</i>	<i>EPA 8270E SIM</i>

S6 (A1K0080-06)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Anthracene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Chrysene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Fluoranthene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Fluorene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Naphthalene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Phenanthrene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
Pyrene	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S6 (A1K0080-06)				Matrix: Soil		Batch: 21K0196		
Dibenzofuran	ND	---	0.0114	mg/kg dry	1	11/05/21 10:30	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 77 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>11/05/21 10:30</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>70 %</i>		<i>54-127 %</i>	<i>1</i>	<i>11/05/21 10:30</i>	<i>EPA 8270E SIM</i>	
S7 (A1K0080-07)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Anthracene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Chrysene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Fluoranthene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Fluorene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Naphthalene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Phenanthrene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Pyrene	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0115	mg/kg dry	1	11/05/21 10:56	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 44-120 %</i>	<i>1</i>	<i>11/05/21 10:56</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>		<i>81 %</i>		<i>54-127 %</i>	<i>1</i>	<i>11/05/21 10:56</i>	<i>EPA 8270E SIM</i>	
S8 (A1K0080-08)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Anthracene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S8 (A1K0080-08)				Matrix: Soil		Batch: 21K0196		
Benzo(k)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Chrysene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Fluoranthene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Fluorene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Naphthalene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Phenanthrene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Pyrene	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0113	mg/kg dry	1	11/05/21 11:21	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/05/21 11:21</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>67 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/05/21 11:21</i>	<i>EPA 8270E SIM</i>

S9 (A1K0080-09)				Matrix: Soil		Batch: 21K0196		
Acenaphthene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Anthracene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Chrysene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Fluoranthene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Fluorene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Naphthalene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S9 (A1K0080-09)				Matrix: Soil		Batch: 21K0196		
Phenanthrene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Pyrene	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0109	mg/kg dry	1	11/05/21 11:46	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>			<i>Recovery: 78 %</i>	<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/05/21 11:46</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>74 %</i>	<i>54-127 %</i>		<i>1</i>	<i>11/05/21 11:46</i>	<i>EPA 8270E SIM</i>

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Darwin Thomas, Business Development Director



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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S1 (A1K0080-01)				Matrix: Soil		Batch: 21K0120		
% Solids	84.1	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S2 (A1K0080-02)				Matrix: Soil		Batch: 21K0120		
% Solids	81.0	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S3 (A1K0080-03)				Matrix: Soil		Batch: 21K0120		
% Solids	83.6	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S4 (A1K0080-04)				Matrix: Soil		Batch: 21K0120		
% Solids	83.9	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S5 (A1K0080-05)				Matrix: Soil		Batch: 21K0120		
% Solids	82.7	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S6 (A1K0080-06)				Matrix: Soil		Batch: 21K0120		
% Solids	85.4	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S7 (A1K0080-07)				Matrix: Soil		Batch: 21K0120		
% Solids	86.5	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S8 (A1K0080-08)				Matrix: Soil		Batch: 21K0120		
% Solids	83.9	---	1.00	%	1	11/04/21 07:52	EPA 8000D	
S9 (A1K0080-09)				Matrix: Soil		Batch: 21K0120		
% Solids	88.5	---	1.00	%	1	11/04/21 07:52	EPA 8000D	

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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 21K0223 - EPA 3546 (Fuels)						Soil						
Blank (21K0223-BLK1)			Prepared: 11/05/21 07:23 Analyzed: 11/05/21 09:56									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21K0223-BS1)			Prepared: 11/05/21 07:23 Analyzed: 11/05/21 10:19									
<u>NWTPH-Dx</u>												
Diesel	123	---	20.0	mg/kg wet	1	125	---	98	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K0223-DUP1)			Prepared: 11/05/21 07:23 Analyzed: 11/05/21 11:04									
<u>QC Source Sample: Non-SDG (A1K0057-05RE1)</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	ND	---	---	---	30%	
Oil	ND	---	50.0	mg/kg wet	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 70 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K0223-DUP2)			Prepared: 11/05/21 09:56 Analyzed: 11/06/21 05:38									
<u>QC Source Sample: S9 (A1K0080-09)</u>												
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	50.0	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0196 - EPA 3546						Soil						
Blank (21K0196-BLK1)			Prepared: 11/04/21 13:25 Analyzed: 11/04/21 16:58									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00909	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 77 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>73 %</i>		<i>54-127 %</i>		<i>"</i>						

LCS (21K0196-BS1)			Prepared: 11/04/21 13:25 Analyzed: 11/04/21 17:23									
<u>EPA 8270E SIM</u>												
Acenaphthene	0.602	---	0.0100	mg/kg wet	1	0.800	---	75	40-123%	---	---	
Acenaphthylene	0.603	---	0.0100	mg/kg wet	1	0.800	---	75	32-132%	---	---	
Anthracene	0.581	---	0.0100	mg/kg wet	1	0.800	---	73	47-123%	---	---	
Benz(a)anthracene	0.600	---	0.0100	mg/kg wet	1	0.800	---	75	49-126%	---	---	
Benzo(a)pyrene	0.590	---	0.0100	mg/kg wet	1	0.800	---	74	45-129%	---	---	
Benzo(b)fluoranthene	0.588	---	0.0100	mg/kg wet	1	0.800	---	74	45-132%	---	---	
Benzo(k)fluoranthene	0.646	---	0.0100	mg/kg wet	1	0.800	---	81	47-132%	---	---	
Benzo(g,h,i)perylene	0.626	---	0.0100	mg/kg wet	1	0.800	---	78	43-134%	---	---	
Chrysene	0.606	---	0.0100	mg/kg wet	1	0.800	---	76	50-124%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0196 - EPA 3546						Soil						
LCS (21K0196-BS1)			Prepared: 11/04/21 13:25 Analyzed: 11/04/21 17:23									
Dibenz(a,h)anthracene	0.671	---	0.0100	mg/kg wet	1	0.800	---	84	45-134%	---	---	
Fluoranthene	0.595	---	0.0100	mg/kg wet	1	0.800	---	74	50-127%	---	---	
Fluorene	0.586	---	0.0100	mg/kg wet	1	0.800	---	73	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.593	---	0.0100	mg/kg wet	1	0.800	---	74	45-133%	---	---	
1-Methylnaphthalene	0.600	---	0.0100	mg/kg wet	1	0.800	---	75	40-120%	---	---	
2-Methylnaphthalene	0.554	---	0.0100	mg/kg wet	1	0.800	---	69	38-122%	---	---	
Naphthalene	0.586	---	0.0100	mg/kg wet	1	0.800	---	73	35-123%	---	---	
Phenanthrene	0.594	---	0.0100	mg/kg wet	1	0.800	---	74	50-121%	---	---	
Pyrene	0.597	---	0.0100	mg/kg wet	1	0.800	---	75	47-127%	---	---	
Dibenzofuran	0.599	---	0.0100	mg/kg wet	1	0.800	---	75	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>67 %</i>		<i>54-127 %</i>		"						

Duplicate (21K0196-DUPI)						Prepared: 11/04/21 13:25 Analyzed: 11/04/21 18:14						
QC Source Sample: S1 (A1K0080-01)												
EPA 8270E SIM												
Acenaphthene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Anthracene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	---	0.0109	mg/kg dry	1	---	0.00579	---	---	***	30%	
Benzo(a)pyrene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
Benzo(b)fluoranthene	ND	---	0.0109	mg/kg dry	1	---	0.00782	---	---	***	30%	
Benzo(k)fluoranthene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	0.0109	mg/kg dry	1	---	0.00757	---	---	***	30%	
Chrysene	ND	---	0.0109	mg/kg dry	1	---	0.00581	---	---	***	30%	
Dibenz(a,h)anthracene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Fluoranthene	0.0116	---	0.0109	mg/kg dry	1	---	0.0117	---	---	0.5	30%	
Fluorene	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	---	0.0109	mg/kg dry	1	---	0.00716	---	---	***	30%	
1-Methylnaphthalene	0.0272	---	0.0109	mg/kg dry	1	---	0.0300	---	---	10	30%	
2-Methylnaphthalene	0.0423	---	0.0109	mg/kg dry	1	---	0.0469	---	---	10	30%	
Naphthalene	0.0271	---	0.0109	mg/kg dry	1	---	0.0308	---	---	13	30%	
Phenanthrene	0.0119	---	0.0109	mg/kg dry	1	---	0.0133	---	---	11	30%	
Pyrene	0.0134	---	0.0109	mg/kg dry	1	---	0.0121	---	---	11	30%	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0196 - EPA 3546						Soil						
Duplicate (21K0196-DUP1)			Prepared: 11/04/21 13:25 Analyzed: 11/04/21 18:14									
QC Source Sample: S1 (A1K0080-01)												
Dibenzofuran	ND	---	0.0109	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 70 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>68 %</i>		<i>54-127 %</i>		<i>"</i>						

Matrix Spike (21K0196-MS1)						Prepared: 11/04/21 13:25 Analyzed: 11/04/21 19:04						
QC Source Sample: S2 (A1K0080-02)												
EPA 8270E SIM												
Acenaphthene	0.808	---	0.113	mg/kg dry	1	0.954	ND	73	40-123%	---	---	
Acenaphthylene	0.812	---	0.0513	mg/kg dry	1	0.954	ND	85	32-132%	---	---	
Anthracene	0.971	---	0.138	mg/kg dry	1	0.954	ND	87	47-123%	---	---	
Benz(a)anthracene	0.766	---	0.0119	mg/kg dry	1	0.954	0.0112	79	49-126%	---	---	
Benzo(a)pyrene	0.770	---	0.0119	mg/kg dry	1	0.954	0.00948	80	45-129%	---	---	
Benzo(b)fluoranthene	0.787	---	0.0119	mg/kg dry	1	0.954	0.0181	81	45-132%	---	---	
Benzo(k)fluoranthene	0.795	---	0.0119	mg/kg dry	1	0.954	ND	83	47-132%	---	---	
Benzo(g,h,i)perylene	0.751	---	0.0119	mg/kg dry	1	0.954	0.0172	77	43-134%	---	---	
Chrysene	0.821	---	0.0119	mg/kg dry	1	0.954	0.0688	79	50-124%	---	---	
Dibenz(a,h)anthracene	0.744	---	0.0119	mg/kg dry	1	0.954	ND	78	45-134%	---	---	
Fluoranthene	0.837	---	0.0119	mg/kg dry	1	0.954	0.0590	82	50-127%	---	---	
Fluorene	0.917	---	0.0119	mg/kg dry	1	0.954	0.274	67	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.712	---	0.0119	mg/kg dry	1	0.954	0.0109	73	45-133%	---	---	
1-Methylnaphthalene	1.66	---	0.0119	mg/kg dry	1	0.954	0.961	73	40-120%	---	---	
2-Methylnaphthalene	2.77	---	0.0119	mg/kg dry	1	0.954	2.12	68	38-122%	---	---	
Naphthalene	1.33	---	0.0119	mg/kg dry	1	0.954	0.583	78	35-123%	---	---	
Phenanthrene	1.29	---	0.0119	mg/kg dry	1	0.954	0.628	69	50-121%	---	---	
Pyrene	1.49	---	0.0119	mg/kg dry	1	0.954	0.709	82	47-127%	---	---	
Dibenzofuran	0.900	---	0.0119	mg/kg dry	1	0.954	0.268	66	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>76 %</i>		<i>54-127 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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 21K0120 - Total Solids (Dry Weight)						Soil						
Duplicate (21K0120-DUP1)			Prepared: 11/03/21 08:24 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0057-01)</u>												
% Solids	83.0	---	1.00	%	1	---	82.1	---	---	1	10%	
Duplicate (21K0120-DUP2)			Prepared: 11/03/21 08:24 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: S5 (A1K0080-05)</u>												
<u>EPA 8000D</u>												
% Solids	83.7	---	1.00	%	1	---	82.7	---	---	1	10%	
Duplicate (21K0120-DUP3)			Prepared: 11/03/21 08:24 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0106-04)</u>												
% Solids	57.8	---	1.00	%	1	---	60.3	---	---	4	10%	
Duplicate (21K0120-DUP4)			Prepared: 11/03/21 18:14 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0132-01)</u>												
% Solids	93.8	---	1.00	%	1	---	93.6	---	---	0.3	10%	
Duplicate (21K0120-DUP5)			Prepared: 11/03/21 18:19 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0134-01)</u>												
% Solids	76.5	---	1.00	%	1	---	76.3	---	---	0.3	10%	
Duplicate (21K0120-DUP6)			Prepared: 11/03/21 19:14 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0135-01)</u>												
% Solids	86.0	---	1.00	%	1	---	86.1	---	---	0.2	10%	
Duplicate (21K0120-DUP7)			Prepared: 11/03/21 19:14 Analyzed: 11/04/21 07:52									
<u>QC Source Sample: Non-SDG (A1K0138-01)</u>												
% Solids	99.1	---	1.00	%	1	---	99.2	---	---	0.04	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0223</u>							
A1K0080-01	Soil	NWTPH-Dx	10/22/21 14:20	11/05/21 09:56	10.26g/5mL	10g/5mL	0.98
A1K0080-02RE1	Soil	NWTPH-Dx	10/22/21 14:30	11/05/21 09:56	10.56g/5mL	10g/5mL	0.95
A1K0080-03	Soil	NWTPH-Dx	10/22/21 14:40	11/05/21 09:56	10.08g/5mL	10g/5mL	0.99
A1K0080-04	Soil	NWTPH-Dx	10/22/21 14:45	11/05/21 09:56	10.56g/5mL	10g/5mL	0.95
A1K0080-05	Soil	NWTPH-Dx	10/22/21 14:50	11/05/21 09:56	10.31g/5mL	10g/5mL	0.97
A1K0080-06	Soil	NWTPH-Dx	10/22/21 14:55	11/05/21 09:56	10.43g/5mL	10g/5mL	0.96
A1K0080-07	Soil	NWTPH-Dx	10/22/21 15:00	11/05/21 09:56	10.13g/5mL	10g/5mL	0.99
A1K0080-08	Soil	NWTPH-Dx	10/22/21 15:05	11/05/21 09:56	10.67g/5mL	10g/5mL	0.94
A1K0080-09	Soil	NWTPH-Dx	10/22/21 15:10	11/05/21 09:56	10.62g/5mL	10g/5mL	0.94

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0196</u>							
A1K0080-01	Soil	EPA 8270E SIM	10/22/21 14:20	11/04/21 13:25	10.55g/5mL	10g/5mL	0.95
A1K0080-02	Soil	EPA 8270E SIM	10/22/21 14:30	11/04/21 13:25	10.27g/5mL	10g/5mL	0.97
A1K0080-03	Soil	EPA 8270E SIM	10/22/21 14:40	11/04/21 17:05	10.56g/5mL	10g/5mL	0.95
A1K0080-04	Soil	EPA 8270E SIM	10/22/21 14:45	11/04/21 17:05	10.51g/5mL	10g/5mL	0.95
A1K0080-05	Soil	EPA 8270E SIM	10/22/21 14:50	11/04/21 17:05	10.1g/5mL	10g/5mL	0.99
A1K0080-06	Soil	EPA 8270E SIM	10/22/21 14:55	11/04/21 17:05	10.26g/5mL	10g/5mL	0.98
A1K0080-07	Soil	EPA 8270E SIM	10/22/21 15:00	11/04/21 17:05	10.06g/5mL	10g/5mL	0.99
A1K0080-08	Soil	EPA 8270E SIM	10/22/21 15:05	11/04/21 17:05	10.59g/5mL	10g/5mL	0.94
A1K0080-09	Soil	EPA 8270E SIM	10/22/21 15:10	11/04/21 17:05	10.34g/5mL	10g/5mL	0.97

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0120</u>							
A1K0080-01	Soil	EPA 8000D	10/22/21 14:20	11/03/21 08:24			NA
A1K0080-02	Soil	EPA 8000D	10/22/21 14:30	11/03/21 08:24			NA
A1K0080-03	Soil	EPA 8000D	10/22/21 14:40	11/03/21 08:24			NA
A1K0080-04	Soil	EPA 8000D	10/22/21 14:45	11/03/21 08:24			NA
A1K0080-05	Soil	EPA 8000D	10/22/21 14:50	11/03/21 08:24			NA
A1K0080-06	Soil	EPA 8000D	10/22/21 14:55	11/03/21 08:24			NA

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0080 - 12 19 21 0454
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1K0080-07	Soil	EPA 8000D	10/22/21 15:00	11/03/21 08:24			NA
A1K0080-08	Soil	EPA 8000D	10/22/21 15:05	11/03/21 08:24			NA
A1K0080-09	Soil	EPA 8000D	10/22/21 15:10	11/03/21 08:24			NA

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QUALIFIER DEFINITIONS

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

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- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from 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) may not be 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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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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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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ORELAP ID: OR100062

Table with 3 columns: Alpine Environmental Consultants (12208 Antioch Road, White City, OR 97503), Project: Grange (Project Number: AEC2021-37, Project Manager: Jonathan Williams), Report ID: A1K0080 - 12 19 21 0454

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

Table with 6 columns: 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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Signature of Darwin Thomas

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Alpine Environmental Consultants
 12208 Antioch Road
 White City, OR 97503

Project: **Grange**
 Project Number: **AEC2021-37**
 Project Manager: **Jonathan Williams**

Report ID:
A1K0080 - 12 19 21 0454

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # **A1K0080** COC 1 of 1

Company: Alpine Env. Consultants	Project Mgr: Jonathan Williams	Project Name: Grange	Project #: AEC2021-37
Address: 2210 Antioch Rd. White City OR		Phone: 571 944 4697	Email: jwilliams@alpineenv.com

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	TPH-HCID	TPH-D	TPH-G	TPH-M	BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	1808 Pestic	RCRA Metals (9)	Priority Metals (13)	ANALYSIS REQUEST			Archive	
																				Al, Sb, As, Ba, Be, Cd, Cr, Cu, Fe, Pb, Hg, Mn, Mo, Ni, K, Se, Ag, Na, Ti, V, Zn	TCLP	DISS.		TOTAL
S1		10/22/21	1420	S	1	X							X											
S2			1430																					
S3			1440																					
S4			1445																					
S5			1450																					
S6			1455																					
S7			1500																					
S8			1505																					
S9			1510																					

Normal Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): **1 Day** 2 Day 3 Day
 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: <i>Toby Shalkows</i> Date: 10/25/21 Printed Name: Toby Shalkows Time: 1000 Company: Alpine Env. Consultants	RECEIVED BY: Signature: <i>J. Smith</i> Date: 10/26/21 Printed Name: J. Smith Time: 1455 Company: Apex	RELINQUISHED BY: Signature: _____ Date: _____ Printed Name: _____ Time: _____ Company: _____	RECEIVED BY: Signature: _____ Date: _____ Printed Name: _____ Time: _____ Company: _____
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---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

APEX LABS COOLER RECEIPT FORM

Client: Alpine Env. Consultants Element WO#: A1 K0080
 Project/Project #: Grange AEC2021-37

Delivery Info:
 Date/time received: 10/26/21 @ 1455 By: JS
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 10/26/21 @ 1457 By: JS
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.3</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>N</u>						
Ice type: (Gel/Real/Other)	<u>real</u>						
Condition:	<u>good</u>						

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: 10/26/21 @ 1158 By: HAS
 All samples intact? Yes No Comments: _____

Bottle labels/COCs agree? Yes No Comments: _____

COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: ack u/21 samples
Date on COC containers read 9/26/21, received >14 day hold time

Do VOA vials have visible headspace? Yes No NA
 Comments: _____

Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

Additional information: 2853 3194 0331

Labeled by: HAS Witness: S Cooler Inspected by: DA

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Darwin Thomas, Business Development Director

Complete Laboratory Analytical Results

November 1 and 2, 2021



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Sunday, December 19, 2021

Jonathan Williams
Alpine Environmental Consultants
12208 Antioch Road
White City, OR 97503

RE: A1K0283 - Grange - AEC2021-37

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 A1K0283, which was received by the laboratory on 11/4/2021 at 1:16:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@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	3.0 degC
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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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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S10	A1K0283-01	Soil	11/01/21 14:00	11/04/21 13:16
S11	A1K0283-02	Soil	11/01/21 14:10	11/04/21 13:16
S12	A1K0283-03	Soil	11/01/21 14:20	11/04/21 13:16
S13	A1K0283-04	Soil	11/01/21 14:30	11/04/21 13:16
Dup	A1K0283-05	Soil	11/01/21 14:25	11/04/21 13:16
RB	A1K0283-06	Water	11/01/21 13:45	11/04/21 13:16
S14	A1K0283-07	Soil	11/02/21 12:15	11/04/21 13:16
S15	A1K0283-08	Soil	11/02/21 12:25	11/04/21 13:16
S16	A1K0283-09	Soil	11/02/21 12:35	11/04/21 13:16
TB	A1K0283-10	Water	11/02/21 13:50	11/04/21 13:16

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
S10 (A1K0283-01)				Matrix: Soil		Batch: 21K0651		
Diesel	ND	---	25.0	mg/kg dry	1	11/16/21 07:29	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/16/21 07:29	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 75 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/16/21 07:29</i>	<i>NWTPH-Dx</i>	
S11 (A1K0283-02)				Matrix: Soil		Batch: 21K0651		
Diesel	ND	---	25.9	mg/kg dry	1	11/16/21 07:49	NWTPH-Dx	
Oil	ND	---	51.9	mg/kg dry	1	11/16/21 07:49	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 73 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/16/21 07:49</i>	<i>NWTPH-Dx</i>	
S12 (A1K0283-03)				Matrix: Soil		Batch: 21K0651		
Diesel	1710	---	25.0	mg/kg dry	1	11/16/21 08:09	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/16/21 08:09	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 88 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/16/21 08:09</i>	<i>NWTPH-Dx</i>	
S13 (A1K0283-04)				Matrix: Soil		Batch: 21K0651		
Diesel	ND	---	25.0	mg/kg dry	1	11/16/21 08:29	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/16/21 08:29	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 71 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/16/21 08:29</i>	<i>NWTPH-Dx</i>	
Dup (A1K0283-05)				Matrix: Soil		Batch: 21K0651		
Diesel	1380	---	25.0	mg/kg dry	1	11/16/21 08:49	NWTPH-Dx	Q-39, Q-42
Oil	ND	---	50.0	mg/kg dry	1	11/16/21 08:49	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 86 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/16/21 08:49</i>	<i>NWTPH-Dx</i>	
RB (A1K0283-06)				Matrix: Water		Batch: 21K0348		
Diesel	ND	---	192	ug/L	1	11/10/21 09:33	NWTPH-Dx	
Oil	ND	---	385	ug/L	1	11/10/21 09:33	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 91 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/10/21 09:33</i>	<i>NWTPH-Dx</i>	
S14 (A1K0283-07RE1)				Matrix: Soil		Batch: 21K0671		
Diesel	2810	---	44.7	mg/kg dry	2	11/17/21 08:43	NWTPH-Dx	
Oil	ND	---	89.5	mg/kg dry	2	11/17/21 08:43	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 82 %</i>	<i>Limits: 50-150 %</i>	<i>2</i>	<i>11/17/21 08:43</i>	<i>NWTPH-Dx</i>	<i>S-05</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
S15 (A1K0283-08)			Matrix: Soil			Batch: 21K0671		
Diesel	ND	---	25.0	mg/kg dry	1	11/17/21 01:01	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/17/21 01:01	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/17/21 01:01</i>	<i>NWTPH-Dx</i>
S16 (A1K0283-09)			Matrix: Soil			Batch: 21K0671		
Diesel	1980	---	25.0	mg/kg dry	1	11/17/21 01:21	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/17/21 01:21	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/17/21 01:21</i>	<i>NWTPH-Dx</i>

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Darwin Thomas, Business Development Director



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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
S10 (A1K0283-01)				Matrix: Soil		Batch: 21K0558		
Gasoline Range Organics	ND	---	8.58	mg/kg dry	50	11/12/21 17:15	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/12/21 17:15</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/12/21 17:15</i>	<i>NWTPH-Gx (MS)</i>
S11 (A1K0283-02)				Matrix: Soil		Batch: 21K0558		
Gasoline Range Organics	ND	---	6.60	mg/kg dry	50	11/12/21 18:09	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/12/21 18:09</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/12/21 18:09</i>	<i>NWTPH-Gx (MS)</i>
S12 (A1K0283-03RE1)				Matrix: Soil		Batch: 21K0635		
Gasoline Range Organics	92.2	---	6.29	mg/kg dry	50	11/15/21 20:53	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/15/21 20:53</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/15/21 20:53</i>	<i>NWTPH-Gx (MS)</i>
S13 (A1K0283-04)				Matrix: Soil		Batch: 21K0558		
Gasoline Range Organics	ND	---	5.40	mg/kg dry	50	11/12/21 18:36	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/12/21 18:36</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/12/21 18:36</i>	<i>NWTPH-Gx (MS)</i>
Dup (A1K0283-05RE1)				Matrix: Soil		Batch: 21K0635		
Gasoline Range Organics	77.4	---	5.07	mg/kg dry	50	11/15/21 21:20	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/15/21 21:20</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>104 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/15/21 21:20</i>	<i>NWTPH-Gx (MS)</i>
RB (A1K0283-06)				Matrix: Water		Batch: 21K0339		
Gasoline Range Organics	ND	---	100	ug/L	1	11/09/21 16:57	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/09/21 16:57</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>103 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/09/21 16:57</i>	<i>NWTPH-Gx (MS)</i>
S14 (A1K0283-07)				Matrix: Soil		Batch: 21K0558		
Gasoline Range Organics	40.1	---	6.10	mg/kg dry	50	11/12/21 20:23	NWTPH-Gx (MS)	F-13, Q-42
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/12/21 20:23</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/12/21 20:23</i>	<i>NWTPH-Gx (MS)</i>
S15 (A1K0283-08)				Matrix: Soil		Batch: 21K0558		

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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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
S15 (A1K0283-08)			Matrix: Soil			Batch: 21K0558		
Gasoline Range Organics	ND	---	6.92	mg/kg dry	50	11/12/21 21:17	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 114 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/12/21 21:17</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>105 %</i>	<i>50-150 %</i>	<i>1</i>	<i>11/12/21 21:17</i>	<i>NWTPH-Gx (MS)</i>	
S16 (A1K0283-09)			Matrix: Soil			Batch: 21K0558		
Gasoline Range Organics	99.1	---	6.42	mg/kg dry	50	11/12/21 21:44	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 110 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/12/21 21:44</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>105 %</i>	<i>50-150 %</i>	<i>1</i>	<i>11/12/21 21:44</i>	<i>NWTPH-Gx (MS)</i>	

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Darwin Thomas, Business Development Director



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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RB (A1K0283-06)			Matrix: Water			Batch: 21K0339		
Benzene	ND	---	0.200	ug/L	1	11/09/21 16:57	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	11/09/21 16:57	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	11/09/21 16:57	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	11/09/21 16:57	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	11/09/21 16:57	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	11/09/21 16:57	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/09/21 16:57	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	11/09/21 16:57	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:57	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:57	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:57	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 100 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/09/21 16:57</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>104 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/09/21 16:57</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>105 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/09/21 16:57</i>	<i>EPA 8260D</i>	
TB (A1K0283-10)			Matrix: Water			Batch: 21K0339		
Benzene	ND	---	0.200	ug/L	1	11/09/21 16:29	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	11/09/21 16:29	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	11/09/21 16:29	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	11/09/21 16:29	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	11/09/21 16:29	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	11/09/21 16:29	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	11/09/21 16:29	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	11/09/21 16:29	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:29	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:29	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	11/09/21 16:29	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 98 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/09/21 16:29</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>104 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/09/21 16:29</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>102 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/09/21 16:29</i>	<i>EPA 8260D</i>	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S10 (A1K0283-01)			Matrix: Soil			Batch: 21K0558		
Benzene	ND	---	0.0172	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Toluene	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Ethylbenzene	ND	---	0.0429	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Xylenes, total	ND	---	0.129	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Naphthalene	ND	---	0.172	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0429	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
Isopropylbenzene	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0858	mg/kg dry	50	11/12/21 17:15	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>11/12/21 17:15</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/12/21 17:15</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/12/21 17:15</i>	<i>5035A/8260D</i>
S11 (A1K0283-02)			Matrix: Soil			Batch: 21K0558		
Benzene	ND	---	0.0132	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Toluene	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Ethylbenzene	ND	---	0.0330	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Xylenes, total	ND	---	0.0990	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Naphthalene	ND	---	0.132	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0330	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
Isopropylbenzene	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0660	mg/kg dry	50	11/12/21 18:09	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>11/12/21 18:09</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/12/21 18:09</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/12/21 18:09</i>	<i>5035A/8260D</i>
S12 (A1K0283-03RE1)			Matrix: Soil			Batch: 21K0635		
Benzene	ND	---	0.0126	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
Toluene	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S12 (A1K0283-03RE1)				Matrix: Soil		Batch: 21K0635		
Ethylbenzene	ND	---	0.0315	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
Xylenes, total	ND	---	0.0944	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
Naphthalene	ND	---	0.220	mg/kg dry	50	11/15/21 20:53	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0315	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
Isopropylbenzene	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0629	mg/kg dry	50	11/15/21 20:53	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/15/21 20:53</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/15/21 20:53</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/15/21 20:53</i>	<i>5035A/8260D</i>	

S13 (A1K0283-04)				Matrix: Soil		Batch: 21K0558		
Benzene	ND	---	0.0108	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Toluene	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Ethylbenzene	ND	---	0.0270	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Xylenes, total	ND	---	0.0810	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Naphthalene	ND	---	0.108	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0270	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
Isopropylbenzene	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0540	mg/kg dry	50	11/12/21 18:36	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/12/21 18:36</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/12/21 18:36</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/12/21 18:36</i>	<i>5035A/8260D</i>	

Dup (A1K0283-05RE1)				Matrix: Soil		Batch: 21K0635		
Benzene	ND	---	0.0101	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
Toluene	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
Ethylbenzene	ND	---	0.0253	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
Xylenes, total	ND	---	0.0760	mg/kg dry	50	11/15/21 21:20	5035A/8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Dup (A1K0283-05RE1)				Matrix: Soil		Batch: 21K0635		
Methyl tert-butyl ether (MTBE)	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
Naphthalene	ND	---	0.139	mg/kg dry	50	11/15/21 21:20	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0253	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
Isopropylbenzene	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0507	mg/kg dry	50	11/15/21 21:20	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/15/21 21:20</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/15/21 21:20</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>79-120 %</i>	<i>1</i>	<i>11/15/21 21:20</i>	<i>5035A/8260D</i>	

S14 (A1K0283-07)				Matrix: Soil		Batch: 21K0558		
Benzene	ND	---	0.0122	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Toluene	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Ethylbenzene	ND	---	0.0305	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Xylenes, total	ND	---	0.0915	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Naphthalene	ND	---	0.122	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0305	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
Isopropylbenzene	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0610	mg/kg dry	50	11/12/21 20:23	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/12/21 20:23</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/12/21 20:23</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>96 %</i>	<i>79-120 %</i>	<i>1</i>	<i>11/12/21 20:23</i>	<i>5035A/8260D</i>	

S15 (A1K0283-08)				Matrix: Soil		Batch: 21K0558		
Benzene	ND	---	0.0138	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Toluene	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Ethylbenzene	ND	---	0.0346	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Xylenes, total	ND	---	0.104	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Naphthalene	ND	---	0.138	mg/kg dry	50	11/12/21 21:17	5035A/8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S15 (A1K0283-08)			Matrix: Soil			Batch: 21K0558		
1,2-Dibromoethane (EDB)	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0346	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
Isopropylbenzene	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0692	mg/kg dry	50	11/12/21 21:17	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/12/21 21:17</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>97 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/12/21 21:17</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>79-120 %</i>	<i>1</i>	<i>11/12/21 21:17</i>	<i>5035A/8260D</i>	
S16 (A1K0283-09)			Matrix: Soil			Batch: 21K0558		
Benzene	ND	---	0.0128	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Toluene	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Ethylbenzene	ND	---	0.0321	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Xylenes, total	ND	---	0.0962	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Naphthalene	ND	---	0.209	mg/kg dry	50	11/12/21 21:44	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0321	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
Isopropylbenzene	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0642	mg/kg dry	50	11/12/21 21:44	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 99 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/12/21 21:44</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/12/21 21:44</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>	<i>79-120 %</i>	<i>1</i>	<i>11/12/21 21:44</i>	<i>5035A/8260D</i>	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S10 (A1K0283-01)				Matrix: Soil		Batch: 21K0615		
Acenaphthene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Anthracene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Chrysene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Fluoranthene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Fluorene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Naphthalene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Phenanthrene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Pyrene	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0126	mg/kg dry	1	11/15/21 20:28	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>			<i>Recovery: 82 %</i>	<i>Limits: 44-120 %</i>	<i>1</i>	<i>11/15/21 20:28</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>			<i>95 %</i>	<i>54-127 %</i>	<i>1</i>	<i>11/15/21 20:28</i>	<i>EPA 8270E SIM</i>	

S11 (A1K0283-02)				Matrix: Soil		Batch: 21K0615		
Acenaphthene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Anthracene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Chrysene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S11 (A1K0283-02)				Matrix: Soil		Batch: 21K0615		
Fluoranthene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Fluorene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Naphthalene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Phenanthrene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Pyrene	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0122	mg/kg dry	1	11/15/21 20:53	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/15/21 20:53</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>95 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/15/21 20:53</i>	<i>EPA 8270E SIM</i>
S12 (A1K0283-03)				Matrix: Soil		Batch: 21K0615		
Acenaphthene	ND	---	0.112	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0309	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0961	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0320	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Chrysene	ND	---	0.0320	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Fluoranthene	0.0373	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Fluorene	0.337	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0298	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
2-Methylnaphthalene	ND	---	0.0309	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Naphthalene	ND	---	0.0492	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Phenanthrene	ND	---	0.111	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	R-02
Pyrene	0.126	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
Dibenzofuran	0.147	---	0.0114	mg/kg dry	1	11/15/21 21:18	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/15/21 21:18</i>	<i>EPA 8270E SIM</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
S12 (A1K0283-03)				Matrix: Soil		Batch: 21K0615			
<i>Surrogate: p-Terphenyl-d14 (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 54-127 %</i>		<i>1</i>		<i>11/15/21 21:18</i>	<i>EPA 8270E SIM</i>
S13 (A1K0283-04)				Matrix: Soil		Batch: 21K0615			
Acenaphthene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Acenaphthylene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Anthracene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Benz(a)anthracene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Benzo(a)pyrene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Benzo(b)fluoranthene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Benzo(k)fluoranthene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Benzo(g,h,i)perylene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Chrysene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Dibenz(a,h)anthracene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Fluoranthene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Fluorene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Indeno(1,2,3-cd)pyrene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
1-Methylnaphthalene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
2-Methylnaphthalene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Naphthalene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Phenanthrene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Pyrene	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
Dibenzofuran	ND	---	0.0116	mg/kg dry	1	11/15/21 21:43	EPA 8270E SIM		
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>		<i>11/15/21 21:43</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>95 %</i>		<i>54-127 %</i>		<i>1</i>		<i>11/15/21 21:43</i>	<i>EPA 8270E SIM</i>

Dup (A1K0283-05)				Matrix: Soil		Batch: 21K0615		
Acenaphthene	ND	---	0.0946	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0286	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0858	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0319	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Dup (A1K0283-05)				Matrix: Soil		Batch: 21K0615		
Chrysene	ND	---	0.0319	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Fluoranthene	0.0398	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Fluorene	0.324	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0297	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
2-Methylnaphthalene	ND	---	0.0319	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Naphthalene	ND	---	0.0363	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Phenanthrene	ND	---	0.149	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	R-02
Pyrene	0.120	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
Dibenzofuran	0.138	---	0.0110	mg/kg dry	1	11/15/21 22:08	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/15/21 22:08</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>94 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/15/21 22:08</i>	<i>EPA 8270E SIM</i>

RB (A1K0283-06)				Matrix: Water		Batch: 21K0288		
Acenaphthene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Anthracene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Chrysene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Fluoranthene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Fluorene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0825	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0825	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Naphthalene	ND	---	0.0825	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Phenanthrene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
Pyrene	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
RB (A1K0283-06)			Matrix: Water			Batch: 21K0288		
Dibenzofuran	ND	---	0.0412	ug/L	1	11/08/21 15:18	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/08/21 15:18</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>85 %</i>		<i>50-134 %</i>		<i>1</i>	<i>11/08/21 15:18</i>	<i>EPA 8270E SIM</i>
S14 (A1K0283-07)			Matrix: Soil			Batch: 21K0660		
Acenaphthene	ND	---	0.0529	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0282	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0270	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Chrysene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Fluoranthene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Fluorene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Naphthalene	ND	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Phenanthrene	ND	---	0.0282	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	R-02
Pyrene	0.172	---	0.0118	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0423	mg/kg dry	1	11/16/21 14:55	EPA 8270E SIM	R-02
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/16/21 14:55</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>76 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/16/21 14:55</i>	<i>EPA 8270E SIM</i>
S15 (A1K0283-08)			Matrix: Soil			Batch: 21K0660		
Acenaphthene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Anthracene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S15 (A1K0283-08)				Matrix: Soil		Batch: 21K0660		
Benzo(k)fluoranthene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Chrysene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Fluoranthene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Fluorene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Naphthalene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Phenanthrene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Pyrene	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0113	mg/kg dry	1	11/16/21 15:20	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/16/21 15:20</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>77 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/16/21 15:20</i>	<i>EPA 8270E SIM</i>

S16 (A1K0283-09)				Matrix: Soil		Batch: 21K0660		
Acenaphthene	ND	---	0.165	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0534	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0788	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0218	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Chrysene	ND	---	0.0218	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Fluoranthene	0.0223	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Fluorene	0.385	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
1-Methylnaphthalene	0.284	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0218	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02
Naphthalene	ND	---	0.0291	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	R-02

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S16 (A1K0283-09)				Matrix: Soil		Batch: 21K0660		
Phenanthrene	0.445	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Pyrene	0.0592	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
Dibenzofuran	0.220	---	0.0121	mg/kg dry	1	11/16/21 15:45	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>			<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>	1	11/16/21 15:45	EPA 8270E SIM
<i>p-Terphenyl-d14 (Surr)</i>			<i>78 %</i>		<i>54-127 %</i>	1	11/16/21 15:45	EPA 8270E SIM

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
S10 (A1K0283-01)				Matrix: Soil					
Batch: 21K0802									
Lead	3.41	---	0.268	mg/kg dry	10	11/19/21 23:28	EPA 6020B		
S11 (A1K0283-02)				Matrix: Soil					
Batch: 21K0802									
Lead	2.48	---	0.257	mg/kg dry	10	11/19/21 23:33	EPA 6020B		
S12 (A1K0283-03)				Matrix: Soil					
Batch: 21K0802									
Lead	3.00	---	0.244	mg/kg dry	10	11/19/21 23:38	EPA 6020B		
S13 (A1K0283-04)				Matrix: Soil					
Batch: 21K0802									
Lead	2.52	---	0.247	mg/kg dry	10	11/19/21 23:43	EPA 6020B		
Dup (A1K0283-05)				Matrix: Soil					
Batch: 21K0802									
Lead	2.58	---	0.256	mg/kg dry	10	11/19/21 23:58	EPA 6020B		
S14 (A1K0283-07)				Matrix: Soil					
Batch: 21K0802									
Lead	3.65	---	0.263	mg/kg dry	10	11/20/21 00:03	EPA 6020B		
S15 (A1K0283-08)				Matrix: Soil					
Batch: 21K0802									
Lead	3.04	---	0.249	mg/kg dry	10	11/20/21 00:07	EPA 6020B		
S16 (A1K0283-09)				Matrix: Soil					
Batch: 21K0802									
Lead	2.87	---	0.247	mg/kg dry	10	11/20/21 00:12	EPA 6020B		

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S10 (A1K0283-01)				Matrix: Soil		Batch: 21K0295		
% Solids	79.4	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S11 (A1K0283-02)				Matrix: Soil		Batch: 21K0295		
% Solids	76.1	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S12 (A1K0283-03)				Matrix: Soil		Batch: 21K0295		
% Solids	83.5	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S13 (A1K0283-04)				Matrix: Soil		Batch: 21K0295		
% Solids	81.6	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
Dup (A1K0283-05)				Matrix: Soil		Batch: 21K0295		
% Solids	83.8	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S14 (A1K0283-07)				Matrix: Soil		Batch: 21K0295		
% Solids	82.1	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S15 (A1K0283-08)				Matrix: Soil		Batch: 21K0295		
% Solids	80.5	---	1.00	%	1	11/09/21 08:32	EPA 8000D	
S16 (A1K0283-09)				Matrix: Soil		Batch: 21K0295		
% Solids	79.3	---	1.00	%	1	11/09/21 08:32	EPA 8000D	

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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 21K0348 - EPA 3510C (Fuels/Acid Ext.)						Water							
Blank (21K0348-BLK1)			Prepared: 11/09/21 08:28 Analyzed: 11/10/21 07:10										
<u>NWTPH-Dx</u>													
Diesel	ND	---	182	ug/L	1	---	---	---	---	---	---		
Oil	ND	---	364	ug/L	1	---	---	---	---	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
LCS (21K0348-BS1)						Prepared: 11/09/21 08:28 Analyzed: 11/10/21 07:30							
<u>NWTPH-Dx</u>													
Diesel	1080	---	200	ug/L	1	1250	---	87	36-132%	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
LCS Dup (21K0348-BSD1)						Prepared: 11/09/21 08:28 Analyzed: 11/10/21 07:50							Q-19
<u>NWTPH-Dx</u>													
Diesel	1120	---	200	ug/L	1	1250	---	90	36-132%	3	30%		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
Batch 21K0651 - EPA 3546 (Fuels)						Soil							
Blank (21K0651-BLK1)			Prepared: 11/15/21 15:03 Analyzed: 11/15/21 22:26										
<u>NWTPH-Dx</u>													
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---		
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 71 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
LCS (21K0651-BS1)						Prepared: 11/15/21 15:03 Analyzed: 11/15/21 22:46							
<u>NWTPH-Dx</u>													
Diesel	98.1	---	20.0	mg/kg wet	1	125	---	79	38-132%	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
Duplicate (21K0651-DUP2)						Prepared: 11/15/21 15:04 Analyzed: 11/16/21 09:09							
<u>QC Source Sample: Dup (A1K0283-05)</u>													
Diesel	2060	---	25.0	mg/kg dry	1	---	1380	---	---	40	30%	Q-04	
Oil	ND	---	50.0	mg/kg dry	1	---	ND	---	---	---	30%		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							

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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 21K0651 - EPA 3546 (Fuels)						Soil						
Duplicate (21K0651-DUP3)						Prepared: 11/15/21 15:03 Analyzed: 11/16/21 07:29					RSM	
QC Source Sample: Non-SDG (A1K0173-34RE1)												
Diesel	ND	---	19.4	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	88.3	---	38.7	mg/kg dry	1	---	100	---	---	13	30%	F-03
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 55 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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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 21K0671 - EPA 3546 (Fuels)						Soil						
Blank (21K0671-BLK1)			Prepared: 11/16/21 09:58 Analyzed: 11/16/21 21:40									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21K0671-BS1)			Prepared: 11/16/21 09:58 Analyzed: 11/16/21 22:00									
<u>NWTPH-Dx</u>												
Diesel	119	---	20.0	mg/kg wet	1	125	---	95	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K0671-DUP1)			Prepared: 11/16/21 09:58 Analyzed: 11/16/21 22:40									
<u>QC Source Sample: Non-SDG (A1K0208-02)</u>												
Diesel	393	---	28.9	mg/kg dry	1	---	404	---	---	3	30%	F-11, F-20
Oil	ND	---	57.9	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K0671-DUP2)			Prepared: 11/16/21 09:58 Analyzed: 11/17/21 06:42									
<u>QC Source Sample: Non-SDG (A1K0580-07)</u>												
Diesel	841	---	226	mg/kg dry	10	---	473	---	---	56	30%	Q-04
Oil	757	---	452	mg/kg dry	10	---	489	---	---	43	30%	Q-04
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 10x</i>						S-05

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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 21K0339 - EPA 5030B						Water						
Blank (21K0339-BLK1)			Prepared: 11/09/21 07:00 Analyzed: 11/09/21 08:47									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21K0339-BS2)			Prepared: 11/09/21 07:00 Analyzed: 11/09/21 08:20									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	485	---	100	ug/L	1	500	---	97	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>101 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K0339-DUP1)			Prepared: 11/09/21 08:03 Analyzed: 11/09/21 09:41									
<u>QC Source Sample: Non-SDG (A1K0209-01)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>102 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K0339-DUP2)			Prepared: 11/09/21 08:03 Analyzed: 11/09/21 19:40									
<u>QC Source Sample: Non-SDG (A1K0114-01)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>104 %</i>		<i>50-150 %</i>		<i>"</i>						

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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 21K0558 - EPA 5035A						Soil						
Blank (21K0558-BLK1)			Prepared: 11/12/21 09:00 Analyzed: 11/12/21 14:07									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 108 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		107 %		50-150 %		"						
LCS (21K0558-BS2)			Prepared: 11/12/21 09:00 Analyzed: 11/12/21 13:40									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	28.3	---	5.00	mg/kg wet	50	25.0	---	113	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 110 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		105 %		50-150 %		"						
Duplicate (21K0558-DUP1)			Prepared: 11/01/21 14:00 Analyzed: 11/12/21 17:42									
<u>QC Source Sample: S10 (A1K0283-01)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	6.09	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 106 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		106 %		50-150 %		"						
Duplicate (21K0558-DUP2)			Prepared: 11/02/21 12:15 Analyzed: 11/12/21 20:50									
<u>QC Source Sample: S14 (A1K0283-07)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	15.1	---	4.88	mg/kg dry	50	---	40.1	---	---	91	30%	F-13, Q-04
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 112 %		Limits: 50-150 %		Dilution: 1x						
1,4-Difluorobenzene (Sur)		106 %		50-150 %		"						

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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 21K0635 - EPA 5035A						Soil						
Blank (21K0635-BLK1)			Prepared: 11/15/21 09:00 Analyzed: 11/15/21 15:04									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>103 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21K0635-BS2)			Prepared: 11/15/21 09:00 Analyzed: 11/15/21 14:37									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	27.7	---	5.00	mg/kg wet	50	25.0	---	111	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 102 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>104 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K0635-DUP1)			Prepared: 11/11/21 12:10 Analyzed: 11/15/21 16:25									
<u>QC Source Sample: Non-SDG (A1K0567-01)</u>												
Gasoline Range Organics	ND	---	5.02	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21K0339 - EPA 5030B												
Water												
Blank (21K0339-BLK1)												
Prepared: 11/09/21 07:00 Analyzed: 11/09/21 08:47												
<u>EPA 8260D</u>												
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	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	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	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 102 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 106 % 80-120 % "</i>												

LCS (21K0339-BS1)												
Prepared: 11/09/21 07:00 Analyzed: 11/09/21 07:48												
<u>EPA 8260D</u>												
Benzene	18.7	---	0.200	ug/L	1	20.0	---	94	80-120%	---	---	
Toluene	17.8	---	1.00	ug/L	1	20.0	---	89	80-120%	---	---	
Ethylbenzene	19.9	---	0.500	ug/L	1	20.0	---	100	80-120%	---	---	
Xylenes, total	58.1	---	1.50	ug/L	1	60.0	---	97	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	17.9	---	1.00	ug/L	1	20.0	---	90	80-120%	---	---	
Naphthalene	17.6	---	2.00	ug/L	1	20.0	---	88	80-120%	---	---	
1,2-Dibromoethane (EDB)	20.6	---	0.500	ug/L	1	20.0	---	103	80-120%	---	---	
1,2-Dichloroethane (EDC)	19.5	---	0.500	ug/L	1	20.0	---	98	80-120%	---	---	
Isopropylbenzene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,2,4-Trimethylbenzene	19.5	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
1,3,5-Trimethylbenzene	19.4	---	1.00	ug/L	1	20.0	---	97	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 100 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 96 % 80-120 % "</i>												

Duplicate (21K0339-DUP1)												
Prepared: 11/09/21 08:03 Analyzed: 11/09/21 09:41												

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ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21K0339 - EPA 5030B						Water						
Duplicate (21K0339-DUP1)			Prepared: 11/09/21 08:03 Analyzed: 11/09/21 09:41									
QC Source Sample: Non-SDG (A1K0209-01)												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (21K0339-DUP2)			Prepared: 11/09/21 08:03 Analyzed: 11/09/21 19:40									
QC Source Sample: Non-SDG (A1K0114-01)												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21K0339 - EPA 5030B						Water						
Matrix Spike (21K0339-MS1)			Prepared: 11/09/21 08:03 Analyzed: 11/09/21 10:36									
QC Source Sample: Non-SDG (A1K0209-02)												
EPA 8260D												
Benzene	21.3	---	0.200	ug/L	1	20.0	ND	106	79-120%	---	---	
Toluene	20.2	---	1.00	ug/L	1	20.0	ND	101	80-121%	---	---	
Ethylbenzene	22.5	---	0.500	ug/L	1	20.0	ND	113	79-121%	---	---	
Xylenes, total	65.2	---	1.50	ug/L	1	60.0	ND	109	79-121%	---	---	
Methyl tert-butyl ether (MTBE)	19.6	---	1.00	ug/L	1	20.0	ND	98	71-124%	---	---	
Naphthalene	20.7	---	2.00	ug/L	1	20.0	ND	104	61-128%	---	---	
1,2-Dibromoethane (EDB)	22.6	---	0.500	ug/L	1	20.0	ND	113	77-121%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.500	ug/L	1	20.0	ND	109	73-128%	---	---	
Isopropylbenzene	22.1	---	1.00	ug/L	1	20.0	ND	110	72-131%	---	---	
1,2,4-Trimethylbenzene	21.8	---	1.00	ug/L	1	20.0	ND	109	76-124%	---	---	
1,3,5-Trimethylbenzene	21.9	---	1.00	ug/L	1	20.0	ND	110	75-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0558 - EPA 5035A						Soil						
Blank (21K0558-BLK1)			Prepared: 11/12/21 09:00 Analyzed: 11/12/21 14:07									
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>"</i>						

LCS (21K0558-BS1)			Prepared: 11/12/21 09:00 Analyzed: 11/12/21 13:13									
<u>5035A/8260D</u>												
Benzene	1.06	---	0.0100	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Toluene	0.991	---	0.0500	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Ethylbenzene	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Xylenes, total	3.04	---	0.0750	mg/kg wet	50	3.00	---	101	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Naphthalene	1.02	---	0.100	mg/kg wet	50	1.00	---	102	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.09	---	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.12	---	0.0250	mg/kg wet	50	1.00	---	112	80-120%	---	---	
Isopropylbenzene	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,2,4-Trimethylbenzene	1.14	---	0.0500	mg/kg wet	50	1.00	---	114	80-120%	---	---	
1,3,5-Trimethylbenzene	1.14	---	0.0500	mg/kg wet	50	1.00	---	114	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21K0558-DUP1)			Prepared: 11/01/21 14:00 Analyzed: 11/12/21 17:42									
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0558 - EPA 5035A						Soil						
Duplicate (21K0558-DUP1)			Prepared: 11/01/21 14:00 Analyzed: 11/12/21 17:42									
QC Source Sample: S10 (A1K0283-01)												
5035A/8260D												
Benzene	ND	---	0.0122	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0304	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0913	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.122	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0304	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0609	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21K0558-DUP2)			Prepared: 11/02/21 12:15 Analyzed: 11/12/21 20:50									
QC Source Sample: S14 (A1K0283-07)												
5035A/8260D												
Benzene	ND	---	0.00977	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0244	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0732	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.0977	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0244	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0488	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0558 - EPA 5035A						Soil						
Duplicate (21K0558-DUP2)						Prepared: 11/02/21 12:15 Analyzed: 11/12/21 20:50						
QC Source Sample: S14 (A1K0283-07)												
<i>Surr: 4-Bromofluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 79-120 %</i>		<i>Dilution: 1x</i>						
Matrix Spike (21K0558-MS1)						Prepared: 11/02/21 12:35 Analyzed: 11/12/21 22:11						
QC Source Sample: S16 (A1K0283-09)												
5035A/8260D												
Benzene	1.25	---	0.0128	mg/kg dry	50	1.28	ND	98	77-121%	---	---	
Toluene	1.17	---	0.0642	mg/kg dry	50	1.28	ND	91	77-121%	---	---	
Ethylbenzene	1.21	---	0.0321	mg/kg dry	50	1.28	ND	94	76-122%	---	---	
Xylenes, total	3.74	---	0.0962	mg/kg dry	50	3.85	ND	97	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1.27	---	0.0642	mg/kg dry	50	1.28	ND	99	73-125%	---	---	
Naphthalene	1.65	---	0.128	mg/kg dry	50	1.28	ND	113	62-129%	---	---	
1,2-Dibromoethane (EDB)	1.32	---	0.0642	mg/kg dry	50	1.28	ND	103	78-122%	---	---	
1,2-Dichloroethane (EDC)	1.32	---	0.0321	mg/kg dry	50	1.28	ND	102	73-128%	---	---	
Isopropylbenzene	1.27	---	0.0642	mg/kg dry	50	1.28	ND	99	68-134%	---	---	
1,2,4-Trimethylbenzene	1.26	---	0.0642	mg/kg dry	50	1.28	ND	98	75-123%	---	---	
1,3,5-Trimethylbenzene	1.26	---	0.0642	mg/kg dry	50	1.28	ND	98	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0635 - EPA 5035A												
Soil												
Blank (21K0635-BLK1)												
Prepared: 11/15/21 09:00 Analyzed: 11/15/21 15:04												
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 100 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 98 % 79-120 % "</i>												

LCS (21K0635-BS1)												
Prepared: 11/15/21 09:00 Analyzed: 11/15/21 14:10												
<u>5035A/8260D</u>												
Benzene	1.04	---	0.0100	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Toluene	1.00	---	0.0500	mg/kg wet	50	1.00	---	100	80-120%	---	---	
Ethylbenzene	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Xylenes, total	3.06	---	0.0750	mg/kg wet	50	3.00	---	102	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.04	---	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Naphthalene	1.05	---	0.100	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.09	---	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.09	---	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Isopropylbenzene	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
1,2,4-Trimethylbenzene	1.10	---	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
1,3,5-Trimethylbenzene	1.10	---	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 100 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 102 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 98 % 79-120 % "</i>												

Duplicate (21K0635-DUP1)											
Prepared: 11/11/21 12:10 Analyzed: 11/15/21 16:25											

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0635 - EPA 5035A						Soil						
Duplicate (21K0635-DUP1)			Prepared: 11/11/21 12:10 Analyzed: 11/15/21 16:25									
QC Source Sample: Non-SDG (A1K0567-01)												
Benzene	ND	---	0.0100	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0251	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0754	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.100	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0251	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0502	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

Matrix Spike (21K0635-MS1)			Prepared: 11/11/21 10:50 Analyzed: 11/15/21 19:06									
QC Source Sample: Non-SDG (A1K0567-04)												
5035A/8260D												
Benzene	1.30	---	0.0128	mg/kg dry	50	1.28	ND	102	77-121%	---	---	
Toluene	1.20	---	0.0638	mg/kg dry	50	1.28	ND	94	77-121%	---	---	
Ethylbenzene	1.23	---	0.0319	mg/kg dry	50	1.28	ND	96	76-122%	---	---	
Xylenes, total	3.74	---	0.0958	mg/kg dry	50	3.83	ND	98	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1.29	---	0.0638	mg/kg dry	50	1.28	ND	101	73-125%	---	---	
Naphthalene	1.26	---	0.128	mg/kg dry	50	1.28	ND	98	62-129%	---	---	
1,2-Dibromoethane (EDB)	1.36	---	0.0638	mg/kg dry	50	1.28	ND	107	78-122%	---	---	
1,2-Dichloroethane (EDC)	1.38	---	0.0319	mg/kg dry	50	1.28	ND	108	73-128%	---	---	
Isopropylbenzene	1.29	---	0.0638	mg/kg dry	50	1.28	ND	101	68-134%	---	---	
1,2,4-Trimethylbenzene	1.37	---	0.0638	mg/kg dry	50	1.28	ND	108	75-123%	---	---	
1,3,5-Trimethylbenzene	1.37	---	0.0638	mg/kg dry	50	1.28	ND	107	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants	Project: Grange	
12208 Antioch Road	Project Number: AEC2021-37	Report ID:
White City, OR 97503	Project Manager: Jonathan Williams	A1K0283 - 12 19 21 0505

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0288 - EPA 3510C (Acid Extraction)						Water						
Blank (21K0288-BLK1)			Prepared: 11/08/21 07:14 Analyzed: 11/08/21 14:03									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0800	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.0800	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.0800	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0400	ug/L	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>95 %</i>		<i>50-134 %</i>		<i>"</i>						

LCS (21K0288-BS1)			Prepared: 11/08/21 07:14 Analyzed: 11/08/21 14:28									
<u>EPA 8270E SIM</u>												
Acenaphthene	6.65	---	0.0400	ug/L	1	8.00	---	83	47-122%	---	---	
Acenaphthylene	6.74	---	0.0400	ug/L	1	8.00	---	84	41-130%	---	---	
Anthracene	6.67	---	0.0400	ug/L	1	8.00	---	83	57-123%	---	---	
Benz(a)anthracene	7.01	---	0.0400	ug/L	1	8.00	---	88	58-125%	---	---	
Benzo(a)pyrene	7.26	---	0.0400	ug/L	1	8.00	---	91	54-128%	---	---	
Benzo(b)fluoranthene	7.35	---	0.0400	ug/L	1	8.00	---	92	53-131%	---	---	
Benzo(k)fluoranthene	7.76	---	0.0400	ug/L	1	8.00	---	97	57-129%	---	---	
Benzo(g,h,i)perylene	7.21	---	0.0400	ug/L	1	8.00	---	90	50-134%	---	---	
Chrysene	6.94	---	0.0400	ug/L	1	8.00	---	87	59-123%	---	---	

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ANALYTICAL REPORT

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0288 - EPA 3510C (Acid Extraction)						Water						
LCS (21K0288-BS1)			Prepared: 11/08/21 07:14 Analyzed: 11/08/21 14:28									
Dibenz(a,h)anthracene	7.42	---	0.0400	ug/L	1	8.00	---	93	51-134%	---	---	
Fluoranthene	6.66	---	0.0400	ug/L	1	8.00	---	83	57-128%	---	---	
Fluorene	6.70	---	0.0400	ug/L	1	8.00	---	84	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	6.74	---	0.0400	ug/L	1	8.00	---	84	52-134%	---	---	
1-Methylnaphthalene	6.04	---	0.0800	ug/L	1	8.00	---	75	41-120%	---	---	
2-Methylnaphthalene	5.71	---	0.0800	ug/L	1	8.00	---	71	40-121%	---	---	
Naphthalene	6.05	---	0.0800	ug/L	1	8.00	---	76	40-121%	---	---	
Phenanthrene	6.84	---	0.0400	ug/L	1	8.00	---	86	59-120%	---	---	
Pyrene	6.68	---	0.0400	ug/L	1	8.00	---	84	57-126%	---	---	
Dibenzofuran	6.74	---	0.0400	ug/L	1	8.00	---	84	53-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>82 %</i>		<i>50-134 %</i>		<i>"</i>						

LCS Dup (21K0288-BSD1)			Prepared: 11/08/21 07:14 Analyzed: 11/08/21 14:53								Q-19	
EPA 8270E SIM												
Acenaphthene	6.73	---	0.0400	ug/L	1	8.00	---	84	47-122%	1	30%	
Acenaphthylene	6.78	---	0.0400	ug/L	1	8.00	---	85	41-130%	0.6	30%	
Anthracene	6.72	---	0.0400	ug/L	1	8.00	---	84	57-123%	0.7	30%	
Benz(a)anthracene	6.94	---	0.0400	ug/L	1	8.00	---	87	58-125%	1	30%	
Benzo(a)pyrene	7.12	---	0.0400	ug/L	1	8.00	---	89	54-128%	2	30%	
Benzo(b)fluoranthene	7.20	---	0.0400	ug/L	1	8.00	---	90	53-131%	2	30%	
Benzo(k)fluoranthene	7.62	---	0.0400	ug/L	1	8.00	---	95	57-129%	2	30%	
Benzo(g,h,i)perylene	7.06	---	0.0400	ug/L	1	8.00	---	88	50-134%	2	30%	
Chrysene	6.85	---	0.0400	ug/L	1	8.00	---	86	59-123%	1	30%	
Dibenz(a,h)anthracene	7.31	---	0.0400	ug/L	1	8.00	---	91	51-134%	2	30%	
Fluoranthene	6.62	---	0.0400	ug/L	1	8.00	---	83	57-128%	0.6	30%	
Fluorene	6.65	---	0.0400	ug/L	1	8.00	---	83	52-124%	0.9	30%	
Indeno(1,2,3-cd)pyrene	6.63	---	0.0400	ug/L	1	8.00	---	83	52-134%	2	30%	
1-Methylnaphthalene	6.15	---	0.0800	ug/L	1	8.00	---	77	41-120%	2	30%	
2-Methylnaphthalene	5.75	---	0.0800	ug/L	1	8.00	---	72	40-121%	0.7	30%	
Naphthalene	6.14	---	0.0800	ug/L	1	8.00	---	77	40-121%	1	30%	
Phenanthrene	6.82	---	0.0400	ug/L	1	8.00	---	85	59-120%	0.3	30%	
Pyrene	6.74	---	0.0400	ug/L	1	8.00	---	84	57-126%	0.9	30%	
Dibenzofuran	6.74	---	0.0400	ug/L	1	8.00	---	84	53-120%	0.04	30%	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 21K0288 - EPA 3510C (Acid Extraction)						Water							
LCS Dup (21K0288-BSD1)		Prepared: 11/08/21 07:14 Analyzed: 11/08/21 14:53						Q-19					
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>							
<i>p-Terphenyl-d14 (Surr)</i>		<i>81 %</i>		<i>50-134 %</i>		<i>"</i>							

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---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0615 - EPA 3546						Soil						
Blank (21K0615-BLK1)			Prepared: 11/15/21 10:06 Analyzed: 11/15/21 17:06									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>99 %</i>		<i>54-127 %</i>		<i>"</i>						

LCS (21K0615-BS1)			Prepared: 11/15/21 10:06 Analyzed: 11/15/21 17:31									
<u>EPA 8270E SIM</u>												
Acenaphthene	0.437	---	0.00267	mg/kg wet	1	0.533	---	82	40-123%	---	---	
Acenaphthylene	0.449	---	0.00267	mg/kg wet	1	0.533	---	84	32-132%	---	---	
Anthracene	0.442	---	0.00267	mg/kg wet	1	0.533	---	83	47-123%	---	---	
Benz(a)anthracene	0.451	---	0.00267	mg/kg wet	1	0.533	---	85	49-126%	---	---	
Benzo(a)pyrene	0.469	---	0.00267	mg/kg wet	1	0.533	---	88	45-129%	---	---	
Benzo(b)fluoranthene	0.469	---	0.00267	mg/kg wet	1	0.533	---	88	45-132%	---	---	
Benzo(k)fluoranthene	0.471	---	0.00267	mg/kg wet	1	0.533	---	88	47-132%	---	---	
Benzo(g,h,i)perylene	0.428	---	0.00267	mg/kg wet	1	0.533	---	80	43-134%	---	---	
Chrysene	0.432	---	0.00267	mg/kg wet	1	0.533	---	81	50-124%	---	---	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants	Project: Grange	
12208 Antioch Road	Project Number: AEC2021-37	Report ID:
White City, OR 97503	Project Manager: Jonathan Williams	A1K0283 - 12 19 21 0505

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0615 - EPA 3546						Soil						
LCS (21K0615-BS1)			Prepared: 11/15/21 10:06 Analyzed: 11/15/21 17:31									
Dibenz(a,h)anthracene	0.480	---	0.00267	mg/kg wet	1	0.533	---	90	45-134%	---	---	
Fluoranthene	0.448	---	0.00267	mg/kg wet	1	0.533	---	84	50-127%	---	---	
Fluorene	0.435	---	0.00267	mg/kg wet	1	0.533	---	82	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.422	---	0.00267	mg/kg wet	1	0.533	---	79	45-133%	---	---	
1-Methylnaphthalene	0.426	---	0.00267	mg/kg wet	1	0.533	---	80	40-120%	---	---	
2-Methylnaphthalene	0.409	---	0.00267	mg/kg wet	1	0.533	---	77	38-122%	---	---	
Naphthalene	0.414	---	0.00267	mg/kg wet	1	0.533	---	78	35-123%	---	---	
Phenanthrene	0.431	---	0.00267	mg/kg wet	1	0.533	---	81	50-121%	---	---	
Pyrene	0.443	---	0.00267	mg/kg wet	1	0.533	---	83	47-127%	---	---	
Dibenzofuran	0.438	---	0.00267	mg/kg wet	1	0.533	---	82	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>89 %</i>		<i>54-127 %</i>		"						

Duplicate (21K0615-DUPI)			Prepared: 11/15/21 10:06 Analyzed: 11/15/21 18:22									
QC Source Sample: Non-SDG (A1K0145-07)												
Acenaphthene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
Anthracene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
Benz(a)anthracene	0.00844	---	0.00356	mg/kg dry	1	---	0.00501	---	---	51	30%	Q-05
Benzo(a)pyrene	0.00902	---	0.00356	mg/kg dry	1	---	0.00479	---	---	61	30%	Q-05
Benzo(b)fluoranthene	0.0112	---	0.00356	mg/kg dry	1	---	0.00644	---	---	54	30%	Q-05
Benzo(k)fluoranthene	0.00417	---	0.00356	mg/kg dry	1	---	0.00225	---	---	60	30%	M-05, Q-05
Benzo(g,h,i)perylene	0.00842	---	0.00356	mg/kg dry	1	---	0.00540	---	---	44	30%	Q-05
Chrysene	0.00991	---	0.00356	mg/kg dry	1	---	0.00518	---	---	63	30%	Q-05
Dibenz(a,h)anthracene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	
Fluoranthene	0.0157	---	0.00356	mg/kg dry	1	---	0.00807	---	---	64	30%	Q-05
Fluorene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
Indeno(1,2,3-cd)pyrene	0.00806	---	0.00356	mg/kg dry	1	---	0.00489	---	---	49	30%	Q-05
1-Methylnaphthalene	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
2-Methylnaphthalene	0.00393	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05
Naphthalene	0.0238	---	0.00356	mg/kg dry	1	---	0.00928	---	---	88	30%	Q-05
Phenanthrene	0.0128	---	0.00356	mg/kg dry	1	---	0.00623	---	---	69	30%	Q-05
Pyrene	0.0191	---	0.00356	mg/kg dry	1	---	0.00976	---	---	65	30%	Q-05
Dibenzofuran	ND	---	0.00356	mg/kg dry	1	---	ND	---	---	---	30%	Q-05

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Darwin Thomas, Business Development Director



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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0615 - EPA 3546												
Soil												
Duplicate (21K0615-DUP1)												
						Prepared: 11/15/21 10:06 Analyzed: 11/15/21 18:22						
QC Source Sample: Non-SDG (A1K0145-07)												
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 69 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>80 %</i>		<i>54-127 %</i>		<i>"</i>						

Matrix Spike (21K0615-MS1)												
						Prepared: 11/15/21 10:06 Analyzed: 11/15/21 19:12						
QC Source Sample: Non-SDG (A1K0173-41)												
EPA 8270E SIM												
Acenaphthene	0.507	---	0.142	mg/kg dry	40	0.710	ND	71	40-123%	---	---	
Acenaphthylene	1.08	---	0.142	mg/kg dry	40	0.710	0.440	91	32-132%	---	---	
Anthracene	1.25	---	0.142	mg/kg dry	40	0.710	0.786	65	47-123%	---	---	
Benz(a)anthracene	5.10	---	0.142	mg/kg dry	40	0.710	4.70	56	49-126%	---	---	
Benzo(a)pyrene	9.42	---	0.142	mg/kg dry	40	0.710	7.58	260	45-129%	---	---	Q-03
Benzo(b)fluoranthene	9.52	---	0.142	mg/kg dry	40	0.710	7.85	235	45-132%	---	---	Q-03
Benzo(k)fluoranthene	3.26	---	0.142	mg/kg dry	40	0.710	2.16	155	47-132%	---	---	Q-03
Benzo(g,h,i)perylene	9.52	---	0.142	mg/kg dry	40	0.710	7.45	292	43-134%	---	---	Q-03
Chrysene	6.97	---	0.142	mg/kg dry	40	0.710	5.77	169	50-124%	---	---	Q-03
Dibenz(a,h)anthracene	1.53	---	0.142	mg/kg dry	40	0.710	1.02	71	45-134%	---	---	
Fluoranthene	6.48	---	0.142	mg/kg dry	40	0.710	7.65	-165	50-127%	---	---	Q-03
Fluorene	0.610	---	0.142	mg/kg dry	40	0.710	ND	86	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	8.60	---	0.142	mg/kg dry	40	0.710	6.61	280	45-133%	---	---	Q-03
1-Methylnaphthalene	2.48	---	0.142	mg/kg dry	40	0.710	1.27	170	40-120%	---	---	Q-03
2-Methylnaphthalene	2.93	---	0.142	mg/kg dry	40	0.710	1.63	183	38-122%	---	---	Q-03
Naphthalene	4.94	---	0.142	mg/kg dry	40	0.710	2.91	285	35-123%	---	---	Q-03
Phenanthrene	3.15	---	0.142	mg/kg dry	40	0.710	2.99	22	50-121%	---	---	Q-03
Pyrene	9.60	---	0.142	mg/kg dry	40	0.710	10.8	-169	47-127%	---	---	Q-03
Dibenzofuran	0.999	---	0.142	mg/kg dry	40	0.710	0.335	94	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 65 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 40x</i>						S-05
<i>p-Terphenyl-d14 (Surr)</i>		<i>78 %</i>		<i>54-127 %</i>		<i>"</i>						S-05

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0660 - EPA 3546						Soil						
Blank (21K0660-BLK1)			Prepared: 11/16/21 07:24 Analyzed: 11/16/21 09:54									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 75 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>92 %</i>		<i>54-127 %</i>		<i>"</i>						

LCS (21K0660-BS1)			Prepared: 11/16/21 07:24 Analyzed: 11/16/21 10:19									
<u>EPA 8270E SIM</u>												
Acenaphthene	0.474	---	0.00267	mg/kg wet	1	0.533	---	89	40-123%	---	---	
Acenaphthylene	0.489	---	0.00267	mg/kg wet	1	0.533	---	92	32-132%	---	---	
Anthracene	0.475	---	0.00267	mg/kg wet	1	0.533	---	89	47-123%	---	---	
Benz(a)anthracene	0.487	---	0.00267	mg/kg wet	1	0.533	---	91	49-126%	---	---	
Benzo(a)pyrene	0.509	---	0.00267	mg/kg wet	1	0.533	---	95	45-129%	---	---	
Benzo(b)fluoranthene	0.522	---	0.00267	mg/kg wet	1	0.533	---	98	45-132%	---	---	
Benzo(k)fluoranthene	0.496	---	0.00267	mg/kg wet	1	0.533	---	93	47-132%	---	---	
Benzo(g,h,i)perylene	0.462	---	0.00267	mg/kg wet	1	0.533	---	87	43-134%	---	---	
Chrysene	0.477	---	0.00267	mg/kg wet	1	0.533	---	89	50-124%	---	---	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0660 - EPA 3546						Soil						
LCS (21K0660-BS1)			Prepared: 11/16/21 07:24 Analyzed: 11/16/21 10:19									
Dibenz(a,h)anthracene	0.525	---	0.00267	mg/kg wet	1	0.533	---	98	45-134%	---	---	
Fluoranthene	0.485	---	0.00267	mg/kg wet	1	0.533	---	91	50-127%	---	---	
Fluorene	0.470	---	0.00267	mg/kg wet	1	0.533	---	88	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.462	---	0.00267	mg/kg wet	1	0.533	---	87	45-133%	---	---	
1-Methylnaphthalene	0.459	---	0.00267	mg/kg wet	1	0.533	---	86	40-120%	---	---	
2-Methylnaphthalene	0.438	---	0.00267	mg/kg wet	1	0.533	---	82	38-122%	---	---	
Naphthalene	0.444	---	0.00267	mg/kg wet	1	0.533	---	83	35-123%	---	---	
Phenanthrene	0.466	---	0.00267	mg/kg wet	1	0.533	---	87	50-121%	---	---	
Pyrene	0.482	---	0.00267	mg/kg wet	1	0.533	---	90	47-127%	---	---	
Dibenzofuran	0.471	---	0.00267	mg/kg wet	1	0.533	---	88	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>93 %</i>		<i>54-127 %</i>		<i>"</i>						

Duplicate (21K0660-DUP1)						Prepared: 11/16/21 07:24 Analyzed: 11/16/21 11:09						RSM
QC Source Sample: Non-SDG (A1K0206-02)												
Acenaphthene	ND	---	0.00962	mg/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	0.00962	mg/kg dry	1	---	0.00508	---	---	---	30%	
Anthracene	0.00976	---	0.00962	mg/kg dry	1	---	0.00882	---	---	10	30%	
Benz(a)anthracene	0.0463	---	0.00962	mg/kg dry	1	---	0.0435	---	---	6	30%	
Benzo(a)pyrene	0.0665	---	0.00962	mg/kg dry	1	---	0.0610	---	---	9	30%	
Benzo(b)fluoranthene	0.0954	---	0.00962	mg/kg dry	1	---	0.0888	---	---	7	30%	
Benzo(k)fluoranthene	0.0293	---	0.00962	mg/kg dry	1	---	0.0261	---	---	12	30%	M-05
Benzo(g,h,i)perylene	0.0809	---	0.00962	mg/kg dry	1	---	0.0771	---	---	5	30%	
Chrysene	0.0717	---	0.00962	mg/kg dry	1	---	0.0674	---	---	6	30%	
Dibenz(a,h)anthracene	ND	---	0.00962	mg/kg dry	1	---	0.00934	---	---	---	30%	
Fluoranthene	0.101	---	0.00962	mg/kg dry	1	---	0.0952	---	---	6	30%	
Fluorene	ND	---	0.00962	mg/kg dry	1	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	0.0683	---	0.00962	mg/kg dry	1	---	0.0640	---	---	7	30%	
1-Methylnaphthalene	ND	---	0.00962	mg/kg dry	1	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	---	0.00962	mg/kg dry	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.00962	mg/kg dry	1	---	0.00570	---	---	---	30%	
Phenanthrene	0.0472	---	0.00962	mg/kg dry	1	---	0.0458	---	---	3	30%	
Pyrene	0.120	---	0.00962	mg/kg dry	1	---	0.113	---	---	6	30%	
Dibenzofuran	ND	---	0.00962	mg/kg dry	1	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0660 - EPA 3546						Soil						
Duplicate (21K0660-DUP1)						Prepared: 11/16/21 07:24 Analyzed: 11/16/21 11:09						RSM
QC Source Sample: Non-SDG (A1K0206-02)												
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 54 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>69 %</i>		<i>54-127 %</i>		<i>"</i>						

Matrix Spike (21K0660-MS1)						Prepared: 11/16/21 07:24 Analyzed: 11/16/21 11:59						
QC Source Sample: Non-SDG (A1K0538-07)												
EPA 8270E SIM												
Acenaphthene	0.703	---	0.0118	mg/kg dry	1	0.946	ND	74	40-123%	---	---	
Acenaphthylene	0.740	---	0.0118	mg/kg dry	1	0.946	ND	78	32-132%	---	---	
Anthracene	0.700	---	0.0118	mg/kg dry	1	0.946	ND	74	47-123%	---	---	
Benz(a)anthracene	0.705	---	0.0118	mg/kg dry	1	0.946	ND	75	49-126%	---	---	
Benzo(a)pyrene	0.713	---	0.0118	mg/kg dry	1	0.946	ND	75	45-129%	---	---	
Benzo(b)fluoranthene	0.714	---	0.0118	mg/kg dry	1	0.946	ND	76	45-132%	---	---	
Benzo(k)fluoranthene	0.724	---	0.0118	mg/kg dry	1	0.946	ND	77	47-132%	---	---	
Benzo(g,h,i)perylene	0.647	---	0.0118	mg/kg dry	1	0.946	ND	68	43-134%	---	---	
Chrysene	0.690	---	0.0118	mg/kg dry	1	0.946	ND	73	50-124%	---	---	
Dibenz(a,h)anthracene	0.741	---	0.0118	mg/kg dry	1	0.946	ND	78	45-134%	---	---	
Fluoranthene	0.709	---	0.0118	mg/kg dry	1	0.946	ND	75	50-127%	---	---	
Fluorene	0.707	---	0.0118	mg/kg dry	1	0.946	ND	75	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.661	---	0.0118	mg/kg dry	1	0.946	ND	70	45-133%	---	---	
1-Methylnaphthalene	0.716	---	0.0118	mg/kg dry	1	0.946	ND	76	40-120%	---	---	
2-Methylnaphthalene	0.678	---	0.0118	mg/kg dry	1	0.946	ND	72	38-122%	---	---	
Naphthalene	0.708	---	0.0118	mg/kg dry	1	0.946	ND	75	35-123%	---	---	
Phenanthrene	0.700	---	0.0118	mg/kg dry	1	0.946	ND	74	50-121%	---	---	
Pyrene	0.705	---	0.0118	mg/kg dry	1	0.946	ND	74	47-127%	---	---	
Dibenzofuran	0.724	---	0.0118	mg/kg dry	1	0.946	ND	77	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>76 %</i>		<i>54-127 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
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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 21K0802 - EPA 3051A						Soil						
Blank (21K0802-BLK1)			Prepared: 11/18/21 09:50 Analyzed: 11/19/21 21:53									
<u>EPA 6020B</u>												
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (21K0802-BS1)			Prepared: 11/18/21 09:50 Analyzed: 11/19/21 22:03									
<u>EPA 6020B</u>												
Lead	51.7	---	0.200	mg/kg wet	10	50.0	---	103	80-120%	---	---	
Duplicate (21K0802-DUP1)			Prepared: 11/18/21 09:50 Analyzed: 11/19/21 22:13									
<u>QC Source Sample: Non-SDG (A1J1271-02)</u>												
Lead	13.9	---	0.222	mg/kg dry	10	---	14.5	---	---	4	20%	
Matrix Spike (21K0802-MS1)			Prepared: 11/18/21 09:50 Analyzed: 11/19/21 22:18									
<u>QC Source Sample: Non-SDG (A1J1271-02)</u>												
<u>EPA 6020B</u>												
Lead	64.3	---	0.213	mg/kg dry	10	53.4	14.5	93	75-125%	---	---	

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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 21K0295 - Total Solids (Dry Weight)						Soil						
Duplicate (21K0295-DUP1)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1J1298-02)</u>												
% Solids	45.9	---	1.00	%	1	---	45.7	---	---	0.4	10%	
Duplicate (21K0295-DUP2)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0181-09)</u>												
% Solids	83.8	---	1.00	%	1	---	83.9	---	---	0.2	10%	
Duplicate (21K0295-DUP3)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0211-01)</u>												
% Solids	83.9	---	1.00	%	1	---	85.9	---	---	2	10%	
Duplicate (21K0295-DUP4)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0211-11)</u>												
% Solids	82.0	---	1.00	%	1	---	81.6	---	---	0.6	10%	
Duplicate (21K0295-DUP5)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0220-16)</u>												
% Solids	55.7	---	1.00	%	1	---	55.4	---	---	0.5	10%	
Duplicate (21K0295-DUP6)			Prepared: 11/08/21 08:58 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0262-04)</u>												
% Solids	86.0	---	1.00	%	1	---	88.7	---	---	3	10%	
Duplicate (21K0295-DUP7)			Prepared: 11/08/21 18:23 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0269-01)</u>												
% Solids	75.0	---	1.00	%	1	---	75.3	---	---	0.4	10%	
Duplicate (21K0295-DUP8)			Prepared: 11/08/21 18:23 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0282-01)</u>												
% Solids	76.1	---	1.00	%	1	---	74.5	---	---	2	10%	

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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 21K0295 - Total Solids (Dry Weight)						Soil						
Duplicate (21K0295-DUP9)			Prepared: 11/08/21 18:23 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0313-01)</u>												
% Solids	74.4	---	1.00	%	1	---	73.3	---	---	2	10%	
Duplicate (21K0295-DUPA)			Prepared: 11/08/21 19:12 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0336-01)</u>												
% Solids	77.8	---	1.00	%	1	---	77.8	---	---	0.008	10%	
Duplicate (21K0295-DUPB)			Prepared: 11/08/21 19:12 Analyzed: 11/09/21 08:32									
<u>QC Source Sample: Non-SDG (A1K0337-01)</u>												
% Solids	83.7	---	1.00	%	1	---	83.7	---	---	0.02	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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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
<u>Batch: 21K0348</u>							
A1K0283-06	Water	NWTPH-Dx	11/01/21 13:45	11/09/21 13:36	1040mL/5mL	1000mL/5mL	0.96

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21K0651</u>							
A1K0283-01	Soil	NWTPH-Dx	11/01/21 14:00	11/15/21 15:05	10.15g/5mL	10g/5mL	0.99
A1K0283-02	Soil	NWTPH-Dx	11/01/21 14:10	11/15/21 15:05	10.14g/5mL	10g/5mL	0.99
A1K0283-03	Soil	NWTPH-Dx	11/01/21 14:20	11/15/21 15:05	10.63g/5mL	10g/5mL	0.94
A1K0283-04	Soil	NWTPH-Dx	11/01/21 14:30	11/15/21 15:05	10.35g/5mL	10g/5mL	0.97
A1K0283-05	Soil	NWTPH-Dx	11/01/21 14:25	11/15/21 15:05	10.09g/5mL	10g/5mL	0.99
<u>Batch: 21K0671</u>							
A1K0283-07RE1	Soil	NWTPH-Dx	11/02/21 12:15	11/16/21 09:58	10.89g/5mL	10g/5mL	0.92
A1K0283-08	Soil	NWTPH-Dx	11/02/21 12:25	11/16/21 09:58	10.06g/5mL	10g/5mL	0.99
A1K0283-09	Soil	NWTPH-Dx	11/02/21 12:35	11/16/21 09:58	10.23g/5mL	10g/5mL	0.98

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

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21K0339</u>							
A1K0283-06	Water	NWTPH-Gx (MS)	11/01/21 13:45	11/09/21 08:03	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21K0558</u>							
A1K0283-01	Soil	NWTPH-Gx (MS)	11/01/21 14:00	11/01/21 14:00	4.33g/5mL	5g/5mL	1.15
A1K0283-02	Soil	NWTPH-Gx (MS)	11/01/21 14:10	11/01/21 14:10	6.54g/5mL	5g/5mL	0.77
A1K0283-04	Soil	NWTPH-Gx (MS)	11/01/21 14:30	11/01/21 14:30	7.16g/5mL	5g/5mL	0.70
A1K0283-07	Soil	NWTPH-Gx (MS)	11/02/21 12:15	11/02/21 12:15	6.08g/5mL	5g/5mL	0.82
A1K0283-08	Soil	NWTPH-Gx (MS)	11/02/21 12:25	11/02/21 12:25	5.45g/5mL	5g/5mL	0.92
A1K0283-09	Soil	NWTPH-Gx (MS)	11/02/21 12:35	11/02/21 12:35	6.17g/5mL	5g/5mL	0.81
<u>Batch: 21K0635</u>							
A1K0283-03RE1	Soil	NWTPH-Gx (MS)	11/01/21 14:20	11/01/21 14:20	5.64g/5mL	5g/5mL	0.89
A1K0283-05RE1	Soil	NWTPH-Gx (MS)	11/01/21 14:25	11/01/21 14:25	7.28g/5mL	5g/5mL	0.69

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SAMPLE PREPARATION INFORMATION

Selected Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0339</u>							
A1K0283-06	Water	EPA 8260D	11/01/21 13:45	11/09/21 08:03	5mL/5mL	5mL/5mL	1.00
A1K0283-10	Water	EPA 8260D	11/02/21 13:50	11/09/21 08:03	5mL/5mL	5mL/5mL	1.00

Selected Volatile Organic Compounds by EPA 5035A/8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0558</u>							
A1K0283-01	Soil	5035A/8260D	11/01/21 14:00	11/01/21 14:00	4.33g/5mL	5g/5mL	1.15
A1K0283-02	Soil	5035A/8260D	11/01/21 14:10	11/01/21 14:10	6.54g/5mL	5g/5mL	0.77
A1K0283-04	Soil	5035A/8260D	11/01/21 14:30	11/01/21 14:30	7.16g/5mL	5g/5mL	0.70
A1K0283-07	Soil	5035A/8260D	11/02/21 12:15	11/02/21 12:15	6.08g/5mL	5g/5mL	0.82
A1K0283-08	Soil	5035A/8260D	11/02/21 12:25	11/02/21 12:25	5.45g/5mL	5g/5mL	0.92
A1K0283-09	Soil	5035A/8260D	11/02/21 12:35	11/02/21 12:35	6.17g/5mL	5g/5mL	0.81
<u>Batch: 21K0635</u>							
A1K0283-03RE1	Soil	5035A/8260D	11/01/21 14:20	11/01/21 14:20	5.64g/5mL	5g/5mL	0.89
A1K0283-05RE1	Soil	5035A/8260D	11/01/21 14:25	11/01/21 14:25	7.28g/5mL	5g/5mL	0.69

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Prep: EPA 3510C (Acid Extraction)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0288</u>							
A1K0283-06	Water	EPA 8270E SIM	11/01/21 13:45	11/08/21 07:14	970mL/2mL	1000mL/2mL	1.03

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0615</u>							
A1K0283-01	Soil	EPA 8270E SIM	11/01/21 14:00	11/15/21 10:06	10.04g/5mL	10g/5mL	1.00
A1K0283-02	Soil	EPA 8270E SIM	11/01/21 14:10	11/15/21 10:06	10.75g/5mL	10g/5mL	0.93
A1K0283-03	Soil	EPA 8270E SIM	11/01/21 14:20	11/15/21 10:06	10.46g/5mL	10g/5mL	0.96
A1K0283-04	Soil	EPA 8270E SIM	11/01/21 14:30	11/15/21 10:06	10.55g/5mL	10g/5mL	0.95
A1K0283-05	Soil	EPA 8270E SIM	11/01/21 14:25	11/15/21 10:06	10.85g/5mL	10g/5mL	0.92
<u>Batch: 21K0660</u>							
A1K0283-07	Soil	EPA 8270E SIM	11/02/21 12:15	11/16/21 07:24	10.36g/5mL	10g/5mL	0.97

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SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

<u>Prep: EPA 3546</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1K0283-08	Soil	EPA 8270E SIM	11/02/21 12:25	11/16/21 07:24	10.95g/5mL	10g/5mL	0.91
A1K0283-09	Soil	EPA 8270E SIM	11/02/21 12:35	11/16/21 07:24	10.4g/5mL	10g/5mL	0.96

Total Metals by EPA 6020B (ICPMS)

<u>Prep: EPA 3051A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0802</u>							
A1K0283-01	Soil	EPA 6020B	11/01/21 14:00	11/18/21 09:50	0.47g/50mL	0.5g/50mL	1.06
A1K0283-02	Soil	EPA 6020B	11/01/21 14:10	11/18/21 09:50	0.512g/50mL	0.5g/50mL	0.98
A1K0283-03	Soil	EPA 6020B	11/01/21 14:20	11/18/21 09:50	0.491g/50mL	0.5g/50mL	1.02
A1K0283-04	Soil	EPA 6020B	11/01/21 14:30	11/18/21 09:50	0.495g/50mL	0.5g/50mL	1.01
A1K0283-05	Soil	EPA 6020B	11/01/21 14:25	11/18/21 09:50	0.467g/50mL	0.5g/50mL	1.07
A1K0283-07	Soil	EPA 6020B	11/02/21 12:15	11/18/21 09:50	0.463g/50mL	0.5g/50mL	1.08
A1K0283-08	Soil	EPA 6020B	11/02/21 12:25	11/18/21 09:50	0.5g/50mL	0.5g/50mL	1.00
A1K0283-09	Soil	EPA 6020B	11/02/21 12:35	11/18/21 09:50	0.511g/50mL	0.5g/50mL	0.98

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0295</u>							
A1K0283-01	Soil	EPA 8000D	11/01/21 14:00	11/08/21 18:22			NA
A1K0283-02	Soil	EPA 8000D	11/01/21 14:10	11/08/21 18:22			NA
A1K0283-03	Soil	EPA 8000D	11/01/21 14:20	11/08/21 18:22			NA
A1K0283-04	Soil	EPA 8000D	11/01/21 14:30	11/08/21 18:22			NA
A1K0283-05	Soil	EPA 8000D	11/01/21 14:25	11/08/21 18:22			NA
A1K0283-07	Soil	EPA 8000D	11/02/21 12:15	11/08/21 18:22			NA
A1K0283-08	Soil	EPA 8000D	11/02/21 12:25	11/08/21 18:22			NA
A1K0283-09	Soil	EPA 8000D	11/02/21 12:35	11/08/21 18:22			NA

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Alpine Environmental Consultants

12208 Antioch Road
White City, OR 97503

Project: **Grange**

Project Number: **AEC2021-37**

Project Manager: **Jonathan Williams**

Report ID:

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QUALIFIER DEFINITIONS

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

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- F-03** The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
- F-09** Results in the Gasoline Range are impacted by the overlap of a heavier fuel hydrocarbon product.
- F-11** The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- F-13** The chromatographic pattern does not resemble the fuel standard used for quantitation
- F-20** Result for Diesel is Estimated due to overlap from Gasoline Range Organics or other VOCs.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-03** Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-05** Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
- Q-19** Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-39** Results for sample duplicate are significantly higher than the sample results. See duplicate results in QC section of the report.
- 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-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- RSM** Sample has undergone RSM sample processing prior to extraction and analysis.
- 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) may not be 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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Alpine Environmental Consultants (12208 Antioch Road, White City, OR 97503), Project: Grange (Project Number: AEC2021-37, Project Manager: Jonathan Williams), Report ID: A1K0283 - 12 19 21 0505

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

Signature of Darwin Thomas

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Alpine Environmental Consultants), Project (Grange), and Report ID (A1K0283 - 12 19 21 0505)

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

Table header with columns: 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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Handwritten signature of Darwin Thomas

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ANALYTICAL REPORT

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

Alpine Environmental Consultants
 12208 Antioch Road
 White City, OR 97503

Project: Grange
 Project Number: AEC2021-37
 Project Manager: Jonathan Williams

Report ID:
 A1K0283 - 12 19 21 0505

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A110283 COC 1 of 1

Company: <u>Alpine Env. Consultants</u>		Project Mgr: <u>Jonathan Williams</u>		Project Name: <u>Grange Co-op UST</u>		Project #: <u>AEC 2021-37</u>																				
Address: <u>12210 Antioch Rd White City OR</u>		Phone: <u>503-944-4655</u>		Email: <u>williamj@alpine-env-llc.com</u>		PO#																				
Sampled by: <u>Toby Skallcross</u>		ANALYSIS REQUEST																								
Site Location:	OR WA CA																									
AK ID																										
SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	TPH-HCID	TPH-DX	TPH-GX	TPH-MN	9298 BTEX	8260 RBDM VOCs	8260 Halo VOCs	9228 VOCs Full List	9228 PAHs	8270 Semi-Vols Full List	8082 PCBs	1808	RCRA Metals (8)	Priority Metals (13)	AL, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Sr, Ag, Na, Tl, V, Zn	DISS	TCLP	TCLP Metals (8)	Archive		
S10		11/12	1400	S	3	X	X						X	X						X						
S11			1410																							
S12			1420																							
S13			1430																							
Dup			1425																							
RB			1345	W	3	X	X						X	X												
S14		11/21	1215	S	3															X						
S15			1235																							
S16			1235																							
TB			1235	W	3								X													
Normal Turn Around Time (TAT) = 10 Business Days												SPECIAL INSTRUCTIONS:														
TAT Requested (circle) 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____																										
SAMPLES ARE HELD FOR 30 DAYS																										
RELINQUISHED BY:				RECEIVED BY:				RELINQUISHED BY:				RECEIVED BY:														
Signature: <u>Toby Skallcross</u>		Date: <u>11/21/21</u>		Signature: <u>J Skallcross</u>		Date: <u>11/4/21</u>		Signature:		Date:		Signature:		Date:												
Printed Name: <u>Toby Skallcross</u>		Time: <u>1400</u>		Printed Name: <u>J Skallcross</u>		Time: <u>1316</u>		Printed Name:		Time:		Printed Name:		Time:												
Company: <u>Alpine</u>				Company: <u>Brex</u>				Company:				Company:														

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Apex Laboratories

Jonathan Williams

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0283 - 12 19 21 0505
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

APEX LABS COOLER RECEIPT FORM

Client: Alpine Env. Consultants Element WO#: A1 K0283
 Project/Project #: Grange Co-op WST AEC2021-37

Delivery Info:
 Date/time received: 11/4/21 @ 1316 By: JS
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 11/4/21 @ 1320 By: JS
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.0</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>good</u>						

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: 11/5/21 @ W02 By: [Signature]
 All samples intact? Yes No Comments: 1/2 MeOH vials S13 received w/ no MeOH in vial
 Bottle labels/COCs agree? Yes No Comments: _____
 COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: _____
 Do VOA vials have visible headspace? Yes No NA
 Comments: _____
 Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____
 Additional information: 2885 8426 4825, TBS not created in lab
 Labeled by: [Signature] Witness: [Signature] Cooler Inspected by: [Signature]

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Darwin Thomas

Darwin Thomas, Business Development Director

Complete Laboratory Analytical Results

November 12 and 15, 2021



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Sunday, December 19, 2021

Jonathan Williams
Alpine Environmental Consultants
12208 Antioch Road
White City, OR 97503

RE: A1K0964 - Grange - AEC2021-37

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 A1K0964, which was received by the laboratory on 11/18/2021 at 12:15:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@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	2.1 degC
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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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S17	A1K0964-01	Soil	11/12/21 10:50	11/18/21 12:15
S18	A1K0964-02	Soil	11/12/21 10:55	11/18/21 12:15
S19	A1K0964-03	Soil	11/12/21 11:00	11/18/21 12:15
S20	A1K0964-04	Soil	11/12/21 11:05	11/18/21 12:15
COMP1	A1K0964-05	Soil	11/15/21 13:00	11/18/21 12:15
COMP2	A1K0964-06	Soil	11/15/21 13:10	11/18/21 12:15
COMP3	A1K0964-07	Soil	11/15/21 13:20	11/18/21 12:15
COMP4	A1K0964-08	Soil	11/15/21 13:30	11/18/21 12:15

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
S17 (A1K0964-01RE1)				Matrix: Soil		Batch: 21K0998		
Diesel	7620	---	240	mg/kg dry	10	11/24/21 10:13	NWTPH-Dx	
Oil	ND	---	480	mg/kg dry	10	11/24/21 10:13	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 66 %</i>	<i>Limits: 50-150 %</i>	<i>10</i>	<i>11/24/21 10:13</i>	<i>NWTPH-Dx</i>	<i>S-05</i>
S18 (A1K0964-02)				Matrix: Soil		Batch: 21K0998		
Diesel	986	---	25.0	mg/kg dry	1	11/24/21 06:57	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 06:57	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 80 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 06:57</i>	<i>NWTPH-Dx</i>	
S19 (A1K0964-03)				Matrix: Soil		Batch: 21K0998		
Diesel	1740	---	25.0	mg/kg dry	1	11/24/21 07:18	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 07:18	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 77 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 07:18</i>	<i>NWTPH-Dx</i>	
S20 (A1K0964-04)				Matrix: Soil		Batch: 21K1014		
Diesel	ND	---	25.0	mg/kg dry	1	11/24/21 00:11	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 00:11	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 73 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 00:11</i>	<i>NWTPH-Dx</i>	
COMP1 (A1K0964-05)				Matrix: Soil		Batch: 21K1014		
Diesel	446	---	25.0	mg/kg dry	1	11/24/21 00:52	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 00:52	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 74 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 00:52</i>	<i>NWTPH-Dx</i>	
COMP2 (A1K0964-06)				Matrix: Soil		Batch: 21K1014		
Diesel	2730	---	25.0	mg/kg dry	1	11/24/21 01:12	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 01:12	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 69 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 01:12</i>	<i>NWTPH-Dx</i>	
COMP3 (A1K0964-07)				Matrix: Soil		Batch: 21K1014		
Diesel	1740	---	25.0	mg/kg dry	1	11/24/21 01:33	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 01:33	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 69 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>11/24/21 01:33</i>	<i>NWTPH-Dx</i>	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

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
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K1014		
Diesel	1540	---	25.0	mg/kg dry	1	11/24/21 01:53	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	11/24/21 01:53	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 78 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/24/21 01:53</i>	<i>NWTPH-Dx</i>

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
COMP1 (A1K0964-05)			Matrix: Soil			Batch: 21K1099		
Gasoline Range Organics	16.1	---	5.46	mg/kg dry	50	11/29/21 16:02	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/29/21 16:02</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/29/21 16:02</i>	<i>NWTPH-Gx (MS)</i>
COMP2 (A1K0964-06)			Matrix: Soil			Batch: 21K1099		
Gasoline Range Organics	26.7	---	5.27	mg/kg dry	50	11/29/21 16:29	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/29/21 16:29</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/29/21 16:29</i>	<i>NWTPH-Gx (MS)</i>
COMP3 (A1K0964-07RE1)			Matrix: Soil			Batch: 21K1099		
Gasoline Range Organics	104	---	5.67	mg/kg dry	50	11/29/21 18:43	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 116 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/29/21 18:43</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/29/21 18:43</i>	<i>NWTPH-Gx (MS)</i>
COMP4 (A1K0964-08)			Matrix: Soil			Batch: 21K1099		
Gasoline Range Organics	47.6	---	6.32	mg/kg dry	50	11/29/21 16:56	NWTPH-Gx (MS)	F-09
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 116 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>11/29/21 16:56</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>107 %</i>		<i>50-150 %</i>		<i>1</i>	<i>11/29/21 16:56</i>	<i>NWTPH-Gx (MS)</i>

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP1 (A1K0964-05)				Matrix: Soil		Batch: 21K1099		
Benzene	ND	---	0.0109	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Toluene	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Ethylbenzene	ND	---	0.0273	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Xylenes, total	ND	---	0.0819	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Naphthalene	ND	---	0.109	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0273	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
Isopropylbenzene	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0546	mg/kg dry	50	11/29/21 16:02	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>105 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>11/29/21 16:02</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/29/21 16:02</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>92 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/29/21 16:02</i>	<i>5035A/8260D</i>
COMP2 (A1K0964-06)				Matrix: Soil		Batch: 21K1099		
Benzene	ND	---	0.0105	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Toluene	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Ethylbenzene	ND	---	0.0264	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Xylenes, total	ND	---	0.0791	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Naphthalene	ND	---	0.105	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0264	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
Isopropylbenzene	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0527	mg/kg dry	50	11/29/21 16:29	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>104 %</i>	<i>Limits:</i>	<i>80-120 %</i>	<i>1</i>	<i>11/29/21 16:29</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>		<i>80-120 %</i>	<i>1</i>	<i>11/29/21 16:29</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>			<i>94 %</i>		<i>79-120 %</i>	<i>1</i>	<i>11/29/21 16:29</i>	<i>5035A/8260D</i>
COMP3 (A1K0964-07RE1)				Matrix: Soil		Batch: 21K1099		
Benzene	ND	---	0.0113	mg/kg dry	50	11/29/21 18:43	5035A/8260D	
Toluene	ND	---	0.0567	mg/kg dry	50	11/29/21 18:43	5035A/8260D	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP3 (A1K0964-07RE1)				Matrix: Soil		Batch: 21K1099		
Ethylbenzene	ND	---	0.0426	mg/kg dry	50	11/29/21 18:43	5035A/8260D	R-06
Xylenes, total	ND	---	0.213	mg/kg dry	50	11/29/21 18:43	5035A/8260D	R-06
Methyl tert-butyl ether (MTBE)	ND	---	0.0567	mg/kg dry	50	11/29/21 18:43	5035A/8260D	
Naphthalene	ND	---	0.270	mg/kg dry	50	11/29/21 18:43	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0567	mg/kg dry	50	11/29/21 18:43	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0284	mg/kg dry	50	11/29/21 18:43	5035A/8260D	
Isopropylbenzene	ND	---	0.0567	mg/kg dry	50	11/29/21 18:43	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.340	mg/kg dry	50	11/29/21 18:43	5035A/8260D	R-06
1,3,5-Trimethylbenzene	ND	---	0.113	mg/kg dry	50	11/29/21 18:43	5035A/8260D	R-06
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>11/29/21 18:43</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>1</i>	<i>11/29/21 18:43</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>1</i>	<i>11/29/21 18:43</i>	<i>5035A/8260D</i>

COMP3 (A1K0964-07RE2)				Matrix: Soil		Batch: 21K1149		H-01
Benzene	ND	---	0.0113	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Toluene	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Ethylbenzene	ND	---	0.0284	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Xylenes, total	ND	---	0.0851	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Naphthalene	ND	---	0.227	mg/kg dry	50	11/30/21 10:04	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0284	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
Isopropylbenzene	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0567	mg/kg dry	50	11/30/21 10:04	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>11/30/21 10:04</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>1</i>	<i>11/30/21 10:04</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>1</i>	<i>11/30/21 10:04</i>	<i>5035A/8260D</i>

COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K1099		
Benzene	ND	---	0.0126	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
Toluene	ND	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
Ethylbenzene	ND	---	0.0316	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
Xylenes, total	ND	---	0.0947	mg/kg dry	50	11/29/21 16:56	5035A/8260D	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K1099		
Methyl tert-butyl ether (MTBE)	ND	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
Naphthalene	ND	---	0.221	mg/kg dry	50	11/29/21 16:56	5035A/8260D	R-02
1,2-Dibromoethane (EDB)	ND	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0316	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
Isopropylbenzene	ND	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
1,2,4-Trimethylbenzene	0.0657	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0632	mg/kg dry	50	11/29/21 16:56	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 103 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>11/29/21 16:56</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>95 %</i>	<i>80-120 %</i>	<i>1</i>	<i>11/29/21 16:56</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>79-120 %</i>	<i>1</i>	<i>11/29/21 16:56</i>	<i>5035A/8260D</i>	

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S17 (A1K0964-01)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	4.31	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.838	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Anthracene	ND	---	0.427	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0665	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Chrysene	ND	---	0.0677	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Fluoranthene	0.0875	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Fluorene	4.50	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Naphthalene	ND	---	0.306	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	R-02
Pyrene	0.275	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
Dibenzofuran	2.36	---	0.0117	mg/kg dry	1	11/23/21 14:58	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/23/21 14:58</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>98 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/23/21 14:58</i>	<i>EPA 8270E SIM</i>

S17 (A1K0964-01RE1)				Matrix: Soil		Batch: 21K0976		
1-Methylnaphthalene	36.2	---	0.233	mg/kg dry	20	11/23/21 15:48	EPA 8270E SIM	
2-Methylnaphthalene	12.4	---	0.233	mg/kg dry	20	11/23/21 15:48	EPA 8270E SIM	
Phenanthrene	5.11	---	0.233	mg/kg dry	20	11/23/21 15:48	EPA 8270E SIM	

S18 (A1K0964-02)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	0.0637	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Anthracene	ND	---	0.0614	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Chrysene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S18 (A1K0964-02)				Matrix: Soil		Batch: 21K0976		
Dibenz(a,h)anthracene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Fluoranthene	0.0138	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Fluorene	0.171	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
1-Methylnaphthalene	0.0823	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Naphthalene	ND	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Phenanthrene	ND	---	0.0591	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	R-02
Pyrene	0.111	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
Dibenzofuran	0.0772	---	0.0114	mg/kg dry	1	11/23/21 15:23	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/23/21 15:23</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>102 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/23/21 15:23</i>	<i>EPA 8270E SIM</i>

S19 (A1K0964-03)				Matrix: Soil		Batch: 21K0945		
Acenaphthene	ND	---	0.526	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.134	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0579	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0290	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Chrysene	ND	---	0.0290	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Fluoranthene	0.0281	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Fluorene	0.698	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
1-Methylnaphthalene	1.26	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
2-Methylnaphthalene	0.0795	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Naphthalene	ND	---	0.0461	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Phenanthrene	ND	---	0.223	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	R-02
Pyrene	0.0613	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	
Dibenzofuran	0.386	---	0.0107	mg/kg dry	1	11/22/21 19:13	EPA 8270E SIM	

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S19 (A1K0964-03)				Matrix: Soil		Batch: 21K0945		
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/22/21 19:13</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>84 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/22/21 19:13</i>	<i>EPA 8270E SIM</i>
S20 (A1K0964-04)				Matrix: Soil		Batch: 21K0945		
Acenaphthene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Anthracene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Chrysene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Fluoranthene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Fluorene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
2-Methylnaphthalene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Naphthalene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Phenanthrene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Pyrene	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0118	mg/kg dry	1	11/22/21 19:38	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 61 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/22/21 19:38</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>65 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/22/21 19:38</i>	<i>EPA 8270E SIM</i>
COMP1 (A1K0964-05RE1)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Anthracene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP1 (A1K0964-05RE1)				Matrix: Soil		Batch: 21K0976		
Benzo(g,h,i)perylene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Chrysene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Fluoranthene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Fluorene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
1-Methylnaphthalene	0.0184	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
2-Methylnaphthalene	0.0224	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Naphthalene	0.0145	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	M-04
Phenanthrene	0.0145	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Pyrene	0.0454	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
Dibenzofuran	0.0193	---	0.0108	mg/kg dry	1	11/24/21 09:45	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/24/21 09:45</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>84 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/24/21 09:45</i>	<i>EPA 8270E SIM</i>

COMP2 (A1K0964-06RE1)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	0.0163	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0257	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0128	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0140	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Chrysene	ND	---	0.0152	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Fluoranthene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Fluorene	ND	---	0.0152	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
Indeno(1,2,3-cd)pyrene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
1-Methylnaphthalene	ND	---	0.229	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
2-Methylnaphthalene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Naphthalene	ND	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Phenanthrene	ND	---	0.0233	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP2 (A1K0964-06RE1)				Matrix: Soil		Batch: 21K0976		
Pyrene	0.266	---	0.0117	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	
Dibenzofuran	ND	---	0.0443	mg/kg dry	1	11/24/21 10:10	EPA 8270E SIM	R-02
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/24/21 10:10</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>95 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/24/21 10:10</i>	<i>EPA 8270E SIM</i>
COMP3 (A1K0964-07)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	0.217	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.0475	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Anthracene	ND	---	0.0544	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Benz(a)anthracene	ND	---	0.0278	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Chrysene	ND	---	0.0278	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Fluoranthene	0.0251	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Fluorene	0.436	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
1-Methylnaphthalene	1.50	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
2-Methylnaphthalene	0.169	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Naphthalene	ND	---	0.0348	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	R-02
Phenanthrene	0.328	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Pyrene	0.0918	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
Dibenzofuran	0.189	---	0.0116	mg/kg dry	1	11/23/21 18:58	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 72 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>11/23/21 18:58</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>78 %</i>		<i>54-127 %</i>		<i>1</i>	<i>11/23/21 18:58</i>	<i>EPA 8270E SIM</i>
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K0976		
Acenaphthene	ND	---	0.634	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	R-02
Acenaphthylene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Anthracene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K0976		
Benzo(b)fluoranthene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Chrysene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Fluoranthene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Fluorene	0.626	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
1-Methylnaphthalene	2.00	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
2-Methylnaphthalene	1.55	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Naphthalene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Phenanthrene	0.519	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Pyrene	ND	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
Dibenzofuran	0.300	---	0.117	mg/kg dry	10	11/23/21 20:13	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>		<i>10</i>	<i>11/23/21 20:13</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>74 %</i>		<i>54-127 %</i>		<i>10</i>	<i>11/23/21 20:13</i>	<i>EPA 8270E SIM</i>

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ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP1 (A1K0964-05)				Matrix: Soil				
Batch: 21L0041								
Arsenic	ND	---	0.100	mg/L	10	12/02/21 15:27	1311/6020B	
Barium	ND	---	5.00	mg/L	10	12/02/21 15:27	1311/6020B	
Cadmium	ND	---	0.100	mg/L	10	12/02/21 15:27	1311/6020B	
Chromium	ND	---	0.100	mg/L	10	12/02/21 15:27	1311/6020B	
Lead	ND	---	0.0500	mg/L	10	12/02/21 15:27	1311/6020B	
Mercury	ND	---	0.00700	mg/L	10	12/02/21 15:27	1311/6020B	
Selenium	ND	---	0.100	mg/L	10	12/02/21 15:27	1311/6020B	
Silver	ND	---	0.100	mg/L	10	12/02/21 15:27	1311/6020B	
COMP2 (A1K0964-06)				Matrix: Soil				
Batch: 21L0041								
Arsenic	ND	---	0.100	mg/L	10	12/02/21 15:42	1311/6020B	
Barium	ND	---	5.00	mg/L	10	12/02/21 15:42	1311/6020B	
Cadmium	ND	---	0.100	mg/L	10	12/02/21 15:42	1311/6020B	
Chromium	ND	---	0.100	mg/L	10	12/02/21 15:42	1311/6020B	
Lead	ND	---	0.0500	mg/L	10	12/02/21 15:42	1311/6020B	
Mercury	ND	---	0.00700	mg/L	10	12/02/21 15:42	1311/6020B	
Selenium	ND	---	0.100	mg/L	10	12/02/21 15:42	1311/6020B	
Silver	ND	---	0.100	mg/L	10	12/02/21 15:42	1311/6020B	
COMP3 (A1K0964-07)				Matrix: Soil				
Batch: 21L0041								
Arsenic	ND	---	0.100	mg/L	10	12/02/21 15:47	1311/6020B	
Barium	ND	---	5.00	mg/L	10	12/02/21 15:47	1311/6020B	
Cadmium	ND	---	0.100	mg/L	10	12/02/21 15:47	1311/6020B	
Chromium	ND	---	0.100	mg/L	10	12/02/21 15:47	1311/6020B	
Lead	ND	---	0.0500	mg/L	10	12/02/21 15:47	1311/6020B	
Mercury	ND	---	0.00700	mg/L	10	12/02/21 15:47	1311/6020B	
Selenium	ND	---	0.100	mg/L	10	12/02/21 15:47	1311/6020B	
Silver	ND	---	0.100	mg/L	10	12/02/21 15:47	1311/6020B	
COMP4 (A1K0964-08)				Matrix: Soil				
Batch: 21L0041								

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ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
COMP4 (A1K0964-08)				Matrix: Soil					
Arsenic	ND	---	0.100	mg/L	10	12/02/21 15:52	1311/6020B		
Barium	ND	---	5.00	mg/L	10	12/02/21 15:52	1311/6020B		
Cadmium	ND	---	0.100	mg/L	10	12/02/21 15:52	1311/6020B		
Chromium	ND	---	0.100	mg/L	10	12/02/21 15:52	1311/6020B		
Lead	ND	---	0.0500	mg/L	10	12/02/21 15:52	1311/6020B		
Mercury	ND	---	0.00700	mg/L	10	12/02/21 15:52	1311/6020B		
Selenium	ND	---	0.100	mg/L	10	12/02/21 15:52	1311/6020B		
Silver	ND	---	0.100	mg/L	10	12/02/21 15:52	1311/6020B		

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
S17 (A1K0964-01)				Matrix: Soil		Batch: 21K0943		
% Solids	81.0	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
S18 (A1K0964-02)				Matrix: Soil		Batch: 21K0943		
% Solids	86.2	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
S19 (A1K0964-03)				Matrix: Soil		Batch: 21K0943		
% Solids	88.5	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
S20 (A1K0964-04)				Matrix: Soil		Batch: 21K0943		
% Solids	81.3	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
COMP1 (A1K0964-05)				Matrix: Soil		Batch: 21K0943		
% Solids	85.0	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
COMP2 (A1K0964-06)				Matrix: Soil		Batch: 21K0943		
% Solids	85.3	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
COMP3 (A1K0964-07)				Matrix: Soil		Batch: 21K0943		
% Solids	81.4	---	1.00	%	1	11/23/21 08:39	EPA 8000D	
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K0943		
% Solids	83.2	---	1.00	%	1	11/23/21 08:39	EPA 8000D	

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ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
COMP1 (A1K0964-05)				Matrix: Soil		Batch: 21K1182		
TCLP Extraction	PREP	---		N/A	1	11/30/21 17:00	EPA 1311	
COMP2 (A1K0964-06)				Matrix: Soil		Batch: 21K1182		
TCLP Extraction	PREP	---		N/A	1	11/30/21 17:00	EPA 1311	
COMP3 (A1K0964-07)				Matrix: Soil		Batch: 21K1182		
TCLP Extraction	PREP	---		N/A	1	11/30/21 17:00	EPA 1311	
COMP4 (A1K0964-08)				Matrix: Soil		Batch: 21K1182		
TCLP Extraction	PREP	---		N/A	1	11/30/21 17:00	EPA 1311	

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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 21K0998 - EPA 3546 (Fuels)						Soil							
Blank (21K0998-BLK1)						Prepared: 11/23/21 10:14 Analyzed: 11/23/21 22:09							
<u>NWTPH-Dx</u>													
Diesel	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---		
Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---		
Mineral Oil	ND	---	36.4	mg/kg wet	1	---	---	---	---	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 94 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
LCS (21K0998-BS1)						Prepared: 11/23/21 10:14 Analyzed: 11/23/21 22:30							
<u>NWTPH-Dx</u>													
Diesel	110	---	20.0	mg/kg wet	1	125	---	88	38-132%	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
Duplicate (21K0998-DUP1)						Prepared: 11/23/21 10:14 Analyzed: 11/24/21 01:12							RSM
<u>QC Source Sample: Non-SDG (A1K0671-02RE1)</u>													
Diesel	ND	---	19.9	mg/kg dry	1	---	ND	---	---	---	30%		
Oil	74.2	---	39.9	mg/kg dry	1	---	99.3	---	---	29	30%	F-17	
Mineral Oil	ND	---	39.9	mg/kg dry	1	---	ND	---	---	---	30%		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
Duplicate (21K0998-DUP2)						Prepared: 11/23/21 13:09 Analyzed: 11/24/21 07:38							
<u>QC Source Sample: S19 (A1K0964-03)</u>													
<u>NWTPH-Dx</u>													
Diesel	1730	---	21.3	mg/kg dry	1	---	1740	---	---	0.5	30%		
Oil	ND	---	42.6	mg/kg dry	1	---	ND	---	---	---	30%		
Mineral Oil	ND	---	42.6	mg/kg dry	1	---	ND	---	---	---	30%		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							
Matrix Spike (21K0998-MS1)						Prepared: 11/23/21 10:16 Analyzed: 11/24/21 01:53							
<u>QC Source Sample: Non-SDG (A1K0671-04)</u>													
<u>NWTPH-Dx</u>													
Diesel	108	---	26.4	mg/kg dry	1	165	ND	65	38-132%	---	---		
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>							

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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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 21K0998 - EPA 3546 (Fuels)						Soil						
Matrix Spike Dup (21K0998-MSD1)						Prepared: 11/23/21 10:16 Analyzed: 11/24/21 02:13						
QC Source Sample: Non-SDG (A1K0671-04)												
Diesel	112	---	26.4	mg/kg dry	1	165	ND	68	38-132%	4	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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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 21K1014 - EPA 3546 (Fuels)						Soil						
Blank (21K1014-BLK1)			Prepared: 11/23/21 13:13 Analyzed: 11/23/21 22:09									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21K1014-BS1)			Prepared: 11/23/21 13:13 Analyzed: 11/23/21 22:30									
<u>NWTPH-Dx</u>												
Diesel	117	---	20.0	mg/kg wet	1	125	---	94	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K1014-DUP1)			Prepared: 11/23/21 13:13 Analyzed: 11/24/21 00:32									
<u>QC Source Sample: S20 (A1K0964-04)</u>												
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	50.0	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21K1014-DUP2)			Prepared: 11/23/21 14:54 Analyzed: 11/24/21 07:18									
<u>QC Source Sample: Non-SDG (A1K1065-02)</u>												
Diesel	ND	---	404	mg/kg dry	20	---	ND	---	---	---	30%	
Oil	29700	---	808	mg/kg dry	20	---	40100	---	---	30	30%	F-13
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 20x</i>						S-01

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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 21K1099 - EPA 5035A						Soil						
Blank (21K1099-BLK1)			Prepared: 11/29/21 09:00 Analyzed: 11/29/21 10:39									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 115 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21K1099-BS2)			Prepared: 11/29/21 09:00 Analyzed: 11/29/21 10:13									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	25.3	---	5.00	mg/kg wet	50	25.0	---	101	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>106 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K1099-DUP1)			Prepared: 11/15/21 15:36 Analyzed: 11/29/21 14:14									
<u>QC Source Sample: Non-SDG (A1K0822-02)</u>												
Gasoline Range Organics	ND	---	7.35	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K1099-DUP2)			Prepared: 11/23/21 15:24 Analyzed: 11/29/21 20:31									
<u>QC Source Sample: Non-SDG (A1K1110-06)</u>												
Gasoline Range Organics	5550	---	310	mg/kg dry	2000	---	5910	---	---	6	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 100 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						

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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 21K1149 - EPA 5035A						Soil						
Blank (21K1149-BLK1)			Prepared: 11/30/21 07:15 Analyzed: 11/30/21 09:37									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 111 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>108 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21K1149-BS2)			Prepared: 11/30/21 07:15 Analyzed: 11/30/21 09:10									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	26.6	---	5.00	mg/kg wet	50	25.0	---	107	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 98 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>105 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K1149-DUP1)			Prepared: 11/19/21 12:50 Analyzed: 11/30/21 14:32									
<u>QC Source Sample: Non-SDG (A1K1158-02)</u>												
Gasoline Range Organics	ND	---	7.37	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 111 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21K1149-DUP2)			Prepared: 11/19/21 13:55 Analyzed: 11/30/21 16:20									
<u>QC Source Sample: Non-SDG (A1K1158-05)</u>												
Gasoline Range Organics	21.8	---	7.32	mg/kg dry	50	---	16.9	---	---	25	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 115 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>110 %</i>		<i>50-150 %</i>		<i>"</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1099 - EPA 5035A						Soil						
Blank (21K1099-BLK1)			Prepared: 11/29/21 09:00 Analyzed: 11/29/21 10:39									
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>92 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (21K1099-BS1)			Prepared: 11/29/21 09:00 Analyzed: 11/29/21 09:32									
<u>5035A/8260D</u>												
Benzene	1.10	---	0.0100	mg/kg wet	50	1.00	---	110	80-120%	---	---	
Toluene	1.03	---	0.0500	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Ethylbenzene	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Xylenes, total	3.01	---	0.0750	mg/kg wet	50	3.00	---	100	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Naphthalene	0.958	---	0.100	mg/kg wet	50	1.00	---	96	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.09	---	0.0500	mg/kg wet	50	1.00	---	109	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.15	---	0.0250	mg/kg wet	50	1.00	---	115	80-120%	---	---	
Isopropylbenzene	1.01	---	0.0500	mg/kg wet	50	1.00	---	101	80-120%	---	---	
1,2,4-Trimethylbenzene	1.12	---	0.0500	mg/kg wet	50	1.00	---	112	80-120%	---	---	
1,3,5-Trimethylbenzene	1.13	---	0.0500	mg/kg wet	50	1.00	---	113	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>94 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (21K1099-DUPI)			Prepared: 11/15/21 15:36 Analyzed: 11/29/21 14:14									

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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1099 - EPA 5035A						Soil						
Duplicate (21K1099-DUP1)			Prepared: 11/15/21 15:36 Analyzed: 11/29/21 14:14									
QC Source Sample: Non-SDG (A1K0822-02)												
Benzene	ND	---	0.0147	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0367	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.110	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.147	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0367	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0735	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21K1099-DUP2)			Prepared: 11/23/21 15:24 Analyzed: 11/29/21 20:31									V-15
QC Source Sample: Non-SDG (A1K1110-06)												
Benzene	15.0	---	0.620	mg/kg dry	2000	---	17.3	---	---	15	30%	
Toluene	224	---	3.10	mg/kg dry	2000	---	243	---	---	8	30%	
Ethylbenzene	64.5	---	1.55	mg/kg dry	2000	---	69.8	---	---	8	30%	
Xylenes, total	397	---	4.65	mg/kg dry	2000	---	427	---	---	7	30%	
Methyl tert-butyl ether (MTBE)	ND	---	3.10	mg/kg dry	2000	---	ND	---	---	---	30%	
Naphthalene	42.3	---	6.20	mg/kg dry	2000	---	44.0	---	---	4	30%	
1,2-Dibromoethane (EDB)	ND	---	3.10	mg/kg dry	2000	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	1.55	mg/kg dry	2000	---	ND	---	---	---	30%	
Isopropylbenzene	3.29	---	3.10	mg/kg dry	2000	---	3.54	---	---	7	30%	
1,2,4-Trimethylbenzene	154	---	3.10	mg/kg dry	2000	---	164	---	---	6	30%	
1,3,5-Trimethylbenzene	46.7	---	3.10	mg/kg dry	2000	---	49.6	---	---	6	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1099 - EPA 5035A						Soil						
Matrix Spike (21K1099-MS1)						Prepared: 11/23/21 15:24 Analyzed: 11/29/21 21:24						V-15
QC Source Sample: Non-SDG (A1K1110-07)												
5035A/8260D												
Benzene	35.4	---	0.323	mg/kg dry	1000	32.3	1.50	105	77-121%	---	---	
Toluene	49.1	---	1.61	mg/kg dry	1000	32.3	18.8	94	77-121%	---	---	
Ethylbenzene	43.7	---	0.807	mg/kg dry	1000	32.3	12.2	98	76-122%	---	---	
Xylenes, total	188	---	2.42	mg/kg dry	1000	96.9	91.1	100	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	32.9	---	1.61	mg/kg dry	1000	32.3	ND	102	73-125%	---	---	
Naphthalene	55.7	---	3.23	mg/kg dry	1000	32.3	20.5	109	62-129%	---	---	
1,2-Dibromoethane (EDB)	35.8	---	1.61	mg/kg dry	1000	32.3	ND	111	78-122%	---	---	
1,2-Dichloroethane (EDC)	35.1	---	0.807	mg/kg dry	1000	32.3	ND	109	73-128%	---	---	
Isopropylbenzene	34.3	---	1.61	mg/kg dry	1000	32.3	1.24	102	68-134%	---	---	
1,2,4-Trimethylbenzene	122	---	1.61	mg/kg dry	1000	32.3	84.1	116	75-123%	---	---	
1,3,5-Trimethylbenzene	64.3	---	1.61	mg/kg dry	1000	32.3	28.1	112	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>79-120 %</i>		<i>"</i>						

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1149 - EPA 5035A						Soil						
Blank (21K1149-BLK1)			Prepared: 11/30/21 07:15 Analyzed: 11/30/21 09:37									
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 104 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>79-120 %</i>		<i>"</i>						

LCS (21K1149-BS1)			Prepared: 11/30/21 07:15 Analyzed: 11/30/21 08:43									
<u>5035A/8260D</u>												
Benzene	0.986	---	0.0100	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Toluene	0.974	---	0.0500	mg/kg wet	50	1.00	---	97	80-120%	---	---	
Ethylbenzene	0.944	---	0.0250	mg/kg wet	50	1.00	---	94	80-120%	---	---	
Xylenes, total	2.81	---	0.0750	mg/kg wet	50	3.00	---	94	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	0.949	---	0.0500	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Naphthalene	0.910	---	0.100	mg/kg wet	50	1.00	---	91	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.01	---	0.0250	mg/kg wet	50	1.00	---	101	80-120%	---	---	
Isopropylbenzene	0.940	---	0.0500	mg/kg wet	50	1.00	---	94	80-120%	---	---	
1,2,4-Trimethylbenzene	1.04	---	0.0500	mg/kg wet	50	1.00	---	104	80-120%	---	---	
1,3,5-Trimethylbenzene	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21K1149-DUP1)			Prepared: 11/19/21 12:50 Analyzed: 11/30/21 14:32									
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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1149 - EPA 5035A						Soil						
Duplicate (21K1149-DUP1)			Prepared: 11/19/21 12:50 Analyzed: 11/30/21 14:32									
QC Source Sample: Non-SDG (A1K1158-02)												
Benzene	ND	---	0.0147	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0737	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0369	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.111	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0737	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.147	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0737	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0369	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0737	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0737	mg/kg dry	50	---	0.0443	---	---	---	30%	***
1,3,5-Trimethylbenzene	ND	---	0.0737	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>94 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21K1149-DUP2)			Prepared: 11/19/21 13:55 Analyzed: 11/30/21 16:20									
QC Source Sample: Non-SDG (A1K1158-05)												
Benzene	ND	---	0.0146	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0732	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0366	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.110	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0732	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.146	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0732	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0366	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0732	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	0.138	---	0.0732	mg/kg dry	50	---	0.141	---	---	---	30%	2
1,3,5-Trimethylbenzene	ND	---	0.0732	mg/kg dry	50	---	0.0395	---	---	---	30%	***
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1149 - EPA 5035A						Soil						
Matrix Spike (21K1149-MS1)						Prepared: 11/19/21 14:52 Analyzed: 11/30/21 19:28						
QC Source Sample: Non-SDG (A1K1158-06)												
5035A/8260D												
Benzene	1.49	---	0.0139	mg/kg dry	50	1.39	ND	108	77-121%	---	---	
Toluene	1.31	---	0.0694	mg/kg dry	50	1.39	ND	95	77-121%	---	---	
Ethylbenzene	1.51	---	0.0347	mg/kg dry	50	1.39	0.141	98	76-122%	---	---	
Xylenes, total	6.20	---	0.104	mg/kg dry	50	4.16	1.80	106	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1.41	---	0.0694	mg/kg dry	50	1.39	ND	102	73-125%	---	---	
Naphthalene	2.25	---	0.139	mg/kg dry	50	1.39	0.674	113	62-129%	---	---	
1,2-Dibromoethane (EDB)	1.51	---	0.0694	mg/kg dry	50	1.39	ND	109	78-122%	---	---	
1,2-Dichloroethane (EDC)	1.53	---	0.0347	mg/kg dry	50	1.39	ND	110	73-128%	---	---	
Isopropylbenzene	1.50	---	0.0694	mg/kg dry	50	1.39	0.0617	104	68-134%	---	---	
1,2,4-Trimethylbenzene	8.38	---	0.0694	mg/kg dry	50	1.39	6.59	129	75-123%	---	---	Q-03
1,3,5-Trimethylbenzene	4.16	---	0.0694	mg/kg dry	50	1.39	2.50	120	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>79-120 %</i>		<i>"</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0945 - EPA 3546						Soil						
Blank (21K0945-BLK1)			Prepared: 11/22/21 12:51 Analyzed: 11/22/21 16:18									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>93 %</i>		<i>54-127 %</i>		"						

LCS (21K0945-BS1)			Prepared: 11/22/21 12:51 Analyzed: 11/22/21 16:43									
<u>EPA 8270E SIM</u>												
Acenaphthene	0.433	---	0.00267	mg/kg wet	1	0.533	---	81	40-123%	---	---	
Acenaphthylene	0.443	---	0.00267	mg/kg wet	1	0.533	---	83	32-132%	---	---	
Anthracene	0.433	---	0.00267	mg/kg wet	1	0.533	---	81	47-123%	---	---	
Benz(a)anthracene	0.443	---	0.00267	mg/kg wet	1	0.533	---	83	49-126%	---	---	
Benzo(a)pyrene	0.463	---	0.00267	mg/kg wet	1	0.533	---	87	45-129%	---	---	
Benzo(b)fluoranthene	0.458	---	0.00267	mg/kg wet	1	0.533	---	86	45-132%	---	---	
Benzo(k)fluoranthene	0.443	---	0.00267	mg/kg wet	1	0.533	---	83	47-132%	---	---	
Benzo(g,h,i)perylene	0.460	---	0.00267	mg/kg wet	1	0.533	---	86	43-134%	---	---	
Chrysene	0.429	---	0.00267	mg/kg wet	1	0.533	---	81	50-124%	---	---	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0945 - EPA 3546						Soil						
LCS (21K0945-BS1)			Prepared: 11/22/21 12:51 Analyzed: 11/22/21 16:43									
Dibenz(a,h)anthracene	0.461	---	0.00267	mg/kg wet	1	0.533	---	87	45-134%	---	---	
Fluoranthene	0.428	---	0.00267	mg/kg wet	1	0.533	---	80	50-127%	---	---	
Fluorene	0.415	---	0.00267	mg/kg wet	1	0.533	---	78	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.425	---	0.00267	mg/kg wet	1	0.533	---	80	45-133%	---	---	
1-Methylnaphthalene	0.409	---	0.00267	mg/kg wet	1	0.533	---	77	40-120%	---	---	
2-Methylnaphthalene	0.396	---	0.00267	mg/kg wet	1	0.533	---	74	38-122%	---	---	
Naphthalene	0.407	---	0.00267	mg/kg wet	1	0.533	---	76	35-123%	---	---	
Phenanthrene	0.426	---	0.00267	mg/kg wet	1	0.533	---	80	50-121%	---	---	
Pyrene	0.424	---	0.00267	mg/kg wet	1	0.533	---	80	47-127%	---	---	
Dibenzofuran	0.426	---	0.00267	mg/kg wet	1	0.533	---	80	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>87 %</i>		<i>54-127 %</i>		"						

Duplicate (21K0945-DUPI)			Prepared: 11/22/21 12:51 Analyzed: 11/22/21 17:33									
QC Source Sample: Non-SDG (A1K0818-01)												
Acenaphthene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Anthracene	ND	---	0.0305	mg/kg dry	5	---	ND	---	---	---	30%	R-02
Benz(a)anthracene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	0.0145	mg/kg dry	5	---	0.00937	---	---	***	30%	
Chrysene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
Fluoranthene	ND	---	0.0145	mg/kg dry	5	---	0.00778	---	---	***	30%	
Fluorene	ND	---	0.0494	mg/kg dry	5	---	ND	---	---	---	30%	R-02
Indeno(1,2,3-cd)pyrene	ND	---	0.0145	mg/kg dry	5	---	ND	---	---	---	30%	
1-Methylnaphthalene	0.476	---	0.0145	mg/kg dry	5	---	0.491	---	---	3	30%	
2-Methylnaphthalene	0.728	---	0.0145	mg/kg dry	5	---	0.755	---	---	4	30%	
Naphthalene	0.339	---	0.0145	mg/kg dry	5	---	0.348	---	---	3	30%	
Phenanthrene	ND	---	0.0378	mg/kg dry	5	---	ND	---	---	---	30%	R-02
Pyrene	0.139	---	0.0145	mg/kg dry	5	---	0.136	---	---	2	30%	
Dibenzofuran	ND	---	0.0683	mg/kg dry	5	---	ND	---	---	---	30%	R-02

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0945 - EPA 3546						Soil						
Duplicate (21K0945-DUP1)						Prepared: 11/22/21 12:51 Analyzed: 11/22/21 17:33						
QC Source Sample: Non-SDG (A1K0818-01)												
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		Recovery: 80 %		Limits: 44-120 %		Dilution: 5x						
<i>p-Terphenyl-d14 (Surr)</i>		86 %		54-127 %		"						

Matrix Spike (21K0945-MS1)						Prepared: 11/22/21 12:51 Analyzed: 11/22/21 18:23						
QC Source Sample: Non-SDG (A1K0936-10)												
EPA 8270E SIM												
Acenaphthene	0.363	---	0.00313	mg/kg dry	1	0.627	ND	58	40-123%	---	---	
Acenaphthylene	0.372	---	0.00313	mg/kg dry	1	0.627	ND	59	32-132%	---	---	
Anthracene	0.361	---	0.00313	mg/kg dry	1	0.627	ND	58	47-123%	---	---	
Benz(a)anthracene	0.370	---	0.00313	mg/kg dry	1	0.627	ND	59	49-126%	---	---	
Benzo(a)pyrene	0.382	---	0.00313	mg/kg dry	1	0.627	ND	61	45-129%	---	---	
Benzo(b)fluoranthene	0.383	---	0.00313	mg/kg dry	1	0.627	ND	61	45-132%	---	---	
Benzo(k)fluoranthene	0.371	---	0.00313	mg/kg dry	1	0.627	ND	59	47-132%	---	---	
Benzo(g,h,i)perylene	0.389	---	0.00313	mg/kg dry	1	0.627	ND	62	43-134%	---	---	
Chrysene	0.361	---	0.00313	mg/kg dry	1	0.627	ND	58	50-124%	---	---	
Dibenz(a,h)anthracene	0.385	---	0.00313	mg/kg dry	1	0.627	ND	61	45-134%	---	---	
Fluoranthene	0.367	---	0.00313	mg/kg dry	1	0.627	ND	59	50-127%	---	---	
Fluorene	0.352	---	0.00313	mg/kg dry	1	0.627	ND	56	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.360	---	0.00313	mg/kg dry	1	0.627	ND	57	45-133%	---	---	
1-Methylnaphthalene	0.350	---	0.00313	mg/kg dry	1	0.627	ND	56	40-120%	---	---	
2-Methylnaphthalene	0.335	---	0.00313	mg/kg dry	1	0.627	ND	54	38-122%	---	---	
Naphthalene	0.356	---	0.00313	mg/kg dry	1	0.627	ND	57	35-123%	---	---	
Phenanthrene	0.357	---	0.00313	mg/kg dry	1	0.627	ND	57	50-121%	---	---	
Pyrene	0.362	---	0.00313	mg/kg dry	1	0.627	ND	58	47-127%	---	---	
Dibenzofuran	0.357	---	0.00313	mg/kg dry	1	0.627	ND	57	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		Recovery: 57 %		Limits: 44-120 %		Dilution: 1x						
<i>p-Terphenyl-d14 (Surr)</i>		61 %		54-127 %		"						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0976 - EPA 3546						Soil						
Blank (21K0976-BLK2)			Prepared: 11/23/21 07:54 Analyzed: 11/23/21 12:02									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>95 %</i>		<i>54-127 %</i>		<i>"</i>						

LCS (21K0976-BS2)			Prepared: 11/23/21 07:54 Analyzed: 11/23/21 12:27									
<u>EPA 8270E SIM</u>												
Acenaphthene	0.429	---	0.00267	mg/kg wet	1	0.533	---	80	40-123%	---	---	
Acenaphthylene	0.438	---	0.00267	mg/kg wet	1	0.533	---	82	32-132%	---	---	
Anthracene	0.427	---	0.00267	mg/kg wet	1	0.533	---	80	47-123%	---	---	
Benz(a)anthracene	0.437	---	0.00267	mg/kg wet	1	0.533	---	82	49-126%	---	---	
Benzo(a)pyrene	0.454	---	0.00267	mg/kg wet	1	0.533	---	85	45-129%	---	---	
Benzo(b)fluoranthene	0.436	---	0.00267	mg/kg wet	1	0.533	---	82	45-132%	---	---	
Benzo(k)fluoranthene	0.428	---	0.00267	mg/kg wet	1	0.533	---	80	47-132%	---	---	
Benzo(g,h,i)perylene	0.427	---	0.00267	mg/kg wet	1	0.533	---	80	43-134%	---	---	
Chrysene	0.427	---	0.00267	mg/kg wet	1	0.533	---	80	50-124%	---	---	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0976 - EPA 3546						Soil						
LCS (21K0976-BS2)			Prepared: 11/23/21 07:54 Analyzed: 11/23/21 12:27									
Dibenz(a,h)anthracene	0.454	---	0.00267	mg/kg wet	1	0.533	---	85	45-134%	---	---	
Fluoranthene	0.423	---	0.00267	mg/kg wet	1	0.533	---	79	50-127%	---	---	
Fluorene	0.414	---	0.00267	mg/kg wet	1	0.533	---	78	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	0.421	---	0.00267	mg/kg wet	1	0.533	---	79	45-133%	---	---	
1-Methylnaphthalene	0.402	---	0.00267	mg/kg wet	1	0.533	---	75	40-120%	---	---	
2-Methylnaphthalene	0.388	---	0.00267	mg/kg wet	1	0.533	---	73	38-122%	---	---	
Naphthalene	0.404	---	0.00267	mg/kg wet	1	0.533	---	76	35-123%	---	---	
Phenanthrene	0.419	---	0.00267	mg/kg wet	1	0.533	---	78	50-121%	---	---	
Pyrene	0.418	---	0.00267	mg/kg wet	1	0.533	---	78	47-127%	---	---	
Dibenzofuran	0.424	---	0.00267	mg/kg wet	1	0.533	---	79	44-120%	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>91 %</i>		<i>54-127 %</i>		"						

Duplicate (21K0976-DUP2)						Prepared: 11/23/21 07:54 Analyzed: 11/23/21 13:17						RSM
QC Source Sample: Non-SDG (A1K0671-02)												
Acenaphthene	ND	---	0.00272	mg/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	0.00732	---	0.00272	mg/kg dry	1	---	0.00967	---	---	28	30%	
Anthracene	0.0117	---	0.00272	mg/kg dry	1	---	0.0150	---	---	25	30%	
Benz(a)anthracene	0.0796	---	0.00272	mg/kg dry	1	---	0.101	---	---	23	30%	
Benzo(a)pyrene	0.116	---	0.00272	mg/kg dry	1	---	0.151	---	---	26	30%	
Benzo(b)fluoranthene	0.144	---	0.00272	mg/kg dry	1	---	0.186	---	---	25	30%	
Benzo(k)fluoranthene	0.0444	---	0.00272	mg/kg dry	1	---	0.0588	---	---	28	30%	M-05
Benzo(g,h,i)perylene	0.132	---	0.00272	mg/kg dry	1	---	0.170	---	---	25	30%	
Chrysene	0.119	---	0.00272	mg/kg dry	1	---	0.154	---	---	26	30%	
Dibenz(a,h)anthracene	0.0134	---	0.00272	mg/kg dry	1	---	0.0173	---	---	25	30%	
Fluoranthene	0.163	---	0.00272	mg/kg dry	1	---	0.212	---	---	26	30%	
Fluorene	ND	---	0.00272	mg/kg dry	1	---	0.00187	---	---	***	30%	
Indeno(1,2,3-cd)pyrene	0.117	---	0.00272	mg/kg dry	1	---	0.152	---	---	26	30%	
1-Methylnaphthalene	ND	---	0.00272	mg/kg dry	1	---	0.00233	---	---	***	30%	
2-Methylnaphthalene	0.00352	---	0.00272	mg/kg dry	1	---	0.00431	---	---	20	30%	
Naphthalene	0.00918	---	0.00272	mg/kg dry	1	---	0.0116	---	---	23	30%	
Phenanthrene	0.0409	---	0.00272	mg/kg dry	1	---	0.0526	---	---	25	30%	
Pyrene	0.213	---	0.00272	mg/kg dry	1	---	0.280	---	---	27	30%	
Dibenzofuran	ND	---	0.00272	mg/kg dry	1	---	0.00137	---	---	***	30%	

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Alpine Environmental Consultants

12208 Antioch Road
White City, OR 97503

Project: Grange

Project Number: AEC2021-37

Project Manager: Jonathan Williams

Report ID:

A1K0964 - 12 19 21 0552

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Table with columns: Analyte, Result, Detection Limit, Reporting Limit, Units, Dilution, Spike Amount, Source Result, % REC, % REC Limits, RPD, RPD Limit, Notes. Includes sub-sections for Batch 21K0976 - EPA 3546, Duplicate (21K0976-DUP2), and QC Source Sample: Non-SDG (A1K0671-02).

Table with columns: Analyte, Result, Detection Limit, Reporting Limit, Units, Dilution, Spike Amount, Source Result, % REC, % REC Limits, RPD, RPD Limit, Notes. Includes sub-sections for Matrix Spike (21K0976-MS2) and Matrix Spike Dup (21K0976-MSD2).

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Signature of Darwin Thomas

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0976 - EPA 3546						Soil						
Matrix Spike Dup (21K0976-MSD2)			Prepared: 11/23/21 07:55 Analyzed: 11/23/21 14:33									
QC Source Sample: Non-SDG (A1K0671-04)												
Anthracene	0.455	---	0.00360	mg/kg dry	1	0.720	0.00309	63	47-123%	8	30%	
Benz(a)anthracene	0.454	---	0.00360	mg/kg dry	1	0.720	0.0149	61	49-126%	12	30%	
Benzo(a)pyrene	0.470	---	0.00360	mg/kg dry	1	0.720	0.0294	61	45-129%	12	30%	
Benzo(b)fluoranthene	0.449	---	0.00360	mg/kg dry	1	0.720	0.0337	58	45-132%	13	30%	
Benzo(k)fluoranthene	0.445	---	0.00360	mg/kg dry	1	0.720	0.00962	61	47-132%	8	30%	
Benzo(g,h,i)perylene	0.426	---	0.00360	mg/kg dry	1	0.720	0.0333	55	43-134%	12	30%	
Chrysene	0.447	---	0.00360	mg/kg dry	1	0.720	0.0278	58	50-124%	12	30%	
Dibenz(a,h)anthracene	0.470	---	0.00360	mg/kg dry	1	0.720	0.00272	65	45-134%	10	30%	
Fluoranthene	0.460	---	0.00360	mg/kg dry	1	0.720	0.0526	57	50-127%	13	30%	
Fluorene	0.454	---	0.00360	mg/kg dry	1	0.720	ND	63	43-125%	7	30%	
Indeno(1,2,3-cd)pyrene	0.425	---	0.00360	mg/kg dry	1	0.720	0.0288	55	45-133%	12	30%	
1-Methylnaphthalene	0.459	---	0.00360	mg/kg dry	1	0.720	ND	64	40-120%	6	30%	
2-Methylnaphthalene	0.443	---	0.00360	mg/kg dry	1	0.720	ND	62	38-122%	5	30%	
Naphthalene	0.484	---	0.00360	mg/kg dry	1	0.720	0.00417	67	35-123%	6	30%	
Phenanthrene	0.461	---	0.00360	mg/kg dry	1	0.720	0.0282	60	50-121%	10	30%	
Pyrene	0.473	---	0.00360	mg/kg dry	1	0.720	0.0651	57	47-127%	10	30%	
Dibenzofuran	0.465	---	0.00360	mg/kg dry	1	0.720	ND	65	44-120%	7	30%	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 68 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>65 %</i>		<i>54-127 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP 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 21L0041 - EPA 1311/3015						Soil						
Blank (21L0041-BLK1)			Prepared: 12/01/21 13:19 Analyzed: 12/02/21 15:07									
<u>1311/6020B</u>												
Arsenic	ND	---	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Barium	ND	---	5.00	mg/L	10	---	---	---	---	---	---	TCLP
Cadmium	ND	---	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Chromium	ND	---	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Lead	ND	---	0.0500	mg/L	10	---	---	---	---	---	---	TCLP
Mercury	ND	---	0.00700	mg/L	10	---	---	---	---	---	---	TCLP
Selenium	ND	---	0.100	mg/L	10	---	---	---	---	---	---	TCLP
Silver	ND	---	0.100	mg/L	10	---	---	---	---	---	---	TCLP
<hr/>												
LCS (21L0041-BS1)			Prepared: 12/01/21 13:19 Analyzed: 12/02/21 15:12									
<u>1311/6020B</u>												
Arsenic	5.51	---	0.100	mg/L	10	5.00	---	110	80-120%	---	---	TCLP
Barium	10.2	---	5.00	mg/L	10	10.0	---	102	80-120%	---	---	TCLP
Cadmium	1.02	---	0.100	mg/L	10	1.00	---	102	80-120%	---	---	TCLP
Chromium	4.94	---	0.100	mg/L	10	5.00	---	99	80-120%	---	---	TCLP
Lead	4.97	---	0.0500	mg/L	10	5.00	---	99	80-120%	---	---	TCLP
Mercury	0.0982	---	0.00700	mg/L	10	0.100	---	98	80-120%	---	---	TCLP
Selenium	1.01	---	0.100	mg/L	10	1.00	---	101	80-120%	---	---	TCLP
Silver	1.01	---	0.100	mg/L	10	1.00	---	101	80-120%	---	---	TCLP
<hr/>												
Matrix Spike (21L0041-MS1)			Prepared: 12/01/21 13:19 Analyzed: 12/02/21 16:12									
<u>QC Source Sample: Non-SDG (A1K1238-03)</u>												
<u>1311/6020B</u>												
Arsenic	5.40	---	0.100	mg/L	10	5.00	ND	108	50-150%	---	---	
Barium	11.0	---	5.00	mg/L	10	10.0	ND	110	50-150%	---	---	
Cadmium	1.03	---	0.100	mg/L	10	1.00	ND	103	50-150%	---	---	
Chromium	4.90	---	0.100	mg/L	10	5.00	ND	98	50-150%	---	---	
Lead	8.66	---	0.0500	mg/L	10	5.00	3.67	100	50-150%	---	---	
Mercury	0.0967	---	0.00700	mg/L	10	0.100	ND	97	50-150%	---	---	
Selenium	1.04	---	0.100	mg/L	10	1.00	ND	104	50-150%	---	---	
Silver	1.00	---	0.100	mg/L	10	1.00	ND	100	50-150%	---	---	

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---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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 21K0943 - Total Solids (Dry Weight)						Soil						
Duplicate (21K0943-DUP1)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K0046-08)</u>												
% Solids	82.5	---	1.00	%	1	---	83.5	---	---	1	10%	
Duplicate (21K0943-DUP2)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K0880-01)</u>												
% Solids	88.6	---	1.00	%	1	---	88.2	---	---	0.5	10%	
Duplicate (21K0943-DUP3)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K0933-13)</u>												
% Solids	56.8	---	1.00	%	1	---	57.9	---	---	2	10%	
Duplicate (21K0943-DUP4)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: S19 (A1K0964-03)</u>												
<u>EPA 8000D</u>												
% Solids	86.6	---	1.00	%	1	---	88.5	---	---	2	10%	
Duplicate (21K0943-DUP5)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K0966-05)</u>												
% Solids	79.4	---	1.00	%	1	---	80.8	---	---	2	10%	
Duplicate (21K0943-DUP6)			Prepared: 11/22/21 12:04 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K0981-05)</u>												
% Solids	70.2	---	1.00	%	1	---	72.8	---	---	4	10%	
Duplicate (21K0943-DUP7)			Prepared: 11/22/21 20:48 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K1059-01)</u>												
% Solids	84.9	---	1.00	%	1	---	85.6	---	---	0.8	10%	
Duplicate (21K0943-DUP8)			Prepared: 11/22/21 20:48 Analyzed: 11/23/21 08:39									
<u>QC Source Sample: Non-SDG (A1K1062-01)</u>												
% Solids	68.0	---	1.00	%	1	---	67.7	---	---	0.5	10%	

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ANALYTICAL REPORT

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------	----------------------------------------------

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 21K0943 - Total Solids (Dry Weight)							Soil					
Duplicate (21K0943-DUP9)					Prepared: 11/22/21 20:48 Analyzed: 11/23/21 08:39							
QC Source Sample: Non-SDG (A1K1068-03)												
% Solids	87.6	---	1.00	%	1	---	87.6	---	---	0.05	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0998</u>							
A1K0964-01RE1	Soil	NWTPH-Dx	11/12/21 10:50	11/23/21 13:09	10.28g/5mL	10g/5mL	0.97
A1K0964-02	Soil	NWTPH-Dx	11/12/21 10:55	11/23/21 13:09	10.53g/5mL	10g/5mL	0.95
A1K0964-03	Soil	NWTPH-Dx	11/12/21 11:00	11/23/21 13:09	10.19g/5mL	10g/5mL	0.98
<u>Batch: 21K1014</u>							
A1K0964-04	Soil	NWTPH-Dx	11/12/21 11:05	11/23/21 13:13	10.49g/5mL	10g/5mL	0.95
A1K0964-05	Soil	NWTPH-Dx	11/15/21 13:00	11/23/21 14:54	10.45g/5mL	10g/5mL	0.96
A1K0964-06	Soil	NWTPH-Dx	11/15/21 13:10	11/23/21 14:54	10.58g/5mL	10g/5mL	0.95
A1K0964-07	Soil	NWTPH-Dx	11/15/21 13:20	11/23/21 14:54	10.85g/5mL	10g/5mL	0.92
A1K0964-08	Soil	NWTPH-Dx	11/15/21 13:30	11/23/21 14:54	10.46g/5mL	10g/5mL	0.96

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

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K1099</u>							
A1K0964-05	Soil	NWTPH-Gx (MS)	11/15/21 13:00	11/15/21 13:00	6.42g/5mL	5g/5mL	0.78
A1K0964-06	Soil	NWTPH-Gx (MS)	11/15/21 13:10	11/15/21 13:10	6.65g/5mL	5g/5mL	0.75
A1K0964-07RE1	Soil	NWTPH-Gx (MS)	11/15/21 13:20	11/15/21 13:20	6.77g/5mL	5g/5mL	0.74
A1K0964-08	Soil	NWTPH-Gx (MS)	11/15/21 13:30	11/15/21 13:30	5.66g/5mL	5g/5mL	0.88

Selected Volatile Organic Compounds by EPA 5035A/8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K1099</u>							
A1K0964-05	Soil	5035A/8260D	11/15/21 13:00	11/15/21 13:00	6.42g/5mL	5g/5mL	0.78
A1K0964-06	Soil	5035A/8260D	11/15/21 13:10	11/15/21 13:10	6.65g/5mL	5g/5mL	0.75
A1K0964-07RE1	Soil	5035A/8260D	11/15/21 13:20	11/15/21 13:20	6.77g/5mL	5g/5mL	0.74
A1K0964-08	Soil	5035A/8260D	11/15/21 13:30	11/15/21 13:30	5.66g/5mL	5g/5mL	0.88
<u>Batch: 21K1149</u>							
A1K0964-07RE2	Soil	5035A/8260D	11/15/21 13:20	11/15/21 13:20	6.77g/5mL	5g/5mL	0.74

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

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Apex Laboratories, LLC

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E SIM

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0945</u>							
A1K0964-03	Soil	EPA 8270E SIM	11/12/21 11:00	11/22/21 12:51	10.53g/5mL	10g/5mL	0.95
A1K0964-04	Soil	EPA 8270E SIM	11/12/21 11:05	11/22/21 12:51	10.39g/5mL	10g/5mL	0.96
<u>Batch: 21K0976</u>							
A1K0964-01	Soil	EPA 8270E SIM	11/12/21 10:50	11/23/21 09:37	10.58g/5mL	10g/5mL	0.95
A1K0964-01RE1	Soil	EPA 8270E SIM	11/12/21 10:50	11/23/21 09:37	10.58g/5mL	10g/5mL	0.95
A1K0964-02	Soil	EPA 8270E SIM	11/12/21 10:55	11/23/21 09:37	10.21g/5mL	10g/5mL	0.98
A1K0964-05RE1	Soil	EPA 8270E SIM	11/15/21 13:00	11/23/21 15:03	10.86g/5mL	10g/5mL	0.92
A1K0964-06RE1	Soil	EPA 8270E SIM	11/15/21 13:10	11/23/21 15:03	10.05g/5mL	10g/5mL	1.00
A1K0964-07	Soil	EPA 8270E SIM	11/15/21 13:20	11/23/21 15:03	10.6g/5mL	10g/5mL	0.94
A1K0964-08	Soil	EPA 8270E SIM	11/15/21 13:30	11/23/21 15:03	10.23g/5mL	10g/5mL	0.98

TCLP Metals by EPA 6020B (ICPMS)

Prep: EPA 1311/3015					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0041</u>							
A1K0964-05	Soil	1311/6020B	11/15/21 13:00	12/01/21 13:19	10mL/50mL	10mL/50mL	1.00
A1K0964-06	Soil	1311/6020B	11/15/21 13:10	12/01/21 13:19	10mL/50mL	10mL/50mL	1.00
A1K0964-07	Soil	1311/6020B	11/15/21 13:20	12/01/21 13:19	10mL/50mL	10mL/50mL	1.00
A1K0964-08	Soil	1311/6020B	11/15/21 13:30	12/01/21 13:19	10mL/50mL	10mL/50mL	1.00

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21K0943</u>							
A1K0964-01	Soil	EPA 8000D	11/12/21 10:50	11/22/21 12:04			NA
A1K0964-02	Soil	EPA 8000D	11/12/21 10:55	11/22/21 12:04			NA
A1K0964-03	Soil	EPA 8000D	11/12/21 11:00	11/22/21 12:04			NA
A1K0964-04	Soil	EPA 8000D	11/12/21 11:05	11/22/21 12:04			NA
A1K0964-05	Soil	EPA 8000D	11/15/21 13:00	11/22/21 12:04			NA
A1K0964-06	Soil	EPA 8000D	11/15/21 13:10	11/22/21 12:04			NA
A1K0964-07	Soil	EPA 8000D	11/15/21 13:20	11/22/21 12:04			NA
A1K0964-08	Soil	EPA 8000D	11/15/21 13:30	11/22/21 12:04			NA

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ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
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SAMPLE PREPARATION INFORMATION

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21K1182</u>							
A1K0964-05	Soil	EPA 1311	11/15/21 13:00	11/30/21 17:00	100g/1985.4g	100g/2000g	NA
A1K0964-06	Soil	EPA 1311	11/15/21 13:10	11/30/21 17:00	100g/1990.7g	100g/2000g	NA
A1K0964-07	Soil	EPA 1311	11/15/21 13:20	11/30/21 17:00	100g/1992.6g	100g/2000g	NA
A1K0964-08	Soil	EPA 1311	11/15/21 13:30	11/30/21 17:00	100g/1983.9g	100g/2000g	NA

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ORELAP ID: OR100062

Alpine Environmental Consultants

12208 Antioch Road
White City, OR 97503

Project: **Grange**

Project Number: AEC2021-37

Project Manager: Jonathan Williams

Report ID:

A1K0964 - 12 19 21 0552

QUALIFIER DEFINITIONS

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

Apex Laboratories

- F-09 Results in the Gasoline Range are impacted by the overlap of a heavier fuel hydrocarbon product.
- F-13 The chromatographic pattern does not resemble the fuel standard used for quantitation
- F-17 No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- H-01 This sample was analyzed outside the recommended holding time.
- M-04 Due to matrix interference, this analyte cannot be accurately quantified. The reported result may contain a high bias.
- M-05 Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-03 Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- R-02 The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-06 Reporting level raised due to possible carryover from a previous sample.
- RSM Sample has undergone RSM sample processing prior to extraction and analysis.
- S-01 Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05 Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- TCLP This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 21K1182.
- V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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) may not be 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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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Alpine Environmental Consultants (12208 Antioch Road, White City, OR 97503), Project: Grange (Project Number: AEC2021-37, Project Manager: Jonathan Williams), Report ID: A1K0964 - 12 19 21 0552

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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Signature of Darwin Thomas

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Alpine Environmental Consultants), Project (Grange), and Report ID (A1K0964 - 12 19 21 0552)

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

Table with 6 columns: 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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Handwritten signature of Darwin Thomas

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Alpine Environmental Consultants
 12208 Antioch Road
 White City, OR 97503

Project: Grange
 Project Number: AEC2021-37
 Project Manager: Jonathan Williams

Report ID:
A1K0964 - 12 19 21 0552

Lab # A1K0964 coc 1 of 1

APEX LABS

6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Company: <u>Alpine Env. Consultants</u>		Project Mgr: <u>J. Williams</u>		Project Name: <u>Grange Co-op</u>		Project #: <u>AEC2021-37</u>																
Address: <u>2210 Antioch Rd White City</u>		Phone: <u>541.944.4685</u>		Email: <u>jwilliams@alpine-env-llc.com</u>																		
Sampled by: <u>T. Shallos</u>		ANALYSIS REQUEST																				
Site Location: <input checked="" type="radio"/> WA CA AK ID <u> </u>																						
SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-DX	NWTPH-GX	8260 BTEX	8260 RBDM VOCs ^{BTEX}	8260 Halo VOCs ^{8260 RBDM VOCs}	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Volat Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13) Al, Sb, 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	
<u>S17</u>	<u>11/2/21</u>	<u>1050</u>	<u>S</u>	<u>1</u>		<u>X</u>					<u>X</u>											
<u>S18</u>		<u>1055</u>																				
<u>S19</u>		<u>1100</u>																				
<u>S20</u>		<u>1105</u>																				
<u>COMP1</u>	<u>11/5/21</u>	<u>1300</u>		<u>3</u>		<u>X</u>	<u>X</u>	<u>X</u>			<u>X</u>								<u>X</u>			
<u>COMP2</u>		<u>1310</u>																				
<u>COMP3</u>		<u>1320</u>																				
<u>COMP4</u>		<u>1330</u>																				
Standard Turn Around Time (TAT) = 10 Business Days												SPECIAL INSTRUCTIONS:										
TAT Requested (circle)		1 Day		2 Day		3 Day		5 Day		Standard												Other: _____
SAMPLES ARE HELD FOR 30 DAYS																						
RELINQUISHED BY:				RECEIVED BY:				RELINQUISHED BY:				RECEIVED BY:										
Signature: <u>Toby Shallos</u>		Date: <u>11/16/21</u>		Signature: <u>WJA</u>		Date: <u>11/16/21</u>		Signature: _____		Date: _____		Signature: _____		Date: _____								
Printed Name: <u>Toby Shallos</u>		Time: <u>1200</u>		Printed Name: <u>WJA</u>		Time: <u>1215</u>		Printed Name: _____		Time: _____		Printed Name: _____		Time: _____								
Company: _____				Company: <u>Apex</u>				Company: _____				Company: _____										

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Project Number: AEC2021-37 Project Manager: Jonathan Williams	Report ID: A1K0964 - 12 19 21 0552
---------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------	-----------------------------------------------------

APEX LABS COOLER RECEIPT FORM

Client: Alpine Env. Consultants Element WO#: A1 K0964

Project/Project #: Grange Co-op / AEC 2021-37

Delivery Info:
 Date/time received: 11/18/21 @ 12:15 By: KMS
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 11/18/21 @ 12:15 By: KMS
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>2.1</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Real</u>						
Condition:	<u>Good</u>						

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: 11/19/21 @ 0846 By: KMS
 All samples intact? Yes No Comments: _____

 Bottle labels/COCs agree? Yes No Comments: _____

 COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: _____

 Do VOA vials have visible headspace? Yes No NA
 Comments: _____
 Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

 Additional information: 2862 0627 3326

 Labeled by: S Witness: [Signature] Cooler Inspected by: [Signature]

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Darwin Thomas

Darwin Thomas, Business Development Director

Complete Laboratory Analytical Results

December 7 and 8, 2021



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Sunday, January 9, 2022

Jonathan Williams
Alpine Environmental Consultants
12208 Antioch Road
White City, OR 97503

RE: A1L0510 - Grange Co-Op Property - [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 A1L0510, which was received by the laboratory on 12/13/2021 at 1:00:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@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	4.9 degC	Cooler #2	5.0 degC
Cooler #3	3.2 degC	Cooler #4	4.5 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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1	A1L0510-01	Soil	12/07/21 13:30	12/13/21 13:00
B2	A1L0510-02	Soil	12/07/21 14:30	12/13/21 13:00
B3	A1L0510-03	Soil	12/07/21 15:00	12/13/21 13:00
B4	A1L0510-04	Soil	12/07/21 10:00	12/13/21 13:00
B5	A1L0510-05	Soil	12/07/21 10:30	12/13/21 13:00
B6	A1L0510-06	Soil	12/07/21 15:30	12/13/21 13:00
B7	A1L0510-07	Soil	12/07/21 16:00	12/13/21 13:00
B8	A1L0510-08	Soil	12/07/21 16:40	12/13/21 13:00
B9	A1L0510-09	Soil	12/07/21 16:20	12/13/21 13:00
Dup	A1L0510-10	Soil	12/07/21 16:45	12/13/21 13:00
B1-GW	A1L0510-11	Water	12/07/21 13:45	12/13/21 13:00
B2-GW	A1L0510-12	Water	12/08/21 10:00	12/13/21 13:00
B3-GW	A1L0510-13	Water	12/08/21 08:10	12/13/21 13:00
B4-GW	A1L0510-14	Water	12/08/21 09:30	12/13/21 13:00
B5-GW	A1L0510-15	Water	12/08/21 09:05	12/13/21 13:00
B6-GW	A1L0510-16	Water	12/08/21 10:30	12/13/21 13:00
B7-GW	A1L0510-17	Water	12/08/21 11:40	12/13/21 13:00
B8-GW	A1L0510-18	Water	12/08/21 11:00	12/13/21 13:00
B9-GW	A1L0510-19	Water	12/08/21 11:20	12/13/21 13:00
Dup	A1L0510-20	Water	12/07/21 14:00	12/13/21 13:00
R	A1L0510-21	Water	12/07/21 09:30	12/13/21 13:00
TB	A1L0510-22	Water	12/08/21 13:30	12/13/21 13:00

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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
B1 (A1L0510-01)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 00:48	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	12/21/21 00:48	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 73 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 00:48</i>	<i>NWTPH-Dx</i>
B2 (A1L0510-02RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 09:46	NWTPH-Dx	
Oil	189	---	50.0	mg/kg dry	1	12/21/21 09:46	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 09:46</i>	<i>NWTPH-Dx</i>
B3 (A1L0510-03RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	109	mg/kg dry	5	12/21/21 10:08	NWTPH-Dx	
Oil	295	---	218	mg/kg dry	5	12/21/21 10:08	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 83 %</i>		<i>Limits: 50-150 %</i>		<i>5</i>	<i>12/21/21 10:08</i>	<i>NWTPH-Dx S-05</i>
B4 (A1L0510-04)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 01:52	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	12/21/21 01:52	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 01:52</i>	<i>NWTPH-Dx</i>
B5 (A1L0510-05)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 03:38	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	12/21/21 03:38	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 03:38</i>	<i>NWTPH-Dx</i>
B6 (A1L0510-06)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 03:59	NWTPH-Dx	
Oil	ND	---	50.0	mg/kg dry	1	12/21/21 03:59	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 03:59</i>	<i>NWTPH-Dx</i>
B7 (A1L0510-07RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	120	mg/kg dry	5	12/21/21 10:50	NWTPH-Dx	
Oil	886	---	239	mg/kg dry	5	12/21/21 10:50	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 50-150 %</i>		<i>5</i>	<i>12/21/21 10:50</i>	<i>NWTPH-Dx S-05</i>

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

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
B8 (A1L0510-08RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 09:41	NWTPH-Dx	
Oil	89.0	---	50.0	mg/kg dry	1	12/21/21 09:41	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 81 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 09:41</i>	<i>NWTPH-Dx</i>
B9 (A1L0510-09RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	25.0	mg/kg dry	1	12/21/21 10:01	NWTPH-Dx	
Oil	156	---	50.0	mg/kg dry	1	12/21/21 10:01	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 10:01</i>	<i>NWTPH-Dx</i>
Dup (A1L0510-10RE1)				Matrix: Soil		Batch: 21L0762		
Diesel	ND	---	114	mg/kg dry	5	12/21/21 10:41	NWTPH-Dx	
Oil	501	---	229	mg/kg dry	5	12/21/21 10:41	NWTPH-Dx	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>5</i>	<i>12/21/21 10:41</i>	<i>NWTPH-Dx</i> S-05
B1-GW (A1L0510-11)				Matrix: Water		Batch: 21L0772		
Diesel	ND	---	78.4	ug/L	1	12/20/21 23:21	NWTPH-Dx LL	
Oil	ND	---	157	ug/L	1	12/20/21 23:21	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 66 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/20/21 23:21</i>	<i>NWTPH-Dx LL</i>
B2-GW (A1L0510-12)				Matrix: Water		Batch: 21L0772		
Diesel	245	---	78.4	ug/L	1	12/20/21 23:41	NWTPH-Dx LL	F-11
Oil	ND	---	157	ug/L	1	12/20/21 23:41	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/20/21 23:41</i>	<i>NWTPH-Dx LL</i>
B3-GW (A1L0510-13)				Matrix: Water		Batch: 21L0827		
Diesel	212	---	83.3	ug/L	1	12/21/21 21:21	NWTPH-Dx LL	F-11
Oil	ND	---	167	ug/L	1	12/21/21 21:21	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 84 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 21:21</i>	<i>NWTPH-Dx LL</i>
B4-GW (A1L0510-14)				Matrix: Water		Batch: 21L0827		
Diesel	95.8	---	80.8	ug/L	1	12/21/21 21:42	NWTPH-Dx LL	F-11
Oil	ND	---	162	ug/L	1	12/21/21 21:42	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 79 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/21/21 21:42</i>	<i>NWTPH-Dx LL</i>

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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
B6-GW (A1L0510-16)			Matrix: Water			Batch: 21L0853		
Diesel	104	---	94.1	ug/L	1	12/22/21 23:15	NWTPH-Dx LL	F-11
Oil	ND	---	188	ug/L	1	12/22/21 23:15	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 84 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/22/21 23:15</i>	<i>NWTPH-Dx LL</i>	
B8-GW (A1L0510-18)			Matrix: Water			Batch: 21L0853		
Diesel	ND	---	84.2	ug/L	1	12/22/21 23:36	NWTPH-Dx LL	
Oil	ND	---	168	ug/L	1	12/22/21 23:36	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 86 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/22/21 23:36</i>	<i>NWTPH-Dx LL</i>	
Dup (A1L0510-20)			Matrix: Water			Batch: 21L0772		
Diesel	ND	---	77.7	ug/L	1	12/21/21 00:01	NWTPH-Dx LL	
Oil	ND	---	155	ug/L	1	12/21/21 00:01	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 74 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/21/21 00:01</i>	<i>NWTPH-Dx LL</i>	
R (A1L0510-21)			Matrix: Water			Batch: 21L0772		
Diesel	ND	---	76.2	ug/L	1	12/21/21 00:22	NWTPH-Dx LL	
Oil	ND	---	152	ug/L	1	12/21/21 00:22	NWTPH-Dx LL	
<i>Surrogate: o-Terphenyl (Surr)</i>			<i>Recovery: 86 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/21/21 00:22</i>	<i>NWTPH-Dx LL</i>	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

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
B1 (A1L0510-01RE1)				Matrix: Soil		Batch: 21L0795		
Gasoline Range Organics	ND	---	6.41	mg/kg dry	50	12/21/21 11:56	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/21/21 11:56</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/21/21 11:56</i>	<i>NWTPH-Gx (MS)</i>	
B2 (A1L0510-02)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	5.26	mg/kg dry	50	12/20/21 16:04	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 16:04</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 16:04</i>	<i>NWTPH-Gx (MS)</i>	
B3 (A1L0510-03)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	6.51	mg/kg dry	50	12/20/21 16:58	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 16:58</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 16:58</i>	<i>NWTPH-Gx (MS)</i>	
B4 (A1L0510-04)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	6.77	mg/kg dry	50	12/20/21 17:25	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 109 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 17:25</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 17:25</i>	<i>NWTPH-Gx (MS)</i>	
B5 (A1L0510-05)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	8.03	mg/kg dry	50	12/20/21 17:52	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 17:52</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 17:52</i>	<i>NWTPH-Gx (MS)</i>	
B6 (A1L0510-06)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	4.43	mg/kg dry	50	12/20/21 18:19	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 18:19</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 18:19</i>	<i>NWTPH-Gx (MS)</i>	
B7 (A1L0510-07)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	6.67	mg/kg dry	50	12/20/21 18:46	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 18:46</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>	<i>1</i>	<i>12/20/21 18:46</i>	<i>NWTPH-Gx (MS)</i>	
B8 (A1L0510-08)				Matrix: Soil		Batch: 21L0742		

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ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	-----------------------------------------------------

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
B8 (A1L0510-08)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	4.53	mg/kg dry	50	12/20/21 19:13	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 110 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 19:13</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>97 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/20/21 19:13</i>	<i>NWTPH-Gx (MS)</i>	
B9 (A1L0510-09)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	4.96	mg/kg dry	50	12/20/21 19:40	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 107 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 19:40</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>97 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/20/21 19:40</i>	<i>NWTPH-Gx (MS)</i>	
Dup (A1L0510-10)				Matrix: Soil		Batch: 21L0742		
Gasoline Range Organics	ND	---	5.66	mg/kg dry	50	12/20/21 20:07	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 109 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/20/21 20:07</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>97 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/20/21 20:07</i>	<i>NWTPH-Gx (MS)</i>	
B1-GW (A1L0510-11)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 16:26	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 103 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/14/21 16:26</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>118 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/14/21 16:26</i>	<i>NWTPH-Gx (MS)</i>	
B2-GW (A1L0510-12)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 16:53	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 103 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/14/21 16:53</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>116 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/14/21 16:53</i>	<i>NWTPH-Gx (MS)</i>	
B3-GW (A1L0510-13)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 17:20	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 102 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/14/21 17:20</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>118 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/14/21 17:20</i>	<i>NWTPH-Gx (MS)</i>	
B4-GW (A1L0510-14)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 18:15	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>			<i>Recovery: 102 %</i>	<i>Limits: 50-150 %</i>	<i>1</i>	<i>12/14/21 18:15</i>	<i>NWTPH-Gx (MS)</i>	
<i>1,4-Difluorobenzene (Sur)</i>			<i>119 %</i>	<i>50-150 %</i>	<i>1</i>	<i>12/14/21 18:15</i>	<i>NWTPH-Gx (MS)</i>	
B5-GW (A1L0510-15)				Matrix: Water		Batch: 21L0520		

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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
B5-GW (A1L0510-15)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 18:42	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 102 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 18:42</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>117 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 18:42</i>	<i>NWTPH-Gx (MS)</i>
B6-GW (A1L0510-16)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 19:09	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 19:09</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>120 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 19:09</i>	<i>NWTPH-Gx (MS)</i>
B7-GW (A1L0510-17)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 19:36	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 19:36</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>120 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 19:36</i>	<i>NWTPH-Gx (MS)</i>
B8-GW (A1L0510-18)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 20:03	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 105 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 20:03</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>120 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 20:03</i>	<i>NWTPH-Gx (MS)</i>
B9-GW (A1L0510-19)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 20:31	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 20:31</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>121 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 20:31</i>	<i>NWTPH-Gx (MS)</i>
Dup (A1L0510-20)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 20:58	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 103 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 20:58</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>120 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 20:58</i>	<i>NWTPH-Gx (MS)</i>
R (A1L0510-21)				Matrix: Water		Batch: 21L0520		
Gasoline Range Organics	ND	---	100	ug/L	1	12/14/21 21:25	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 106 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>12/14/21 21:25</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>122 %</i>		<i>50-150 %</i>		<i>1</i>	<i>12/14/21 21:25</i>	<i>NWTPH-Gx (MS)</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-GW (A1L0510-11)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 16:26	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 16:26	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 16:26	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 16:26	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 16:26	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 16:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 16:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 16:26	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:26	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:26	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:26	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 16:26</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 16:26</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 16:26</i>	<i>EPA 8260D</i>
B2-GW (A1L0510-12)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 16:53	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 16:53	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 16:53	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 16:53	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 16:53	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 16:53	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 16:53	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 16:53	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:53	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:53	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 16:53	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 16:53</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 16:53</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 16:53</i>	<i>EPA 8260D</i>
B3-GW (A1L0510-13)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 17:20	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 17:20	EPA 8260D	

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ANALYTICAL REPORT

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B3-GW (A1L0510-13)			Matrix: Water			Batch: 21L0520		
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 17:20	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 17:20	EPA 8260D	
Methyl tert-butyl ether (MTBE)	4.57	---	1.00	ug/L	1	12/14/21 17:20	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 17:20	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 17:20	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 17:20	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 17:20	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 17:20	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 17:20	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 108 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/14/21 17:20</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>105 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 17:20</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 17:20</i>	<i>EPA 8260D</i>	

B4-GW (A1L0510-14)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 18:15	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 18:15	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 18:15	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 18:15	EPA 8260D	
Methyl tert-butyl ether (MTBE)	109	---	1.00	ug/L	1	12/14/21 18:15	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 18:15	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 18:15	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 18:15	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:15	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:15	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:15	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 107 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/14/21 18:15</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>105 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 18:15</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 18:15</i>	<i>EPA 8260D</i>	

B5-GW (A1L0510-15)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 18:42	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 18:42	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 18:42	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 18:42	EPA 8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B5-GW (A1L0510-15)			Matrix: Water			Batch: 21L0520		
Methyl tert-butyl ether (MTBE)	20.7	---	1.00	ug/L	1	12/14/21 18:42	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 18:42	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 18:42	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 18:42	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:42	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:42	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 18:42	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 107 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/14/21 18:42</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>106 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 18:42</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>98 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 18:42</i>	<i>EPA 8260D</i>	
B6-GW (A1L0510-16)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 19:09	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 19:09	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 19:09	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 19:09	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 19:09	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 19:09	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 19:09	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 19:09	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:09	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:09	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:09	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 110 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/14/21 19:09</i>	<i>EPA 8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>106 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 19:09</i>	<i>EPA 8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>97 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/14/21 19:09</i>	<i>EPA 8260D</i>	
B7-GW (A1L0510-17)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 19:36	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 19:36	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 19:36	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 19:36	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 19:36	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 19:36	EPA 8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B7-GW (A1L0510-17)			Matrix: Water			Batch: 21L0520		
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 19:36	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 19:36	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:36	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:36	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 19:36	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 19:36</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 19:36</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>95 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 19:36</i>	<i>EPA 8260D</i>
B8-GW (A1L0510-18)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 20:03	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 20:03	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 20:03	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 20:03	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 20:03	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 20:03	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 20:03	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 20:03	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:03	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:03	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:03	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 20:03</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:03</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:03</i>	<i>EPA 8260D</i>
B9-GW (A1L0510-19)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 20:31	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 20:31	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 20:31	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 20:31	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 20:31	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 20:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 20:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 20:31	EPA 8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B9-GW (A1L0510-19)			Matrix: Water			Batch: 21L0520		
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:31	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:31	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:31	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 20:31</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:31</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>94 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:31</i>	<i>EPA 8260D</i>
Dup (A1L0510-20)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 20:58	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 20:58	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 20:58	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 20:58	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 20:58	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 20:58	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 20:58	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 20:58	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:58	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:58	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 20:58	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 20:58</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>106 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:58</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>96 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 20:58</i>	<i>EPA 8260D</i>
R (A1L0510-21)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 21:25	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 21:25	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 21:25	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 21:25	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 21:25	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 21:25	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 21:25	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 21:25	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 21:25	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 21:25	EPA 8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R (A1L0510-21)			Matrix: Water			Batch: 21L0520		
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 21:25	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 21:25</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>107 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 21:25</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 21:25</i>	<i>EPA 8260D</i>
TB (A1L0510-22)			Matrix: Water			Batch: 21L0520		
Benzene	ND	---	0.200	ug/L	1	12/14/21 15:59	EPA 8260D	
Toluene	ND	---	1.00	ug/L	1	12/14/21 15:59	EPA 8260D	
Ethylbenzene	ND	---	0.500	ug/L	1	12/14/21 15:59	EPA 8260D	
Xylenes, total	ND	---	1.50	ug/L	1	12/14/21 15:59	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	12/14/21 15:59	EPA 8260D	
Naphthalene	ND	---	2.00	ug/L	1	12/14/21 15:59	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	12/14/21 15:59	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	12/14/21 15:59	EPA 8260D	
Isopropylbenzene	ND	---	1.00	ug/L	1	12/14/21 15:59	EPA 8260D	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 15:59	EPA 8260D	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	12/14/21 15:59	EPA 8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/14/21 15:59</i>	<i>EPA 8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 15:59</i>	<i>EPA 8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/14/21 15:59</i>	<i>EPA 8260D</i>

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1 (A1L0510-01RE1)			Matrix: Soil			Batch: 21L0795		
Benzene	ND	---	0.0128	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Toluene	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Ethylbenzene	ND	---	0.0321	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Xylenes, total	ND	---	0.0962	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Naphthalene	ND	---	0.128	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0321	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
Isopropylbenzene	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0641	mg/kg dry	50	12/21/21 11:56	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>100 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/21/21 11:56</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/21/21 11:56</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/21/21 11:56</i>	<i>5035A/8260D</i>	
B2 (A1L0510-02)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0105	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Toluene	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Ethylbenzene	ND	---	0.0263	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Xylenes, total	ND	---	0.0788	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Naphthalene	ND	---	0.105	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0263	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
Isopropylbenzene	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0526	mg/kg dry	50	12/20/21 16:04	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery:</i>	<i>101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 16:04</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 16:04</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 16:04</i>	<i>5035A/8260D</i>	
B3 (A1L0510-03)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0130	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
Toluene	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B3 (A1L0510-03)			Matrix: Soil			Batch: 21L0742		
Ethylbenzene	ND	---	0.0325	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
Xylenes, total	ND	---	0.0976	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
Naphthalene	ND	---	0.130	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0325	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
Isopropylbenzene	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0651	mg/kg dry	50	12/20/21 16:58	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 100 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 16:58</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>101 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 16:58</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>100 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 16:58</i>	<i>5035A/8260D</i>	
B4 (A1L0510-04)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0135	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Toluene	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Ethylbenzene	ND	---	0.0338	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Xylenes, total	ND	---	0.101	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Naphthalene	ND	---	0.135	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0338	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
Isopropylbenzene	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0677	mg/kg dry	50	12/20/21 17:25	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 102 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 17:25</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 17:25</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>102 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 17:25</i>	<i>5035A/8260D</i>	
B5 (A1L0510-05)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0161	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
Toluene	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
Ethylbenzene	ND	---	0.0402	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
Xylenes, total	ND	---	0.120	mg/kg dry	50	12/20/21 17:52	5035A/8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B5 (A1L0510-05)			Matrix: Soil			Batch: 21L0742		
Methyl tert-butyl ether (MTBE)	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
Naphthalene	ND	---	0.161	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0402	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
Isopropylbenzene	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0803	mg/kg dry	50	12/20/21 17:52	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 102 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 17:52</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>99 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 17:52</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>103 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 17:52</i>	<i>5035A/8260D</i>	
B6 (A1L0510-06)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.00887	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Toluene	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Ethylbenzene	ND	---	0.0222	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Xylenes, total	ND	---	0.0665	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Naphthalene	ND	---	0.0887	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0222	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
Isopropylbenzene	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0443	mg/kg dry	50	12/20/21 18:19	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 18:19</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 18:19</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 18:19</i>	<i>5035A/8260D</i>	
B7 (A1L0510-07)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0133	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Toluene	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Ethylbenzene	ND	---	0.0333	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Xylenes, total	ND	---	0.100	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Naphthalene	ND	---	0.133	mg/kg dry	50	12/20/21 18:46	5035A/8260D	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B7 (A1L0510-07)			Matrix: Soil		Batch: 21L0742			
1,2-Dibromoethane (EDB)	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0333	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
Isopropylbenzene	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0667	mg/kg dry	50	12/20/21 18:46	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/20/21 18:46</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/20/21 18:46</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>1</i>	<i>12/20/21 18:46</i>	<i>5035A/8260D</i>
B8 (A1L0510-08)			Matrix: Soil		Batch: 21L0742			
Benzene	ND	---	0.00907	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Toluene	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Ethylbenzene	ND	---	0.0227	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Xylenes, total	ND	---	0.0680	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Naphthalene	ND	---	0.0907	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0227	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
Isopropylbenzene	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0453	mg/kg dry	50	12/20/21 19:13	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/20/21 19:13</i>	<i>5035A/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>1</i>	<i>12/20/21 19:13</i>	<i>5035A/8260D</i>
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>		<i>1</i>	<i>12/20/21 19:13</i>	<i>5035A/8260D</i>
B9 (A1L0510-09)			Matrix: Soil		Batch: 21L0742			
Benzene	ND	---	0.00991	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
Toluene	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
Ethylbenzene	ND	---	0.0248	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
Xylenes, total	ND	---	0.0744	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
Naphthalene	ND	---	0.0991	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0248	mg/kg dry	50	12/20/21 19:40	5035A/8260D	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B9 (A1L0510-09)			Matrix: Soil			Batch: 21L0742		
Isopropylbenzene	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0496	mg/kg dry	50	12/20/21 19:40	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 100 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 19:40</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 19:40</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 19:40</i>	<i>5035A/8260D</i>	
Dup (A1L0510-10)			Matrix: Soil			Batch: 21L0742		
Benzene	ND	---	0.0113	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Toluene	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Ethylbenzene	ND	---	0.0283	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Xylenes, total	ND	---	0.0849	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Naphthalene	ND	---	0.113	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	---	0.0283	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
Isopropylbenzene	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
1,2,4-Trimethylbenzene	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
1,3,5-Trimethylbenzene	ND	---	0.0566	mg/kg dry	50	12/20/21 20:07	5035A/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 101 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/20/21 20:07</i>	<i>5035A/8260D</i>	
<i>Toluene-d8 (Surr)</i>			<i>100 %</i>	<i>80-120 %</i>	<i>1</i>	<i>12/20/21 20:07</i>	<i>5035A/8260D</i>	
<i>4-Bromofluorobenzene (Surr)</i>			<i>99 %</i>	<i>79-120 %</i>	<i>1</i>	<i>12/20/21 20:07</i>	<i>5035A/8260D</i>	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1 (A1L0510-01)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Chrysene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Fluorene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Naphthalene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Phenanthrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
Pyrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:39	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 17:39</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>100 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 17:39</i>	<i>EPA 8270E SIM</i>

B2 (A1L0510-02)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Anthracene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0132	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	R-02
Benzo(a)pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Chrysene	ND	---	0.0132	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	R-02
Dibenz(a,h)anthracene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Fluorene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B2 (A1L0510-02)				Matrix: Soil		Batch: 21L0731		
Naphthalene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Phenanthrene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
Pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 18:04	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 18:04</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>96 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 18:04</i>	<i>EPA 8270E SIM</i>
B3 (A1L0510-03)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Anthracene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Chrysene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Fluoranthene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Fluorene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Naphthalene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Phenanthrene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
Pyrene	ND	---	0.0111	mg/kg dry	1	12/20/21 18:29	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 18:29</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>97 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 18:29</i>	<i>EPA 8270E SIM</i>
B4 (A1L0510-04)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Anthracene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B4 (A1L0510-04)				Matrix: Soil		Batch: 21L0731		
Benzo(g,h,i)perylene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Chrysene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Fluoranthene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Fluorene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Naphthalene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Phenanthrene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
Pyrene	ND	---	0.0119	mg/kg dry	1	12/20/21 18:54	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>			<i>Recovery: 85 %</i>	<i>Limits: 44-120 %</i>	<i>1</i>	<i>12/20/21 18:54</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>			<i>91 %</i>	<i>54-127 %</i>	<i>1</i>	<i>12/20/21 18:54</i>	<i>EPA 8270E SIM</i>	
B5 (A1L0510-05)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Chrysene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Fluorene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Naphthalene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Phenanthrene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
Pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 19:19	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>			<i>Recovery: 94 %</i>	<i>Limits: 44-120 %</i>	<i>1</i>	<i>12/20/21 19:19</i>	<i>EPA 8270E SIM</i>	
<i>p-Terphenyl-d14 (Surr)</i>			<i>99 %</i>	<i>54-127 %</i>	<i>1</i>	<i>12/20/21 19:19</i>	<i>EPA 8270E SIM</i>	
B6 (A1L0510-06)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B6 (A1L0510-06)				Matrix: Soil		Batch: 21L0731		
Acenaphthylene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Anthracene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Chrysene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Fluoranthene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Fluorene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Naphthalene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Phenanthrene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
Pyrene	ND	---	0.0102	mg/kg dry	1	12/20/21 19:44	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 86 %</i>		<i>Limits: 44-120 %</i>		<i>1 12/20/21 19:44 EPA 8270E SIM</i>		
<i>p-Terphenyl-d14 (Surr)</i>		<i>94 %</i>		<i>54-127 %</i>		<i>1 12/20/21 19:44 EPA 8270E SIM</i>		

B7 (A1L0510-07RE1)				Matrix: Soil		Batch: 21L0731		
Acenaphthene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Benzo(a)pyrene	0.0178	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Benzo(b)fluoranthene	0.0204	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Benzo(g,h,i)perylene	0.0198	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Chrysene	0.0424	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Fluorene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Naphthalene	ND	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B7 (A1L0510-07RE1)			Matrix: Soil		Batch: 21L0731			
Phenanthrene	0.0725	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
Pyrene	0.0277	---	0.0115	mg/kg dry	1	12/20/21 20:34	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 20:34</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>98 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 20:34</i>	<i>EPA 8270E SIM</i>

B8 (A1L0510-08RE1)			Matrix: Soil		Batch: 21L0731			
Acenaphthene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Chrysene	0.0247	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Fluoranthene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Fluorene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Naphthalene	ND	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Phenanthrene	0.0417	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
Pyrene	0.0179	---	0.0115	mg/kg dry	1	12/20/21 21:00	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 21:00</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>102 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 21:00</i>	<i>EPA 8270E SIM</i>

B9 (A1L0510-09)			Matrix: Soil		Batch: 21L0731			
Acenaphthene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Anthracene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B9 (A1L0510-09)			Matrix: Soil			Batch: 21L0731		
Chrysene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Dibenz(a,h)anthracene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Fluoranthene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Fluorene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Naphthalene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Phenanthrene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
Pyrene	ND	---	0.0110	mg/kg dry	1	12/20/21 20:09	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 20:09</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>104 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 20:09</i>	<i>EPA 8270E SIM</i>
Dup (A1L0510-10)			Matrix: Soil			Batch: 21L0731		
Acenaphthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Acenaphthylene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Benz(a)anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Benzo(a)pyrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Benzo(b)fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Benzo(k)fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Benzo(g,h,i)perylene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Chrysene	0.0193	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	M-05
Dibenz(a,h)anthracene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Fluoranthene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Fluorene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Indeno(1,2,3-cd)pyrene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Naphthalene	ND	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Phenanthrene	0.0350	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
Pyrene	0.0142	---	0.0109	mg/kg dry	1	12/20/21 17:14	EPA 8270E SIM	
<i>Surrogate: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 89 %</i>		<i>Limits: 44-120 %</i>		<i>1</i>	<i>12/20/21 17:14</i>	<i>EPA 8270E SIM</i>
<i>p-Terphenyl-d14 (Surr)</i>		<i>94 %</i>		<i>54-127 %</i>		<i>1</i>	<i>12/20/21 17:14</i>	<i>EPA 8270E SIM</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-GW (A1L0510-11)				Matrix: Water		Batch: 21L0557		
Acenaphthene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Anthracene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Chrysene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Fluoranthene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Fluorene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0193	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0774	ug/L	1	12/21/21 20:02	EPA 8270E LVI	Q-30
2-Methylnaphthalene	ND	---	0.0774	ug/L	1	12/21/21 20:02	EPA 8270E LVI	Q-30
Naphthalene	ND	---	0.0774	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Phenanthrene	ND	---	0.0774	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Pyrene	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Carbazole	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0387	ug/L	1	12/21/21 20:02	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/21/21 20:02</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>113 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/21/21 20:02</i>	<i>EPA 8270E LVI</i>

B2-GW (A1L0510-12)				Matrix: Water		Batch: 21L0607		
Acenaphthene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Anthracene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Chrysene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B2-GW (A1L0510-12)			Matrix: Water			Batch: 21L0607		
Dibenz(a,h)anthracene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Fluoranthene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Fluorene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0217	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0869	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0869	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Naphthalene	ND	---	0.0869	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Phenanthrene	ND	---	0.0869	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Pyrene	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Carbazole	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0435	ug/L	1	12/22/21 10:40	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 10:40</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>117 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 10:40</i>	<i>EPA 8270E LVI</i>

B3-GW (A1L0510-13)			Matrix: Water			Batch: 21L0607		
Acenaphthene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Anthracene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Chrysene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Fluoranthene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Fluorene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0196	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0782	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0782	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Naphthalene	ND	---	0.0782	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Phenanthrene	ND	---	0.0782	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Pyrene	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B3-GW (A1L0510-13)			Matrix: Water			Batch: 21L0607		
Carbazole	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0391	ug/L	1	12/22/21 11:13	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 11:13</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>117 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 11:13</i>	<i>EPA 8270E LVI</i>
B4-GW (A1L0510-14)			Matrix: Water			Batch: 21L0607		
Acenaphthene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Anthracene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Chrysene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Fluoranthene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Fluorene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0190	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0759	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0759	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Naphthalene	ND	---	0.0759	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Phenanthrene	ND	---	0.0759	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Pyrene	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Carbazole	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0380	ug/L	1	12/22/21 11:46	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 11:46</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>116 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 11:46</i>	<i>EPA 8270E LVI</i>
B5-GW (A1L0510-15)			Matrix: Water			Batch: 21L0607		
Acenaphthene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Anthracene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B5-GW (A1L0510-15)			Matrix: Water			Batch: 21L0607		
Benzo(a)pyrene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Chrysene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Fluoranthene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Fluorene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0207	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0830	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0830	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Naphthalene	ND	---	0.0830	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Phenanthrene	ND	---	0.0830	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Pyrene	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Carbazole	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0415	ug/L	1	12/22/21 12:18	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>			<i>Recovery: 98 %</i>	<i>Limits: 80-120 %</i>	<i>1</i>	<i>12/22/21 12:18</i>	<i>EPA 8270E LVI</i>	
<i>Benzo(a)pyrene-d12 (Surr)</i>			<i>113 %</i>	<i>76-139 %</i>	<i>1</i>	<i>12/22/21 12:18</i>	<i>EPA 8270E LVI</i>	

B6-GW (A1L0510-16)			Matrix: Water			Batch: 21L0607		
Acenaphthene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Anthracene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Chrysene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Fluoranthene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Fluorene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0209	ug/L	1	12/22/21 12:51	EPA 8270E LVI	

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B6-GW (A1L0510-16)			Matrix: Water			Batch: 21L0607		
1-Methylnaphthalene	ND	---	0.0835	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0835	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Naphthalene	ND	---	0.0835	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Phenanthrene	ND	---	0.0835	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Pyrene	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Carbazole	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0417	ug/L	1	12/22/21 12:51	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 12:51</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>113 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 12:51</i>	<i>EPA 8270E LVI</i>

B8-GW (A1L0510-18)			Matrix: Water			Batch: 21L0607		
Acenaphthene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Anthracene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Chrysene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Fluoranthene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Fluorene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0224	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0896	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
2-Methylnaphthalene	ND	---	0.0896	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Naphthalene	0.126	---	0.0896	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Phenanthrene	ND	---	0.0896	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Pyrene	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Carbazole	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0448	ug/L	1	12/22/21 13:24	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 13:24</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>138 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 13:24</i>	<i>EPA 8270E LVI</i>

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ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B9-GW (A1L0510-19)				Matrix: Water		Batch: 21L0607		
Acenaphthene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Anthracene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Chrysene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Fluoranthene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Fluorene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0194	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0774	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
2-Methylnaphthalene	0.0949	---	0.0774	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Naphthalene	0.0828	---	0.0774	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Phenanthrene	ND	---	0.0774	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Pyrene	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Carbazole	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0387	ug/L	1	12/22/21 13:57	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/22/21 13:57</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>118 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/22/21 13:57</i>	<i>EPA 8270E LVI</i>

Dup (A1L0510-20)				Matrix: Water		Batch: 21L0557		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Acenaphthene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Anthracene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Chrysene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Dup (A1L0510-20)			Matrix: Water			Batch: 21L0557		
Dibenz(a,h)anthracene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Fluoranthene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Fluorene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0213	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0850	ug/L	1	12/21/21 20:34	EPA 8270E LVI	Q-30
2-Methylnaphthalene	ND	---	0.0850	ug/L	1	12/21/21 20:34	EPA 8270E LVI	Q-30
Naphthalene	ND	---	0.0850	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Phenanthrene	ND	---	0.0850	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Pyrene	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Carbazole	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0425	ug/L	1	12/21/21 20:34	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/21/21 20:34</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>112 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/21/21 20:34</i>	<i>EPA 8270E LVI</i>

R (A1L0510-21)			Matrix: Water			Batch: 21L0557		
Acenaphthene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Acenaphthylene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Anthracene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Benz(a)anthracene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Benzo(a)pyrene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Chrysene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Fluoranthene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Fluorene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	---	0.0159	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
1-Methylnaphthalene	ND	---	0.0637	ug/L	1	12/21/21 21:07	EPA 8270E LVI	Q-30
2-Methylnaphthalene	ND	---	0.0637	ug/L	1	12/21/21 21:07	EPA 8270E LVI	Q-30
Naphthalene	ND	---	0.0637	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Phenanthrene	ND	---	0.0637	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Pyrene	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	

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ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
R (A1L0510-21)			Matrix: Water			Batch: 21L0557		
Carbazole	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
Dibenzofuran	ND	---	0.0319	ug/L	1	12/21/21 21:07	EPA 8270E LVI	
<i>Surrogate: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>12/21/21 21:07</i>	<i>EPA 8270E LVI</i>
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>107 %</i>		<i>76-139 %</i>		<i>1</i>	<i>12/21/21 21:07</i>	<i>EPA 8270E LVI</i>

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1 (A1L0510-01)				Matrix: Soil				
Batch: 21L0898								
Lead	2.13	---	0.247	mg/kg dry	10	12/29/21 17:44	EPA 6020B	
B2 (A1L0510-02)				Matrix: Soil				
Batch: 21L0898								
Lead	2.83	---	0.239	mg/kg dry	10	12/29/21 17:49	EPA 6020B	
B3 (A1L0510-03)				Matrix: Soil				
Batch: 21L0898								
Lead	2.69	---	0.234	mg/kg dry	10	12/29/21 17:54	EPA 6020B	
B4 (A1L0510-04)				Matrix: Soil				
Batch: 21L0898								
Lead	2.27	---	0.245	mg/kg dry	10	12/29/21 17:59	EPA 6020B	
B5 (A1L0510-05)				Matrix: Soil				
Batch: 21L0898								
Lead	2.49	---	0.236	mg/kg dry	10	12/29/21 18:04	EPA 6020B	
B6 (A1L0510-06)				Matrix: Soil				
Batch: 21L0898								
Lead	3.10	---	0.231	mg/kg dry	10	12/29/21 18:09	EPA 6020B	
B7 (A1L0510-07)				Matrix: Soil				
Batch: 21L0991								
Lead	2.62	---	0.243	mg/kg dry	10	12/30/21 02:58	EPA 6020B	
B8 (A1L0510-08)				Matrix: Soil				
Batch: 21L0991								
Lead	3.39	---	0.241	mg/kg dry	10	12/30/21 03:22	EPA 6020B	
B9 (A1L0510-09)				Matrix: Soil				
Batch: 21L0991								
Lead	3.12	---	0.226	mg/kg dry	10	12/30/21 03:27	EPA 6020B	
Dup (A1L0510-10)				Matrix: Soil				
Batch: 21L0898								

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
Dup (A1L0510-10)				Matrix: Soil					
Lead	3.51	---	0.240	mg/kg dry	10	12/29/21 18:13	EPA 6020B		
B1-GW (A1L0510-11)				Matrix: Water					
Batch: 21L0743									
Lead	5.05	---	0.200	ug/L	1	12/22/21 22:05	EPA 6020B		
B2-GW (A1L0510-12)				Matrix: Water					
Batch: 21L0743									
Lead	0.964	---	0.200	ug/L	1	12/22/21 22:23	EPA 6020B		
B3-GW (A1L0510-13)				Matrix: Water					
Batch: 21L0743									
Lead	2.10	---	0.200	ug/L	1	12/22/21 22:29	EPA 6020B		
B4-GW (A1L0510-14)				Matrix: Water					
Batch: 21L0743									
Lead	1.78	---	0.200	ug/L	1	12/22/21 22:35	EPA 6020B		
B5-GW (A1L0510-15)				Matrix: Water					
Batch: 21L0743									
Lead	0.660	---	0.200	ug/L	1	12/22/21 22:40	EPA 6020B		
B6-GW (A1L0510-16)				Matrix: Water					
Batch: 21L0743									
Lead	2.69	---	0.200	ug/L	1	12/22/21 22:46	EPA 6020B		
B8-GW (A1L0510-18)				Matrix: Water					
Batch: 21L0743									
Lead	10.1	---	0.200	ug/L	1	12/22/21 22:52	EPA 6020B		
B9-GW (A1L0510-19)				Matrix: Water					
Batch: 21L0743									
Lead	0.813	---	0.200	ug/L	1	12/22/21 22:58	EPA 6020B		
Dup (A1L0510-20)				Matrix: Water					
Batch: 21L0743									

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
Dup (A1L0510-20)				Matrix: Water					
Lead	4.66	---	0.200	ug/L	1	12/22/21 23:04	EPA 6020B		
R (A1L0510-21)				Matrix: Water					
Batch: 21L0743									
Lead	ND	---	0.200	ug/L	1	12/22/21 23:09	EPA 6020B		

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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B1-GW (A1L0510-11)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 02:48	EPA 6020B (Diss)	
B2-GW (A1L0510-12)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 02:51	EPA 6020B (Diss)	
B3-GW (A1L0510-13)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 02:54	EPA 6020B (Diss)	
B4-GW (A1L0510-14)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 02:56	EPA 6020B (Diss)	
B5-GW (A1L0510-15)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 02:59	EPA 6020B (Diss)	
B6-GW (A1L0510-16)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 03:02	EPA 6020B (Diss)	
B8-GW (A1L0510-18)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 03:05	EPA 6020B (Diss)	
B9-GW (A1L0510-19)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 03:08	EPA 6020B (Diss)	
Dup (A1L0510-20)				Matrix: Water				
Batch: 21L0587								
Lead	ND	---	0.200	ug/L	1	12/16/21 03:10	EPA 6020B (Diss)	
R (A1L0510-21)				Matrix: Water				
Batch: 21L0587								

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ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
R (A1L0510-21)				Matrix: Water					
Lead	ND	---	0.200	ug/L	1	12/16/21 03:13	EPA 6020B (Diss)		

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight									
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
B1 (A1L0510-01)				Matrix: Soil		Batch: 21L0580			
% Solids	85.6	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B2 (A1L0510-02)				Matrix: Soil		Batch: 21L0580			
% Solids	87.0	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B3 (A1L0510-03)				Matrix: Soil		Batch: 21L0580			
% Solids	87.6	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B4 (A1L0510-04)				Matrix: Soil		Batch: 21L0580			
% Solids	82.2	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B5 (A1L0510-05)				Matrix: Soil		Batch: 21L0580			
% Solids	81.5	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B6 (A1L0510-06)				Matrix: Soil		Batch: 21L0580			
% Solids	90.4	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B7 (A1L0510-07)				Matrix: Soil		Batch: 21L0580			
% Solids	81.6	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B8 (A1L0510-08)				Matrix: Soil		Batch: 21L0580			
% Solids	83.4	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
B9 (A1L0510-09)				Matrix: Soil		Batch: 21L0580			
% Solids	89.4	---	1.00	%	1	12/16/21 08:12	EPA 8000D		
Dup (A1L0510-10)				Matrix: Soil		Batch: 21L0580			
% Solids	86.9	---	1.00	%	1	12/16/21 08:12	EPA 8000D		

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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 21L0762 - EPA 3546 (Fuels)						Soil						
Blank (21L0762-BLK1)			Prepared: 12/20/21 13:27 Analyzed: 12/20/21 20:53									
<u>NWTPH-Dx</u>												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21L0762-BS1)			Prepared: 12/20/21 13:27 Analyzed: 12/20/21 21:14									
<u>NWTPH-Dx</u>												
Diesel	116	---	25.0	mg/kg wet	1	125	---	93	38-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 87 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21L0762-DUP1)			Prepared: 12/20/21 13:27 Analyzed: 12/20/21 21:57									
<u>QC Source Sample: Non-SDG (A1L0318-09)</u>												
Diesel	ND	---	26.4	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	ND	---	52.8	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 61 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (21L0762-DUP2)			Prepared: 12/20/21 13:27 Analyzed: 12/21/21 06:07									
<u>QC Source Sample: Non-SDG (A1L0720-01)</u>												
Diesel	ND	---	25.0	mg/kg dry	1	---	12.9	---	---	***	30%	
Oil	ND	---	50.0	mg/kg dry	1	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 74 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Batch 21L0772 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (21L0772-BLK1)			Prepared: 12/20/21 15:24 Analyzed: 12/20/21 22:20									
<u>NWTPH-Dx LL</u>												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 85 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21L0772-BS1)			Prepared: 12/20/21 15:24 Analyzed: 12/20/21 22:40									
<u>NWTPH-Dx LL</u>												
Diesel	444	---	80.0	ug/L	1	500	---	89	36-132%	---	---	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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 21L0772 - EPA 3510C (Fuels/Acid Ext.)						Water						
LCS (21L0772-BS1)						Prepared: 12/20/21 15:24 Analyzed: 12/20/21 22:40						
<i>Surr: o-Terphenyl (Surr)</i>						<i>Recovery: 88 % Limits: 50-150 % Dilution: 1x</i>						
LCS Dup (21L0772-BS1)						Prepared: 12/20/21 15:24 Analyzed: 12/20/21 23:00						
<u>NWTPH-Dx LL</u>												
Diesel	430	---	80.0	ug/L	1	500	---	86	36-132%	3	30%	
<i>Surr: o-Terphenyl (Surr)</i>						<i>Recovery: 90 % Limits: 50-150 % Dilution: 1x</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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 21L0827 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (21L0827-BLK1)						Prepared: 12/21/21 14:08 Analyzed: 12/21/21 19:41						
<u>NWTPH-Dx LL</u>												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 88 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21L0827-BS1)						Prepared: 12/21/21 14:08 Analyzed: 12/21/21 20:01						
<u>NWTPH-Dx LL</u>												
Diesel	337	---	80.0	ug/L	1	500	---	67	36-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 82 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS Dup (21L0827-BS1)						Prepared: 12/21/21 14:08 Analyzed: 12/21/21 20:21						
<u>NWTPH-Dx LL</u>												
Diesel	418	---	80.0	ug/L	1	500	---	84	36-132%	21	30%	Q-19
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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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 21L0853 - EPA 3510C (Fuels/Acid Ext.)						Water						
Blank (21L0853-BLK1)			Prepared: 12/22/21 10:43 Analyzed: 12/22/21 22:10									
<u>NWTPH-Dx LL</u>												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	ug/L	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 80 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (21L0853-BS1)			Prepared: 12/22/21 10:43 Analyzed: 12/22/21 22:32									
<u>NWTPH-Dx LL</u>												
Diesel	460	---	80.0	ug/L	1	500	---	92	36-132%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS Dup (21L0853-BSD1)			Prepared: 12/22/21 10:43 Analyzed: 12/22/21 22:53									
<u>NWTPH-Dx LL</u>												
Diesel	410	---	80.0	ug/L	1	500	---	82	36-132%	11	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 91 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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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 21L0520 - EPA 5030B						Water						
Blank (21L0520-BLK1)			Prepared: 12/14/21 07:30 Analyzed: 12/14/21 10:32									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>115 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21L0520-BS2)			Prepared: 12/14/21 07:30 Analyzed: 12/14/21 10:04									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	518	---	100	ug/L	1	500	---	104	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 97 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>109 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0520-DUP1)			Prepared: 12/14/21 09:44 Analyzed: 12/14/21 11:26									
<u>QC Source Sample: Non-SDG (A1L0393-02)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	56.9	---	---	***	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>117 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0520-DUP2)			Prepared: 12/14/21 13:15 Analyzed: 12/14/21 17:47									
<u>QC Source Sample: B3-GW (A1L0510-13)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 101 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>118 %</i>		<i>50-150 %</i>		<i>"</i>						

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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 21L0742 - EPA 5035A						Soil						
Blank (21L0742-BLK1)			Prepared: 12/20/21 09:00 Analyzed: 12/20/21 11:07									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 104 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>95 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21L0742-BS2)			Prepared: 12/20/21 09:00 Analyzed: 12/20/21 10:40									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	26.6	---	5.00	mg/kg wet	50	25.0	---	106	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0742-DUP1)			Prepared: 12/07/21 13:30 Analyzed: 12/20/21 15:37									
<u>QC Source Sample: B1 (A1L0510-01)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	7.42	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 110 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0742-DUP2)			Prepared: 12/07/21 14:30 Analyzed: 12/20/21 16:31									
<u>QC Source Sample: B2 (A1L0510-02)</u>												
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	5.81	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 107 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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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 21L0795 - EPA 5035A						Soil						
Blank (21L0795-BLK1)			Prepared: 12/21/21 09:00 Analyzed: 12/21/21 11:29									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>98 %</i>		<i>50-150 %</i>		<i>"</i>						
LCS (21L0795-BS2)			Prepared: 12/21/21 09:00 Analyzed: 12/21/21 11:02									
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	24.5	---	5.00	mg/kg wet	50	25.0	---	98	80-120%	---	---	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 108 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>100 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0795-DUP1)			Prepared: 12/09/21 11:00 Analyzed: 12/21/21 17:47									
<u>QC Source Sample: Non-SDG (A1L0412-03)</u>												
Gasoline Range Organics	ND	---	8.04	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 115 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>97 %</i>		<i>50-150 %</i>		<i>"</i>						
Duplicate (21L0795-DUP2)			Prepared: 12/08/21 14:00 Analyzed: 12/21/21 20:29									
<u>QC Source Sample: Non-SDG (A1L0511-04)</u>												
Gasoline Range Organics	ND	---	6.11	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 112 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
<i>1,4-Difluorobenzene (Sur)</i>		<i>96 %</i>		<i>50-150 %</i>		<i>"</i>						

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12208 Antioch Road	Project Number: [none]	Report ID:
White City, OR 97503	Project Manager: Jonathan Williams	A1L0510 - 01 09 22 0723

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21L0520 - EPA 5030B						Water						
Blank (21L0520-BLK1)			Prepared: 12/14/21 07:30 Analyzed: 12/14/21 10:32									
<u>EPA 8260D</u>												
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	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	ug/L	1	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Isopropylbenzene	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	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>107 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						

LCS (21L0520-BS1)			Prepared: 12/14/21 07:30 Analyzed: 12/14/21 09:33									
<u>EPA 8260D</u>												
Benzene	21.2	---	0.200	ug/L	1	20.0	---	106	80-120%	---	---	
Toluene	19.6	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Ethylbenzene	21.7	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Xylenes, total	62.3	---	1.50	ug/L	1	60.0	---	104	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.7	---	1.00	ug/L	1	20.0	---	98	80-120%	---	---	
Naphthalene	18.4	---	2.00	ug/L	1	20.0	---	92	80-120%	---	---	
1,2-Dibromoethane (EDB)	21.6	---	0.500	ug/L	1	20.0	---	108	80-120%	---	---	
1,2-Dichloroethane (EDC)	21.9	---	0.500	ug/L	1	20.0	---	109	80-120%	---	---	
Isopropylbenzene	20.3	---	1.00	ug/L	1	20.0	---	101	80-120%	---	---	
1,2,4-Trimethylbenzene	21.5	---	1.00	ug/L	1	20.0	---	107	80-120%	---	---	
1,3,5-Trimethylbenzene	21.7	---	1.00	ug/L	1	20.0	---	108	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>91 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (21L0520-DUP1)			Prepared: 12/14/21 09:44 Analyzed: 12/14/21 11:26									
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21L0520 - EPA 5030B												
Water												
Duplicate (21L0520-DUP1)			Prepared: 12/14/21 09:44 Analyzed: 12/14/21 11:26									
QC Source Sample: Non-SDG (A1L0393-02)												
Benzene	0.210	---	0.200	ug/L	1	---	0.190	---	---	10	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	0.500	---	0.500	ug/L	1	---	0.480	---	---	4	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 106 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>104 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						

Duplicate (21L0520-DUP2)			Prepared: 12/14/21 13:15 Analyzed: 12/14/21 17:47									
QC Source Sample: B3-GW (A1L0510-13)												
EPA 8260D												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	4.57	---	1.00	ug/L	1	---	4.57	---	---	0	30%	
Naphthalene	ND	---	2.00	ug/L	1	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	ug/L	1	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 105 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>106 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected 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 21L0520 - EPA 5030B						Water						
Matrix Spike (21L0520-MS1)			Prepared: 12/14/21 09:44 Analyzed: 12/14/21 15:04									
QC Source Sample: Non-SDG (A1L0393-07)												
EPA 8260D												
Benzene	316	---	2.00	ug/L	10	200	79.3	118	79-120%	---	---	
Toluene	230	---	10.0	ug/L	10	200	14.4	108	80-121%	---	---	
Ethylbenzene	622	---	5.00	ug/L	10	200	379	122	79-121%	---	---	Q-01
Xylenes, total	2010	---	15.0	ug/L	10	600	1310	117	79-121%	---	---	
Methyl tert-butyl ether (MTBE)	212	---	10.0	ug/L	10	200	ND	106	71-124%	---	---	
Naphthalene	479	---	20.0	ug/L	10	200	206	136	61-128%	---	---	Q-01
1,2-Dibromoethane (EDB)	230	---	5.00	ug/L	10	200	ND	115	77-121%	---	---	
1,2-Dichloroethane (EDC)	228	---	5.00	ug/L	10	200	ND	114	73-128%	---	---	
Isopropylbenzene	228	---	10.0	ug/L	10	200	7.10	111	72-131%	---	---	
1,2,4-Trimethylbenzene	800	---	10.0	ug/L	10	200	561	119	76-124%	---	---	
1,3,5-Trimethylbenzene	377	---	10.0	ug/L	10	200	145	116	75-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>90 %</i>		<i>80-120 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants	Project: Grange Co-Op Property	
12208 Antioch Road	Project Number: [none]	Report ID:
White City, OR 97503	Project Manager: Jonathan Williams	A1L0510 - 01 09 22 0723

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0742 - EPA 5035A						Soil						
Blank (21L0742-BLK1)			Prepared: 12/20/21 09:00 Analyzed: 12/20/21 11:07									
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (21L0742-BS1)						Prepared: 12/20/21 09:00 Analyzed: 12/20/21 10:13						
<u>5035A/8260D</u>												
Benzene	1.05	---	0.0100	mg/kg wet	50	1.00	---	105	80-120%	---	---	
Toluene	1.06	---	0.0500	mg/kg wet	50	1.00	---	106	80-120%	---	---	
Ethylbenzene	1.04	---	0.0250	mg/kg wet	50	1.00	---	104	80-120%	---	---	
Xylenes, total	3.29	---	0.0750	mg/kg wet	50	3.00	---	110	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.12	---	0.0500	mg/kg wet	50	1.00	---	112	80-120%	---	---	
Naphthalene	1.07	---	0.100	mg/kg wet	50	1.00	---	107	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.18	---	0.0500	mg/kg wet	50	1.00	---	118	80-120%	---	---	
1,2-Dichloroethane (EDC)	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Isopropylbenzene	1.24	---	0.0500	mg/kg wet	50	1.00	---	124	80-120%	---	---	Q-56
1,2,4-Trimethylbenzene	1.15	---	0.0500	mg/kg wet	50	1.00	---	115	80-120%	---	---	
1,3,5-Trimethylbenzene	1.12	---	0.0500	mg/kg wet	50	1.00	---	112	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (21L0742-DUP1)						Prepared: 12/07/21 13:30 Analyzed: 12/20/21 15:37						

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ANALYTICAL REPORT

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0742 - EPA 5035A						Soil						
Duplicate (21L0742-DUP1)			Prepared: 12/07/21 13:30 Analyzed: 12/20/21 15:37									
QC Source Sample: B1 (A1L0510-01)												
5035A/8260D												
Benzene	ND	---	0.0148	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0371	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.111	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.148	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0371	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0742	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21L0742-DUP2)			Prepared: 12/07/21 14:30 Analyzed: 12/20/21 16:31									
QC Source Sample: B2 (A1L0510-02)												
5035A/8260D												
Benzene	ND	---	0.0116	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0291	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0872	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.116	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0291	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0581	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0742 - EPA 5035A						Soil						
Duplicate (21L0742-DUP2)						Prepared: 12/07/21 14:30 Analyzed: 12/20/21 16:31						
QC Source Sample: B2 (A1L0510-02)												
<i>Surr: 4-Bromofluorobenzene (Surr)</i>			<i>Recovery: 102 %</i>			<i>Limits: 79-120 %</i>			<i>Dilution: 1x</i>			
Matrix Spike (21L0742-MS1)						Prepared: 12/07/21 16:45 Analyzed: 12/20/21 20:34						
QC Source Sample: Dup (A1L0510-10)												
Benzene	1.17	---	0.0113	mg/kg dry	50	1.13	ND	103	77-121%	---	---	
Toluene	1.14	---	0.0566	mg/kg dry	50	1.13	ND	101	77-121%	---	---	
Ethylbenzene	1.14	---	0.0283	mg/kg dry	50	1.13	ND	101	76-122%	---	---	
Xylenes, total	3.54	---	0.0849	mg/kg dry	50	3.39	ND	104	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1.19	---	0.0566	mg/kg dry	50	1.13	ND	105	73-125%	---	---	
Naphthalene	1.20	---	0.113	mg/kg dry	50	1.13	ND	106	62-129%	---	---	
1,2-Dibromoethane (EDB)	1.27	---	0.0566	mg/kg dry	50	1.13	ND	112	78-122%	---	---	
1,2-Dichloroethane (EDC)	1.13	---	0.0283	mg/kg dry	50	1.13	ND	100	73-128%	---	---	
Isopropylbenzene	1.31	---	0.0566	mg/kg dry	50	1.13	ND	116	68-134%	---	---	Q-54
1,2,4-Trimethylbenzene	1.24	---	0.0566	mg/kg dry	50	1.13	ND	110	75-123%	---	---	
1,3,5-Trimethylbenzene	1.21	---	0.0566	mg/kg dry	50	1.13	ND	107	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>			<i>Recovery: 99 %</i>			<i>Limits: 80-120 %</i>			<i>Dilution: 1x</i>			
<i>Toluene-d8 (Surr)</i>			<i>102 %</i>			<i>80-120 %</i>			<i>"</i>			
<i>4-Bromofluorobenzene (Surr)</i>			<i>101 %</i>			<i>79-120 %</i>			<i>"</i>			

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0795 - EPA 5035A						Soil						
Blank (21L0795-BLK1)			Prepared: 12/21/21 09:00 Analyzed: 12/21/21 11:29									
<u>5035A/8260D</u>												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.0667	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	0.0333	mg/kg wet	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (21L0795-BS1)						Prepared: 12/21/21 09:00 Analyzed: 12/21/21 10:35						
<u>5035A/8260D</u>												
Benzene	0.994	---	0.0100	mg/kg wet	50	1.00	---	99	80-120%	---	---	
Toluene	0.966	---	0.0500	mg/kg wet	50	1.00	---	97	80-120%	---	---	
Ethylbenzene	0.954	---	0.0250	mg/kg wet	50	1.00	---	95	80-120%	---	---	
Xylenes, total	2.96	---	0.0750	mg/kg wet	50	3.00	---	99	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
Naphthalene	0.974	---	0.100	mg/kg wet	50	1.00	---	97	80-120%	---	---	
1,2-Dibromoethane (EDB)	1.07	---	0.0500	mg/kg wet	50	1.00	---	107	80-120%	---	---	
1,2-Dichloroethane (EDC)	0.977	---	0.0250	mg/kg wet	50	1.00	---	98	80-120%	---	---	
Isopropylbenzene	1.10	---	0.0500	mg/kg wet	50	1.00	---	110	80-120%	---	---	
1,2,4-Trimethylbenzene	1.05	---	0.0500	mg/kg wet	50	1.00	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>103 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>101 %</i>		<i>79-120 %</i>		<i>"</i>						
Duplicate (21L0795-DUP1)						Prepared: 12/09/21 11:00 Analyzed: 12/21/21 17:47						

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0795 - EPA 5035A						Soil						
Duplicate (21L0795-DUP1)			Prepared: 12/09/21 11:00 Analyzed: 12/21/21 17:47									
QC Source Sample: Non-SDG (A1L0412-03)												
Benzene	ND	---	0.0161	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	0.225	---	0.0804	mg/kg dry	50	---	0.234	---	---	4	30%	
Ethylbenzene	ND	---	0.0402	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.121	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0804	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.161	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0804	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0402	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0804	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0804	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0804	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (21L0795-DUP2)			Prepared: 12/08/21 14:00 Analyzed: 12/21/21 20:29									
QC Source Sample: Non-SDG (A1L0511-04)												
Benzene	ND	---	0.0122	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0305	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0916	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.122	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.0305	mg/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	0.0611	mg/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>99 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>102 %</i>		<i>79-120 %</i>		<i>"</i>						

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0795 - EPA 5035A						Soil						
Matrix Spike (21L0795-MS1)						Prepared: 12/20/21 17:46 Analyzed: 12/21/21 16:26						V-15
QC Source Sample: Non-SDG (A1L0776-02)												
5035A/8260D												
Benzene	1.26	---	0.0119	mg/kg dry	50	1.19	ND	106	77-121%	---	---	
Toluene	1.21	---	0.0593	mg/kg dry	50	1.19	ND	102	77-121%	---	---	
Ethylbenzene	1.22	---	0.0296	mg/kg dry	50	1.19	ND	103	76-122%	---	---	
Xylenes, total	3.83	---	0.0889	mg/kg dry	50	3.56	ND	108	78-124%	---	---	
Methyl tert-butyl ether (MTBE)	1.28	---	0.0593	mg/kg dry	50	1.19	ND	108	73-125%	---	---	
Naphthalene	1.29	---	0.119	mg/kg dry	50	1.19	ND	108	62-129%	---	---	
1,2-Dibromoethane (EDB)	1.34	---	0.0593	mg/kg dry	50	1.19	ND	113	78-122%	---	---	
1,2-Dichloroethane (EDC)	1.21	---	0.0296	mg/kg dry	50	1.19	ND	102	73-128%	---	---	
Isopropylbenzene	1.41	---	0.0593	mg/kg dry	50	1.19	ND	118	68-134%	---	---	
1,2,4-Trimethylbenzene	1.37	---	0.0593	mg/kg dry	50	1.19	ND	115	75-123%	---	---	
1,3,5-Trimethylbenzene	1.32	---	0.0593	mg/kg dry	50	1.19	ND	111	73-124%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>100 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>103 %</i>		<i>79-120 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0731 - EPA 3546						Soil						
Blank (21L0731-BLK2)			Prepared: 12/20/21 07:26 Analyzed: 12/20/21 13:52									
<u>EPA 8270E SIM</u>												
Acenaphthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00250	mg/kg wet	1	---	---	---	---	---	---	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>111 %</i>		<i>54-127 %</i>		<i>"</i>						

LCS (21L0731-BS2)						Prepared: 12/20/21 07:26 Analyzed: 12/20/21 14:17						Q-18
<u>EPA 8270E SIM</u>												
Acenaphthene	0.461	---	0.00267	mg/kg wet	1	0.533	---	86	40-123%	---	---	
Acenaphthylene	0.478	---	0.00267	mg/kg wet	1	0.533	---	90	32-132%	---	---	
Anthracene	0.455	---	0.00267	mg/kg wet	1	0.533	---	85	47-123%	---	---	
Benz(a)anthracene	0.470	---	0.00267	mg/kg wet	1	0.533	---	88	49-126%	---	---	
Benzo(a)pyrene	0.491	---	0.00267	mg/kg wet	1	0.533	---	92	45-129%	---	---	
Benzo(b)fluoranthene	0.479	---	0.00267	mg/kg wet	1	0.533	---	90	45-132%	---	---	
Benzo(k)fluoranthene	0.500	---	0.00267	mg/kg wet	1	0.533	---	94	47-132%	---	---	
Benzo(g,h,i)perylene	0.458	---	0.00267	mg/kg wet	1	0.533	---	86	43-134%	---	---	
Chrysene	0.458	---	0.00267	mg/kg wet	1	0.533	---	86	50-124%	---	---	
Dibenz(a,h)anthracene	0.508	---	0.00267	mg/kg wet	1	0.533	---	95	45-134%	---	---	
Fluoranthene	0.439	---	0.00267	mg/kg wet	1	0.533	---	82	50-127%	---	---	
Fluorene	0.437	---	0.00267	mg/kg wet	1	0.533	---	82	43-125%	---	---	

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ANALYTICAL REPORT

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 21L0731 - EPA 3546						Soil							
LCS (21L0731-BS2)			Prepared: 12/20/21 07:26 Analyzed: 12/20/21 14:17						Q-18				
Indeno(1,2,3-cd)pyrene	0.448	---	0.00267	mg/kg wet	1	0.533	---	84	45-133%	---	---		
Naphthalene	0.427	---	0.00267	mg/kg wet	1	0.533	---	80	35-123%	---	---		
Phenanthrene	0.452	---	0.00267	mg/kg wet	1	0.533	---	85	50-121%	---	---		
Pyrene	0.428	---	0.00267	mg/kg wet	1	0.533	---	80	47-127%	---	---		
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 1x</i>							
<i>p-Terphenyl-d14 (Surr)</i>		<i>111 %</i>		<i>54-127 %</i>		<i>"</i>							

Duplicate (21L0731-DUP2)						Prepared: 12/20/21 07:26 Analyzed: 12/20/21 15:08						R-04
QC Source Sample: Non-SDG (A1L0412-03)												
Acenaphthene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Anthracene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Chrysene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Fluoranthene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Fluorene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.0386	mg/kg dry	10	---	0.0198	---	---	---	30%	Q-17
Phenanthrene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	Q-17
Pyrene	ND	---	0.0386	mg/kg dry	10	---	ND	---	---	---	30%	
<i>Surr: 2-Fluorobiphenyl (Surr)</i>		<i>Recovery: 90 %</i>		<i>Limits: 44-120 %</i>		<i>Dilution: 10x</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>96 %</i>		<i>54-127 %</i>		<i>"</i>						

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ANALYTICAL REPORT

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503-718-2323
ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0557 - EPA 3511 (Bottle Extraction)						Water						
Blank (21L0557-BLK1)			Prepared: 12/14/21 14:22 Analyzed: 12/21/21 17:52									
<u>EPA 8270E LVI</u>												
Acenaphthene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	Q-30
2-Methylnaphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	Q-30
Naphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>112 %</i>		<i>76-139 %</i>		<i>"</i>						

LCS (21L0557-BS1)			Prepared: 12/14/21 14:22 Analyzed: 12/21/21 18:25									
<u>EPA 8270E LVI</u>												
Acenaphthene	1.62	---	0.0320	ug/L	1	1.60	---	101	80-120%	---	---	
Acenaphthylene	1.86	---	0.0320	ug/L	1	1.60	---	117	80-120%	---	---	
Anthracene	1.86	---	0.0320	ug/L	1	1.60	---	116	80-120%	---	---	
Benz(a)anthracene	1.86	---	0.0160	ug/L	1	1.60	---	116	80-120%	---	---	
Benzo(a)pyrene	1.92	---	0.0160	ug/L	1	1.60	---	120	80-120%	---	---	
Benzo(b)fluoranthene	1.84	---	0.0160	ug/L	1	1.60	---	115	80-120%	---	---	
Benzo(k)fluoranthene	1.78	---	0.0160	ug/L	1	1.60	---	111	80-120%	---	---	
Benzo(g,h,i)perylene	1.62	---	0.0320	ug/L	1	1.60	---	102	80-122%	---	---	

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

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ORELAP ID: OR100062

Alpine Environmental Consultants	Project: Grange Co-Op Property	
12208 Antioch Road	Project Number: [none]	Report ID:
White City, OR 97503	Project Manager: Jonathan Williams	A1L0510 - 01 09 22 0723

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0557 - EPA 3511 (Bottle Extraction)						Water						
LCS (21L0557-BS1)			Prepared: 12/14/21 14:22 Analyzed: 12/21/21 18:25									
Chrysene	1.57	---	0.0160	ug/L	1	1.60	---	98	80-120%	---	---	
Dibenz(a,h)anthracene	1.55	---	0.0160	ug/L	1	1.60	---	97	80-120%	---	---	
Fluoranthene	1.91	---	0.0320	ug/L	1	1.60	---	119	80-120%	---	---	
Fluorene	1.74	---	0.0320	ug/L	1	1.60	---	109	75-120%	---	---	
Indeno(1,2,3-cd)pyrene	1.68	---	0.0160	ug/L	1	1.60	---	105	80-120%	---	---	
1-Methylnaphthalene	1.09	---	0.0640	ug/L	1	1.60	---	68	77-123%	---	---	Q-30
2-Methylnaphthalene	1.12	---	0.0640	ug/L	1	1.60	---	70	79-120%	---	---	Q-30
Naphthalene	1.53	---	0.0640	ug/L	1	1.60	---	96	80-120%	---	---	
Phenanthrene	1.55	---	0.0640	ug/L	1	1.60	---	97	80-120%	---	---	
Pyrene	1.88	---	0.0320	ug/L	1	1.60	---	118	80-120%	---	---	
Carbazole	1.94	---	0.0320	ug/L	1	1.60	---	121	74-121%	---	---	
Dibenzofuran	1.67	---	0.0320	ug/L	1	1.60	---	104	78-120%	---	---	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>116 %</i>		<i>76-139 %</i>		<i>"</i>						

LCS Dup (21L0557-BSD1)			Prepared: 12/14/21 14:22 Analyzed: 12/21/21 18:57									
EPA 8270E LVI												
Acenaphthene	1.64	---	0.0320	ug/L	1	1.60	---	103	80-120%	1	30%	
Acenaphthylene	1.89	---	0.0320	ug/L	1	1.60	---	118	80-120%	1	30%	
Anthracene	1.87	---	0.0320	ug/L	1	1.60	---	117	80-120%	0.5	30%	
Benz(a)anthracene	1.83	---	0.0160	ug/L	1	1.60	---	114	80-120%	2	30%	
Benzo(a)pyrene	1.94	---	0.0160	ug/L	1	1.60	---	121	80-120%	1	30%	Q-29
Benzo(b)fluoranthene	1.87	---	0.0160	ug/L	1	1.60	---	117	80-120%	2	30%	
Benzo(k)fluoranthene	1.81	---	0.0160	ug/L	1	1.60	---	113	80-120%	2	30%	
Benzo(g,h,i)perylene	1.71	---	0.0320	ug/L	1	1.60	---	107	80-122%	5	30%	
Chrysene	1.62	---	0.0160	ug/L	1	1.60	---	101	80-120%	3	30%	
Dibenz(a,h)anthracene	1.58	---	0.0160	ug/L	1	1.60	---	99	80-120%	2	30%	
Fluoranthene	1.90	---	0.0320	ug/L	1	1.60	---	119	80-120%	0.6	30%	
Fluorene	1.69	---	0.0320	ug/L	1	1.60	---	106	75-120%	3	30%	
Indeno(1,2,3-cd)pyrene	1.73	---	0.0160	ug/L	1	1.60	---	108	80-120%	3	30%	
1-Methylnaphthalene	1.34	---	0.0640	ug/L	1	1.60	---	83	77-123%	21	30%	
2-Methylnaphthalene	1.34	---	0.0640	ug/L	1	1.60	---	84	79-120%	18	30%	
Naphthalene	1.58	---	0.0640	ug/L	1	1.60	---	99	80-120%	3	30%	
Phenanthrene	1.57	---	0.0640	ug/L	1	1.60	---	98	80-120%	1	30%	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0557 - EPA 3511 (Bottle Extraction)						Water						
LCS Dup (21L0557-BSD1)			Prepared: 12/14/21 14:22 Analyzed: 12/21/21 18:57									
Pyrene	1.86	---	0.0320	ug/L	1	1.60	---	116	80-120%	1	30%	
Carbazole	1.90	---	0.0320	ug/L	1	1.60	---	119	74-121%	2	30%	
Dibenzofuran	1.64	---	0.0320	ug/L	1	1.60	---	103	78-120%	1	30%	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 99 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>114 %</i>		<i>76-139 %</i>		<i>"</i>						

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0607 - EPA 3511 (Bottle Extraction)						Water						
Blank (21L0607-BLK1)			Prepared: 12/15/21 13:28 Analyzed: 12/20/21 12:54									
<u>EPA 8270E LVI</u>												
Acenaphthene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0159	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0635	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0317	ug/L	1	---	---	---	---	---	---	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>103 %</i>		<i>76-139 %</i>		<i>"</i>						

LCS (21L0607-BS1)			Prepared: 12/15/21 13:28 Analyzed: 12/20/21 13:27									
<u>EPA 8270E LVI</u>												
Acenaphthene	1.66	---	0.0320	ug/L	1	1.60	---	104	80-120%	---	---	
Acenaphthylene	1.89	---	0.0320	ug/L	1	1.60	---	118	80-120%	---	---	
Anthracene	1.85	---	0.0320	ug/L	1	1.60	---	116	80-120%	---	---	
Benz(a)anthracene	1.74	---	0.0160	ug/L	1	1.60	---	109	80-120%	---	---	
Benzo(a)pyrene	1.82	---	0.0160	ug/L	1	1.60	---	114	80-120%	---	---	
Benzo(b)fluoranthene	1.69	---	0.0160	ug/L	1	1.60	---	105	80-120%	---	---	
Benzo(k)fluoranthene	1.70	---	0.0160	ug/L	1	1.60	---	106	80-120%	---	---	
Benzo(g,h,i)perylene	1.63	---	0.0320	ug/L	1	1.60	---	102	80-122%	---	---	

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Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21L0607 - EPA 3511 (Bottle Extraction)						Water						
LCS (21L0607-BS1)			Prepared: 12/15/21 13:28 Analyzed: 12/20/21 13:27									
Chrysene	1.57	---	0.0160	ug/L	1	1.60	---	98	80-120%	---	---	
Dibenz(a,h)anthracene	1.54	---	0.0160	ug/L	1	1.60	---	96	80-120%	---	---	
Fluoranthene	1.85	---	0.0320	ug/L	1	1.60	---	116	80-120%	---	---	
Fluorene	2.55	---	0.0320	ug/L	1	1.60	---	159	75-120%	---	---	Q-29
Indeno(1,2,3-cd)pyrene	1.56	---	0.0160	ug/L	1	1.60	---	98	80-120%	---	---	
1-Methylnaphthalene	1.69	---	0.0640	ug/L	1	1.60	---	106	77-123%	---	---	
2-Methylnaphthalene	1.64	---	0.0640	ug/L	1	1.60	---	102	79-120%	---	---	
Naphthalene	1.56	---	0.0640	ug/L	1	1.60	---	97	80-120%	---	---	
Phenanthrene	1.57	---	0.0640	ug/L	1	1.60	---	98	80-120%	---	---	
Pyrene	1.82	---	0.0320	ug/L	1	1.60	---	114	80-120%	---	---	
Carbazole	1.89	---	0.0320	ug/L	1	1.60	---	118	74-121%	---	---	
Dibenzofuran	1.79	---	0.0320	ug/L	1	1.60	---	112	78-120%	---	---	
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 97 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>107 %</i>		<i>76-139 %</i>		"						

LCS Dup (21L0607-BSD1)			Prepared: 12/15/21 13:28 Analyzed: 12/20/21 14:00									Q-19
EPA 8270E LVI												
Acenaphthene	1.66	---	0.0320	ug/L	1	1.60	---	104	80-120%	0.2	30%	
Acenaphthylene	1.89	---	0.0320	ug/L	1	1.60	---	118	80-120%	0.3	30%	
Anthracene	1.86	---	0.0320	ug/L	1	1.60	---	116	80-120%	0.4	30%	
Benz(a)anthracene	1.73	---	0.0160	ug/L	1	1.60	---	108	80-120%	0.2	30%	
Benzo(a)pyrene	1.83	---	0.0160	ug/L	1	1.60	---	115	80-120%	0.6	30%	
Benzo(b)fluoranthene	1.71	---	0.0160	ug/L	1	1.60	---	107	80-120%	1	30%	
Benzo(k)fluoranthene	1.75	---	0.0160	ug/L	1	1.60	---	109	80-120%	3	30%	
Benzo(g,h,i)perylene	1.69	---	0.0320	ug/L	1	1.60	---	106	80-122%	3	30%	
Chrysene	1.60	---	0.0160	ug/L	1	1.60	---	100	80-120%	2	30%	
Dibenz(a,h)anthracene	1.56	---	0.0160	ug/L	1	1.60	---	97	80-120%	1	30%	
Fluoranthene	1.90	---	0.0320	ug/L	1	1.60	---	119	80-120%	2	30%	
Fluorene	1.83	---	0.0320	ug/L	1	1.60	---	115	75-120%	33	30%	Q-01
Indeno(1,2,3-cd)pyrene	1.63	---	0.0160	ug/L	1	1.60	---	102	80-120%	4	30%	
1-Methylnaphthalene	1.94	---	0.0640	ug/L	1	1.60	---	121	77-123%	14	30%	
2-Methylnaphthalene	1.91	---	0.0640	ug/L	1	1.60	---	120	79-120%	16	30%	
Naphthalene	1.64	---	0.0640	ug/L	1	1.60	---	102	80-120%	5	30%	
Phenanthrene	1.60	---	0.0640	ug/L	1	1.60	---	100	80-120%	2	30%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 21L0607 - EPA 3511 (Bottle Extraction)						Water							
LCS Dup (21L0607-BSD1)			Prepared: 12/15/21 13:28 Analyzed: 12/20/21 14:00						Q-19				
Pyrene	1.89	---	0.0320	ug/L	1	1.60	---	118	80-120%	3	30%		
Carbazole	1.87	---	0.0320	ug/L	1	1.60	---	117	74-121%	1	30%		
Dibenzofuran	1.72	---	0.0320	ug/L	1	1.60	---	108	78-120%	4	30%		
<i>Surr: Acenaphthylene-d8 (Surr)</i>		<i>Recovery: 92 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>							
<i>Benzo(a)pyrene-d12 (Surr)</i>		<i>107 %</i>		<i>76-139 %</i>		<i>"</i>							

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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 21L0743 - EPA 3015A						Water						
Blank (21L0743-BLK1)			Prepared: 12/20/21 09:30 Analyzed: 12/22/21 21:36									
<u>EPA 6020B</u>												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (21L0743-BS1)			Prepared: 12/20/21 09:30 Analyzed: 12/22/21 21:42									
<u>EPA 6020B</u>												
Lead	54.8	---	0.200	ug/L	1	55.6	---	99	80-120%	---	---	
Duplicate (21L0743-DUP1)			Prepared: 12/20/21 09:30 Analyzed: 12/22/21 21:54									
<u>QC Source Sample: Non-SDG (A1L0036-01)</u>												
Lead	2.27	---	0.200	ug/L	1	---	2.26	---	---	0.4	20%	
Matrix Spike (21L0743-MS1)			Prepared: 12/20/21 09:30 Analyzed: 12/22/21 22:00									
<u>QC Source Sample: Non-SDG (A1L0036-01)</u>												
<u>EPA 6020B</u>												
Lead	56.4	---	0.200	ug/L	1	55.6	2.26	97	75-125%	---	---	

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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 21L0898 - EPA 3051A						Soil						
Blank (21L0898-BLK1)			Prepared: 12/23/21 08:58 Analyzed: 12/29/21 16:55									
<u>EPA 6020B</u>												
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (21L0898-BS1)			Prepared: 12/23/21 08:58 Analyzed: 12/29/21 17:00									
<u>EPA 6020B</u>												
Lead	53.4	---	0.200	mg/kg wet	10	50.0	---	107	80-120%	---	---	
Duplicate (21L0898-DUP1)			Prepared: 12/23/21 08:58 Analyzed: 12/29/21 17:10									
<u>QC Source Sample: Non-SDG (A1L0221-04)</u>												
Lead	12.2	---	0.271	mg/kg dry	10	---	12.7	---	---	4	20%	
Matrix Spike (21L0898-MS1)			Prepared: 12/23/21 08:58 Analyzed: 12/29/21 17:15									
<u>QC Source Sample: Non-SDG (A1L0221-04)</u>												
<u>EPA 6020B</u>												
Lead	76.3	---	0.252	mg/kg dry	10	62.9	12.7	101	75-125%	---	---	

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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 21L0991 - EPA 3051A						Soil						
Blank (21L0991-BLK1)			Prepared: 12/28/21 15:13 Analyzed: 12/30/21 02:48									
<u>EPA 6020B</u>												
Lead	ND	---	0.192	mg/kg wet	10	---	---	---	---	---	---	
LCS (21L0991-BS1)			Prepared: 12/28/21 15:13 Analyzed: 12/30/21 02:53									
<u>EPA 6020B</u>												
Lead	52.0	---	0.200	mg/kg wet	10	50.0	---	104	80-120%	---	---	
Duplicate (21L0991-DUP1)			Prepared: 12/28/21 15:13 Analyzed: 12/30/21 03:03									
<u>QC Source Sample: B7 (A1L0510-07)</u>												
<u>EPA 6020B</u>												
Lead	3.13	---	0.251	mg/kg dry	10	---	2.62	---	---	18	20%	
Matrix Spike (21L0991-MS1)			Prepared: 12/28/21 15:13 Analyzed: 12/30/21 03:18									
<u>QC Source Sample: B7 (A1L0510-07)</u>												
<u>EPA 6020B</u>												
Lead	68.8	---	0.260	mg/kg dry	10	64.9	2.62	102	75-125%	---	---	

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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 21L0587 - Matrix Matched Direct Inject						Water						
Blank (21L0587-BLK1)			Prepared: 12/15/21 09:26 Analyzed: 12/16/21 05:39									
<u>EPA 6020B (Diss)</u>												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (21L0587-BS1)			Prepared: 12/15/21 09:26 Analyzed: 12/16/21 05:44									
<u>EPA 6020B (Diss)</u>												
Lead	62.2	---	0.200	ug/L	1	55.6	---	112	80-120%	---	---	
Duplicate (21L0587-DUP1)			Prepared: 12/15/21 09:26 Analyzed: 12/16/21 05:55									
<u>QC Source Sample: Non-SDG (A1L0428-09)</u>												
Lead	ND	---	0.200	ug/L	1	---	ND	---	---	---	20%	
Matrix Spike (21L0587-MS1)			Prepared: 12/15/21 09:26 Analyzed: 12/16/21 06:01									
<u>QC Source Sample: Non-SDG (A1L0428-09)</u>												
<u>EPA 6020B (Diss)</u>												
Lead	53.7	---	0.200	ug/L	1	55.6	ND	97	75-125%	---	---	

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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 21L0580 - Total Solids (Dry Weight)							Soil					
Duplicate (21L0580-DUP1)			Prepared: 12/15/21 08:25 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: B1 (A1L0510-01)</u>												
<u>EPA 8000D</u>												
% Solids	85.5	---	1.00	%	1	---	85.6	---	---	0.08	10%	
Duplicate (21L0580-DUP2)			Prepared: 12/15/21 08:25 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: Non-SDG (A1L0511-01)</u>												
% Solids	85.6	---	1.00	%	1	---	85.9	---	---	0.3	10%	
Duplicate (21L0580-DUP3)			Prepared: 12/15/21 08:25 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: Non-SDG (A1L0522-08)</u>												
% Solids	84.3	---	1.00	%	1	---	84.5	---	---	0.2	10%	
Duplicate (21L0580-DUP4)			Prepared: 12/15/21 08:25 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: Non-SDG (A1L0551-04)</u>												
% Solids	86.8	---	1.00	%	1	---	85.5	---	---	2	10%	
Duplicate (21L0580-DUP5)			Prepared: 12/15/21 19:40 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: Non-SDG (A1L0622-02)</u>												
% Solids	86.0	---	1.00	%	1	---	85.8	---	---	0.2	10%	
Duplicate (21L0580-DUP6)			Prepared: 12/15/21 19:40 Analyzed: 12/16/21 08:12									
<u>QC Source Sample: Non-SDG (A1L0622-01)</u>												
% Solids	80.3	---	1.00	%	1	---	80.4	---	---	0.1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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ORELAP ID: OR100062

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

<u>Prep: EPA 3510C (Fuels/Acid Ext.)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0772</u>							
A1L0510-11	Water	NWTPH-Dx LL	12/07/21 13:45	12/20/21 15:24	1020mL/2mL	1000mL/2mL	0.98
A1L0510-12	Water	NWTPH-Dx LL	12/08/21 10:00	12/20/21 15:24	1020mL/2mL	1000mL/2mL	0.98
A1L0510-20	Water	NWTPH-Dx LL	12/07/21 14:00	12/20/21 15:24	1030mL/2mL	1000mL/2mL	0.97
A1L0510-21	Water	NWTPH-Dx LL	12/07/21 09:30	12/20/21 15:24	1050mL/2mL	1000mL/2mL	0.95
<u>Batch: 21L0827</u>							
A1L0510-13	Water	NWTPH-Dx LL	12/08/21 08:10	12/21/21 14:08	960mL/2mL	1000mL/2mL	1.04
A1L0510-14	Water	NWTPH-Dx LL	12/08/21 09:30	12/21/21 14:08	990mL/2mL	1000mL/2mL	1.01
<u>Batch: 21L0853</u>							
A1L0510-16	Water	NWTPH-Dx LL	12/08/21 10:30	12/22/21 10:43	850mL/2mL	1000mL/2mL	1.18
A1L0510-18	Water	NWTPH-Dx LL	12/08/21 11:00	12/22/21 10:43	950mL/2mL	1000mL/2mL	1.05

<u>Prep: EPA 3546 (Fuels)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0762</u>							
A1L0510-01	Soil	NWTPH-Dx	12/07/21 13:30	12/20/21 13:27	10.79g/5mL	10g/5mL	0.93
A1L0510-02RE1	Soil	NWTPH-Dx	12/07/21 14:30	12/20/21 13:27	10.42g/5mL	10g/5mL	0.96
A1L0510-03RE1	Soil	NWTPH-Dx	12/07/21 15:00	12/20/21 13:27	10.45g/5mL	10g/5mL	0.96
A1L0510-04	Soil	NWTPH-Dx	12/07/21 10:00	12/20/21 13:27	10.55g/5mL	10g/5mL	0.95
A1L0510-05	Soil	NWTPH-Dx	12/07/21 10:30	12/20/21 13:27	10.61g/5mL	10g/5mL	0.94
A1L0510-06	Soil	NWTPH-Dx	12/07/21 15:30	12/20/21 13:27	10.33g/5mL	10g/5mL	0.97
A1L0510-07RE1	Soil	NWTPH-Dx	12/07/21 16:00	12/20/21 13:27	10.24g/5mL	10g/5mL	0.98
A1L0510-08RE1	Soil	NWTPH-Dx	12/07/21 16:40	12/20/21 13:27	10.35g/5mL	10g/5mL	0.97
A1L0510-09RE1	Soil	NWTPH-Dx	12/07/21 16:20	12/20/21 13:27	10.34g/5mL	10g/5mL	0.97
A1L0510-10RE1	Soil	NWTPH-Dx	12/07/21 16:45	12/20/21 13:27	10.06g/5mL	10g/5mL	0.99

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

<u>Prep: EPA 5030B</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0520</u>							
A1L0510-11	Water	NWTPH-Gx (MS)	12/07/21 13:45	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-12	Water	NWTPH-Gx (MS)	12/08/21 10:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-13	Water	NWTPH-Gx (MS)	12/08/21 08:10	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-14	Water	NWTPH-Gx (MS)	12/08/21 09:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-15	Water	NWTPH-Gx (MS)	12/08/21 09:05	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00

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SAMPLE PREPARATION INFORMATION

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

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A1L0510-16	Water	NWTPH-Gx (MS)	12/08/21 10:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-17	Water	NWTPH-Gx (MS)	12/08/21 11:40	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-18	Water	NWTPH-Gx (MS)	12/08/21 11:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-19	Water	NWTPH-Gx (MS)	12/08/21 11:20	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-20	Water	NWTPH-Gx (MS)	12/07/21 14:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-21	Water	NWTPH-Gx (MS)	12/07/21 09:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21L0742</u>							
A1L0510-02	Soil	NWTPH-Gx (MS)	12/07/21 14:30	12/07/21 14:30	6.38g/5mL	5g/5mL	0.78
A1L0510-03	Soil	NWTPH-Gx (MS)	12/07/21 15:00	12/07/21 15:00	4.92g/5mL	5g/5mL	1.02
A1L0510-04	Soil	NWTPH-Gx (MS)	12/07/21 10:00	12/07/21 10:00	5.35g/5mL	5g/5mL	0.94
A1L0510-05	Soil	NWTPH-Gx (MS)	12/07/21 10:30	12/07/21 10:30	4.45g/5mL	5g/5mL	1.12
A1L0510-06	Soil	NWTPH-Gx (MS)	12/07/21 15:30	12/07/21 15:30	7.08g/5mL	5g/5mL	0.71
A1L0510-07	Soil	NWTPH-Gx (MS)	12/07/21 16:00	12/07/21 16:00	5.53g/5mL	5g/5mL	0.90
A1L0510-08	Soil	NWTPH-Gx (MS)	12/07/21 16:40	12/07/21 16:40	8.48g/5mL	5g/5mL	0.59
A1L0510-09	Soil	NWTPH-Gx (MS)	12/07/21 16:20	12/07/21 16:20	6.41g/5mL	5g/5mL	0.78
A1L0510-10	Soil	NWTPH-Gx (MS)	12/07/21 16:45	12/07/21 16:45	5.86g/5mL	5g/5mL	0.85
<u>Batch: 21L0795</u>							
A1L0510-01RE1	Soil	NWTPH-Gx (MS)	12/07/21 13:30	12/07/21 13:30	5.24g/5mL	5g/5mL	0.95

Selected Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 21L0520</u>							
A1L0510-11	Water	EPA 8260D	12/07/21 13:45	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-12	Water	EPA 8260D	12/08/21 10:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-13	Water	EPA 8260D	12/08/21 08:10	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-14	Water	EPA 8260D	12/08/21 09:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-15	Water	EPA 8260D	12/08/21 09:05	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-16	Water	EPA 8260D	12/08/21 10:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-17	Water	EPA 8260D	12/08/21 11:40	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-18	Water	EPA 8260D	12/08/21 11:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-19	Water	EPA 8260D	12/08/21 11:20	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-20	Water	EPA 8260D	12/07/21 14:00	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00

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SAMPLE PREPARATION INFORMATION

Selected Volatile Organic Compounds by EPA 8260D

Prep: EPA 5030B					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1L0510-21	Water	EPA 8260D	12/07/21 09:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00
A1L0510-22	Water	EPA 8260D	12/08/21 13:30	12/14/21 13:15	5mL/5mL	5mL/5mL	1.00

Selected Volatile Organic Compounds by EPA 5035A/8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0742</u>							
A1L0510-02	Soil	5035A/8260D	12/07/21 14:30	12/07/21 14:30	6.38g/5mL	5g/5mL	0.78
A1L0510-03	Soil	5035A/8260D	12/07/21 15:00	12/07/21 15:00	4.92g/5mL	5g/5mL	1.02
A1L0510-04	Soil	5035A/8260D	12/07/21 10:00	12/07/21 10:00	5.35g/5mL	5g/5mL	0.94
A1L0510-05	Soil	5035A/8260D	12/07/21 10:30	12/07/21 10:30	4.45g/5mL	5g/5mL	1.12
A1L0510-06	Soil	5035A/8260D	12/07/21 15:30	12/07/21 15:30	7.08g/5mL	5g/5mL	0.71
A1L0510-07	Soil	5035A/8260D	12/07/21 16:00	12/07/21 16:00	5.53g/5mL	5g/5mL	0.90
A1L0510-08	Soil	5035A/8260D	12/07/21 16:40	12/07/21 16:40	8.48g/5mL	5g/5mL	0.59
A1L0510-09	Soil	5035A/8260D	12/07/21 16:20	12/07/21 16:20	6.41g/5mL	5g/5mL	0.78
A1L0510-10	Soil	5035A/8260D	12/07/21 16:45	12/07/21 16:45	5.86g/5mL	5g/5mL	0.85
<u>Batch: 21L0795</u>							
A1L0510-01RE1	Soil	5035A/8260D	12/07/21 13:30	12/07/21 13:30	5.24g/5mL	5g/5mL	0.95

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (SIM)

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0731</u>							
A1L0510-01	Soil	EPA 8270E SIM	12/07/21 13:30	12/20/21 10:41	10.72g/5mL	10g/5mL	0.93
A1L0510-02	Soil	EPA 8270E SIM	12/07/21 14:30	12/20/21 10:41	10.46g/5mL	10g/5mL	0.96
A1L0510-03	Soil	EPA 8270E SIM	12/07/21 15:00	12/20/21 10:41	10.31g/5mL	10g/5mL	0.97
A1L0510-04	Soil	EPA 8270E SIM	12/07/21 10:00	12/20/21 10:41	10.24g/5mL	10g/5mL	0.98
A1L0510-05	Soil	EPA 8270E SIM	12/07/21 10:30	12/20/21 10:41	10.64g/5mL	10g/5mL	0.94
A1L0510-06	Soil	EPA 8270E SIM	12/07/21 15:30	12/20/21 10:41	10.88g/5mL	10g/5mL	0.92
A1L0510-07RE1	Soil	EPA 8270E SIM	12/07/21 16:00	12/20/21 10:41	10.67g/5mL	10g/5mL	0.94
A1L0510-08RE1	Soil	EPA 8270E SIM	12/07/21 16:40	12/20/21 10:41	10.41g/5mL	10g/5mL	0.96
A1L0510-09	Soil	EPA 8270E SIM	12/07/21 16:20	12/20/21 10:41	10.17g/5mL	10g/5mL	0.98
A1L0510-10	Soil	EPA 8270E SIM	12/07/21 16:45	12/20/21 10:41	10.52g/5mL	10g/5mL	0.95

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SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection)

<u>Prep: EPA 3511 (Bottle Extraction)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0557</u>							
A1L0510-11	Water	EPA 8270E LVI	12/07/21 13:45	12/14/21 14:22	103.42mL/5mL	125mL/5mL	1.21
A1L0510-20	Water	EPA 8270E LVI	12/07/21 14:00	12/14/21 14:22	94.08mL/5mL	125mL/5mL	1.33
A1L0510-21	Water	EPA 8270E LVI	12/07/21 09:30	12/14/21 14:22	125.52mL/5mL	125mL/5mL	1.00
<u>Batch: 21L0607</u>							
A1L0510-12	Water	EPA 8270E LVI	12/08/21 10:00	12/15/21 13:28	92.03mL/5mL	125mL/5mL	1.36
A1L0510-13	Water	EPA 8270E LVI	12/08/21 08:10	12/15/21 13:28	102.28mL/5mL	125mL/5mL	1.22
A1L0510-14	Water	EPA 8270E LVI	12/08/21 09:30	12/15/21 13:28	105.39mL/5mL	125mL/5mL	1.19
A1L0510-15	Water	EPA 8270E LVI	12/08/21 09:05	12/15/21 13:28	96.39mL/5mL	125mL/5mL	1.30
A1L0510-16	Water	EPA 8270E LVI	12/08/21 10:30	12/15/21 13:28	95.86mL/5mL	125mL/5mL	1.30
A1L0510-18	Water	EPA 8270E LVI	12/08/21 11:00	12/15/21 13:28	89.31mL/5mL	125mL/5mL	1.40
A1L0510-19	Water	EPA 8270E LVI	12/08/21 11:20	12/15/21 13:28	103.3mL/5mL	125mL/5mL	1.21

Total Metals by EPA 6020B (ICPMS)

<u>Prep: EPA 3015A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0743</u>							
A1L0510-11	Water	EPA 6020B	12/07/21 13:45	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-12	Water	EPA 6020B	12/08/21 10:00	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-13	Water	EPA 6020B	12/08/21 08:10	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-14	Water	EPA 6020B	12/08/21 09:30	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-15	Water	EPA 6020B	12/08/21 09:05	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-16	Water	EPA 6020B	12/08/21 10:30	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-18	Water	EPA 6020B	12/08/21 11:00	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-19	Water	EPA 6020B	12/08/21 11:20	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-20	Water	EPA 6020B	12/07/21 14:00	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00
A1L0510-21	Water	EPA 6020B	12/07/21 09:30	12/20/21 09:30	45mL/50mL	45mL/50mL	1.00

<u>Prep: EPA 3051A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 21L0898</u>							
A1L0510-01	Soil	EPA 6020B	12/07/21 13:30	12/23/21 08:58	0.473g/50mL	0.5g/50mL	1.06
A1L0510-02	Soil	EPA 6020B	12/07/21 14:30	12/23/21 08:58	0.481g/50mL	0.5g/50mL	1.04
A1L0510-03	Soil	EPA 6020B	12/07/21 15:00	12/23/21 08:58	0.488g/50mL	0.5g/50mL	1.02
A1L0510-04	Soil	EPA 6020B	12/07/21 10:00	12/23/21 08:58	0.496g/50mL	0.5g/50mL	1.01
A1L0510-05	Soil	EPA 6020B	12/07/21 10:30	12/23/21 08:58	0.52g/50mL	0.5g/50mL	0.96

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SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1L0510-06	Soil	EPA 6020B	12/07/21 15:30	12/23/21 08:58	0.478g/50mL	0.5g/50mL	1.05
A1L0510-10	Soil	EPA 6020B	12/07/21 16:45	12/23/21 08:58	0.48g/50mL	0.5g/50mL	1.04
Batch: 21L0991							
A1L0510-07	Soil	EPA 6020B	12/07/21 16:00	12/28/21 15:13	0.504g/50mL	0.5g/50mL	0.99
A1L0510-08	Soil	EPA 6020B	12/07/21 16:40	12/28/21 15:13	0.498g/50mL	0.5g/50mL	1.00
A1L0510-09	Soil	EPA 6020B	12/07/21 16:20	12/28/21 15:13	0.494g/50mL	0.5g/50mL	1.01

Dissolved Metals by EPA 6020B (ICPMS)

Prep: Matrix Matched Direct Inject					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21L0587							
A1L0510-11	Water	EPA 6020B (Diss)	12/07/21 13:45	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-12	Water	EPA 6020B (Diss)	12/08/21 10:00	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-13	Water	EPA 6020B (Diss)	12/08/21 08:10	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-14	Water	EPA 6020B (Diss)	12/08/21 09:30	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-15	Water	EPA 6020B (Diss)	12/08/21 09:05	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-16	Water	EPA 6020B (Diss)	12/08/21 10:30	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-18	Water	EPA 6020B (Diss)	12/08/21 11:00	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-19	Water	EPA 6020B (Diss)	12/08/21 11:20	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-20	Water	EPA 6020B (Diss)	12/07/21 14:00	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00
A1L0510-21	Water	EPA 6020B (Diss)	12/07/21 09:30	12/15/21 09:26	45mL/50mL	45mL/50mL	1.00

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21L0580							
A1L0510-01	Soil	EPA 8000D	12/07/21 13:30	12/15/21 08:25			NA
A1L0510-02	Soil	EPA 8000D	12/07/21 14:30	12/15/21 08:25			NA
A1L0510-03	Soil	EPA 8000D	12/07/21 15:00	12/15/21 08:25			NA
A1L0510-04	Soil	EPA 8000D	12/07/21 10:00	12/15/21 08:25			NA
A1L0510-05	Soil	EPA 8000D	12/07/21 10:30	12/15/21 08:25			NA
A1L0510-06	Soil	EPA 8000D	12/07/21 15:30	12/15/21 08:25			NA
A1L0510-07	Soil	EPA 8000D	12/07/21 16:00	12/15/21 08:25			NA
A1L0510-08	Soil	EPA 8000D	12/07/21 16:40	12/15/21 08:25			NA
A1L0510-09	Soil	EPA 8000D	12/07/21 16:20	12/15/21 08:25			NA

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	-----------------------------------------------------

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

<u>Prep: Total Solids (Dry Weight)</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1L0510-10	Soil	EPA 8000D	12/07/21 16:45	12/15/21 08:25			NA

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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants
12208 Antioch Road
White City, OR 97503

Project: **Grange Co-Op Property**
Project Number: [none]
Project Manager: **Jonathan Williams**

Report ID:
A1L0510 - 01 09 22 0723

QUALIFIER DEFINITIONS

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

Apex Laboratories

- F-11 The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
- M-05 Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-01 Spike recovery and/or RPD is outside acceptance limits.
- Q-17 RPD between original and duplicate sample is outside of established control limits.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source 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-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-30 Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
- Q-54 Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
- Q-56 Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02 The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- R-04 Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
- S-05 Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- V-15 Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

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) may not be 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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Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Alpine Environmental Consultants), Project (Grange Co-Op Property), and Report ID (A1L0510 - 01 09 22 0723).

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

Handwritten signature of Darwin Thomas

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Table with 3 columns: Client (Alpine Environmental Consultants), Project (Grange Co-Op Property), and Report ID (A1L0510 - 01 09 22 0723).

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

Table header with columns: 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 provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Handwritten signature of Darwin Thomas

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A1L0510 coc 1 of 3

Company: <u>Alpine Env. Con. LLC</u>	Project Mgr: <u>Jonathan Williams</u>	Project Name: <u>Grange Co-Op</u>	Project #: _____	
Address: <u>2210 Antioch Rd White City</u>		Phone: <u>541 944 4655</u>	Email: <u>jonathan@alpine-env.com</u>	
Sampled by: <u>Toby Shalkers</u>				
Site Location: <u>OR WA CA</u>				
AK ID: _____				

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-CMD	NWTPH-DX	NWTPH-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, SP, AS, BA, BE, CA, CR, CO, CU, FE, PB, SE, MG, MN, MO, NI, K, Hg, Ag, Na, TL, V, Zn, TOLAP, DISS, TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive	
																						ANALYSIS REQUEST
B1	12/7/21	1330	S	3		X	X		X			X						X				
B2		1430																				
B3		1500																				
B4		1000																				
B5		1030																				
B6		1730																				
B7		1600																				
B8		1410																				
B9		1620																				
Dup		1645																				

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

RELINQUISHED BY: Signature: <u>Toby Shalkers</u> Date: <u>12/13/21</u>	RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>12/13/21</u>	RECEIVED BY: Signature: _____ Date: _____
Printed Name: <u>Toby Shalkers</u> Time: <u>13:00</u>	Printed Name: <u>R. Williams</u> Time: <u>13:00</u>	Printed Name: _____ Time: _____
Company: <u>APEX</u>	Company: <u>APEX</u>	Company: _____

Apex Laboratories

[Signature]

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants Project: **Grange Co-Op Property**
12208 Antioch Road Project Number: [none]
White City, OR 97503 Project Manager: **Jonathan Williams** **Report ID:**
A1L0510 - 01 09 22 0723

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY *revised*
Lab# A1L0510 coc 02 of 03

Company: Alpine Environmental Consultants Project Mgr: Jonathan Williams
Address: 12208 Antioch Rd White City, OR Phone: 503-944-1834 Email: william.jonathan@alpineenv.com

Project #: _____ PO #: _____

Sampled by: Toby Shallow

Site Location: OR WA CA
AK ID: _____

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-CD	NWTPH-CX	8260 RTEK	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, BR, CD, CE, CH, CO, CR, MA, MN, NI, PB, PC, PI, SE, SI, VA, ZN, TCDF, TCDF, TCDF, TCDF	TCLP Metals (8)	Hold Sample	Frozen Archive
B1-GW	1/21/13	1300	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B2-GW	1/21/13	1200	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B3-GW	1/21/13	1100	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B4-GW	1/21/13	1000	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B5-GW	1/21/13	0900	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B6-GW	1/21/13	0800	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B7-GW	1/21/13	0700	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B8-GW	1/21/13	0600	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
B9-GW	1/21/13	0500	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Dup	1/21/13	0400	W	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

SPECIAL INSTRUCTIONS: Metals use field filter

RECEIVED BY:
Signature: Toby Shallow Date: 1/21/13
Printed Name: Toby Shallow Time: 1300
Company: AEC

RELINQUISHED BY:
Signature: _____ Date: _____
Printed Name: _____ Time: _____
Company: _____

RECEIVED BY:
Signature: _____ Date: _____
Printed Name: _____ Time: _____
Company: _____

Apex Laboratories

Darwin Thomas

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab# A1L0510 coc 2 of 3

Company: Alpine Env. Con. LLC Project Mgr: Jonathan Williams Project Name: Grange Co-Op

Address: 12208 Antioch Rd White City Phone: 503 944 4654 Email: jon.williams@alpine-env.com

Sampled by: Joey Shackles

Site Location: OR WA CA

AK ID: ---

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-CID	NWTPH-DX	NWTPH-GX	8260 RTEK	8260 Halo VOCs	8260 RBDM VOCs	8260 VOCs Full List	8270 SEMI-VOL Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (9)	Priority Metals (13) Al, Sb, As, Ba, Be, Bi, Cd, Cr, Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Ag, Ni, Ti, V, Zn	TCLP Metals (9) As, Ar, Ni, Ti, V, Zn, Cr, Pb, Hg, Mn, Mo, Ni, Pb, Se, Ag, Ni, Ti, V, Zn, Cd	Hold Sample	Frozen Archive	
																						TAT Requested (circle)
B1-GW	12/12/21	1345	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B2-GW	12/12/21	1000	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B3-GW	12/12/21	810	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B4-GW	12/12/21	930	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B5-GW	12/12/21	905	W	6	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B6-GW	12/12/21	1030	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B7-GW	12/12/21	1140	W	2	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B8-GW	12/12/21	1100	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
B9-GW	12/12/21	1120	W	6	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		
Dup	12/12/21	1400	W	9	XX	XX	XX	X	X	X	X	X	X	X	X	X	X	X	X	X		

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): Standard

SPECIAL INSTRUCTIONS: Metals are field filtered

RELINQUISHED BY: Signature: <u>Joey Shackles</u> Date: <u>12/13/21</u>	RECEIVED BY: Signature: <u>[Signature]</u> Date: <u>12/13/21</u>	RECEIVED BY: Signature: _____ Date: _____
Printed Name: <u>Joey Shackles</u> Time: <u>1300</u>	Printed Name: <u>RK...</u> Time: _____	Printed Name: _____ Time: _____
Company: <u>AEC</u>	Company: <u>APEX</u>	Company: _____

Apex Laboratories

Darwin Thomas

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A1L0510 coc 2 of 3

Company: Alpine Env. Con. LLC Project Mgr: Jonathan Williams Project Name: Grange - Co-Op Project #:
Address: 2210 Antioch Rd White City Phone: 541-944-4688 Email: jwilliams@alpineenv.com

Sampled by: Toby Shallock

Site Location: OR WA CA
AK ID: ---

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWT-PH-HCID	NWT-PH-DX	NWT-PH-CX	8260 BTEX	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Sem-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (9)	Priority Metals (13)	Al, Sb, As, Ba, Be, Bi, Br, Cd, Cr, Cs, Cu, Fe, Hg, Mn, Mo, Ni, Pb, Se, Si, Sn, Ti, V, Zn	TOTAL DSSS TCIP	TCIP Metals (8)	Hold Sample	Frozen Archive	
																							ANALYSIS REQUEST
R	12/12/13	930	W	9		X	X		X			X											
TB	12/11/13	1330	W	3																			

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day 2 Day 3 Day 5 Day Standard Other: _____

SPECIAL INSTRUCTIONS: Metals are field filtered

RECEIVED BY: Signature: <u>Toby Shallock</u> Date: <u>12/13/13</u> Printed Name: <u>Toby Shallock</u> Time: <u>13:00</u> Company: <u>AEC</u>	RECEIVED BY: Signature: _____ Date: _____ Printed Name: _____ Time: _____ Company: _____
-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------

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Darwin Thomas

Darwin Thomas, Business Development Director



ANALYTICAL REPORT

Apex Laboratories, LLC

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

Alpine Environmental Consultants 12208 Antioch Road White City, OR 97503	Project: Grange Co-Op Property Project Number: [none] Project Manager: Jonathan Williams	Report ID: A1L0510 - 01 09 22 0723
---------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------	----------------------------------------------

APEX LABS COOLER RECEIPT FORM

Client: Alpine Env. Con. LLC Element WO#: A1L0510
 Project/Project #: Grange Co-op

Delivery Info:
 Date/time received: 12/13/21 @ 1300 By: JS
 Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 12/13/21 @ 1557 By: JS
 Chain of Custody included? Yes No Custody seals? Yes No
 Signed/dated by client? Yes No
 Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>4.9</u>	<u>5.0</u>	<u>3.2</u>	<u>4.5</u>			
Received on ice? (Y/N)	<u>y</u>	<u>y</u>	<u>y</u>	<u>y</u>			
Temp. blanks? (Y/N)	<u>y</u>	<u>y</u>	<u>y</u>	<u>y</u>			
Ice type: (Gel/Real/Other)	<u>Real</u>	<u>Real</u>	<u>Real</u>	<u>Real</u>			
Condition:	<u>good</u>	<u>good</u>	<u>good</u>	<u>good</u>			

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: 12/14/21 @ 1030 By: SO
 All samples intact? Yes No Comments: _____

 Bottle labels/COCs agree? Yes No Comments: _____

 COC/container discrepancies form initiated? Yes No
 Containers/volumes received appropriate for analysis? Yes No Comments: _____

 Do VOA vials have visible headspace? Yes No NA
 Comments: _____
 Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
 Comments: _____

Additional information: _____

 Labeled by: 8 Witness: JS Cooler Inspected by: SO/KRS

Apex Laboratories

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Darwin Thomas, Business Development Director