Draft Remedial Investigation Report

Marine Drive Property
Whatcom County Tax Parcel 380223106374
Bellingham, Washington

for
ABC Recycling Realty Corp.

December 8, 2023

GeoEngineers
Earth Science + Technology

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File No. 26963-002-00

December 8, 2023

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EXECUTIVE SUMMARY

GeoEngineers, Inc. (GeoEngineers) has prepared this Remedial Investigation Report (RI Report) on behalf of ABC Recycling Realty Corp. (ABC Recycling) for Whatcom County Washington Tax Parcel 380223106374 (referred to herein as the Marine Drive Property). The RI Report is being submitted as part of an application for enrollment in the Washington State Department of Ecology Expedited Voluntary Cleanup Program (VCP). This RI Report documents the current environmental conditions at the Marine Drive Property and summarizes the planned redevelopment of the Marine Drive Property. The information presented in this RI Report is intended to support the development and evaluation of technically feasible cleanup alternatives in accordance with Sections 360 through 390 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-360 through 173-340-390).

The Marine Drive Property historically was owned by Lehigh Hanson and used in connection with operation of the Lehigh Northwest Cement Co. (aka Columbia Tilbury Cement Company) facility at 741 Marine Drive. The cement plant is listed under Ecology's LUST ID 4344 for a confirmed release of diesel fuel during fuel transfer. Ecology issued a "Reported Cleaned Up" letter for the release in 2002. The Cement Plant also is listed under Facility ID 2868 and Cleanup Site ID 3927 for a Site Hazard Assessment performed to evaluate impacts from cement kiln dust to surface water, groundwater, and soil in 1993. A No Further Action determination based on the Site Hazard Assessment was issued in 1993.

For the purposes of this RI Report the Marine Drive Property has been divided into the following three areas:

- **Western Area.** This area comprises approximately 7.59 acres that is undeveloped and forested.
- **Central Area.** This area comprises approximately 9.34 acres. An approximately 2.2-acre portion of the Central Area adjacent to Marine Drive is undeveloped and forested. The remaining approximately 6.9 acres historically was used as a storage yard associated with operation of the Cement Plant. The storage yard is covered with approximately 0.5 to 1.5 feet of compacted gravel.
- **Eastern Area.** This area comprises approximately 2.76 acres that is undeveloped and forested.

An environmental investigation was performed in 2020 as part of environmental due diligence prior to acquisition of the Marine Drive Property by ABC Recycling. Sampling activities including collecting soil samples from borings and test pits and grab groundwater samples from borings at the Marine Drive Property and analyzing the samples for contaminants of potential concern (COPCs) associated with operation of the Cement Plant, including priority pollutant metals, petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), polychlorinated bi-phenyls (PCBs), dioxins, and furans.

The locations of the test pits and borings were selected to evaluate native materials in the undeveloped and forested Western and Eastern Areas, the quality of fill material emplaced in the storage yard in the Central Area and potentially impacted material based on field observations in the storage area.

Sampling identified the following areas of potential concern (AOPCs) in only the Central Area where concentrations of metals, PAHs, and/or dioxins and furans, exceed Model Toxics Control Act cleanup levels (CULs) in shallow (2 feet or less below ground surface) and/or intermediate (greater than 2 but less than approximately 15 feet below ground surface):

- **Fill material.** Some of the fill material in a portion of the Central Area is impacted with antimony, arsenic, and/or cadmium at concentrations exceeding Method A unrestricted CULs and Method B CULs for direct contact and/or protection of groundwater.
- **Native material.** Intermediate soil in a test pit in the southern portion of the Central Area is impacted with antimony at a concentration exceeding the Method B protection of groundwater CUL and arsenic at a concentration exceeding the Method A unrestricted, Method B direct contact and protection of groundwater, and Method A industrial CULs.
- **Limestone-like material.** A mound of limestone-like material present in the southwestern portion of the Central Area is impacted with arsenic, cadmium, and lead at concentrations exceeding the Method A unrestricted CUL, arsenic and thallium at concentrations exceeding the Method B direct contact CUL, and antimony, arsenic, cadmium, lead, and selenium at concentrations exceeding the Method B protection of groundwater CUL. The concentrations of arsenic, cadmium, and lead also exceed the Method A and/or C industrial CULs.
- **Apparent creosote-treated debris.** Shallow soil in a test pit containing apparent creosote-treated debris in the southwestern portion of the Central Area is impacted with carcinogenic PAHs (i.e., benzo(a)pyrene and the total cPAH toxic equivalent) at concentrations exceeding the Method A unrestricted CUL, and dioxins (i.e., hexachlorodibenzo-p-dioxin and the total dioxin/furan toxic equivalent) at concentrations exceeding the Method B direct contact CUL.
- **Shallow soil with metallic sheen.** Shallow soil in a test pit in the northwestern portion of the Central Area was observed to have a metallic sheen and is impacted with antimony at a concentration exceeding the Method B protection of groundwater CUL, and benzo(a)pyrene and total naphthalenes at concentrations exceeding Method A unrestricted CULs. The concentration of total naphthalenes also exceeds the Method A industrial CUL.

COPCs have not been detected at concentrations exceeding CULs in groundwater at the Marine Drive Property.

Based on the results of the environmental investigation:

- The suspected source of contaminated soil at the Marine Drive Property is placement of imported fill material and historical use as a storage yard for the Cement Plant,
- Contaminants of concern (COCs) for the Marine Drive Property are metals, PAHs, and dioxins in shallow and/or intermediate soil.
- Potential exposure pathways for the Marine Drive Property include direct contact with soil and leaching of contaminant in soil to groundwater.
- The extent of COCs have not been fully evaluated and the potential for contaminants in soil to leach to groundwater has not been fully evaluated.

This RI Report proposes a strategy for additional remedial investigation activities to close data gaps and evaluate the extents of contaminated soil and the potential presence of contaminated groundwater. The proposed scope of work to address the data gaps will be presented in a separate work plan submitted to Ecology.

ABC Recycling plans to redevelop the portions of the Central Area where soil with concentrations of COCs exceeding relevant CULs has been detected. The redevelopment will include excavation and offsite disposal of soil from some of the AOPCs and covering soil in the Central Area with buildings, hardscapes, and other infrastructure. The approach for addressing contaminated soil and contaminated groundwater (if encountered) will be presented in a forthcoming Feasibility Study and Cleanup Action Plan.

This Executive Summary should be used only in the context of the full report for which it is intended.

1.0 INTRODUCTION

GeoEngineers, Inc. (GeoEngineers) has prepared this Remedial Investigation (RI) Report on behalf of ABC Recycling Realty Corp. (ABC Recycling) for Whatcom County Washington Tax Parcel 380223106374 and Property ID 188503 (referred to herein as the Marine Drive Property). The location of the Marine Drive Property is shown on Figure 1. The Marine Drive Property features are shown on Figure 2. General property information is summarized below.

GENERAL PROPERTY INFORMATION

Project Contacts	
Property Owner	ABC Recycling Realty Corp.
Environmental Consultant	GeoEngineers, Inc. – Mark Havighorst, P.E. (Project Manager)
Property Information and Location	
Property Address	No address is available. The property consists of Whatcom County Tax Parcel 380223106374
Approximate Surface Elevation	Approximately 85 to 100 feet (North American Vertical Datum 1988 [NAVD88]).
General Description	The property is located south of Marine Drive and north of the BNSF Railway right-of-way.
Parcel Number	380223106374
GPS Coordinates	48°46'12''N, 122°31'27"W
Section, Township, and Range	Section 23, Township 38N, Range E
Geologic Setting and Subsurface Conditions	
Geologic Setting	Puget Sound Lowlands
Nearest Surface Water Body	Puget Sound (Bellingham Bay) is approximately 800 feet to the southwest
Soil and Geologic Conditions	Glacially deposited sediments
Depth to Groundwater	Approximately 8.5 feet below ground surface
Inferred Direction of Groundwater Flow	To the southwest toward Puget Sound based on topography and proximity to Puget Sound.
Regulatory Database	
Cleanup Site ID	Not applicable
Facility/Site ID	Not applicable
UST Site No.	Not applicable
LUST Release No.	Not applicable

Notes:

bgs = below ground surface

NAVD88 = North American Vertical Datum of 1988

Based on the results of an environmental investigation conducted at the Marine Drive Property in October 2020 (further discussed in Section 2.5):

- Contaminants of potential concern (COPCs) associated with operation of the Cement Plant at the property at 741 Marine Drive in Bellingham, including priority pollutant metals, polycyclic aromatic hydrocarbons (PAHs), and dioxins are present at concentrations exceeding Washington State Model Toxics Control Act (MTCA) Method A unrestricted, Method B direct contact, and/or Method B protection of groundwater cleanup levels (CULs) in soil in some portions of the Marine Drive Property. The concentrations of metals and total naphthalenes in soil in some portions of the Marine Drive property also exceed Method A or C industrial CULs.
- Shallow groundwater has been detected in temporary groundwater monitoring wells at depths as shallow as approximately 8.5 feet bgs at the Marine Drive Property. COPCs have not been detected at concentrations exceeding CULs in shallow groundwater at the Marine Drive Property.

1.1. Objectives

This RI Report documents the environmental conditions at the Marine Drive Property, summarizes the planned redevelopment of the Marine Drive Property, and proposes a strategy for additional remedial investigation activities to close data gaps and evaluate the extents of contaminated soil and the potential presence of contaminated groundwater. The information presented in this RI Report is intended to support the development and evaluation of technically feasible cleanup alternatives in accordance with Sections 360 through 390 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-360 through 173-340-390).

1.2. Regulatory Framework

The RI Report is being submitted as part of an application for enrollment in the Washington State Department of Ecology (Ecology) Expedited Voluntary Cleanup Program (VCP).

2.0 BACKGROUND

This section provides background information relevant for this RI.

2.1. Property Description and Land Use

The Marine Drive Property comprises 19.69 acres and consists of Whatcom County Tax Parcel 380223106374 and Property ID 188503. The elevation of the Marine Drive Property ranges from approximately 85 to 100 feet.

The Marine Drive Property is zoned Heavy Impact industrial (Whatcom County Land Use Code HII). ABC Recycling plans to redevelop the Marine Drive Property for continued industrial use.

For the purpose of this RI Report the Marine Drive Property is divided into the following three areas:

- **Western Area.** This area comprises approximately 7.59 acres that is undeveloped and heavily forested. No significant redevelopment is planned for the Western Area.

- **Central Area.** This area comprises approximately 9.34 acres. The Central Area was cleared between 1968 and 1971 for use as a materials storage area for the cement plant operations at the facility at 741 Marine Drive. The Central Area is covered with compacted gravel and since 2006 has been used to store materials, equipment, and metal shipping containers. Redevelopment activities planned for the Central Area include removal of materials, equipment, and containers; minor grading and trenching; construction of subsurface utilities, concrete slab-on grade foundations and working surfaces, asphalt-paved service yards and roadways, two buildings, and other hardscape features; and installation of industrial equipment. When redevelopment activities are completed the entirety of the Central Area will be covered with concrete, asphalt, or buildings.
- **Eastern Area.** This area comprises approximately 2.76 acres that is undeveloped and heavily vegetated. Redevelopment activities in the Eastern Area of the Marine Drive Property will include removal of materials and equipment temporarily stored in this area; clearing and grubbing of part of the eastern portion; minor grading and trenching; construction of subsurface utilities, a concrete slab-on grade building foundation and parking area, an office building; and construction of a stormwater detention pond and treatment system. A portion of the stormwater detention pond will be constructed below the current grade. When redevelopment activities are completed the entirety of the Eastern Area will be covered with compacted gravel, concrete, buildings, the stormwater detention pond, or existing and new vegetation.

2.2. Surrounding Properties

The Marine Drive Property is bounded by the following rights-of-way and properties shown on Figure 2:

- North – Marine Drive and various properties zoned Light Impact Industrial (LII);
- South - BNSF Railway right-of-way and the Lehigh Northwest Cement Co facility (741 Marine Drive), which is zoned Heavy Impact Industrial (HII);
- East – a property comprising Whatcom County tax lot 38022321328 developed with a church and zoned Neighborhood Commercial (NC);
- West – an undeveloped property comprising Whatcom County tax lot 3802230414 and zoned Light Impact Industrial (LII).

Properties zoned for urban residential use (Whatcom County land use codes UR3, UR6, and URMX) are located within approximately 1/8-mile of the Marine Drive Property.

2.3. Site History

The Marine Drive Property historically was owned by Lehigh Hanson and used in connection with operation of the Lehigh Northwest Cement Co (aka Columbia Tilbury Cement Company) facility located at 741 Marine Drive in Bellingham (referred to herein as the Cement Plant). The Cement Plant is listed under Ecology's LUST ID 4344 for a confirmed release of diesel fuel during fuel transfer. Ecology issued a "Reported Cleaned Up" (RCU) letter for the release in 2002. The Cement Plant also is listed under Facility ID 2868 and Cleanup Site ID 3927 for a Site Hazard Assessment performed to evaluate impacts from cement kiln dust to surface water, groundwater, and soil in 1993. A No Further Action determination based on the Site Hazard Assessment was issued in 1993.

The Marine Drive Property was undeveloped and forested until 1968. A portion of the Central Area was cleared between 1968 and 1971 for use as a storage yard for the Cement Plant. The materials stored in the yard historically included stockpiles of limestone. A comprehensive list of other materials potentially stored in the Central Area is not available. A portion of the Central Area was covered with gravel and compacted in 2006. Since then it has been used to store only equipment and metal shipping containers. The Western Area and Eastern Area remain undeveloped.

2.4. Geology and Hydrogeology

This section summarizes geology and hydrogeology at the Marine Drive Property based on the results of a Phase 2 environmental site assessment (ESA) of the Marine Drive Property performed by Anchor QEA, LLC (Anchor) in November 2020. The results of the Phase 2 ESA were described in the Phase 2 Environmental Assessment Report prepared by Anchor and dated August 2023 (Phase 2 ESA Report).

2.4.1. Soil Conditions

According to the United States Geological Survey (USGS) Bellingham topographic map, the ground surface of the Marine Drive Property and surrounding area slopes down gently to the west-southwest toward Bellingham Bay (Washington Division of Geology and Earth Sciences). The underlying soil is identified as Pleistocene deposits (Sumas outwash Qso) consisting of loose, moderately to well-sorted gravel with local boulders, sandy gravel, minor gravelly medium to coarse sand, and rare sand to silt.

The Phase 2 ESA included excavating 17 test pits in the Western, Central, and Eastern Areas, and advancing 6 borings in the Central Area. The approximate locations of the test pits and borings are shown on Figure 2. The following characterization of soil conditions in the Western, Central, and Eastern areas of the Marine Drive Property are based on observations during those test pitting and boring activities.

- **Western Area.** Two test pits (TP-1 and TP-2) were excavated to depths ranging from 1.5 to 2 feet bgs. Soil encountered in the test pits generally consisted of fine silt and sand with some organic matter.
- **Central Area.** Eleven test pits (TP-3 through TP-12 and TP-16) were excavated to depths ranging from 0.5 to 5.5 feet bgs and 6 borings were advanced to depths ranging approximately 15 to 27 feet bgs. Soil in test pits generally consisted of compacted gravel mixed with fine silt and sand and occasional organics to a depth of up to approximately 2 feet bgs. Underlying the fill is interbedded sand with silt and clayey silt to a depth of approximately 27 feet bgs. A hard clay layer was encountered in several borings at depths ranging from approximately 10 to 22 feet bgs.
- **Eastern Area.** Four test pits (TP-13, TP-14, TP-15, and TP-17) were excavated to a depth of 2 feet bgs. Soil in the test pits generally consisted of fine silt and sand with some organic matter.

2.4.2. Groundwater Conditions

Shallow groundwater was encountered in borings completed in Central Area of the Marine Drive Property at depths ranging from 8.5 to 24 feet bgs.

Based on the proximately of the Marine Drive Property to Puget Sound and local topography, the inferred groundwater flow direction is to the west-southwest.

2.5. Environmental Investigation Summary

Anchor performed a Phase 2 ESA of the Marine Drive Property in November 2020. The objective for the Phase 2 ESA was to evaluate whether use of the Marine Drive Property by Lehigh Hanson as a storage yard or activities at nearby properties have impacted the Marine Drive Property. Phase 2 ESA included preparing a preliminary conceptual site model (CSM) and collecting soil and grab groundwater samples for laboratory analysis of COPCs. The preliminary CSM and the results of soil and grab groundwater sampling presented in the Phase 2 ESA Report are summarized as follows.

2.5.1. Preliminary Conceptual Site Model

The preliminary CSM described in the Phase 2 ESA Report proposed that soil at the Marine Drive Property may have been impacted by the following operations:

- Historical material stockpiling in the Central Area;
- Leaching of metals from large containers in the Central Area;
- Releases of gasoline, diesel, heavy oil, or hydraulic fluid from maintenance, storage, or operation of heavy machinery in the Central Area;
- Fill material emplaced in the Central Area; and
- Airborne kiln dust from the Cement Plant.

The preliminary CSM proposed that groundwater at the Marine Drive Property may be impacted as the result of contaminants in soil at the Marine Drive Property migrating to groundwater or from groundwater at nearby properties migrating onto the Marine Drive Property.

Based on the operations at the Marine Drive Property and Cement Plant the preliminary CSM identified the following COPCs as potential exposure risks for human receptors:

- Priority pollutant metals (antimony, arsenic, beryllium, cadmium chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc);
- Petroleum hydrocarbons as gasoline-range organics (GRO), diesel-range organics (DRO), and oil-range organics (ORO);
- Polycyclic aromatic hydrocarbons (PAHs);
- Polychlorinated biphenyls (PCBs); and
- Dioxins and furans.

2.5.2. Soil Sampling

Soil sampling for the Phase 2 ESA included forming 17 test pits (TP-1 through TP-17) using an excavator and advancing 6 borings (GP-1 through GP-6) using direct-push methods at the Marine Drive Property, collecting soil samples from the test pits and borings, and analyzing selected samples for one or more of the COPCs. The approximate locations of the test pits and borings are shown on Figure 2.

Test pits TP-1 and TP-2 were in the Western Area. The locations of these test pits were selected based on relatively easy access and samples were collected from TP-1 and TP-2 to evaluate general conditions in the undeveloped forested area.

Borings GP-1 through GP-6 and test pits TP-3 through TP-12 and TP-16 were in the Central Area. The locations for the borings and test pits were selected to evaluate general conditions in the storage yard. Test pits TP-3, TP-5, TP-6, and TP-16 also were selected based on field observations, specifically:

- The location of TP-3 was selected to evaluate a mound of fine limestone-like material;
- The location of TP-5 was selected to evaluate apparent creosote-treated debris;
- The location of TP-6 was selected to evaluate surface soil with a slight metallic sheen; and
- The location of TP-16 was selected to evaluate surface soil with a distinct color and composition, specifically dark brown in color with coarse-grained soil, as opposed to the fine-grained soil found in surficial samples elsewhere around the yard.

Test pits TP-13, TP-14, TP-15, and TP-17 were in the Eastern Area. The locations of these test pits were selected based on relatively easy access and samples were collected from TP-13, TP-14, TP-15, and TP-17 to evaluate general conditions in the undeveloped forested area east of the storage yard.

Thirty-five soil samples were collected from the test pits and borings within the following three depth intervals:

- Shallow - 2 feet or less bgs;
- Intermediate – greater than 2 feet bgs to approximately 15 feet bgs, which is the standard point of compliance for soil under MTCA; and
- Deep – approximately 15 to 27 feet bgs.

Test pit and boring logs from the Phase 2 ESA Report are included as Appendix A. The depths of the test pits, borings, and soil samples collected from the test pits and borings, lithology encountered, and analytical sampling performed for the samples were summarized in Table 1 in the Phase 2 Report. That table is included in Appendix B.

2.5.3. Soil Analytical Results

Twenty-five soil samples were analyzed for one or more COPCs. Ten soil samples were not analyzed. The laboratory report for the Phase 2 ESA is included in Appendix C. Chemical analytical results for the soil samples collected during the Phase 2 ESA are presented in Table 3 in Appendix B and discussed below. A summary of the sampling and analytical scope of work is included in Table 1

2.5.3.1. Data Quality Analysis

The analytical data for the soil groundwater samples from the Phase 2 ESA were reviewed for quality assurance/quality control purposes and for use to evaluate soil conditions and define the nature and extent contamination. Data for which the sample location, sample depth, analytical methods, and chemical analytical results could be verified were considered acceptable for use. Based on our review of the

environmental data, no significant data quality exceptions were noted for the laboratory reports for the sample analyses.

2.5.3.2. Comparison to Regulatory Screening Levels

The analytical results for the soil are summarized and compared with Method A unrestricted, Method B direct contract, Method B protection of groundwater, Method A industrial, and Method C industrial CULs, and with the naturally occurring background concentrations for the Puget Sound region[1] in Table 3 in Appendix B. The results for the Western, Central, and Eastern Areas are described as follows and summarized in Table 1. The test pits and borings where COPCs were detected at concentrations exceeding Method A and B CULs in shallow, intermediate, and deep soil samples are shown on Figures 3, 4, and 5, respectively.

- **Western Area**

  Only shallow soil samples were collected from the Western Area test pits TP-1 and TP-2. The soil samples were analyzed for priority pollutant metals, GRO, DRO, ORO, and PAHs, but not for PCBs or dioxins and furans.

  Only arsenic was detected at concentrations exceeding MTCA cleanup levels in the shallow soil samples collected from TP-1 and TP-2. The detected concentration was 11 milligrams per kilogram (mg/kg), which exceeds the Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration of 7 mg/kg for the Puget Sound region.[2]

- **Central Area**

  Shallow and intermediate soil samples were collected from test pits and deep soil samples were collected from borings in the Central Area. Sampling results are summarized as follows.

  Shallow Soil

  Shallow soil samples were collected from test pits TP-3 through TP-6, TP-8, TP-9, and TP-12, and analyzed for priority pollutant metals, GRO, DRO, ORO, and PAHs. Shallow soil samples collected from TP-5 and TP-6 also were analyzed for PCBs and dioxins and furans. Shallow soil samples were not collected from TP-10. Shallow soil samples were collected from TP-11 and TP-16 but not analyzed for COPCs.

  Only metals, PCBs, and dioxins/furans were detected at concentrations exceeding MTCA CULs. These exceedances are summarized as follows.

  TP-3. Arsenic, cadmium, and lead were detected at concentrations exceeding Method A unrestricted CULs. Arsenic and thallium were detected at concentrations exceeding Method B direct contact CULs.

[1] Natural Background Soil Metals Concentrations in Washington State. Washington State Department of Ecology, Toxics Cleanup Program. Publication #94-115. October 1994.

[2] Natural Background Soil Metals Concentrations in Washington State. Washington State Department of Ecology, Toxics Cleanup Program. Publication #94-115. October 1994.

Antimony, arsenic, cadmium, lead, selenium, and thallium were detected at concentrations exceeding the Method B CULs for protection of groundwater. The concentrations of arsenic, cadmium, and lead also exceed the Method A and/or C industrial CULs.

TP-4. Arsenic was detected at concentrations exceeding Method A unrestricted and Method B direct contact CULs. Antimony, arsenic, and cadmium were detected at concentrations exceeding the Method B CULs for protection of groundwater. The concentration of arsenic also exceeds the Method C industrial CUL.

TP-5. Arsenic and cadmium were detected at concentrations exceeding Method B direct contact and protection of groundwater CULs but consistent with the naturally occurring background concentrations for the Puget Sound region (7 mg/kg of arsenic and 1 mg/kg for cadmium).[3] Antimony was detected at a concentration or 6 mg/kg, which exceeds the Method B protection of groundwater CUL of 5.4 mg/kg.

Concentrations of benzo(a)pyrene and the total cPAH toxic equivalent (TEQ) exceed the Method A unrestricted and Method B direct contract CULs, respectively.

The concentrations of total hexachlorodibenzo-p-dioxin and the total dioxin/furan TEQ exceed the Method B direct contact CULs.

TP-6. Arsenic and cadmium were detected at concentrations exceeding Method B direct contact and protection of groundwater CULs but consistent with the naturally occurring background concentrations for the Puget Sound region. Antimony was detected at a concentration or 6 mg/kg, which exceeds the Method B protection of groundwater CUL of 5.4 mg/kg.

Concentrations of benzo(a)pyrene and the total cPAH TEQ exceed the Method A unrestricted and Method B direct contract CULs, respectively. The concentration of total naphthalene exceeds the Method A unrestricted and Method B direct contract CULs. Concentrations of benzo(a)pyrene and the total cPAH TEQ exceed the Method A unrestricted and Method B direct contract CULs, respectively.

TP-8. Arsenic was detected at a concentration exceeding Method A unrestricted and Method B direct contact CULs. Antimony, arsenic, and cadmium were detected at concentrations exceeding Method B protection of groundwater CULs.

TP-9. Arsenic was detected at a concentration exceeding the Method A unrestricted CUL. Antimony and arsenic were detected at concentrations exceeding the Method B direct contact and protection of groundwater CULs.

TP-12. Arsenic was detected at a concentration exceeding Method A unrestricted and Method B direct contract CULs. The concentration of arsenic also exceeds the Method C industrial CUL. Antimony and arsenic were detected at concentrations exceeding Method B protection of groundwater CULs.

[3] Natural Background Soil Metals Concentrations in Washington State. Washington State Department of Ecology, Toxics Cleanup Program. Publication #94-115. October 1994.

Cadmium was detected at a concentration exceeding Method B protection of groundwater CULs but consistent with the naturally occurring background concentration for the Puget Sound region.

Intermediate Soil

Intermediate soil samples were collected from test pits TP-7 and TP-16 and borings GP-1 through GP-6 and analyzed for metals, GRO, DRO, ORO, and PAHs. Intermediate soil samples collected from boring GP-1 and test pit TP-7 also was analyzed for PCBs and the sample from GP-1 was analyzed for dioxins and furans.

Only metals were detected at concentrations exceeding MTCA cleanup levels in the intermediate soil samples. These exceedances are summarized as follows.

TP-7. An intermediate soil sample was collected from a depth range of 4.5 to 5 feet bgs. Arsenic was detected at a concentration exceeding Method A unrestricted, Method B protection of groundwater and Method A industrial CULs. Antimony was detected at a concentration exceeding the Method B protection of groundwater CUL. Cadmium was detected at a concentration exceeding the Method A unrestricted, Method B direct protection of groundwater, and Method A industrial CULs but consistent with the naturally occurring background concentration for the Puget Sound region.

TP-16. An intermediate soil sample was collected from a depth range of 5 to 5.5 feet bgs. Arsenic and cadmium were detected at concentrations of 6.4 and 0.79 mg/kg, respectively. The arsenic concentration exceeds the Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentrations for the Puget Sound region. The cadmium concentration exceeds the Method B direct contact CUL but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-1. An intermediate soil sample was collected from a depth interval of 7 to 9.7 feet bgs. Arsenic was detected at concentrations exceeding Method B direct contact and protection of groundwater CULs in the samples collected from both depth intervals. However, the detected concentration, which was 9.3 mg/kg, is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-2. An intermediate soil sample was collected from a depth interval of 8 to 9 feet bgs. Arsenic was detected at a concentration of 9.8 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-3. Intermediate soil samples were collected from depth intervals of 12.7 to 13.4 and 14.4 to 15.9 feet bgs. The sample collected from the depth interval of 12.7 to 13.4 feet bgs was not analyzed. Arsenic was detected at a concentration of 3.9 mg/kg in the soil sample collected from 14.4 to 15.9 feet bgs. This concentration exceeds the Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-4. An intermediate soil sample was collected from a depth interval of 7.8 to 8.7 feet bgs. Arsenic was detected at a concentration of 14 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

Cadmium was detected at a concentration of 0.9 mg/kg in the soil sample collected from 7.8 to 8.7 feet bgs. This concentration exceeds the Method B protection of groundwater cleanup level of 0.69 mg/kg but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-5. An intermediate soil sample was collected from a depth interval of 6.9 to 7.5 feet bgs. Arsenic was detected at a concentration of 7.5 mg/kg, which exceeds the Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-6. An intermediate soil sample was collected from a depth interval of 10.8 to 15 feet bgs. Arsenic was detected at a concentration of 3.6 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

Deep Soil

Deep soil samples were collected from borings GP-1, GP-2, GP-4, and GP-5 at depths ranging from 15 to 27 feet bgs and analyzed for metals, GRO, DRO, ORO, and PAHs. Deep soil samples were not analyzed for PCBs or dioxins and furans. A second deep soil sample was collected from boring GP-2 from a depth interval of 14 to 20 but not analyzed for COPCs.

Only metals were detected at concentrations exceeding MTCA cleanup levels in the deep soil samples. These exceedances are summarized as follows.

GP-1. A deep soil sample was collected from a depth interval of 20 to 22 feet bgs. The sample consisted of wet soil. Arsenic was detected at a concentration of 6 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-2. A deep soil sample was collected from a depth interval of 25 to 27 feet bgs. The sample consisted of wet soil. Arsenic was detected at a concentration of 5.3 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-4. A deep soil sample was collected from a depth interval of 15 to 18.7 feet bgs. The sample consisted of wet soil. Arsenic was detected at a concentration of 6 mg/kg, which exceeds the Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

GP-5. A deep soil sample was collected from a depth interval of 20 to 22 feet bgs. The sample consisted of wet soil. Arsenic was detected at a concentration of 5 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

- **Eastern Area**

Shallow soil samples were collected from test pits TP-13 through TP-15 and TP-17 and analyzed for total petroleum hydrocarbons as GRO, DRO, ORO, and PAHs. The soil samples collected were not analyzed for PCBs or dioxins and furans.

Only metals were detected at concentrations exceeding MTCA cleanup levels in the shallow soil samples collected from test pits in the Eastern Area. These exceedances are summarized as follows.

TP-13. Arsenic was detected at a concentration of 6.5 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

TP-14. Arsenic was detected at a concentration of 7.2 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

TP-15. Arsenic was detected at a concentration of 9.9 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

TP-17. Arsenic was detected at a concentration of 13 mg/kg, which exceeds Method B direct contact and protection of groundwater CULs but is consistent with the naturally occurring background concentration for the Puget Sound region.

Cadmium was detected at a concentration of 0.71 mg/kg, which exceeds the Method B protection of groundwater cleanup level of 0.69 mg/kg but is consistent with the naturally occurring background concentration of 1 mg/kg for the Puget Sound region.

2.5.4. Grab Groundwater Sampling

Temporary wells were installed at all 6 boring locations. Groundwater was encountered in only borings GP-2, GP-3, GP-4, and GP-6 at depths ranging from 8.5 to 24 feet bgs; however, groundwater sufficient for collection of samples was encountered in only borings GP-3 and GP-6 (Figure 6).

Grab groundwater samples were collected from boring GP-3 from a depth of 16.3 feet bgs and GP-6 from a depth of 12 feet bgs using low flow methods. The grab groundwater samples were analyzed for dissolved priority pollutant metals, GRO, DRO, ORO, and PAHs. A summary of the sampling and analytical scope of work were summarized in Table 2 in the Phase 2 Report. That table is included in Appendix B. The laboratory report for the Phase 2 ESA is included in Appendix C.

2.5.4.1. Data Quality Analysis

The analytical data for the grab groundwater samples from the Phase 2 ESA were reviewed for quality assurance/quality control purposes and for use to evaluate groundwater conditions and the nature and extent contamination. Data for which the sample location, sample depth, analytical methods, and chemical analytical results could be verified were considered acceptable for use. Based on our review of the environmental data, no significant data quality exceptions were noted for the laboratory reports for the sample analyses.

2.5.4.2. Comparison to Regulatory Screening Levels

The analytical results for the grab groundwater samples are summarized and compared with Method A and B CULs in Table 5 in Appendix B. COPCs including dissolved priority pollutant metals, GRO, DRO, ORO, and PAHs were not detected at concentrations exceeding Method A or B CULs.

2.6. Key Findings

Key findings for the three areas of the Marine Drive Property based on the results of Phase 2 ESA are as follows.

2.6.1. Western Area

The Western Area is forested, undeveloped, and has not been used for industrial purposes.

There is no evidence of historical releases occurring in the Western Area or impacts to shallow soil in the Western Area.

There is no evidence indicating that shallow soil in the Western Area is impacted with COPCs including priority pollutant metals, petroleum hydrocarbons, and PAHs at concentrations exceeding MTCA cleanup levels (and naturally occurring background levels for metals) in the Puget Sound region. Arsenic concentrations in the shallow soil samples collected from test pits TP-1 and TP-2, which represent the general condition of soil in the forest, exceed Method B direct contact and protection of groundwater CULs. However, the detected concentrations are consistent with naturally occurring background concentration for the Puget Sound region.

2.6.2. Central Area

The Central Area historically was forested. A portion of the forest was cleared between 1968 and 1971 for use as a materials storage area for the Cement Plant and was subsequently covered with compacted gravel, and since 2006 has been used to store materials, equipment, and metal shipping containers.

There is no evidence of historical releases occurring in the Central Area or that shallow and intermediate soil in the Central Area is impacted with petroleum hydrocarbons or PCBs at concentrations exceeding MTCA cleanup levels. However, the results of the Phase 2 ESA indicate that shallow and intermediate soil impacted with metals, PAHs, and/or dioxins and furans is present in the following areas of potential concern (AOPCs):

Fill material. Fill material consisting of gravelly soil was encountered in several test pits and borings in the non-forested portion of the Central Area to a depth of approximately 0.5 to 1.5 feet bgs. Sampling at test pits TP-4, TP-8, TP-9, and TP-12 suggests that the fill material in a portion of the Central Area may be impacted with arsenic at concentrations exceeding the Method A unrestricted CUL and naturally occurring background concentrations for the Puget Sound region, and antimony, arsenic, and cadmium at concentrations exceeding Method B CULs for direct contact and protection of groundwater. Intermediate soil samples were not collected from test pits TP-9 and TP-12 and intermediate soil samples were collected from TP-4 and TP-8 but were not analyzed for COPCs, and groundwater proximate to TP-4, TP-8, TP-9, and TP-12 was not evaluated as part of the Phase 2 ESA.

Native material at TP-7. Sampling from test pit TP-7 indicates that intermediate soil proximate to this test pit from a depth range of 4.5 to 5 feet bgs is impacted with antimony at a concentration exceeding the Method B protection of groundwater CUL and arsenic at a concentration exceeding the Method A unrestricted, Method B direct contact and protection of groundwater, and Method A industrial CULs. Shallow and deep soil samples were not collected from TP-7 and groundwater proximate to TP-7 was not evaluated as part of Phase 2 ESA.

A mound of fine limestone-like material. Sampling from test pit TP-3 indicates that shallow soil at the mound of limestone-like material is impacted with antimony, arsenic, cadmium, lead, selenium, and thallium at concentrations exceeding the Method A and B unrestricted CULs. The concentrations of arsenic, cadmium, and lead also exceed the Method A and/or C industrial cleanup levels. Intermediate soil samples were not collected from TP-3 and groundwater proximate to limestone-like material and TP-3 was not evaluated as part of the Phase 2 ESA.

Apparent creosote-treated debris. Sampling from test pit TP-5 indicates that shallow soil proximate to the creosote-treated debris is impacted with carcinogenic PAHs (i.e., benzo(a)pyrene and the total cPAH TEQ) at concentrations exceeding the Method A unrestricted CUL, and dioxins (i.e., hexachlorodibenzo-p-dioxin and the total dioxin/furan TEQ) at concentrations exceeding the Method B direct contract CUL. Intermediate and deep soil samples were not collected from TP-5 and groundwater proximate to limestone-like material and TP-3 was not evaluated as part of the Phase 2 ESA.

Shallow soil with metallic sheen. Sampling from test pit TP-6 indicates that shallow soil observed to have a metallic sheen is impacted with antimony at a concentration exceeding the Method B protection of groundwater CUL, benzo(a)pyrene and total naphthalenes at concentrations exceeding Method A unrestricted CULs. The concentration of total naphthalenes also exceeds the Method A industrial CUL. Intermediate and deep soil samples were not collected from TP-6 and groundwater proximate to TP-6 was not evaluated as part of the Phase 2 ESA.

There is no evidence that deep soil in the Central Area is impacted with COPCs including priority pollutant metals, petroleum hydrocarbons, and PAHs at concentrations exceeding MTCA cleanup levels and naturally occurring background levels for metals in the Puget Sound region. Arsenic concentrations in the deep soil samples collected from borings GP-1, GP-2, GP-4, and GP-5 exceed Method B direct contact and protection of groundwater CULs. However, the detected concentrations are consistent with naturally occurring background concentration for the Puget Sound region.

Shallow groundwater was encountered in borings in the Central Area at depths ranging from 8.5 to 24 feet bgs. Based on the proximately of the Marine Drive Property to surrounding surface water bodies (i.e., Puget Sound) and local topography, the inferred groundwater flow direction is to the west-southwest.

Dissolved priority pollutant metals, petroleum hydrocarbons, and PAHs were not detected in grab groundwater samples collected from the borings in the Central Area (GP-3 and GP-6).

2.6.3. Eastern Area

The Eastern Area is forested and undeveloped and has not been used for industrial purposes.

There is no evidence of historical releases occurring in the Eastern Area or impacts to shallow soil in the Eastern Area.

There is no evidence that shallow soil in the Eastern Area is impacted with COPCs including metals, petroleum hydrocarbons, and PAHs at concentrations exceeding MTCA cleanup levels and naturally occurring background levels for metals in the Puget Sound region. Arsenic concentrations in the shallow soil samples collected from test pits TP-13, TP-14, TP-15, and TP-17, and the cadmium concentration in the shallow soil sample collected from TP-17, which represent the general condition of soil in the forest, exceeds Method B direct contact and protection of groundwater CULs. However, the detected

concentrations are consistent with the naturally occurring background concentrations for the Puget Sound region.

2.7. Conceptual Site Model

An updated CSM was developed for the Marine Drive Property based on historical land use and the results of the environmental investigation described in Section 2.5. The CSM includes discussion of the confirmed and suspected sources of contamination, contaminants of concern (COCs), media of concern, and potential exposure pathways that could affect human or environmental health. It is anticipated that the CSM will be used to develop feasible cleanup options and to select a preferred cleanup action for the Marine Drive Property.

2.7.1. Confirmed and Suspected Sources of Contamination

Based on the results of the Phase 2 ESA, the areal and vertical extents of the COCs, which are the COPCs detected at concentrations exceeding relevant Method A and B CULs appears to be limited to soil in the Central Area where fill material was emplaced and at distinct areas where limestone-like material was stockpiled, apparent creosote treated debris was placed, and soil was observed to have a metallic sheen. The source(s) of the COCs in soil likely is historical use of the Central Area as a storage yard associated with operation of the Cement Plant.

ABC Recycling plans to redevelop the portions of the Central Area where COC-impacted soil has been detected. The redevelopment will include covering soil surfaces with buildings, hardscapes, and other infrastructure.

2.7.2. Contaminants of Concern

The COCs for the Marine Drive Property are the potentially hazardous compounds that have been detected in environmental media during the environmental investigations. Based on the chemical analytical results for soil samples obtained during the Phase 2 ESA, the preliminary COCs for the Marine Drive Property are the contaminants that were detected at concentrations greater than the Method A and/or B CULs as summarized in the following table.

Contaminants of Concern (COCs)	Contaminant Source
Priority Pollutant Metals	
Antimony	Imported fill from unknown source(s)
Arsenic	
Cadmium	
Lead	Limestone-like material
Selenium	
Thallium	
PAHs	Apparent creosote-treated debris and/or non-native soil with metallic sheen
Benzo(a)pyrene	
Total cPAH TEQ	
Naphthalene	
Dioxins	

2.7.3. Media of Concern

COCs have been detected in soil samples collected from the Marine Drive Property; therefore, soil is a media of concern for the Marine Drive Property.

COCs have not been detected in groundwater samples collected from the Marine Drive Property. However, samples have not been collected from shallow groundwater proximate to soil where COCs were detected at concentrations exceeding Method B CULs for the protection of groundwater; therefore, shallow groundwater is considered a potential media of concern for the Marine Drive Property.

2.7.4. Contaminant Fate and Transport

COCs in surface soil can potentially be mobilized in stormwater and as particulate in air. Based on topography stormwater in the Central Area generally flows towards the rail spur.

COCs in intermediate soil can potentially leach to shallow groundwater and be transported in groundwater, which based on proximity of the Marine Drive Property to surrounding surface water bodies (i.e., Puget Sound) and local topography, flows towards the west-southwest.

2.7.5. Potential Exposure Pathways and Receptors

Exposure pathways describe the mechanisms by which human and ecological receptors may be exposed to COCs originating from a site (WAC 340-350 (7)(e)(ii)). The following sections summarize potential exposure pathways for the Marine Drive Property.

2.7.5.1. Direct Contact

Soil with concentrations of COCs greater than the Method B CUL for direct contact is present in only the Central Area proximate to test pits TP-4, TP-5, TP-6, TP-8, TP-9, and TP-12 at depths of 0 to 0.5 feet bgs and TP-3 at depths from 1.5 to 2 feet bgs.

The Marine Drive Property currently is used and will continue to be used for industrial purposes, and concentrations of only arsenic in soil samples collected from test pits TP-3 and TP-4 exceed the Method C CUL for direct contact. The Marine Drive Property is unoccupied and access to the Central Area is limited by the surrounding features, such as the woodland and railroad spur.

It is anticipated that the direct contact to soil pathway will be eliminated as a result of redevelopment of the Marine Drive Property.

2.7.5.2. Soil Vapor to Indoor Air

Soil vapor (i.e., the air in the pore space between soil grains in the unsaturated zone) can be impacted by volatilization of volatile organic compounds (VOCs) from soil. Depending on type and construction of on-site structures, there is the potential for soil vapors contained in soil beyond the construction excavation footprint to impact indoor air through vapor intrusion. However, exposure via the soil vapor to indoor air pathway is not considered a high risk under current or future conditions at the Marine Drive Property for the following reasons:

- VOCs are not a COPC for the Marine Drive Property;
- Currently there are no buildings at the Marine Drive Property; and
- The new buildings planned as part of the redevelopment of the Marine Drive Property will be constructed using vapor barriers and concrete slab-on-grade foundations. This construction will limit the potential for soil vapors to infiltrate buildings.

Based on the above discussion, the soil vapor to indoor air pathway is not considered a complete exposure pathway.

2.7.5.3. Soil to Stormwater

Currently COC impacted soil is exposed to stormwater at the Marine Drive Property. As a result, this potential exposure pathway is complete.

2.7.5.4. Soil to Groundwater

Soil with concentrations of COCs exceeding the Method B CUL for protection of groundwater and not representative of natural background conditions was encountered in only shallow or intermediate soil samples collected from test pits TP-3, TP-4, TP-7, TP-8, TP-9, and TP-12 at depths no deeper than 5 feet bgs and not in intermediate soil proximate to shallow groundwater at the Marine Drive Property, which was first encountered in the Central Area at a depth of 8.5 feet bgs. However, groundwater samples have not been collected proximate to these test pits; therefore, the soil to groundwater exposure pathway is considered potentially complete.

2.7.6. Terrestrial Ecological Evaluation

A Terrestrial Ecological Evaluation (TEE) is required by WAC 173-340-7490 for any site where a release of hazardous substances to soil has occurred. The regulation requires that one of the following actions be taken:

- Document a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conduct a simplified TEE in accordance with WAC 173-340-7492; or
- Conduct a site-specific TEE in accordance with WAC 173-340-7493.

Based on the criteria for TEE exclusion in WAC 173-340-7491(1)(b), the Marine Property is excluded from a TEE because all COPC-impacted soil will be covered by physical barriers consisting of buildings, hardscapes, and paved surfaces that prevent exposure to plants and wildlife, provided that institutional controls are used to manage remaining contamination at the conclusion of redevelopment construction, which may occur as early as the end of 2025. Under these conditions, no further consideration of terrestrial ecological impacts is required under MTCA. The Ecology TEE form for the Marine Drive Property is provided in Appendix D.

3.0 PRELIMINARY CLEANUP STANDARDS

Cleanup standards consist of 1) CULs that are protective of human health and the environment, and 2) the point of compliance at which the CULs must be met. The preliminary cleanup standards proposed for the Marine Drive Property area as follows.

3.1. Cleanup Levels

The preliminary cleanup standards for COC-impacted soil at the Marine Drive Property are the lowest Method A and B CULs for COCs for the potential exposure pathways and receptors described in Section 2.7.5. These include the following:

- Antimony – 5.4 mg/kg, Method B protection of groundwater CUL;
- Arsenic – 20 mg/kg, Method A unrestricted CUL;
- Cadmium - 2 mg/kg, Method A unrestricted CUL;
- Lead – 250 mg/kg, Method A unrestricted CUL;
- Naphthalenes – 5 mg/kg, Method A unrestricted CUL;
- cPAHs – 0.1 mg/kg, Method A unrestricted CUL; and
- Dioxin/Furan Toxicity Equivalency Factor – 13 nanograms per kilogram, Method B direct contact CUL.

COC-impacted groundwater has not been detected at the Marine Drive Property; therefore, a preliminary cleanup standard for COC-impacted groundwater is not proposed at this time.

It is anticipated that a Feasibility Study and Cleanup Action Plan will be prepared for the Marine Drive Property proposing industrial CULs as the final cleanup standards for the Marine Drive Property for the following reasons:

- The Marine Drive Property is zoned for Heavy Impact Industrial (Whatcom County land use code HII); therefore, it meets the general criteria for an industrial property under Washington Administrative Code (WAC) 173-340-200.
- The Central Area is the only portion of the Marine Drive Property where concentrations of COPC in soil exceed CULs. The closest properties zoned for urban residential use are located within approximately 600 feet north of the Central Area. This distance exceeds the general criteria of “a few hundred feet” that may trigger application of unrestricted cleanup levels for the protection of residential receptors under WAC 173-340-745(b)(iii).

The following two industrial cleanup levels have been established under MTCA:

- Method A cleanup levels are based on relatively conservative exposure and toxicological assumptions and protection of groundwater.
- Method C cleanup levels are based on less conservative exposure and toxicological assumptions and not based on protection of groundwater.

GeoEngineers anticipates applying Method C industrial CULs for guiding cleanup of Marine Drive Property cleanup if it can be demonstrated that groundwater is not impacted and likely will not become impacted in the future, and Method A industrial cleanup levels if groundwater is impacted with COPCs. The industrial Method A and C CULs for soil and groundwater are presented in Tables 3 and 5, respectively in Appendix B.

3.2. Points of Compliance

The points of compliance are the locations at which the preliminary cleanup levels for the COCs in each medium of concern must be attained to meet the requirements of MTCA and support the issuance of an NFA determination from Ecology for the Marine Drive Property. The points of compliance for the Marine Drive Property were established in accordance with WAC 173-340-720(8) for soil and groundwater.

- The standard point of compliance for soil is defined as all soil and groundwater throughout the Marine Drive Property.
- The standard point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that potentially could be impacted by COCs throughout the Marine Drive Property. This groundwater interval consists of the shallow groundwater-bearing zone at the Marine Drive Property.

4.0 SUMMARY, DATA GAPS, AND PROPOSED ADDITIONAL INVESTIGATION STRATEGY

The Marine Drive Property includes Eastern, Western, and Central Areas. A Phase 2 ESA of these areas was performed by Anchor in 2020 to evaluate potential impacts from COPCs associated with operation of the Cement Plant at the property at 741 Marine Drive. These COPCs included the following chemicals commonly associated with operation of a cement plant:

- Priority pollutant metals;
- Petroleum hydrocarbons as GRO, DRO, and ORO;
- PAHs;
- PCBs; and
- Dioxins and furans.

Shallow soil samples (0 to 2 feet bgs) were collected from test pits in the Eastern and Western Areas and shallow, intermediate (2 to 15 feet bgs), and deep (15 to 27 feet bgs) soil samples were collected from test pits and borings in the portion of the Central Area that has been developed for use as a storage yard for the cement plant. The soil samples were analyzed for one or more of the COPCs.

Shallow groundwater was encountered at a depth of approximately Grab groundwater samples were collected from 2 borings in the Central Area and analyzed for dissolved priority pollutant metals, petroleum hydrocarbons (GRO, DRO, ORO), and PAHs.

A summary of the findings of the environmental investigation, data gaps, and a proposed scope of work for additional investigation to address these data gaps and fully evaluate in accordance with MTCA the nature and extent of COPC-impacted environmental media in the Western, Eastern, and Central Areas is as follows.

4.1.1. Eastern and Western Areas

The Eastern and Western Areas are forested, undeveloped, and have not been used for industrial purposes. Additionally, the results of the historical environmental investigation performed in the Eastern and Western Areas suggest that activities associated with operation of the Cement Plant have not resulted in the presence of COPC-impacted shallow soil in the Eastern or Western Areas. Furthermore, there is no reason to believe based on the results of historical environmental investigations that deeper soil or groundwater in the Eastern and Western Areas are impacted with COPCs associated with operation of the cement plant. Accordingly, there are no data gaps and no additional investigation is proposed for the Eastern and Western Areas.

4.1.2. Central Area

The Central Area is the only portion of the Marine Drive Property that has been used for industrial purposes. The Central Area was cleared between 1968 and 1971 for use as a materials storage area for the cement plant. Most of the Central Area is covered with compacted gravel and since 2006 has been used to store materials, equipment, and metal shipping containers. The remainder of the Central Area is forested and undeveloped.

The results of the Phase 2 ESA indicate that shallow and intermediate soil impacted with COCs including metals, PAHs, and/or dioxins and furans at 5 AOPCs in the Central Area. The results of the Phase 2 ESA are not sufficient to fully characterize in accordance with MTCA soil and shallow groundwater in the AOPCs in the Central Area. A summary of the environmental conditions, data gaps, and proposed strategy for addressing these data gaps for soil and groundwater at each AOPC is described as follows. The proposed scope of work to address the data gaps will be presented in a separate work plan submitted to Ecology.

4.1.2.1. AOPC 1 – Fill Material

Environmental Conditions. Fill material consisting of compacted gravelly soil was encountered in several test pits and borings in the non-forested portion of the Central Area to a depth of approximately 0.5 to 1.5 feet bgs. Sampling at test pits TP-4, TP-8, TP-9, and TP-12 suggests that the fill material in portions of the Central Area may be impacted with arsenic at concentrations exceeding the Method A unrestricted CUL and naturally occurring background concentrations for the Puget Sound region, and antimony, arsenic, and cadmium at concentrations exceeding Method B CULs for direct contact and protection of groundwater.

Soil Data Gap and Proposed Scope of Work. The areal and vertical extents of COC-impacted fill material have not been determined; however, it is likely that the areal extent of COC-impacted fill may be discontinuous within and not exceed the footprint of visible fill observed during the Phase 2 ESA and shown on Figure 2. It also is likely that the vertical extent of COC-impacted fill likely is limited to within approximately 1.5 feet bgs, which is the maximum depth of fill observed during Phase 2 ESA. In

consideration of this likely scenario, it may be appropriate to characterize the extent of COC-impacted fill using structured composite sampling of the entire Central Area.

The proposed scope of work includes using the *incremental sampling method* (ISM) to delineate extents of COC-impacted fill.

Groundwater Data Gap and Proposed Scope of Work. Potential impacts from COCs in soil to groundwater proximate to TP-4, TP-8, TP-9, and TP-12 have not been evaluated. The proposed approach to address this data gap includes installation of groundwater monitoring wells proximate to TP-9, which are the test pits where COCs were detected at the highest concentrations in soil samples, and collection and analysis of groundwater samples from the wells for COCs.

4.1.2.2. AOPC 2 - Native Material at TP-7

Environmental Conditions. Sampling from test pit TP-7 indicates that intermediate soil proximate to this test pit from a depth range of 4.5 to 5 feet bgs is impacted with antimony at a concentration of 8.8 mg/kg which exceeds the Method B protection of groundwater CUL (5.4 mg/kg), and arsenic at a concentration of 25 mg/kg, which exceeds the Method A unrestricted (20 mg/kg), Method B direct contact (0.67 mg/kg) and protection of groundwater (2.9 mg/kg), and Method A industrial (20 mg/kg) CULs.

Soil Data Gap and Proposed Scope of Work. The areal and vertical extents of antimony and arsenic-impacted soil proximate to TP-7 have not been determined. This data gap would be addressed as part of the ISM sampling.

Groundwater Data Gap and Proposed Scope of Work. Potential impacts from antimony and arsenic in soil to groundwater proximate to TP-7 have not been evaluated. However, concentrations of antimony and arsenic in the intermediate soil sample collected from TP-7 only slightly exceed the Method B protection of groundwater CULs and are significantly less than concentrations of antimony and arsenic in shallow soil samples collected from TP-9 (75 mg/kg antimony and 160 mg/kg arsenic) and TP-12 (32 mg/kg antimony and 70 mg/kg arsenic). The proposed approach to address this data gap includes advancing a boring at TP-7, collecting soil samples near first encountered groundwater and a grab sample from shallow groundwater and analyzing the samples for priority pollutant metals.

4.1.2.3. AOPC 3 - Mound of Limestone-like Material

Environmental Conditions. Sampling from test pit TP-3 indicates that shallow soil at the mound of limestone-like material is impacted with antimony, arsenic, cadmium, lead, selenium, and thallium at concentrations exceeding the Method A unrestricted and Method B direct contact and protection of groundwater and CULs. The concentrations of arsenic, cadmium, and lead also exceed the Method A and/or C industrial cleanup levels.

Soil Data Gap and Proposed Scope of Work. The areal and vertical extents of antimony and arsenic-impacted limestone-like material proximate to TP-3 have not been determined. However, no additional work to evaluate the extents of the limestone like-material is proposed at this time. The apparent aerial extent of the limestone-like material based on observations has been covered with visqueen to prevent exposure to workers and stormwater. It is anticipated that the cleanup strategy for the Marine Drive Property proposed in a forthcoming FS and CAP will include excavation and off-site disposal of the limestone-like material and collection of excavation performance samples to verify that extents of limestone-like material with concentration of antimony and arsenic exceeding CULs has been removed.

Groundwater Data Gap and Proposed Scope of Work. Potential impacts from antimony and arsenic in soil to groundwater proximate to TP-3 have not been evaluated. The proposed approach to address this data gap includes installation of a groundwater monitoring well proximate to TP-3 and collection and analysis of groundwater samples from the well for COCs.

4.1.2.4. AOPC 4- Apparent Creosote-treated Debris

Environmental Conditions. Sampling from test pit TP-5 indicates that shallow soil proximate to the creosote-treated debris is impacted with carcinogenic PAHs (i.e., benzo(a)pyrene and the total cPAH TEQ) at concentrations exceeding the Method A unrestricted CUL, dioxins (i.e., hexachlorodibenzo-p-dioxin and the total dioxin/furan TEQ) at concentrations exceeding the Method B direct contact CUL, and antimony exceeding the Method B protection of groundwater CUL.

Soil Data Gap and Proposed Scope of Work. The areal and vertical extents of soil impacted with cPAHs and dioxins/furans proximate to TP-5 have not been determined. However, no additional work to evaluate this data gap is proposed at this time. The apparent aerial extent of the soil with creosote-treated debris based on observations has been covered with visqueen to prevent exposure to workers and stormwater. It is anticipated that the cleanup strategy for the Marine Drive Property proposed in a forthcoming FS and CAP will include excavation and off-site disposal of this soil and collection of excavation performance samples to verify that the extents of soil proximate to TP-5 with concentrations of cPAHs and dioxins/furans exceeding CULs has been removed.

Groundwater Data Gap and Proposed Scope of Work. Potential impacts from antimony in soil to groundwater proximate to TP-5 have not been evaluated. However, no additional work to evaluate this data gap is proposed at this time. A grab groundwater sample will be collected from the excavation pit, if groundwater is encountered during the excavation, and analyzed for priority pollutant metals to verify that groundwater proximate to TP-5 is not impacted with antimony at concentrations exceeding the Method B protection of groundwater CUL.

4.1.2.5. AOPC 5 - Shallow Soil with Metallic Sheen

Environmental Conditions. Sampling from test pit TP-6 indicates that shallow soil observed to have a metallic sheen is impacted with antimony at a concentration exceeding the Method B protection of groundwater CUL and benzo(a)pyrene and total naphthalenes at concentrations exceeding Method A unrestricted CULs. The concentration of total naphthalenes also exceeds the Method A industrial CUL.

Soil Data Gap and Proposed Scope of Work. The areal and vertical extents of soil impacted with antimony and cPAH proximate to TP-6 have not been determined. However, no additional work to evaluate this data gap is proposed at this time. The apparent aerial extent of the soil with metallic sheen based on observations has been covered with visqueen to prevent exposure to workers and stormwater. It is anticipated that the cleanup strategy for the Marine Drive Property proposed in a forthcoming FS and CAP will include excavation and off-site disposal of this soil and collection of excavation performance samples to verify that the extents of soil proximate to TP-6 with concentrations of antimony and cPAHs exceeding relevant CULs has been removed.

Groundwater Data Gap and Proposed Scope of Work. Potential impacts from antimony and arsenic in soil to groundwater proximate to TP-6 have not been evaluated. The proposed approach to address this data gap includes installation of a groundwater monitoring well proximate to TP-6 and collection and analysis of groundwater samples from the well for COCs.

5.0 LIMITATIONS

This RI Report has been prepared for use by ABC Recycling and their authorized agents. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix E, titled "Report Limitations and Guidelines for Use," for additional information pertaining to use of this report.

6.0 REFERENCES

Anchor QEA, LLC, 2020. Phase 2 Environmental Assessment Report, Marine Drive Property. August 2023.

Washington State Department of Ecology (Ecology), 1994. Natural Background Soil Metals Concentrations in Washington State. Ecology Publication #94-115.

United States Geological Survey (USGS), Preliminary Geologic Map of the Seattle South 7.5-Minute Series Quadrangle, Washington, 2011.

TABLE

GeoEngineers

Table 1

Summary of Soil Investigation Results

Marine Drive Property

Bellingham, Washington

Sampling Location	Area	Sample Depth (feet bgs)		Depth Interval	Sample Description	Analytes					MTCA Cleanup Level Exceedances[1]				
		Start	End			Metals	Petroleum Hydrocarbons	PAHs	PCBs	Dioxins/ Furans	Method A Unrestricted	Method B Direct Contact	Method B Protection of Groundwater	Method A Industrial	Method C Industrial
GP-1	Central	5.7	9.7	Intermediate	Native soil	x	x	x	x	x		As*	As*		
		10	12.3	Intermediate	Native soil	-	-	-	-	-					
		20	22	Deep	Native soil	x	x	x	-	-		As*	As*		
GP-2	Central	8	9	Intermediate	Native soil	x	x	x	-	-		As*	As*		
		14	20	Deep	Native soil	-	-	-	-	-					
		25	27	Deep	Native soil	x	x	x	-	-		As*	As*		
GP-3	Central	12.7	13.4	Intermediate	Native soil	-	-	-	-	-					
		14.4	15.9	Intermediate	Native soil	x	x	x	-	-		As*	As*		
GP-4	Central	7.8	8.7	Intermediate	Native soil	x	x	x	-	-		As*	As*,Cd*		
		15	18.7	Deep	Native soil	x	x	x	-	-		As*	As*		
GP-5	Central	6.9	7.5	Intermediate	Native soil	x	x	x	-	-		As*	As*		
		10	11	Intermediate	Native soil	-	-	-	-	-					
		20	22	Deep	Native soil	x	x	x	-	-		As*	As*		
GP-6	Central	10.8	15	Intermediate	Native soil	x	x	x	-	-		As*	As*		
TP-1	Western	0.5	1.5	Shallow	Native soil with organics	x	x	x	-	-		As*	As*		
TP-2	Western	1.5	2	Shallow	Native soil	x	x	x	-	-		As*	As*		
TP-3	Central	1.5	2	Shallow	Limestone-like material	x	x	x	-	-	As, Cd, Pb	As, Th	Sb, As, Cd, Pb, Se	Cd, Pb	As
TP-4	Central	0	0.5	Shallow	Fill	x	x	x	-	-	As	As	Sb, As, Cd		As
		3.5	4	Intermediate	Native soil	-	-	-	-	-					
TP-5	Central	0	0.5	Shallow	Creosote-treated debris	x	x	x	x	x	B(a)P	As*, cPAH TEQ, HxCDD, dioxin/furan TEQ	Sb, As*, Cd*		
TP-6	Central	0	0.5	Shallow	Fill with metallic sheen	x	x	x	x	x	B(a)P, total Naphthalenes	As*	As*, Cd*	Total Naphthalenes	
TP-7	Central	4.5	5	Intermediate	Native	x	x	x	x		As, Cd*		Sb, As, Cd*	As, Cd*	
TP-8	Central	0	0.5	Shallow	Fill	x	x	x	-	-	As	As	Sb, As, Cd		
		2.5	3	Intermediate	Fill	-	-	-	-	-					
TP-9	Central	0	0.5	Shallow	Fill	x	x	x	-	-	As	Sb, As	Sb, As		

Table 1

Summary of Soil Investigation Results

Marine Drive Property

Bellingham, Washington

Sampling Location	Area	Sample Depth (feet bgs)		Depth Interval	Sample Description	Analytes					MTCA Cleanup Level Exceedances[1]				
		Start	End			Metals	Petroleum Hydrocarbons	PAHs	PCBs	Dioxins/ Furans	Method A Unrestricted	Method B Direct Contact	Method B Protection of Groundwater	Method A Industrial	Method C Industrial
TP-10	Central	2	2.5	Intermediate	Fill	-	-	-	-	-					
TP-11	Central	0	0.5	Shallow	Fill	-	-	-	-	-					
	Central	1.5	2	Shallow	Fill	-	-	-	-	-					
TP-12	Central	0	0.5	Shallow	Fill	x	x	x	-	-	As	As	Sb, As, Cd*	As	
TP-13	Eastern	1.5	2	Shallow	Native soil	x	x	x	-	-		As*	As*		
TP-14	Eastern	1.5	2	Shallow	Native soil	x	x	x	-	-		As*	As*		
TP-15	Eastern	1.5	2	Shallow	Native soil	x	x	x	-	-		As*	As*		
TP-16	Central	0	0.5	Shallow	Coarse-grained soil	-	-	-	-	-					
		5	5.5	Intermediate	soil with distinct color and composition	x	x	x	-	-		As*, Cd*	As*		
TP-17	Eastern	1.5	2	Shallow	Native soil	x	x	x	-	-		As*	As*		

Notes:

* - concentration of metal analyte is consistent with natural background concentration for the Puget Sound region published in the Washington State Department of Ecology (Ecology), 1994. Natural Background Soil Metals Concentrations in Washington State. Ecology Publication #94-115.

1. Colors are consistent with color coding used in Appendix B tables.

As - arsenic

B(a)P - benzo(a)pyrene

bgs - below ground surface

Cd - cadmium

cPAH - carcinogenic polycyclic aromatic hydrocarbons

GP - Geoprobe boring

HxCDD - hexachlorodibenzo-p-dioxin

MTCA - Washington State Model Toxics Control Act

PAHs - polycyclic aromatic hydrocarbons

Pb - lead

PCBs - polychlorinated biphenyls

Sb - antimony

Se - selenium

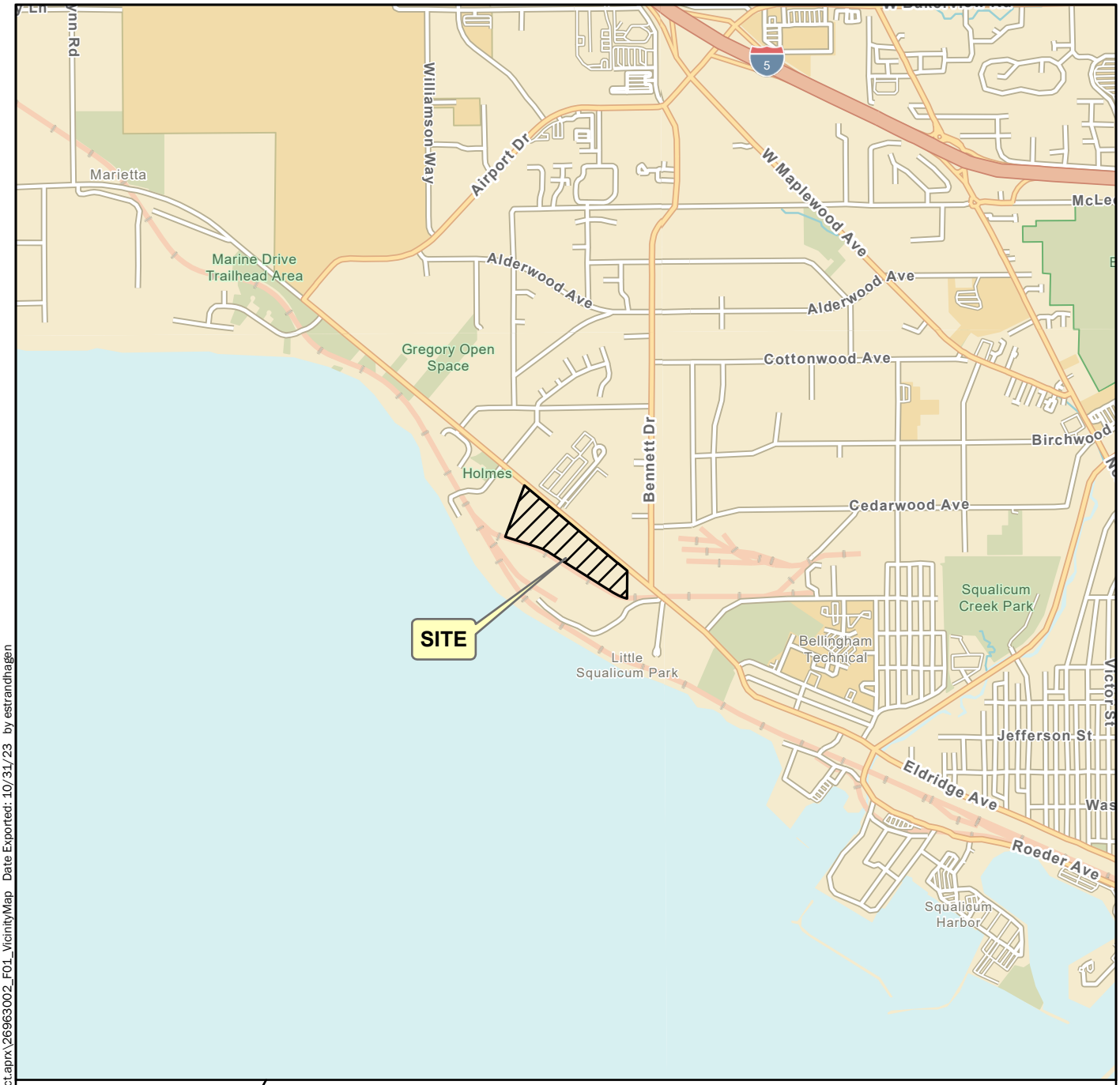
TEQ - toxic equivalent

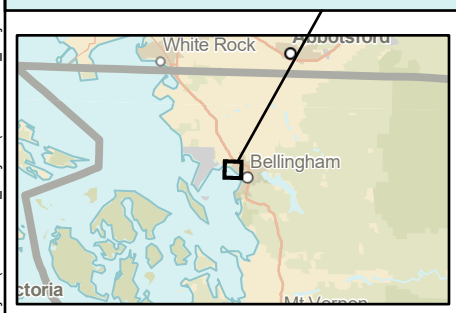
Th - thallium

TP - test pit

FIGURES

GeoEngineers





N

0 2,000

Feet

Source(s):
- ESRI

Coordinate System: NAD 1983 UTM Zone 10N

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

Vicinity Map

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 1

P:\26\26963002\GIS\26963002_Project\26963002_Project\26963002_Project.aprx\26963002_F01_VicinityMap Date Exported: 10/31/23 by estrandhagen

Notes:
1.

Source(s):
- Source 1
- Source 2
- Source 3

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Legend

- Boring Location
- Boring Location with Grab Groundwater Sample
- Test Pit Location
- Test Pit Location - Soil Samples not Collected or Analyzed
- Approximate Marine Drive Property Boundary
- Approximate Extent of Observed Fill

N

0 200
Feet

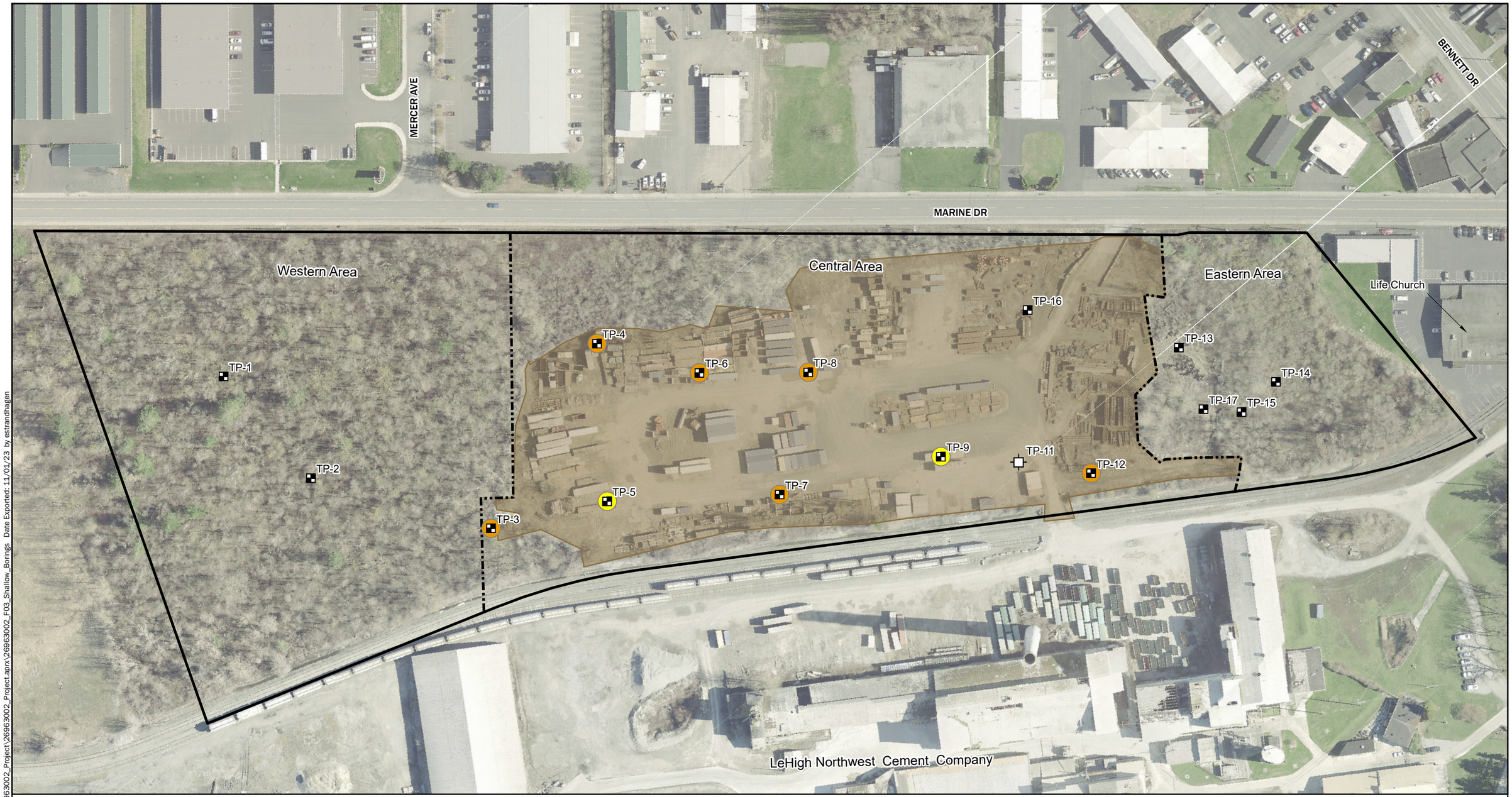
Test Pit and Boring Locations
Remedial Investigation Report

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 2

P:\26\26963002\GIS\26963002_Project\26963002_Project.aprx\26963002_F02_TP_Borings Date Exported: 10/31/23 by estrandhagen



Legend

- Test Pit Location - Shallow Soil Sample Collected and Analyzed
- Test Pit Location - Shallow Soil Sample Collected but not Analyzed
- Concentration Exceeds MTCA Method A/B Cleanup Level and Method A/C Industrial Cleanup Level
- Concentration Exceeds MTCA Method A/B Cleanup Level
- Approximate Marine Drive Property Boundary
- Approximate Extent of Observed Fill

N

0 200

Feet

Source(s):
- Whatcom County Imagery (2019)

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Summary of Shallow Soil Sample Analytical Results
Remedial Investigation Report

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 3

P:\26\26963002\GIS\26963002_Project\26963002_Project.aprx\26963002_F03_Shallow_Borings Date Exported: 11/01/23 by estrandhagen

Legend

- Boring Location with Intermediate Soil Sample
- Boring Location with Grab Groundwater Sample
- Test Pit Location - Intermediate Soil Sample Collected and Analyzed
- Test Pit Location - Intermediate Soil Sample Collected but not Analyzed
- Concentration Exceeds MTCA Method A/B Cleanup Level and Method A/C Industrial Cleanup Level
- Concentration Exceeds MTCA Method A/B Cleanup Level
- Approximate Marine Drive Property Boundary
- Approximate Extent of Observed Fill

N

0 200
Feet

Source(s):
- Whatcom County Imagery (2019)

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Summary of Intermediate Soil Sample Analytical Results
Remedial Investigation Report

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 4

P:\26\26963002\GIS\26963002_Project\26963002_Project.aprx\26963002_F04_Int_Borings Date Exported: 11/01/23 by estrandhagen

Legend

- Boring Location with Deep Soil Sample
- Concentration Exceeds MTCA Method A/B Cleanup Level
- Concentration Exceeds MTCA Method A/B Cleanup Level and Method A/C Industrial Cleanup Level
- Approximate Marine Drive Property Boundary
- Approximate Extent of Observed Fill

N

0 200

Feet

Source(s):
- Whatcom County Imagery (2019)

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Summary of Deep Soil Sample Analytical Results
Remedial Investigation Report

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 5

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P:\26\26963002\GIS\26963002_Project\26963002_Project\26963002_Project.aprx\26963002_F06_Deep_Borings Date Exported: 10/31/23 by estrandhagen

Source(s):
- Whatcom County Imagery (2019)

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Legend

- Boring Location with Grab Groundwater Sample
- Approximate Marine Drive Property Boundary
- Approximate Extent of Observed Fill

N

0 200
Feet

Summary of Grab Groundwater Analytical Results
Remedial Investigation Report

ABC Recycling Realty Corporation
Marine Drive Property, Bellingham, Washington

GeoEngineers

Figure 6

APPENDICES

GeoEngineers

APPENDIX A
Previous Environmental Investigation Boring Logs

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling — TEST PIT #: TP-1
PROJECT NUMBER: 202005-01.01 — DATE BEGAN: 10/22/20
GEOLOGIST: MH — DATE COMPLETED: 10/22/20
EXCAVATION CONTRACTOR: ~~AQ~~ (TB) — TOTAL DEPTH: 1.5 ft
EXCAVATION METHOD: hand auger — SHEET: 1 OF: 1
PIT DIAMETER: 3.5"

SAMPLING DATA					DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)			
hand auger	TP-1-0.5-1.5	—	1	.5-1.5	1		dry-moist medium brown, fine grained soil, trace silt occassional organics (roots), trace gravel (coarse), no odor
					2		
					3		@1.5 ft: Refusal @ layer of substantial gravel
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: Collected archive. 3 jars + 1 vial

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC recycling — TEST PIT #: TP-2
PROJECT NUMBER: 202005-01.01 — DATE BEGAN: 10/22/20
GEOLOGIST: MH — DATE COMPLETED: 10/22/20
EXCAVATION CONTRACTOR: — — TOTAL DEPTH: 2'
EXCAVATION METHOD: hand auger — SHEET: 1 OF 1
PIT DIAMETER: 3.5"

Field location of test pit

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
							0-0.75' moist dark brown, organic layer
				~~0.75-2~~	1		0.75-2' dry to moist gray brown fine grained soil with slight silt, trace clay
hand auger	TP-2-1.5-2	—	—	1.5-2	2		no odor, no organics
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

TK

Notes: collected alkenine. 3 jars + 1 vial

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 3.5"

TEST PIT #: TP3
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22/20
TOTAL DEPTH: 2 Ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
					0		Field location of test pit
					1		0-1' medium gray
hand auger	TP-3-1.5-2	—	—	1.5-2	2		dry, light gray, fine grained limestone like with coarse angular limestone pieces chalky odor, no organics
					3		
					4		2' hit refusal w/ coarse piece layer
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: collected archive. Total = 3 jars + 1 vial

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: excavator
PIT DIAMETER: 3 Ft

TEST PIT #: TP4
DATE BEGAN: 10/21/20
DATE COMPLETED: 10/21/20
TOTAL DEPTH: 4 Ft
SHEET: 1 OF 1

Field location of test pit

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
excavator	TP-4-0-0.5	~	—	0-0.5	1		0-0.5: moist, medium brown grey, fine grained soil, trace gravel (fine), pocket of light grey clayey soil, ~~trace roots~~ (T5) slight organics (roots), no odor
excavator	TP-4-3.5-4	—	—	3.5-4	2		3.5-4: moist, light grey, clayey fine grained soil, trace fine gravel, trace organics (wood pieces), interspersed rust-colored soil, potentially metallic flakes (trace), no odor
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

(T7)

Notes:

3 ~~4~~ jars + 1 vial for each interval

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling Ph.2 | TEST PIT #: TP-5
PROJECT NUMBER: 202005-01.01 | DATE BEGAN: 10/20/2020
GEOLOGIST: MH | DATE COMPLETED: 10/20/2020
EXCAVATION CONTRACTOR: AEC | TOTAL DEPTH: 1 ft
EXCAVATION METHOD: EXCAVATOR | SHEET: 1 OF: 1
PIT DIAMETER: 3 ft

Field location of test pit: NW corner of yard

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
EXCAVATOR	TP-5-0-0.5	0	—	0-0.5	1		moist, dark brown, soft, fine grained soil, trace (5%) sand, trace wood debris, 1/4 gravel (coarse), no odor
					2		
					3		@ 1 ft concrete present
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: 6 x 8oz jars + 1 vial

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: excavator
PIT DIAMETER: 3 ft

TEST PIT #: TP-6
DATE BEGAN: 10/21/20
DATE COMPLETED: 10/21/20
TOTAL DEPTH: 4 ft
SHEET: 1 OF 1

Field location of test pit

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
EXCAVATOR	TP-6-0-0.5	1	1	0-0.5	1		0-0.5ft: moist, light black, fine grained soil, trace organics (wood), moderate coarse gravel, moderate fine gravel, one discrete pocket w/ metallic flakes, no odor. Slight sheen (metallic) @ 1'-2' anthro material in fill
					2		
					3		
					4		@ 3'9" - still in compacted gravel - fill material
					5		
					6		@ 4' - refusal
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: 3 @ 4 jars + 1 vial. Anthropogenic material (hose, tarp, fabric) in consolidated fill ~1-3 ft in depth)

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: EXCAVATOR
PIT DIAMETER: 3 Ft

TEST PIT #: TP 7
DATE BEGAN: 10/21/20
DATE COMPLETED: 10/21/20
TOTAL DEPTH: 5 Ft
SHEET: 1 OF 1

Field location of test pit

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
	N/A						Surface - 4.5 Ft was same gravelly fill (very consolidated) same as 10/20/2020 sample locations - not sampled
EXCAVATOR	TP-7-4.5-5	0		4.5-5	4		moist, medium brown, fine grained soil, trace fine gravel, trace coarse gravel, trace organics (root-like), no odor

Notes: FB 3 jars + 1 vial

TL

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: excavator
PIT DIAMETER: 3 ft

TEST PIT #: TP8
DATE BEGAN: 10/20/20
DATE COMPLETED: 10/20/20
TOTAL DEPTH: 3 ft
SHEET: 1 OF 1

Field location of test pit: ~~NW corner of yard~~ (TP)

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
excavator	TP-8-0-0.5	0	—	0-0.5	1		dry, light brown, fine grained soil w/ gravel (fine-coarse), no odor
excavator	TP-8-2.5-3	0	—	2.5-3	3		moist, light grey brown, fine grained soil w/ gravel (fine-coarse) trace sand, no odor, slight staining, rust-like

Notes:

9-8oz jars, 1 vial

*PCBs + DIFs tested

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: EXCAVATOR
PIT DIAMETER: 4 Ft

TEST PIT #: TP 9
DATE BEGAN: 10/2/20
DATE COMPLETED: 10/2/20
TOTAL DEPTH: 2 Ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
Excavator	TP-9-0-0.5	0	1	0-0.5	1		dry, light brown, fine grained soil w/ gravel (f-c), ~~trace~~ slight anthropogenic material (potting soil like - debris). Rust-colored soil streak approx 10 inches bgs
					2		
					3		Refusal @ ~2 Ft
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Field location of test pit

Notes: 6 jars + 1 vial

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: excavator
PIT DIAMETER: 3 ft

TEST PIT #: TP-10
DATE BEGAN: 10/20/20
DATE COMPLETED: 10/20/20
TOTAL DEPTH: 2.5 ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
—	~~TP-10-0-0.5~~	0	~~TR~~	~~0-0.5~~	1		no sample collected
excavator	TP-10-2-2.5	D	—	2-2.5	2		@2.5: moist light brown grey, ~~fine grad~~ dense to very dense gravelly fine grained soil, no odor. collected dup sample. Deconned bucket of excavator and sampled from bucket to get sufficient volume for sample
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: material very compacted throughout 0-2.5 ft interval
collected dup

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: excavator
PIT DIAMETER: 4 Ft

TEST PIT #: TP-11
DATE BEGAN: 10/20/20
DATE COMPLETED: 10/20/20
TOTAL DEPTH: 2 ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
excavator	TP-11-0-0.5	0	—	0-0.5	1		0-1.5ft: dry to moist, light brown, fine grained soil w/ fine to coarse gravel (~15% fine, 15% coarse) slight anthro material, no odor anthro = like white beads in potting soil
excavator	TP-11-1.5-2	0	—	1.5-2	2		1.5-2 ft: moist, light brown fine grained soil, slight w/ sand, trace (~10%) gravel, no odor
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: 6 jars + 1 vial for each interval

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AFC
EXCAVATION METHOD: excavator
PIT DIAMETER: 2 ft

TEST PIT #: TP 12
DATE BEGAN: 10/20/2020
DATE COMPLETED: 10/20/20
TOTAL DEPTH: 3.5
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
excavator	TP-12-0-0.5	0		0-0.5	1		moist, light brown-grey, fine grained, clayey soil, trace ~~biota~~ organics (roots), trace gravel (fine to coarse), no odor
excavator	TP-12-3-3.5	0		3-3.5	3		moist, light brown, fine grained soil, trace silt, trace clay, trace ~~biota~~ organics (wood-like), no odor

Notes: 0-0.5 ft interval tested for DIF + PCBs

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 3.5"

TEST PIT #: TP13
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22/20
TOTAL DEPTH: 2 ft
SHEET: 1 OF 1

Field location of test pit

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
hand auger	TP-13-1.5-2	→	—	1.5-2	1		moist light brown pockets of gray fine sand, fine grained soil with trace fine gravel, trace organics (fine roots), slightly oily, no odor
					2		
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: 3 jars + 1 vial. Archive collected

MH

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 35"
TEST PIT #: TP-14
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22/20
TOTAL DEPTH: 2
SHEET: 1 OF: 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
					1		organic layer more gray and clayey
hand auger	TP-14-1.5-2	—	—	1.5-2	2		dry to moist, medium brown, fine grained soil moderate silt, trace organic (thin and thick roots), trace fine gravel, no odor
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Field location of test pit

Notes: 3 jars + 1 vial. collected archive

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 3.5"

TEST PIT #: TP15
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22
TOTAL DEPTH: 2 ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
							Same as below
hand auger	TP-15-1-1.5	—	—	1-1.5	1		dry to moist, medium brown fine grained soil
					2	Slight	~~moderate~~ clayey, very trace organics (fine roots), trace fine to coarse gravel, heater
					3		Same down to 2'
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes: 3 jars + 1 vial. ~~Archive~~ collected

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: AEC
EXCAVATION METHOD: EXCAVATOR
PIT DIAMETER: 3 Ft

TEST PIT #: TP16
DATE BEGAN: 10/2/20
DATE COMPLETED: 10/2/20
TOTAL DEPTH: 5.5 Ft
SHEET: 1 OF 1

Field location of test pit: S end of yard adjacent to gate/driveway to Marine DR.

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
EXCAVATOR	TP-16-0-0.5	0	—	0-0.5	1		0-0.5: wet, dark brown, coarse grained soil w/ sand and w/ f-c gravel, trace organics (roots), no odor
					2		
					3		
					4		Native stocks @ ~5 ft
EXCAVATOR	TP-16-5-5.5	0	—	5-5.5	5		5-5.5ft: moist, dark brown, fine grained soil, moderate silt, moderate organics (fine roots) trace pockets of light grey fine grained soil
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes:
3 jars + 1 vial for 0-0.5 ft interval
2 jars + 1 vial for 5-5.5Ft interval

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 20200S-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 3.5"

TEST PIT #: TP17
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22/20
TOTAL DEPTH: 3.5 ft
SHEET: 1 OF 1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of test pit / LITHOLOGIC DESCRIPTION
							Same as below
hand auger	TP-17-1.5-2	0.0	~	1.5-2	1		dry to moist dark brown fine grained soil with trace fine to coarse subrounded gravel moderate silt, moderate organics (fine roots) no odor, trace biota (worm)
					2		
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes:
3 JARS + 1 ~~ARCHIVE~~ vial ARchive collected

ANCHOR QEA

SOIL TEST PIT LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST: MH
EXCAVATION CONTRACTOR: —
EXCAVATION METHOD: hand auger
PIT DIAMETER: 3.5"

TEST PIT #: N/A
DATE BEGAN: 10/22/20
DATE COMPLETED: 10/22
TOTAL DEPTH: 1 ft
SHEET: 1 OF 1

Field location of test pit: mound under cedar tree adjacent to TP-1

SAMPLING METHOD	SAMPLE NUMBER	FID / PID (ppm)	RECOVERY (feet)	DEPTH SAMPLED (feet)	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	LITHOLOGIC DESCRIPTION
hand auger	N/A	—	—	N/A	1		0–1 FT: dry to moist, reddish brown, fine grained soil, hit refusal w/ roots - multiple locations attempted
					2		
					3		
					4		
					5		
					6		
					7		
					8		
					9		
					10		
					11		
					12		
					13		
					14		
					15		
					16		
					17		
					18		
					19		
					20		

Notes:
~~SOT~~ hand augered + characterized only
added per Derek's recommendation

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: inches

BORING #: GP-1
DATE BEGAN: 10.26.20
DATE COMPLETED: 10-26-20
TOTAL DEPTH: 32.5 ft
PAGE: 1 OF 3
TIME: 1215
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		0-25"- Void						
					2		@25"- Wet, soft, slightly silty, medium brown, f-c sandy organic matter, trace gravel						
					3								
					4		@29"- Dry, black, silty, charcoaly, gravel.						
		GP-1-5.7-9.7			5								
					6		@33"- Dry; grey, sand with trace clay, occasional, peach & white, chalky conglomerates.						
					7								
					8								
					9		@41"- Moist, grey to black clayey sand.						
					10								
					11		@46"- Black, medium stiff clay, trace organics 4" piece of nylon rope.						
					12								
					13								
					14		@53'- Medium-dense, dry, grey w/rust spots clay						
					15								
					16		@57"- Moist, med-dense brown organic clay.						
					17								
					18		@61'- SAA @53"						
					19		@112"- Moist, brown & grey f-sand, trace clay						
					20								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 5.7-9.7 ft, 10-12.3 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MM, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: inches
BORING #: GP-1
DATE BEGAN: 10/26/20
DATE COMPLETED: 10/26/20
TOTAL DEPTH: 32.5 ft
PAGE: 2 OF 3
TIME: 1215
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@115"- Dry, hard, brown clay.						
					2		@144": Moist, medium-dense, brown sandy clay.						
					3		@152": Increasing moisture content to wet.						
					4		157"-173"- Void						
					5		@173": wet, loose, brown slightly silty f-sand						
					6		Decreasing sand, decreasing moisture						
					7		@187": SAA @115"						
					8		@230"- SAA @173"						
					9		@250"-255"- trace decreasing sand to none						
					0		255": SAA @115"						
					1		@269"- Dry, medium dense, dark brown silt						
					2		@271"- Dry, loose, grey and brown f. sand.						
					3		276"-288": Void						
					4		@288"- wet, loose, f-Sand, brown & grey. Occasional clay balls, trace gravel						
					5								
					6								
					7								
					8								
					9								
					0								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 5.7-9.7 ft, 10-12.3 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling — BORING # GP-1
PROJECT NUMBER: 202005-01.01 — DATE BEGAN 10/26/20
GEOLOGIST/ENGINEER: MH/DP — DATE COMPLETED 10/26/20
DRILLING CONTRACTOR: AEC — TOTAL DEPTH 32.5 ft
DRILLING METHOD: Geoprobe — PAGE 3 OF 3
WATER DEPTH NA — TIME 1215
HOLE DIAMETER ____ inches — SAMPLING METHOD ____ in. by ____ ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@320" - Moist, loose, brown & grey f-sand						
					2		@323" Layer of Dry, grey, hard gravel						
					3								
					4		@328" - Dry, med-dense, brown clayey, gravelly Sand						
					5								
					6		@331 - SAA @115"						
					7		@336 - Dry, loose, grey & brick-colored gravelly f-c sand						
					8								
					9								
					10		338-340 - layer of SAA @115"						
					11								
					12		@340" = Dry, loose grey angular gravel, transitions to f-c Sand						
					13								
					14								
					15		@350" - End of boring.						
					16								
					17								
					18								
					19								
					20								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 5.7-9.7 ft, 10-12.3 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: 2 inches

BORING #: GP-2
DATE BEGAN: 10.26.20
DATE COMPLETED: 10.26.20
TOTAL DEPTH: 30'
PAGE: 1 OF 3
TIME: 1100
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FBS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
GP					1		Moist, dark grey sand @ 2'. 2" of wood						
					2		@ 24"- 32" Moist, hard, brown clay						
					3								
					4		Grey & black gravelly silt						
					5		@35" light grey-brown sand. slightly gravelly						
					6								
					7		@37" Dry, grey, gravelly sand						
					8								
					9		@42" - Black, charcoaly sandy						
					10		@48" - Dry, reddish grey clay						
					11								
					12		@51" - SAA @ 42"						
					13		@52" - SAA @ 35"						
					14		@55" - SAA - @48"						
					15		@58" - SAA @42"						
					16		@59" - wood waste						
					17		@61" - SAA @37"						
					18		@64" - SAA @ 42" w/ rock gravel						
					19		@69" - Dry, medium brown ~~silt~~ silty sand, moderate organic matter						
		GP2-8-9@1030			20		@82". Dry, light brown						

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled: 8-9 Ft, 14-20 Ft, 25-27 Ft

w/pockets of grey, clayey silty sand

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: 2 inches

BORING #: GP-2
DATE BEGAN: 10.26.20
DATE COMPLETED: 10.26.20
TOTAL DEPTH: 30'
PAGE: 2 OF 3
TIME: 1100
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring — LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@105" increasing clay content						
					2								
					3		@120" - Dry, dark grey, gravelly sand.						
					4								
					5		@128" - Wood						
					6		@132" - Dry, hard, brown clay.						
					7		@147" - Damp, brown, f-sand.						
		GP2-14-20 @1045			8								
					9		@151" - Damp, brown, silty f-sand.						
					10		@163" - SAA @ 132"						
					11		@240" - Wet, brown, fine-grain sand, trace angular gravel.						
					12		@254" - Dry, hard, brown clay.						
					13		@269 - Dry, medium dense, brown f-sand.						
		GP2-25-27			14		@271" - Dry, loose, brown M-sand						
					15		@298" - Wet, loose, brown f-sand						
					16								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled. 8-9 ft, 14-20 ft, 25-27 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: inches

BORING #: GP-2
DATE BEGAN: 10.26.20
DATE COMPLETED: 10.26.20
TOTAL DEPTH: 30'
PAGE: 3 OF 3
TIME: 1100
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@324": Dry, loose, brown m-sand.						
					2								
					3		@350": End of boring.						
					4								
					5								
					6								
					7								
					8								
					9								
					10								
					11								
					12								
					13								
					14								
					15								
					16								
					17								
					18								
					19								
					20								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 8-9ft, 14-20 ft, 25-27 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH ____ TIME ~~1100~~ 1128
HOLE DIAMETER ____ inches SAMPLING METHOD ____ in. by ____ ft

BORING # GP-3
DATE BEGAN 10.27.20
DATE COMPLETED 10.27.20
TOTAL DEPTH 20'
PAGE 1 OF 2

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		0-19" - Void.						
					2		@19": Moist, medium-dense, gravelly sand, brown & grey.						
					3		@24" - Grades to dry						
					4		37"-39" - Color changes to ~~tan~~.						
					5		@43"-45" - 2 x 1" angular gravel.						
					6		@56" - Moist, med-stiff, black, clayey silt, trace organic fibers.						
					7		@67" - Dry, dense, grey with rust-colored mottling clayey silt.						
					8		@120": Damp, dense, grey & brown silty clay.						
					9		130"-132" - Occasional gravel						
					0		~132" - grades to clayey silt						
					1		@152" - grades to f-sandy silt						
					2		@160": Dry, med-dense, brown, slightly f-sandy, clayey silt.						

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 12.7 - 13.4 ft, 14.4 - 15.9 ft

GW also sampled. See GW log GW dup collected

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH _____
HOLE DIAMETER _____ inches

BORING # GP-3
DATE BEGAN 10.27.20
DATE COMPLETED 10.27.20
TOTAL DEPTH 20'
PAGE 2 OF 2
TIME 1128
SAMPLING METHOD _____ in. by _____ ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@163 - SAA @120"						
					2		@168": SAA 152" w/ interbedded layers of brown clay.						
					3								
					4		@171": SAA @163"						
					5		@173 - Moist, med-dense brown f-sand.						
					6		@190": Damp, dense, grey clay						
					7		@200": Grades to med dense.						
					8		@240" - End of boring.						
					9								
					0								
					1								
					2								
					3								
					4								
					5								
					6								
					7								
					8								
					9								
					0								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: Sampled 12.7 - 13.4 ft, 14.4 - 15.9 ft

GW also sampled, see GW log. GW dup collected.

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: NA
HOLE DIAMETER: inches

BORING #: GP-4
DATE BEGAN: 10.27.20
DATE COMPLETED: 10.27.20
TOTAL DEPTH: 20'
PAGE: 1 OF 2
TIME: 0915
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	RECOVERY (ft recovered/ft driven)	DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		0"- Dry, hard, grey & white gravelly silt, moderate f-c sand.						
					2								
					3		@55"- Dry, hard, grey silty clay.						
					4								
					5		60-78"- Void						
					6		@78"- Damp, loose, brown gravelly f-sand, trace silt.						
					7								
					8		@80- SAA @ 0"						
					9								
					0		@93"- Damp, med-stiff. black, clayey silt, trace organic fibers						
					1								
					2		@ Grades to brown						
					3		@104"- Damp, hard, greenish grey clay.						
					4								
					5		120"-128": Void.						
					6		@128"- SAA @ 0"						
					7		@135"- ~~SAA @ 104~~ "Dry hard grey silt.						
					8		@147"- Grades to brown dry, hard silt						
					9		@180"- Wet, loose, brown f-sand, trace silt.						
					0								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 7.8-8.7 ft, 15-18.7 ft.

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: N/A
HOLE DIAMETER: inches
BORING #: GP-4
DATE BEGAN: 10.27.20
DATE COMPLETED: 10.27.20
TOTAL DEPTH: 20'
PAGE: 2 OF 2
TIME: 0915
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		Decreasing moisture content to moist.						
					2		@224 - Damp, med-stiff brown clay.						
					3								
					4		@240' - End of boring.						
					5								
					6								
					7								
					8								
					9								
					0								
					1								
					2								
					3								
					4								
					5								
					6								
					7								
					8								
					9								
					0								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: Sampled 7.8-8.7 ft, 15-18.7 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: N/A
HOLE DIAMETER: inches

BORING #: GP-5
DATE BEGAN: 10.26.20
DATE COMPLETED: 10.26.20
TOTAL DEPTH: 30 ft
PAGE: 1 OF 3
TIME: 1425
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		0-21" - Void						
					2		@21" - Wet, loose, grey & brown sand.						
					3		@24" - Dry, white & gravelly, silt.						
					4		@43" - Dry, dense, grey vf-sand, trace c-sand.						
					5		@48" - Dry, hard, grey, silt w/trace c-sand						
					6		@60-79" - Void.						
					7		@79" - Dry, med-dense, white, silt.						
		GP-5-6.9-7.5'			8		@83" - Moist, med-dense, dark grey, silty clay.						
					9		@86" - increasing moisture content						
					10		@90"-111" - Dry, grey, hard clay.						
					11		~100" - color changes to brown						
					12		@111" - moist, loose, grey & brown clayey f-sand.						

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: Sampled 6.9-7.5 ft, 10-11 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.02
GEOLOGIST/ENGINEER: MM, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: GeoProbe
WATER DEPTH: NA
HOLE DIAMETER: inches
BORING #: GP-5
DATE BEGAN: 10/26/20
DATE COMPLETED: 10/26/20
TOTAL DEPTH: 30 ft
PAGE: 2 OF 3
TIME: 1425
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		@120": Wet, loose, grey, silty f sand.						
					2		133"-135": pocket of clay.						
					3		@136": Moist, dense, brown, clay w/trace silt						
					4		165"-167" - pocket of sandy clay.						
					5		@229": 1" pocket of dark brown slightly silty f-sand						
					6		@231": Damp, loose, grey f-c sand w/ trace gravel.						
					7		@234-240" - void.						
					8		@240": wet, soft grey silty sand w/ moderate clay.						
					9		@246" - transitions to silty clay,						
					0		@251": SAA @ 240"						
					1		@264. Moist, loose, dark grey, M-Sand.						
					2								
					3								
					4								
					5								
					6								
					7								
					8								
					9								
					0								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 6.9-7.5 ft, 10-11 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 20200G-01.01
GEOLOGIST/ENGINEER: MM / DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH: N/A
HOLE DIAMETER: inches

BORING #: GP-5
DATE BEGAN: 10/26/20
DATE COMPLETED: 10/26/20
TOTAL DEPTH: 30 ft
PAGE: 3 OF 3
TIME: 1425
SAMPLING METHOD: in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		300"-312"- Void @312"- Moist, loose, grey silty sand. 320"-328"- Void @328- Damp, med-dense, grey f-c sand, trace gravel. @348"- Dry, med-dense, gravelly, f-c sand. @360"- end of boring.						
					2								
					3								
					4								
					5								
					6								
					7								
					8								
					9								
					10								
					11								
					12								
					13								
					14								
					15								
					16								
					17								
					18								
					19								
					20								

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: Sampled 6.9-7.5 ft, 10-11 ft, 20-22 ft

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005.01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH
HOLE DIAMETER inches
BORING # GP-6
DATE BEGAN 10.26.20
DATE COMPLETED 10.26.20
TOTAL DEPTH 30'
PAGE 1 OF 2
TIME 1615
SAMPLING METHOD in. by ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
					1		0-18" Void						
					2		@ 18" - Moist, med. dense, grey, silty, gravelly f-sand.						
					3		@22" - Moist, med-dense, silty sand, trace gravel.						
					4		@24" - Dry, dense, light grey, f-c sandy silt.						
					5		@50" - Moist, stiff, black charcoaly clayey silt w/ moderate rusty colored sand.						
					6		@55 - Moist, stiff, black, silty clay.						
					7		@60" - Damp, med-stiff, brown silty, f-sand.						
					8		@69" - Dry, & stiff, brown clay						
					9		@111" - Moist, med-dense, grey gravelly, sand silt.						
					10		@118" - SAA @ 55"						

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: sampled 10.8 - 15 ft

GW also sampled, see GW 109

ANCHOR QEA

BORING LOG

CLIENT/PROJECT NAME: ABC Recycling
PROJECT NUMBER: 202005-01.01
GEOLOGIST/ENGINEER: MH, DP
DRILLING CONTRACTOR: AEC
DRILLING METHOD: Geoprobe
WATER DEPTH _____
HOLE DIAMETER _____ inches

BORING # GP-6
DATE BEGAN 10.26.20
DATE COMPLETED 10.26.20
TOTAL DEPTH 30'
PAGE 2 OF 2
TIME 1615
SAMPLING METHOD _____ in. by _____ ft

SAMPLING METHOD	BLOW COUNTS (140-lb Hammer)	SAMPLING DATA: SAMPLE ID	SAMPLING DATA: RECOVERY (ft recovered/ft driven)	SAMPLING DATA: DEPTH SAMPLED	DEPTH IN FEET	SOIL GROUP SYMBOL (USCS)	Field location of boring / LITHOLOGIC DESCRIPTION (see key)	GRVL %	SND %	FNS %	TORVANE (TSF): PEAK	TORVANE (TSF): RESIDUAL	POCKET PEN. (TSF)
		GP-6-10.8-15			1		@120-129"- Void						
							@129": Wet, loose, brown f-sand, trace silt.						
					2								
					3		144-148"- Void.						
					4		@148"- SAA @ 129"						
					5		@208- Moist, med-dense, brown, clayey f-sand.						
					6		@221 - Moist, med-stiff, grey clay.						
					7								
					8		277-280"- Diagonal contact transitions to wet, loose brown f-sand, trace silt						
					9								
					10		280"-293"- Void.						
					11		@293 - Wet, loose, brown f-sand, trace silt						
					12								
					13		@300- Dry, loose, grey gravelly f-c sand.						
					14		@317- Damp, stiff brown clay						
					15								
					16		@331 - transitions to grey @346 - Wet, loose, grey, slightly clayey silt.						
					17								
					18		@352 - Interbedded layers of material @331 & 346"						
					19								
					20		@360 - End of boring.						

Remarks: No O = No Odor AOPP = As on Previous Page SAA = Same as above Δ = change

Notes: Sampled 10.8-15 Ft

GW also sampled, see GW log

APPENDIX B
Previous Environmental Investigation Tables

Table 1
Soil Collection Summary

Sample Location	Location (NAD83 WA North)		Sample ID	Date Collected	Depth Sampled (ft)	Lithology	Sample Status	
	Northing	Easting					Analyzed [1]	On Hold
Test Pit Soil Samples								
TP-1	1232044.2	650713.1	TP-1-0.5-1.5	10/22/2020 11:45	0.5-1.5	Dry to moist, medium brown, fine grained soil, trace silt, trace gravel (coarse), occasional organics (roots), no odor.	X	
TP-2	1232042.5	650527.9	TP-2-1.5-2	10/22/2020 12:14	1.5-2	Dry to moist, grey-brown, fine grained soil, slight silt, trace clay, no odor.	X	
TP-3	1232184.2	650311.5	TP-3-1.5-2	10/22/2020 12:56	1.5-2	Dry, light grey. fine grained limestone-like material with limestone-like pieces (coarse, angular), chalky odor.	X	
TP-4	1232463.7	650406.8	TP-4-0-0.5	10/21/2020 11:11	0-0.5	Moist, medium brown grey, fine grained soil, trace gravel (fine), slight organics (roots), no odor. Pocket of light grey clayey soil.	X	
			TP-4-3.5-4	10/21/2020 11:33	3.5-4	Moist, light grey, clayey fine grained soil, trace gravel (fine), trace organics (wood pieces), no odor. Interspersed rust-colored soil, trace potentially metallic flakes.		X
TP-5	1232330.0	650233.7	TP-5-0-0.5	10/20/2020 9:57	0-0.5	Moist, dark brown, soft, fine grained soil with gravel (coarse), trace sand, trace organics (wood debris), no odor.	X [2,3]	
TP-6	1232543.6	650283.0	TP-6-0-0.5	10/21/2020 12:13	0-0.5	Moist, light black, fine grained soil, moderate gravel (fine), trace organics (wood), no odor. Slight sheen (metallic). One discrete pocket with metallic flakes.	X [2]	
TP-7	1232515.9	650083.5	TP-7-4.5-5	10/21/2020 10:16	4.5-5	Moist, medium brown, fine grained soil, trace gravel (fine to coarse), trace organics (roots), no odor.	X [2]	
TP-8	1232657.513	650184.4	TP-8-0-0.5	10/20/2020 11:50	0-0.5	Dry, light brown fine grained soil with gravel (fine to coarse), no odor.	X	
			TP-8-2.5-3	10/20/2020 12:17	2.5-3	Moist, light grey brown, fine grained soil with gravel (fine to coarse), trace sand, no odor. Slight rust-like staining.		X
TP-9	1232718.6	649975.9	TP-9-0-0.5	10/20/2020 8:37	0-0.5	Dry, light brown, fine grained soil with gravel (fine to coarse), slight anthropogenic material (potting soil-like pellets) no odor.	X	
TP-10	1232837.6	650104.3	TP-10-2-2.5	10/20/2020 14:35	2-2.5	Moist, light brown grey, gravelly fine grained soil, no odor.		X
TP-11	1232794.6	649899.3	TP-11-0-0.5	10/20/2020 15:12	0-0.5	Dry to moist, light brown, fine grained soil with gravel (fine to coarse), slight anthropogenic material (potting soil-like pellets), no odor.		X
			TP-11-1.5-2	10/20/2020 15:31	1.5-2	Moist, light grown, fine grained soil with sand, trace gravel (fine), no odor.		X
TP-12	1232860.0	649821.7	TP-12-0-0.5	10/20/2020 16:13	0-0.5	Moist, light brown grey, fine grained clayey soil, trace gravel (fine to coarse), trace organics (roots), no odor.	X	
			TP-12-3-3.5	10/20/2020 16:38	3-3.5	Moist, light brown, fine grained soil, trace silt, trace clay, trace organics (wood-like), no odor.		X
TP-13	1233066.3	649872.3	TP-13-1.5-2	10/22/2020 8:37	1.5-2	Moist, light brown, fine grained soil, trace gravel (fine), slightly clayey, trace organics (fine roots), no odor. Pockets of gray, fine sand.	X	
TP-14	1233136.1	649748.0	TP-14-1.5-2	10/22/2020 10:34	1.5-2	Dry to moist, medium brown, fine grained soil, moderate silt, trace gravel (fine), trace organics (roots), no odor.	X	
TP-15	1233072.7	649748.2	TP-15-1-1.5	10/22/2020 10:10	1-1.5	Dry to moist, medium brown, fine grained soil, slight clay, trace gravel (fine to coarse), trace organics (fine roots), no odor.	X	
TP-16	1232942.9	650049.0	TP-16-0-0.5	10/21/2020 14:10	0-0.5	Wet, dark brown, coarse grained soil with sand and gravel (fine to coarse), trace organics (roots), no odor.		X
			TP-16-5-5.5	10/21/2020 15:27	5-5.5	Moist, dark brown, fine grained soil, moderate silt, moderate organics (fine roots), no odor. Trace pockets of light grey, fine grained soil.	X	
TP-17	1233035.6	649785.6	TP-17-1.5-2	10/22/2020 9:26	1.5-2	Dry to moist, dark brown, fine grained soil, trace gravel (fine to coarse, subrounded), moderate silt, moderate organics (fine roots), trace biota (worms), no odor.	X [2]	

Table 1
Soil Collection Summary

Sample Location	Location (NAD83 WA North)		Sample ID	Date Collected	Depth Sampled (ft)	Lithology	Sample Status	
	Northing	Easting					Analyzed [1]	On Hold
Soil Boring Samples								
GP-1	1232389.1	650439.2	GP-1-5.7-9.7	10/26/2020 13:15	5.7-9.3	5.7-9.3 ft: Dry, medium dense, grey with rust-colored spots, clay. @ 9.3 ft: Thin layer of moist, brown grey, sand (fine), trace clay. @ 9.6 ft: Grades to dry, hard, brown clay.	X [2]	
			GP-1-10-12.3	10/26/2020 13:20	10-12.3	10-12 ft: Dry, hard brown clay. 12-12.3 ft: Moist, medium dense, brown sandy clay.		X
			GP-1-20-22	10/26/2020 13:30	20-22	20-20.8 ft: Wet, loose, brown, slightly silty sand (fine). Sand and moisture decreasing. @ 20.8 ft: Grades to no sand. 20.8-22 ft: Dry, hard, brown clay.	X [3]	
GP-2	1232265.9	650233.2	GP-2-8-9	10/26/2020 10:30	8-9	8-9 ft: Dry, light brown with pockets of grey, clayey, silty sand.	X	
			GP-2-14-20	10/26/2020 10:45	14-20	14-20 ft: Dry, hard, brown clay.		X
			GP-2-25-27	10/26/2020 10:50	25-27	25-27 ft: Wet, loose, brown, sand (fine).	X	
GP-3	1232725.4	650246.4	GP-3-12.7-13.4	10/27/2020 12:05	12.7-13.4	12.7-13.4 ft: Moist, dense, grey and brown sandy silt (fine).		X
			GP-3-14.4-15.9	10/27/2020 12:15	14.4-15.9	14.4-15.9 ft: Moist, medium dense, brown, sand (fine).	X	
GP-4	1232625.2	650044.4	GP-4-7.8-8.7	10/27/2020 10:20	7.8-8.7	7.8-8.7 ft: Moist, medium stiff, black, clayey silt, trace organics (fibers). Color grades to brown.	X	
			GP-4-15-18.7	10/27/2020 10:30	15-18.7	15-18.7 ft: Wet, loose, brown, sand (fine), trace silt. Moisture decreases to moist.	X	
GP-5	1233018.8	650012.5	GP-5-6.9-7.5	10/26/2020 15:15	6.9-7.5	6.9-7.5 ft: Moist, medium dense, dark grey, silty clay. Moisture increases in interval.	X	
			GP-5-10-11	10/26/2020 15:25	10-11	10-11 ft: Wet, loose, grey, silty sand (fine).		X
			GP-5-20-22	10/26/2020 15:30	20-22	20-22 ft: Wet, soft, grey, sandy silt with moderate clay. @ 20.5-20.9 ft: Transitions to silty clay.	X	
GP-6	1232952.4	649764.8	GP-6-10.8-15	10/26/2020 16:50	10.8-15	10.8-15 ft: Wet, loose, brown, sand (fine), trace silt. @ 12-12.3 ft: Void space.	X	

Notes:
1. All soil samples were analyzed for metals, total solids, PAHs, NWTPH-Dx, and NWTPH-Gx.
2. Select samples were analyzed for PCBs, dioxins and furans, and/or TCLP metals.
3. Field duplicates collected.

Abbreviations:
ft: feet
NAD83 WA North: State Plane Washington North, North American Datum 83
NWTPH-Dx: diesel and heavy oil range organics
NWTPH-Gx: gasoline range organics
PAHs: polycyclic aromatic hydrocarbons
PCBs: polychlorinated biphenyls
TCLP: toxicity characteristic leaching procedure
TPH: total petroleum hydrocarbons

Table 2
Groundwater Collection Summary

Sample Location	Location (NAD83 WA North)		Sample ID	Date Collected	Depth to Groundwater (ft)	Depth Sampled (ft)	Flow Rate (L/min)
	Easting	Northing					
GP-2	1232265.9	650233.2	--	--	24.0	--	--
GP-3	1232725.4	650246.4	GP-3-GW	10/27/2020 13:15	12.0	16.3	0.50
GP-4	1232625.2	650044.4	--	--	14.0	--	--
GP-6	1232952.4	649764.8	GP-6-GW	10/26/2020 17:50	8.5	12.0	0.50

Notes:

All groundwater samples were analyzed for PAHs, dissolved metals, NWTPH-Dx, and NWTPH-Gx.

Field parameters were monitored to identify when ambient groundwater conditions were reached. Parameters included pH, specific conductivity, temperature, and dissolved oxygen.

Groundwater found but well dried up during purging at GP-2 and GP-4.

Field duplicate collected at GP-3-GW.

Abbreviations:

--: not applicable

ft: feet

L: liter

min: minute

NAD83 WA North: State Plane Washington North, North American Datum 83

NWTPH-Dx: diesel and heavy oil range organics

NWTPH-Gx: gasoline range organics

PAHs: polycyclic aromatic hydrocarbons

Table 3
Soil Analytical Results

	MTCA Method A Unrestricted	MTCA Method B Direct Contact	MTCA Method B Protection of Groundwater	MTCA Method A Industrial	MTCA Method C Industrial	ABC_Recycling_2020 GP-1_2020 GP-1-20-22 10/26/2020 20 - 22 ft N SO 1232389.113 650439.1881	ABC_Recycling_2020 GP-1_2020 GP-1-20-22-DUP 10/26/2020 20 - 22 ft FD SO 1232389.113 650439.1881	ABC_Recycling_2020 GP-1_2020 GP-1-5.7-9.7 10/26/2020 5.7 - 9.7 ft N SO 1232389.113 650439.1881
Task								
Location ID								
Sample ID								
Sample Date								
Depth								
Sample Type								
Matrix								
X								
Y								
Metals (mg/kg)								
Antimony		32	5.4		1400	3.4 U	3.5 U	3.2 U
Arsenic	20	0.67	2.9	20	88	**6**	**6.3**	**9.3**
Beryllium		160	63		7000	**0.18**	**0.19**	**0.33**
Cadmium	2	80	0.69	2	3500	**0.13**	**0.11**	0.064 U
Chromium	2000	120000	480000	2000	5300000	**42**	**44**	**55**
Copper		3200	280		140000	**35**	**35**	**48**
Lead	250		3000	1000		**2**	**2**	**3.2**
Mercury	2		2.1	2		**0.037**	**0.045**	**0.062**
Nickel		1600	130		70000	**46**	**46**	**58**
Selenium		400	5.2		18000	3.4 U	3.5 U	3.2 U
Silver		400	14		18000	0.17 U	0.18 U	0.16 U
Thallium		0.8	0.23		35	3.4 U	3.5 U	3.2 U
Zinc		24000	6000		1100000	**64**	**62**	**64**
Polycyclic Aromatic Hydrocarbons (µg/kg)								
1-Methylnaphthalene		34000			4500000	4.6 U	4.7 U	4.3 U
2-Methylnaphthalene		320000			14000000	4.6 U	4.7 U	4.3 U
Acenaphthene		4800000	98000		210000000	4.6 U	4.7 U	4.3 U
Acenaphthylene			--			4.6 U	4.7 U	4.3 U
Anthracene		24000000	2300000		1100000000	4.6 U	4.7 U	4.3 U
Benzo(a)anthracene						4.6 U	4.7 U	4.3 U
Benzo(a)pyrene	100	190	3900	2000	130000	4.6 U	4.7 U	4.3 U
Benzo(b)fluoranthene						4.6 U	4.7 U	4.3 U
Benzo(g,h,i)perylene						4.6 U	4.7 U	4.3 U
Benzo(j,k)fluoranthene						4.6 U	4.7 U	4.3 U
Chrysene						4.6 U	4.7 U	4.3 U
Dibenzo(a,h)anthracene						4.6 U	4.7 U	4.3 U
Fluoranthene		3200000	630000		140000000	4.6 U	4.7 U	4.3 U
Fluorene		3200000	100000		140000000	4.6 U	4.7 U	4.3 U
Indeno(1,2,3-c,d)pyrene						4.6 U	4.7 U	4.3 U
Naphthalene	5000	1600000	4500		70000000	4.6 U	4.7 U	4.3 U
Phenanthrene						4.6 U	4.7 U	4.3 U
Pyrene		2400000	650000		110000000	4.6 U	4.7 U	4.3 U
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	100	190	3900	2000		4.6 U	4.7 U	4.3 U
Total Naphthalene (1- and 2-Methyl and Naph) (U = 1/2)	5000			5000		4.6 U	4.7 U	4.3 U

Table 3
Soil Analytical Results

	ABC_Recycling_2020 GP-2_2020 GP-2-25-27 10/26/2020 25 - 27 ft N SO 1232265.941 650233.1583	ABC_Recycling_2020 GP-2_2020 GP-2-8-9 10/26/2020 8 - 9 ft N SO 1232265.941 650233.1583	ABC_Recycling_2020 GP-3_2020 GP-3-14.4-15.9 10/27/2020 14.4 - 15.9 ft N SO 1232725.441 650246.3624	ABC_Recycling_2020 GP-4_2020 GP-4-15-18.7 10/27/2020 15 - 18.7 ft N SO 1232625.216 650044.3943	ABC_Recycling_2020 GP-4_2020 GP-4-7.8-8.7 10/27/2020 7.8 - 8.7 ft N SO 1232625.216 650044.3943	ABC_Recycling_2020 GP-5_2020 GP-5-20-22 10/26/2020 20 - 22 ft N SO 1233018.799 650012.5131	ABC_Recycling_2020 GP-5_2020 GP-5-6.9-7.5 10/26/2020 6.9 - 7.5 ft N SO 1233018.799 650012.5131
Metals (mg/kg)							
Antimony	3.3 U	3.3 U	3 U	3.4 U	**4.6**	3.1 U	3.2 U
Arsenic	**5.3**	**9.8**	**3.9**	**6**	**14**	**5**	**7.5**
Beryllium	**0.15**	**0.43**	**0.11**	**0.21**	**0.37**	**0.16**	**0.36**
Cadmium	**0.12**	**0.077**	**0.078**	**0.13**	**0.9**	**0.093**	**0.093**
Chromium	**31**	**60**	**28**	**41**	**37**	**31**	**43**
Copper	**21**	**49**	**16**	**28**	**30**	**19**	**22**
Lead	**2.9**	**4.8**	**1.3**	**2.4**	**44**	**2**	**4.7**
Mercury	**0.038**	**0.085**	**0.016**	**0.03**	**0.095**	**0.024**	**0.059**
Nickel	**29**	**58**	**24**	**39**	**38**	**28**	**33**
Selenium	3.3 U	3.3 U	3 U	3.4 U	3.8 U	3.1 U	3.2 U
Silver	0.16 U	0.17 U	0.15 U	0.17 U	**0.22**	0.15 U	0.16 U
Thallium	3.3 U	3.3 U	3 U	3.4 U	3.8 U	3.1 U	3.2 U
Zinc	**42**	**72**	**30**	**53**	**120**	**36**	**61**
Polycyclic Aromatic Hydrocarbons (µg/kg)							
1-Methylnaphthalene	**8.4**	4.4 U	4 U	4.6 U	**42**	4.1 U	4.2 U
2-Methylnaphthalene	**13**	4.4 U	4 U	4.6 U	**50**	4.1 U	4.2 U
Acenaphthene	**24**	4.4 U	4 U	4.6 U	4 U	4.1 U	4.2 U
Acenaphthylene	4.4 U	4.4 U	4 U	4.6 U	4 U	4.1 U	4.2 U
Anthracene	**25**	4.4 U	4 U	4.6 U	**5.3**	4.1 U	4.2 U
Benzo(a)anthracene	**66**	4.4 U	4 U	4.6 U	**13**	4.1 U	4.2 U
Benzo(a)pyrene	**21**	4.4 U	4 U	4.6 U	**13**	4.1 U	4.2 U
Benzo(b)fluoranthene	**55**	4.4 U	4 U	4.6 U	**15**	4.1 U	4.2 U
Benzo(g,h,i)perylene	**4.8**	4.4 U	4 U	4.6 U	**12**	4.1 U	4.2 U
Benzo(j,k)fluoranthene	**16**	4.4 U	4 U	4.6 U	4 U	4.1 U	4.2 U
Chrysene	**65**	4.4 U	4 U	4.6 U	**20**	4.1 U	4.2 U
Dibenzo(a,h)anthracene	4.4 U	4.4 U	4 U	4.6 U	**4.7**	4.1 U	4.2 U
Fluoranthene	**200**	4.4 U	4 U	4.6 U	**10**	4.1 U	4.2 U
Fluorene	**37**	4.4 U	4 U	4.6 U	4 U	4.1 U	4.2 U
Indeno(1,2,3-c,d)pyrene	**5.8**	4.4 U	4 U	4.6 U	**7.7**	4.1 U	4.2 U
Naphthalene	**7.8**	4.4 U	4 U	4.6 U	**43**	4.1 U	4.2 U
Phenanthrene	**110**	4.4 U	4 U	4.6 U	**28**	4.1 U	4.2 U
Pyrene	**140**	4.4 U	4 U	4.6 U	**9.4**	4.1 U	4.2 U
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	**36.15**	4.4 U	4 U	4.6 U	**17.44**	4.1 U	4.2 U
Total Naphthalene (1- and 2-Methyl and Naph) (U = 1/2)	**29.2**	4.4 U	4 U	4.6 U	**135**	4.1 U	4.2 U

Table 3
Soil Analytical Results

	ABC_Recycling_2020 GP-6_2020 GP-6-10.8-15 10/26/2020 10.8 - 15 ft N SO 1232952.405 649764.8397	ABC_Recycling_2020 TP-1_2020 TP-1-0.5-1.5 10/22/2020 0.5 - 1.5 ft N SO 1232044.174 650713.0992	ABC_Recycling_2020 TP-2_2020 TP-2-1.5-2 10/22/2020 1.5 - 2 ft N SO 1232042.502 650527.9031	ABC_Recycling_2020 TP-3_2020 TP-3-1.5-2 10/22/2020 1.5 - 2 ft N SO 1232184.227 650311.4637	ABC_Recycling_2020 TP-4_2020 TP-4-0-0.5 10/21/2020 0 - 0.5 ft N SO 1232463.701 650406.845	ABC_Recycling_2020 TP-5_2020 TP-5-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232330.012 650233.7296	ABC_Recycling_2020 TP-6_2020 TP-6-0-0.5 10/21/2020 0 - 0.5 ft N SO 1232543.611 650282.9897	ABC_Recycling_2020 TP-7_2020 TP-7-4.5-5 10/21/2020 4.5 - 5 ft N SO 1232515.934 650083.4632
Metals (mg/kg)								
Antimony	3.1 U	**3.4**	3.2 U	**26**	**46**	**6**	**5.3**	**8.8**
Arsenic	**3.6**	**11**	**11**	**93**	**100**	**20 J**	**19**	**25**
Beryllium	**0.13**	**0.37**	**0.49**	**0.25**	**0.36**	**0.23**	**0.26**	**0.19**
Cadmium	**0.092**	**0.44**	0.13 U	**79**	**3.8**	**1**	**1.6**	**3**
Chromium	**27**	**28**	**64**	**28**	**26**	**23**	**11**	**25**
Copper	**15**	**17**	**53**	**59**	**90**	**44**	**37**	**40**
Lead	**1.4**	**14**	**6.9**	**2600**	**130**	**90 J**	**15**	**39**
Mercury	**0.022**	**0.039**	**0.067**	**0.25**	**0.25**	**0.47**	**0.11**	**0.11**
Nickel	**28**	**27**	**58**	**8.1**	**17**	**21**	**9**	**22**
Selenium	3.1 U	3.2 U	3.2 U	**30**	3.1 U	2.8 U	2.8 U	3.5 U
Silver	0.16 U	0.32 U	0.32 U	**11**	**0.5**	0.28 U	0.28 U	0.35 U
Thallium	3.1 U	3.2 U	3.2 U	**8.9**	3.1 U	2.8 U	2.8 U	3.5 U
Zinc	**29**	**98**	**87**	**290**	**250**	**210**	**65**	**140**
Polycyclic Aromatic Hydrocarbons (µg/kg)								
1-Methylnaphthalene	4.2 U	**16**	4.3 U	**35**	**540**	**730 J**	**2500**	**78**
2-Methylnaphthalene	4.2 U	**19**	4.3 U	**50**	**800**	**1100 J**	**4400**	**88**
Acenaphthene	4.2 U	4.4 U	4.3 U	4.1 U	82 U	**73 J**	360 U	**4.7**
Acenaphthylene	4.2 U	4.4 U	4.3 U	4.1 U	82 U	**78 J**	76 U	**7**
Anthracene	4.2 U	4.4 U	4.3 U	4.1 U	**82**	**160 J**	**130**	**14**
Benzo(a)anthracene	4.2 U	4.4 U	4.3 U	**6.4**	**130**	**300 J**	**410**	**27**
Benzo(a)pyrene	4.2 U	4.4 U	4.3 U	**4.4**	82 U	**140 J**	**170**	**23**
Benzo(b)fluoranthene	4.2 U	**7.7**	4.3 U	**8.2**	**130**	**340 J**	**330**	**37**
Benzo(g,h,i)perylene	4.2 U	**6.4**	4.3 U	**4.7**	82 U	**120 J**	**170**	**30**
Benzo(j,k)fluoranthene	4.2 U	4.4 U	4.3 U	4.1 U	82 U	**92 J**	76 U	**7.3**
Chrysene	4.2 U	**7.9**	4.3 U	**14**	**220**	**500 J**	**940**	**40**
Dibenzo(a,h)anthracene	4.2 U	4.4 U	4.3 U	4.1 U	82 U	**47 J**	**87**	**8.3**
Fluoranthene	4.2 U	**7.3**	4.3 U	**7.5**	**170**	**530 J**	**350**	**40**
Fluorene	4.2 U	4.4 U	4.3 U	4.1 U	84 U	**90 J**	**410**	**9.3**
Indeno(1,2,3-c,d)pyrene	4.2 U	4.4 U	4.3 U	4.1 U	82 U	**96 J**	76 U	**22**
Naphthalene	4.2 U	**15**	4.3 U	**22**	**280**	**510 J**	**1200**	**77**
Phenanthrene	4.2 U	**15**	4.3 U	**40**	**620**	**870 J**	**3600**	**89**
Pyrene	4.2 U	**6.2**	4.3 U	**6.6**	**180**	**500 J**	**490**	**37**
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	4.2 U	**3.929**	4.3 U	**6.615**	**81.5**	**232.5 J**	**269.7**	**33.56**
Total Naphthalene (1- and 2-Methyl and Naph) (U = 1/2)	4.2 U	**50**	4.3 U	**107**	**1620**	**2340 J**	**8100**	**243**

Table 3
Soil Analytical Results

	ABC_Recycling_2020 TP-8_2020 TP-8-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232657.513 650184.4187	ABC_Recycling_2020 TP-9_2020 TP-9-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232718.597 649975.912	ABC_Recycling_2020 TP-12_2020 TP-12-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232859.97 649821.6908	ABC_Recycling_2020 TP-13_2020 TP-13-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233066.29 649872.2961	ABC_Recycling_2020 TP-14_2020 TP-14-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233136.099 649748.0338	ABC_Recycling_2020 TP-15_2020 TP-15-1-1.5 10/22/2020 1 - 1.5 ft N SO 1233072.659 649748.2293	ABC_Recycling_2020 TP-16_2020 TP-16-5-5.5 10/21/2020 5 - 5.5 ft N SO 1232942.891 650049.0335	ABC_Recycling_2020 TP-17_2020 TP-17-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233035.603 649785.6025
Metals (mg/kg)								
Antimony	**16**	**75**	**32**	3.2 U	3 U	3 U	3.7 U	4.1 U
Arsenic	**42 J**	**160**	**70 J**	**6.5**	**7.2**	**9.9**	**6.4**	**13**
Beryllium	0.11 U	**0.17**	0.11 U	**0.34**	**0.29**	**0.34**	**0.52**	**1.8**
Cadmium	**0.76**	**0.47**	**0.95**	0.13 U	**0.13**	**0.17**	**0.79**	**0.71**
Chromium	**9.1**	**74**	**16**	**50**	**44**	**45**	**43**	**16**
Copper	**38**	**240**	**89**	**41**	**27**	**43**	**30**	**36**
Lead	**26 J**	**110**	**29 J**	**3.9**	**3.8**	**4**	**16**	**31**
Mercury	**0.3**	**0.14**	**0.26**	**0.051**	**0.042**	**0.047**	**0.048**	**0.34**
Nickel	**7.6**	**52**	**13**	**48**	**35**	**48**	**41**	**18**
Selenium	2.6 U	2.6 U	2.7 U	3.2 U	3 U	3 U	3.7 U	4.1 U
Silver	0.26 U	**0.41**	0.27 U	0.32 U	0.3 U	0.3 U	**0.38**	0.41 U
Thallium	2.6 U	2.6 U	2.7 U	3.2 U	3 U	3 U	3.7 U	4.1 U
Zinc	**85**	**280**	**100**	**64**	**49**	**77**	**130**	**42**
Polycyclic Aromatic Hydrocarbons (µg/kg)								
1-Methylnaphthalene	**23 J**	70 U	**31 J**	4.2 U	4 U	4 U	**39**	**250**
2-Methylnaphthalene	**41 J**	**87**	**56 J**	**4.4**	4 U	4 U	**48**	**250**
Acenaphthene	**5.4 J**	70 U	**4.2 J**	4.2 U	4 U	4 U	4.9 U	12 U
Acenaphthylene	3.5 UJ	70 U	3.6 UJ	4.2 U	4 U	4 U	**5.5**	14 U
Anthracene	**8.4 J**	70 U	3.6 UJ	4.2 U	4 U	4 U	**7.1**	**29**
Benzo(a)anthracene	**61 J**	**840**	**13 J**	4.2 U	4 U	4 U	**11**	**43**
Benzo(a)pyrene	**53 J**	**960**	**8.6 J**	4.2 U	4 U	4 U	**11**	**20**
Benzo(b)fluoranthene	**83 J**	**1300**	**18 J**	4.2 U	4 U	4 U	**30**	**25**
Benzo(g,h,i)perylene	**43 J**	**760**	**8.8 J**	4.2 U	4 U	4 U	**23**	**18**
Benzo(j,k)fluoranthene	**20 J**	**410**	3.6 UJ	4.2 U	4 U	4 U	**6**	4.4 U
Chrysene	**72 J**	**770**	**27 J**	4.2 U	4 U	4 U	**25**	**37**
Dibenzo(a,h)anthracene	**11 J**	**180**	3.6 UJ	4.2 U	4 U	4 U	4.9 U	**5.3**
Fluoranthene	**78 J**	**790**	**18 J**	4.2 U	4 U	4 U	**49**	**36**
Fluorene	**8 J**	70 U	**11 J**	4.2 U	4 U	4 U	4.9 U	16 U
Indeno(1,2,3-c,d)pyrene	**40 J**	**740**	**6.7 J**	4.2 U	4 U	4 U	**17**	**9.1**
Naphthalene	**15 J**	250 U	**20 J**	4.2 U	4 U	4 U	**86**	**98**
Phenanthrene	**66 J**	**380**	**58 J**	4.2 U	4 U	4 U	**66**	**160**
Pyrene	**77 J**	**790**	**17 J**	4.2 U	4 U	4 U	**32**	**39**
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	**75.22 J**	**1314.7**	**13 J**	4.2 U	4 U	4 U	**17.895**	**28.83**
Total Naphthalene (1- and 2-Methyl and Naph) (U = 1/2)	**79 J**	**247**	**107 J**	**8.6**	4 U	4 U	**173**	**598**

Table 3
Soil Analytical Results

	MTCA Method A Unrestricted	MTCA Method B Direct Contact	MTCA Method B Protection of Groundwater	MTCA Method A Industrial	MTCA Method C Industrial	ABC_Recycling_2020 GP-1_2020 GP-1-20-22 10/26/2020 20 - 22 ft N SO 1232389.113 650439.1881	ABC_Recycling_2020 GP-1_2020 GP-1-20-22-DUP 10/26/2020 20 - 22 ft FD SO 1232389.113 650439.1881	ABC_Recycling_2020 GP-1_2020 GP-1-5.7-9.7 10/26/2020 5.7 - 9.7 ft N SO 1232389.113 650439.1881
Task								
Location ID								
Sample ID								
Sample Date								
Depth								
Sample Type								
Matrix								
X								
Y								
Dioxin Furans (ng/kg)								
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)		13			1700	--	--	0.0323 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)						--	--	0.0816 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)						--	--	0.14 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)						--	--	0.147 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)						--	--	0.165 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)						--	--	**2.6**
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)						--	--	**34.6**
Total Tetrachlorodibenzo-p-dioxin (TCDD)						--	--	**0.134**
Total Pentachlorodibenzo-p-dioxin (PeCDD)						--	--	**0.194**
Total Hexachlorodibenzo-p-dioxin (HxCDD)		160				--	--	**1.38 EMPC**
Total Heptachlorodibenzo-p-dioxin (HpCDD)						--	--	**6.48**
2,3,7,8-Tetrachlorodibenzofuran (TCDF)						--	--	0.0247 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)						--	--	0.0301 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)						--	--	0.0256 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)						--	--	0.0403 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)						--	--	0.0387 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)						--	--	0.0675 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)						--	--	0.0418 U
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)						--	--	0.0849 U
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)						--	--	0.0805 U
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)						--	--	0.101 U
Total Tetrachlorodibenzofuran (TCDF)						--	--	**0.0999**
Total Pentachlorodibenzofuran (PeCDF)						--	--	0.0301 U
Total Hexachlorodibenzofuran (HxCDF)						--	--	0.0675 U
Total Heptachlorodibenzofuran (HpCDF)						--	--	0.0849 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)		13			1700	--	--	**0.13171365**

Table 3
Soil Analytical Results

	ABC_Recycling_2020 GP-2_2020 GP-2-25-27 10/26/2020 25 - 27 ft N SO 1232265.941 650233.1583	ABC_Recycling_2020 GP-2_2020 GP-2-8-9 10/26/2020 8 - 9 ft N SO 1232265.941 650233.1583	ABC_Recycling_2020 GP-3_2020 GP-3-14.4-15.9 10/27/2020 14.4 - 15.9 ft N SO 1232725.441 650246.3624	ABC_Recycling_2020 GP-4_2020 GP-4-15-18.7 10/27/2020 15 - 18.7 ft N SO 1232625.216 650044.3943	ABC_Recycling_2020 GP-4_2020 GP-4-7.8-8.7 10/27/2020 7.8 - 8.7 ft N SO 1232625.216 650044.3943	ABC_Recycling_2020 GP-5_2020 GP-5-20-22 10/26/2020 20 - 22 ft N SO 1233018.799 650012.5131	ABC_Recycling_2020 GP-5_2020 GP-5-6.9-7.5 10/26/2020 6.9 - 7.5 ft N SO 1233018.799 650012.5131
Dioxin Furans (ng/kg)							
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	--

Table 3
Soil Analytical Results

	ABC_Recycling_2020 GP-6_2020 GP-6-10.8-15 10/26/2020 10.8 - 15 ft N SO 1232952.405 649764.8397	ABC_Recycling_2020 TP-1_2020 TP-1-0.5-1.5 10/22/2020 0.5 - 1.5 ft N SO 1232044.174 650713.0992	ABC_Recycling_2020 TP-2_2020 TP-2-1.5-2 10/22/2020 1.5 - 2 ft N SO 1232042.502 650527.9031	ABC_Recycling_2020 TP-3_2020 TP-3-1.5-2 10/22/2020 1.5 - 2 ft N SO 1232184.227 650311.4637	ABC_Recycling_2020 TP-4_2020 TP-4-0-0.5 10/21/2020 0 - 0.5 ft N SO 1232463.701 650406.845	ABC_Recycling_2020 TP-5_2020 TP-5-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232330.012 650233.7296	ABC_Recycling_2020 TP-6_2020 TP-6-0-0.5 10/21/2020 0 - 0.5 ft N SO 1232543.611 650282.9897	ABC_Recycling_2020 TP-7_2020 TP-7-4.5-5 10/21/2020 4.5 - 5 ft N SO 1232515.934 650083.4632
Dioxin Furans (ng/kg)								
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	**0.761 EMPC**	**0.0977 EMPC**	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	**6.41**	**0.665 J**	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	**11.4**	**0.812 EMPC**	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	**110**	**12.6**	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	**32.2**	**5.14**	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	**2350**	**187**	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	**23400**	**1720**	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	**13.8 EMPC**	**1.96 EMPC**	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	**45**	**4.79 EMPC**	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	**669**	**90.1 EMPC**	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	**6130**	**409**	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	**1.1**	**0.17 J**	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	**2.99**	**0.189 J**	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	**5.52**	**0.361 J**	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	**10.4**	**0.504 J**	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	**4.97**	**0.332 J**	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	**1.6 J**	**0.0933 J**	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	**8**	**0.225 J**	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	**149**	**10.2**	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	**7.02**	**0.509 J**	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	**433**	**43.1**	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	**17.6 EMPC**	**0.69 EMPC**	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	**65.4**	**4.32 EMPC**	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	**264**	**15.1**	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	**561**	**41.1**	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	**59.0938 J**	**5.37032 J**	--

Table 3
Soil Analytical Results

	ABC_Recycling_2020 TP-8_2020 TP-8-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232657.513 650184.4187	ABC_Recycling_2020 TP-9_2020 TP-9-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232718.597 649975.912	ABC_Recycling_2020 TP-12_2020 TP-12-0-0.5 10/20/2020 0 - 0.5 ft N SO 1232859.97 649821.6908	ABC_Recycling_2020 TP-13_2020 TP-13-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233066.29 649872.2961	ABC_Recycling_2020 TP-14_2020 TP-14-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233136.099 649748.0338	ABC_Recycling_2020 TP-15_2020 TP-15-1-1.5 10/22/2020 1 - 1.5 ft N SO 1233072.659 649748.2293	ABC_Recycling_2020 TP-16_2020 TP-16-5-5.5 10/21/2020 5 - 5.5 ft N SO 1232942.891 650049.0335	ABC_Recycling_2020 TP-17_2020 TP-17-1.5-2 10/22/2020 1.5 - 2 ft N SO 1233035.603 649785.6025
Dioxin Furans (ng/kg)								
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzo-p-dioxin (TCDD)	--	--	--	--	--	--	--	--
Total Pentachlorodibenzo-p-dioxin (PeCDD)	--	--	--	--	--	--	--	--
Total Hexachlorodibenzo-p-dioxin (HxCDD)	--	--	--	--	--	--	--	--
Total Heptachlorodibenzo-p-dioxin (HpCDD)	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	--	--	--	--	--	--	--	--
Total Tetrachlorodibenzofuran (TCDF)	--	--	--	--	--	--	--	--
Total Pentachlorodibenzofuran (PeCDF)	--	--	--	--	--	--	--	--
Total Hexachlorodibenzofuran (HxCDF)	--	--	--	--	--	--	--	--
Total Heptachlorodibenzofuran (HpCDF)	--	--	--	--	--	--	--	--
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2)	--	--	--	--	--	--	--	--

Table 3
Soil Analytical Results

Notes:
Detected concentration is greater than MTCA Method A Unrestricted screening level.
Detected concentration is greater than MTCA Method B Direct Contact screening level.
Detected concentration is greater than MTCA Method B Protection of Groundwater screening level.
Detected concentration is greater than MTCA Method A Industrial screening level.
Detected concentration is greater than MTCA Method C Industrial screening level.

Bold: Detected result
-- : not applicable
µg/kg: micrograms per kilogram
cPAH: carcinogenic polycyclic aromatic hydrocarbon
EMPC: estimated maximum possible concentration
FD: field duplicate
ft: feet
J: Estimated value
mg/kg: miligrams per kilogram
MTCA: Model Toxics Control Act
N: Presumptive Evidence
ng/kg: nanogram per kilogram
SO: soil
TEQ: toxic equivalents quotient
U: Compound analyzed, but not detected above detection limit
UJ: Compound analyzed, but not detected above estimated detection limit

Table 4
Soil TCLP Metals Analytical Results

	Task	ABC_Recycling_2020	ABC_Recycling_2020	ABC_Recycling_2020	ABC_Recycling_2020
	Location ID	GP-1_2020	TP-17_2020	TP-5_2020	TP-7_2020
	Sample ID	GP-1-5.7-9.7	TP-17-1.5-2	TP-5-0-0.5	TP-7-4.5-5
	Sample Date	10/26/2020	10/22/2020	10/20/2020	10/21/2020
	Depth	5.7 - 9.7 ft	1.5 - 2 ft	0 - 0.5 ft	4.5 - 5 ft
	Sample Type	N	N	N	N
	Matrix	SO	SO	SO	SO
	X	1232389.1	1233035.6	1232330.0	1232515.9
	Y	650439.2	649785.6	650233.7	650083.5
	Toxicity Characteristic Threshold for Hazardous Waste				
Leachable Metals (µg/L)					
Arsenic	5000	400 U	400 U	400 U	400 U
Barium	100000	**470**	**1500**	**450**	**460**
Cadmium	1000	20 U	20 U	20 U	20 U
Chromium	5000	20 U	20 U	20 U	20 U
Lead	5000	200 U	200 U	200 U	200 U
Mercury	200	5 U	5 U	5 U	5 U
Selenium	1000	400 U	400 U	400 U	400 U
Silver	5000	40 U	40 U	40 U	40 U

Notes:

Detected concentration is greater than Toxicity Characteristic Threshold for Hazardous Waste

Bold: Detected result

U: Compound analyzed, but not detected above detection limit

N: normal sample

µg/L: micrograms per liter

ft: feet

SO: soil

Table 5
Groundwater Analytical Results

		Task	ABC_Recycling_2020	ABC_Recycling_2020	ABC_Recycling_2020
		Location ID	GP-3_2020	GP-3_2020	GP-6_2020
		Sample ID	GP-3-GW	GP-3-GW-DUP	GP-6-GW
		Sample Date	10/27/2020	10/27/2020	10/26/2020
		Depth	16.3 - 16.3 ft	16.3 - 16.3 ft	12 - 12 ft
		Sample Type	N	FD	N
		Matrix	WG	WG	WG
		X	1232725.4	1232725.4	1232952.4
		Y	650246.4	650246.4	649764.8
	MTCA Method A	MTCA Method B			
Metals, Dissolved (µg/L)					
Antimony		6.4	1 U	1 U	1 U
Arsenic	5	4.8	**0.68**	**0.56**	**0.76**
Beryllium		32	0.2 U	0.2 U	0.2 U
Cadmium	5	8	0.2 U	0.2 U	0.2 U
Chromium	50	--	1 U	1 U	1 U
Copper		640	1 U	1 U	1 U
Lead	15		0.5 U	0.5 U	0.5 U
Mercury	2		0.025 U	0.025 U	0.025 U
Nickel		320	**13**	**15**	**17**
Selenium		80	**1.4**	**1.4**	**5.6**
Silver		80	0.2 U	0.2 U	0.2 U
Thallium		0.16	0.2 U	0.2 U	0.2 U
Zinc		4800	**7**	**6.6**	**3**
Polycyclic Aromatic Hydrocarbons (µg/L)					
1-Methylnaphthalene		1.5	0.056 U	0.051 U	0.06 U
2-Methylnaphthalene		32	0.056 U	0.051 U	0.06 U
Acenaphthene		960	0.056 U	0.051 U	0.06 U
Acenaphthylene			0.056 U	0.051 U	0.06 U
Anthracene		4800	0.056 U	0.051 U	0.06 U
Benzo(a)anthracene			0.0056 U	0.0051 U	0.006 U
Benzo(a)pyrene	0.1	0.2	0.0056 U	0.0051 U	0.006 U
Benzo(b)fluoranthene			0.0056 U	**0.0053**	0.006 U
Benzo(g,h,i)perylene			0.0056 U	0.0051 U	0.006 U
Benzo(j,k)fluoranthene			0.0056 U	0.0051 U	0.006 U
Chrysene			0.0056 U	0.0051 U	0.006 U
Dibenzo(a,h)anthracene			0.0056 U	0.0051 U	0.006 U
Fluoranthene		640	0.056 U	0.051 U	0.06 U
Fluorene		640	0.056 U	0.051 U	0.06 U
Indeno(1,2,3-c,d)pyrene			0.0056 U	0.0051 U	0.006 U
Naphthalene	160	160	0.056 U	0.051 U	0.06 U
Phenanthrene			0.056 U	0.051 U	0.06 U
Pyrene		480	0.056 U	0.051 U	0.06 U
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 1/2)	0.1	0.2	0.0056 U	**0.004126**	0.006 U
Total Naphthalene (1- and 2-Methyl and Naph) (U = 1	160		0.056 U	0.051 U	0.06 U
Total Petroleum Hydrocarbons (mg/L)					
Diesel range hydrocarbons	0.5		**0.12**	**0.11**	0.1 U
Gasoline range hydrocarbons	0.8		0.1 U	0.1 U	0.1 U
Residual range hydrocarbons	0.5		**0.29**	**0.27**	0.2 U

Notes:
Detected concentration is greater than MTCA Method A Groundwater screening level
Detected concentration is greater than MTCA Method B Groundwater Direct Contact screening level
Bold: Detected result
µg/L: micrograms per liter
cPAH: carcinogenic polycyclic aromatic hydrocarbon
FD: field duplicate
ft: feet
mg/L: miligrams per liter
MTCA: Model Toxics Control Act
N: normal sample
TEQ: toxic equivalents quotient
U: Compound analyzed, but not detected above detection limit
WG: groundwater

APPENDIX C
Previous Environmental Investigation Laboratory Analytical Reports

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 17, 2020

Derek Ormerod
Anchor QEA
1201 3rd Ave, Suite 2600
Seattle, WA 98101

Re: Analytical Data for Project 202005-01.01
Laboratory Reference No. 2010-264

Dear Derek:

Enclosed are the analytical results and associated quality control data for samples submitted on October 22, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

Case Narrative

Samples were collected on October 20, 2020 and received by the laboratory on October 22, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PCBs EPA 8082A Analysis

The Sample 10-279-02 was used as the MS/MSD pair. The RPD between the MS/MSD (26%) was above quality control limit of 15%. The sample was re-extracted and rerun with similar results and attributed to matrix effect. All other QC was within their corresponding quality control limits. No further action was performed.

Total Metals EPA 6010D/6020B/7471B Analysis

The duplicate RPD for Arsenic, Lead and Nickel is outside control limits due to sample inhomogeneity.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Antimony	**6.0**	2.8	EPA 6010D	10-28-20	10-29-20	
Arsenic	**20**	2.8	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.23**	0.11	EPA 6020B	11-2-20	11-4-20	
Cadmium	**1.0**	0.11	EPA 6020B	11-2-20	11-4-20	
Chromium	**23**	0.56	EPA 6010D	10-28-20	10-29-20	
Copper	**44**	1.1	EPA 6010D	10-28-20	10-29-20	
Lead	**90**	5.6	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.47**	0.028	EPA 7471B	11-4-20	11-4-20	
Nickel	**21**	2.8	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.8	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.28	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	2.8	EPA 6010D	10-28-20	10-29-20	
Zinc	**210**	2.8	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-8-0-0.5**					
Laboratory ID:	10-264-02					
Antimony	**16**	2.6	EPA 6010D	10-28-20	10-29-20	
Arsenic	**42**	2.6	EPA 6010D	10-28-20	10-29-20	
Beryllium	**ND**	0.11	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.76**	0.11	EPA 6020B	11-2-20	11-4-20	
Chromium	**9.1**	0.53	EPA 6010D	10-28-20	10-29-20	
Copper	**38**	1.1	EPA 6010D	10-28-20	10-29-20	
Lead	**26**	5.3	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.30**	0.026	EPA 7471B	11-4-20	11-4-20	
Nickel	**7.6**	2.6	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.6	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.26	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	2.6	EPA 6010D	10-28-20	10-29-20	
Zinc	**85**	2.6	EPA 6010D	10-28-20	10-29-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-12-0-0.5**					
Laboratory ID:	10-264-08					
Antimony	**32**	2.7	EPA 6010D	10-28-20	10-29-20	
Arsenic	**70**	2.7	EPA 6010D	10-28-20	10-29-20	
Beryllium	**ND**	0.11	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.95**	0.11	EPA 6020B	11-2-20	11-4-20	
Chromium	**16**	0.54	EPA 6010D	10-28-20	10-29-20	
Copper	**89**	1.1	EPA 6010D	10-28-20	10-29-20	
Lead	**29**	5.4	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.26**	0.027	EPA 7471B	11-4-20	11-4-20	
Nickel	**13**	2.7	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.7	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.27	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	2.7	EPA 6010D	10-28-20	10-29-20	
Zinc	**100**	2.7	EPA 6010D	10-28-20	10-29-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028SH1					
Antimony	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Arsenic	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Chromium	**ND**	0.50	EPA 6010D	10-28-20	10-29-20	
Copper	**ND**	1.0	EPA 6010D	10-28-20	10-29-20	
Lead	**ND**	5.0	EPA 6010D	10-28-20	10-29-20	
Nickel	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Thallium	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Zinc	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Laboratory ID:	MB1102SM1					
Beryllium	**ND**	0.10	EPA 6020B	11-2-20	11-4-20	
Cadmium	**ND**	0.10	EPA 6020B	11-2-20	11-4-20	
Silver	**ND**	0.25	EPA 6020B	11-2-20	11-4-20	
Laboratory ID:	MB1104S1					
Mercury	**ND**	0.025	EPA 7471B	11-4-20	11-4-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-264-01									
	ORIG	DUP								
Antimony	**5.35**	**9.10**	NA	NA		NA	NA	52	20	C
Arsenic	**17.7**	**26.3**	NA	NA		NA	NA	39	20	L
Chromium	**20.6**	**18.9**	NA	NA		NA	NA	9	20	
Copper	**38.9**	**43.8**	NA	NA		NA	NA	12	20	
Lead	**80.5**	**44.9**	NA	NA		NA	NA	57	20	L
Nickel	**18.5**	**14.9**	NA	NA		NA	NA	22	20	L
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Thallium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Zinc	**191**	**165**	NA	NA		NA	NA	15	20	
Laboratory ID:	10-264-01									
Beryllium	**0.204**	**0.191**	NA	NA		NA	NA	7	20	
Cadmium	**0.930**	**1.06**	NA	NA		NA	NA	13	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-264-01									
Mercury	**0.422**	**0.410**	NA	NA		NA	NA	3	20	
Laboratory ID:	10-279-02									
	ORIG	DUP								
Antimony	**6.30**	**7.95**	NA	NA		NA	NA	23	20	C
Arsenic	**18.0**	**20.0**	NA	NA		NA	NA	11	20	
Chromium	**18.2**	**19.9**	NA	NA		NA	NA	9	20	
Copper	**28.9**	**30.7**	NA	NA		NA	NA	6	20	
Lead	**28.2**	**33.5**	NA	NA		NA	NA	17	20	
Nickel	**16.2**	**17.1**	NA	NA		NA	NA	5	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Thallium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Zinc	**104**	**124**	NA	NA		NA	NA	18	20	
Laboratory ID:	10-279-02									
Beryllium	**0.135**	**0.155**	NA	NA		NA	NA	14	20	
Cadmium	**2.16**	**2.04**	NA	NA		NA	NA	5	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
Mercury	**0.0769**	**0.127**	NA	NA		NA	NA	49	20	C

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Antimony	**88.0**	**83.5**	100	100	6.30	**82**	**77**	75-125	5	20	
Arsenic	**114**	**111**	100	100	18.0	**96**	**93**	75-125	3	20	
Chromium	**104**	**105**	100	100	18.2	**86**	**86**	75-125	0	20	
Copper	**80.5**	**76.0**	50.0	50.0	28.9	**103**	**94**	75-125	6	20	
Lead	**241**	**233**	250	250	28.2	**85**	**82**	75-125	3	20	
Nickel	**98.5**	**98.0**	100	100	16.2	**82**	**82**	75-125	1	20	
Selenium	**97.5**	**94.5**	100	100	ND	**98**	**95**	75-125	3	20	
Thallium	**44.4**	**43.9**	50.0	50.0	ND	**89**	**88**	75-125	1	20	
Zinc	**190**	**183**	100	100	104	**87**	**79**	75-125	4	20	
Laboratory ID:	10-279-02										
Beryllium	**49.8**	**51.3**	50.0	50.0	0.135	**99**	**102**	75-125	3	20	
Cadmium	**46.8**	**47.3**	50.0	50.0	2.16	**89**	**90**	75-125	1	20	
Silver	**22.5**	**22.3**	25.0	25.0	ND	**90**	**89**	75-125	1	20	
Laboratory ID:	10-279-02										
Mercury	**0.559**	**0.515**	0.500	0.500	0.0769	**96**	**88**	80-120	8	20	

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Naphthalene	**0.51**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**1.1**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.73**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**0.078**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**0.073**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**0.090**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.87**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.16**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.53**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.50**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.30**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.50**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.34**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**0.092**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.14**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.096**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**0.047**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.12**	0.019	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*46 - 113*				
Pyrene-d10	*82*	*45 - 114*				
Terphenyl-d14	*86*	*49 - 121*				

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Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-8-0-0.5**					
Laboratory ID:	10-264-02					
Naphthalene	**0.015**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.041**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.023**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**0.0054**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**0.0080**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.066**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.0084**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.078**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.077**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.061**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.072**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.083**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**0.020**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.053**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.040**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**0.011**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.043**	0.0035	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*64*	*46 - 113*				
Pyrene-d10	*79*	*45 - 114*				
Terphenyl-d14	*81*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-12-0-0.5**					
Laboratory ID:	10-264-08					
Naphthalene	**0.020**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.056**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.031**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**0.0042**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**0.011**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.058**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**ND**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.018**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.017**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.013**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.027**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.018**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.0086**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.0067**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**ND**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.0088**	0.0036	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*46 - 113*				
Pyrene-d10	*79*	*45 - 114*				
Terphenyl-d14	*76*	*49 - 121*				

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Laboratory Reference: 2010-264
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029S2					
Naphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*75*	*46 - 113*				
Pyrene-d10	*83*	*45 - 114*				
Terphenyl-d14	*82*	*49 - 121*				

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Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.120**	**0.121**	0.0833	0.0833	0.0558	77	78	51 - 115	1	26	
Acenaphthylene	**0.0623**	**0.0653**	0.0833	0.0833	0.00504	69	72	53 - 121	5	24	
Acenaphthene	**0.0677**	**0.0754**	0.0833	0.0833	0.00339	77	86	52 - 121	11	25	
Fluorene	**0.0644**	**0.0705**	0.0833	0.0833	0.00667	69	77	58 - 127	9	23	
Phenanthrene	**0.126**	**0.136**	0.0833	0.0833	0.0641	74	86	46 - 129	8	28	
Anthracene	**0.0732**	**0.0793**	0.0833	0.0833	0.0100	76	83	57 - 124	8	21	
Fluoranthene	**0.0877**	**0.0932**	0.0833	0.0833	0.0287	71	77	46 - 136	6	29	
Pyrene	**0.0859**	**0.0921**	0.0833	0.0833	0.0266	71	79	41 - 136	7	32	
Benzo[a]anthracene	**0.0983**	**0.114**	0.0833	0.0833	0.0191	95	114	56 - 136	15	25	
Chrysene	**0.0890**	**0.102**	0.0833	0.0833	0.0288	72	88	49 - 130	14	22	
Benzo[b]fluoranthene	**0.0813**	**0.0937**	0.0833	0.0833	0.0267	66	80	51 - 135	14	26	
Benzo(j,k)fluoranthene	**0.0686**	**0.0758**	0.0833	0.0833	0.00528	76	85	56 - 124	10	23	
Benzo[a]pyrene	**0.0728**	**0.0833**	0.0833	0.0833	0.0163	68	80	54 - 133	13	26	
Indeno(1,2,3-c,d)pyrene	**0.0727**	**0.0819**	0.0833	0.0833	0.0159	68	79	52 - 134	12	20	
Dibenz[a,h]anthracene	**0.0685**	**0.0791**	0.0833	0.0833	0.00596	75	88	58 - 127	14	17	
Benzo[g,h,i]perylene	**0.0763**	**0.0861**	0.0833	0.0833	0.0215	66	78	54 - 129	12	21	
Surrogate:											
2-Fluorobiphenyl						*62*	*67*	*46 - 113*			
Pyrene-d10						*70*	*77*	*45 - 114*			
Terphenyl-d14						*71*	*80*	*49 - 121*			

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Diesel Range Organics	**56**	28	NWTPH-Dx	10-29-20	10-29-20	N
Lube Oil	**350**	56	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**TP-8-0-0.5**					
Laboratory ID:	10-264-02					
Diesel Range Organics	**ND**	26	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	53	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**TP-12-0-0.5**					
Laboratory ID:	10-264-08					
Diesel Range Organics	**ND**	27	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	55	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-264-01										
	ORIG	DUP									
Diesel Range Organics	**50.4**	**50.5**	NA	NA		NA		NA	0	NA	N
Lube Oil	**308**	**289**	NA	NA		NA		NA	6	NA	
Surrogate:											
o-Terphenyl						*97*	*91*	*50-150*			

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Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Gasoline	**ND**	17	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*107*	*58-129*				
Client ID:	**TP-8-0-0.5**					
Laboratory ID:	10-264-02					
Gasoline	**ND**	6.3	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*96*	*58-129*				
Client ID:	**TP-12-0-0.5**					
Laboratory ID:	10-264-08					
Gasoline	**ND**	5.7	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*108*	*58-129*				

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028S3					
Gasoline	**ND**	5.0	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-264-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*107*	*108*	*58-129*			

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Project: 202005-01.01

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Aroclor 1016	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1221	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1232	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1242	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1248	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1254	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1260	**0.050**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1262	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Aroclor 1268	**ND**	0.028	EPA 8082A	11-4-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*91*	*46-125*				

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1104S1					
Aroclor 1016	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1221	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1232	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1242	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1248	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1254	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1260	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1262	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1268	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*98*	*46-125*				
Laboratory ID:	MB1104S1					
Aroclor 1016	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1221	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1232	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1242	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1248	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1254	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1260	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1262	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1268	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.224**	**0.292**	0.250	0.250	ND	**89**	**117**	43-125	26	15	L, X
Surrogate:											
DCB						*102*	*102*	*46-125*			
SPIKE BLANKS											
Laboratory ID:	SB1104S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.280**	**0.260**	0.250	0.250	N/A	**112**	**104**	50-134	7	18	
Surrogate:											
DCB						*96*	*96*	*46-125*			
Laboratory ID:	SB1104S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.301**	**0.272**	0.250	0.250	N/A	**120**	**109**	50-134	10	18	X
Surrogate:											
DCB						*102*	*101*	*46-125*			

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**0.45**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1030TM2					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	
Laboratory ID:	MB1030T2					
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-264-01									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.452**	**0.448**	NA	NA		NA	NA	1	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-264-01									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.462**	**0.462**	NA	NA		NA	NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
MATRIX SPIKES										
Laboratory ID:	10-279-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	**3.92**	**3.90**	4.00	4.00	ND	**98**	**98**	75-125	1	20
Barium	**4.29**	**4.30**	4.00	4.00	0.462	**96**	**96**	75-125	0	20
Cadmium	**1.82**	**1.81**	2.00	2.00	ND	**91**	**90**	75-125	1	20
Chromium	**3.80**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	1	20
Lead	**9.55**	**9.51**	10.0	10.0	ND	**96**	**95**	75-125	0	20
Selenium	**4.05**	**4.01**	4.00	4.00	ND	**101**	**100**	75-125	1	20
Silver	**0.960**	**0.968**	1.00	1.00	ND	**96**	**97**	75-125	1	20
Laboratory ID:	10-279-02									
Mercury	**0.0488**	**0.0486**	0.0500	0.0500	ND	**98**	**97**	75-125	0	20

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G

Matrix: Soil
Units: % Solids

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-5-0-0.5**					
Laboratory ID:	10-264-01					
Total Solids	**89**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-8-0-0.5**					
Laboratory ID:	10-264-02					
Total Solids	**95**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-12-0-0.5**					
Laboratory ID:	10-264-08					
Total Solids	**92**	0.50	SM 2540G	10-29-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 22, 2020
Laboratory Reference: 2010-264
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G
QUALITY CONTROL

Matrix: Soil
Units: % Solids

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-264-01								
	ORIG	DUP							
Total Solids	**89.3**	**91.7**	NA	NA	NA	NA	3	20	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

November 17, 2020

Vista Work Order No. 2002336

Mr. David Baumeister
OnSite Environmental Inc.
14648 NE 95th Street
Redmond, WA 98052

Dear Mr. Baumeister,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 28, 2020 under your Project Name '202005-0101'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 2002336
Case Narrative

Sample Condition on Receipt:

One solid sample was received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The sample was received in good condition and within the method temperature requirements. The sample was received in a clear glass jar.

Analytical Notes:

EPA Method 1613B

The sample was extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-5MS GC column.

Holding Times

The sample was extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002336-01	TP-5-0-0.5	20-Oct-20 09:57	28-Oct-20 09:49	Clear Glass Jar, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1613B

Client Data

Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid

Laboratory Data

Lab Sample: B0K0041-BLK1
QC Batch: B0K0041 Date Extracted: 05-Nov-20
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0263			13-Nov-20 10:55	1
1,2,3,7,8-PeCDD	ND	0.0497			13-Nov-20 10:55	1
1,2,3,4,7,8-HxCDD	ND	0.0568			13-Nov-20 10:55	1
1,2,3,6,7,8-HxCDD	ND	0.0574			13-Nov-20 10:55	1
1,2,3,7,8,9-HxCDD	ND	0.0721			13-Nov-20 10:55	1
1,2,3,4,6,7,8-HpCDD	ND	0.0573			13-Nov-20 10:55	1
OCDD	ND	0.116			13-Nov-20 10:55	1
2,3,7,8-TCDF	ND	0.0198			13-Nov-20 10:55	1
1,2,3,7,8-PeCDF	ND	0.0288			13-Nov-20 10:55	1
2,3,4,7,8-PeCDF	ND	0.0235			13-Nov-20 10:55	1
1,2,3,4,7,8-HxCDF	ND	0.0329			13-Nov-20 10:55	1
1,2,3,6,7,8-HxCDF	ND	0.0337			13-Nov-20 10:55	1
2,3,4,6,7,8-HxCDF	ND	0.0389			13-Nov-20 10:55	1
1,2,3,7,8,9-HxCDF	ND	0.0698			13-Nov-20 10:55	1
1,2,3,4,6,7,8-HpCDF	ND	0.0487			13-Nov-20 10:55	1
1,2,3,4,7,8,9-HpCDF	ND	0.0568			13-Nov-20 10:55	1
OCDF	ND	0.0915			13-Nov-20 10:55	1
Toxic Equivalent						
TEQMinWHO2005Dioxin	0.00					
Totals						
Total TCDD	ND	0.0263				
Total PeCDD	ND	0.0497				
Total HxCDD	ND	0.0721				
Total HpCDD	ND	0.0573				
Total TCDF	ND	0.0198				
Total PeCDF	ND	0.0288				
Total HxCDF	ND	0.0698				
Total HpCDF	ND	0.0568				

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	80.4	25 - 164		13-Nov-20 10:55	1
13C-1,2,3,7,8-PeCDD	IS	81.8	25 - 181		13-Nov-20 10:55	1
13C-1,2,3,4,7,8-HxCDD	IS	88.4	32 - 141		13-Nov-20 10:55	1
13C-1,2,3,6,7,8-HxCDD	IS	89.3	28 - 130		13-Nov-20 10:55	1
13C-1,2,3,7,8,9-HxCDD	IS	80.0	32 - 141		13-Nov-20 10:55	1
13C-1,2,3,4,6,7,8-HpCDD	IS	80.0	23 - 140		13-Nov-20 10:55	1
13C-OCDD	IS	74.4	17 - 157		13-Nov-20 10:55	1
13C-2,3,7,8-TCDF	IS	83.2	24 - 169		13-Nov-20 10:55	1
13C-1,2,3,7,8-PeCDF	IS	84.6	24 - 185		13-Nov-20 10:55	1
13C-2,3,4,7,8-PeCDF	IS	90.3	21 - 178		13-Nov-20 10:55	1
13C-1,2,3,4,7,8-HxCDF	IS	82.0	26 - 152		13-Nov-20 10:55	1
13C-1,2,3,6,7,8-HxCDF	IS	82.7	26 - 123		13-Nov-20 10:55	1
13C-2,3,4,6,7,8-HxCDF	IS	83.8	28 - 136		13-Nov-20 10:55	1
13C-1,2,3,7,8,9-HxCDF	IS	71.1	29 - 147		13-Nov-20 10:55	1
13C-1,2,3,4,6,7,8-HpCDF	IS	75.5	28 - 143		13-Nov-20 10:55	1
13C-1,2,3,4,7,8,9-HpCDF	IS	71.1	26 - 138		13-Nov-20 10:55	1
13C-OCDF	IS	71.5	17 - 157		13-Nov-20 10:55	1
37Cl-2,3,7,8-TCDD	CRS	95.5	35 - 197		13-Nov-20 10:55	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 1613B**

Client Data
Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid

Laboratory Data
Lab Sample: B0K0041-BS1
QC Batch: B0K0041 Date Extracted: 05-Nov-20 06:05
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	21.0	20.0	105	67-158		13-Nov-20 09:25	1
1,2,3,7,8-PeCDD	106	100	106	70-142		13-Nov-20 09:25	1
1,2,3,4,7,8-HxCDD	101	100	101	70-164		13-Nov-20 09:25	1
1,2,3,6,7,8-HxCDD	104	100	104	76-134		13-Nov-20 09:25	1
1,2,3,7,8,9-HxCDD	103	100	103	64-162		13-Nov-20 09:25	1
1,2,3,4,6,7,8-HpCDD	102	100	102	70-140		13-Nov-20 09:25	1
OCDD	204	200	102	78-144		13-Nov-20 09:25	1
2,3,7,8-TCDF	19.4	20.0	96.8	75-158		13-Nov-20 09:25	1
1,2,3,7,8-PeCDF	102	100	102	80-134		13-Nov-20 09:25	1
2,3,4,7,8-PeCDF	102	100	102	68-160		13-Nov-20 09:25	1
1,2,3,4,7,8-HxCDF	103	100	103	72-134		13-Nov-20 09:25	1
1,2,3,6,7,8-HxCDF	101	100	101	84-130		13-Nov-20 09:25	1
2,3,4,6,7,8-HxCDF	100	100	100	70-156		13-Nov-20 09:25	1
1,2,3,7,8,9-HxCDF	98.9	100	98.9	78-130		13-Nov-20 09:25	1
1,2,3,4,6,7,8-HpCDF	103	100	103	82-122		13-Nov-20 09:25	1
1,2,3,4,7,8,9-HpCDF	100	100	100	78-138		13-Nov-20 09:25	1
OCDF	200	200	100	63-170		13-Nov-20 09:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	88.5	20-175		13-Nov-20 09:25	1
13C-1,2,3,7,8-PeCDD	IS	89.5	21-227		13-Nov-20 09:25	1
13C-1,2,3,4,7,8-HxCDD	IS	91.6	21-193		13-Nov-20 09:25	1
13C-1,2,3,6,7,8-HxCDD	IS	91.8	25-163		13-Nov-20 09:25	1
13C-1,2,3,7,8,9-HxCDD	IS	90.8	21-193		13-Nov-20 09:25	1
13C-1,2,3,4,6,7,8-HpCDD	IS	87.0	26-166		13-Nov-20 09:25	1
13C-OCDD	IS	79.6	13-199		13-Nov-20 09:25	1
13C-2,3,7,8-TCDF	IS	88.7	22-152		13-Nov-20 09:25	1
13C-1,2,3,7,8-PeCDF	IS	93.6	21-192		13-Nov-20 09:25	1
13C-2,3,4,7,8-PeCDF	IS	95.6	13-328		13-Nov-20 09:25	1
13C-1,2,3,4,7,8-HxCDF	IS	84.0	19-202		13-Nov-20 09:25	1
13C-1,2,3,6,7,8-HxCDF	IS	85.3	21-159		13-Nov-20 09:25	1
13C-2,3,4,6,7,8-HxCDF	IS	85.0	22-176		13-Nov-20 09:25	1
13C-1,2,3,7,8,9-HxCDF	IS	87.1	17-205		13-Nov-20 09:25	1
13C-1,2,3,4,6,7,8-HpCDF	IS	78.0	21-158		13-Nov-20 09:25	1
13C-1,2,3,4,7,8,9-HpCDF	IS	75.8	20-186		13-Nov-20 09:25	1
13C-OCDF	IS	77.7	13-199		13-Nov-20 09:25	1
37Cl-2,3,7,8-TCDD	CRS	106	31-191		13-Nov-20 09:25	1

Sample ID: TP-5-0-0.5

EPA Method 1613B

Client Data

Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid
Date Collected: 20-Oct-20 09:57

Laboratory Data

Lab Sample: 2002336-01
QC Batch: B0K0041
Sample Size: 11.6 g
% Solids: 87.4
Date Received: 28-Oct-20 09:49
Date Extracted: 05-Nov-20
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.761		14-Nov-20 05:01	1
1,2,3,7,8-PeCDD	6.41				14-Nov-20 05:01	1
1,2,3,4,7,8-HxCDD	11.4				14-Nov-20 05:01	1
1,2,3,6,7,8-HxCDD	110				14-Nov-20 05:01	1
1,2,3,7,8,9-HxCDD	32.2				14-Nov-20 05:01	1
1,2,3,4,6,7,8-HpCDD	2350				14-Nov-20 05:01	1
OCDD	23400			D	14-Nov-20 16:24	20
2,3,7,8-TCDF	1.10				14-Nov-20 05:01	1
1,2,3,7,8-PeCDF	2.99				14-Nov-20 05:01	1
2,3,4,7,8-PeCDF	5.52				14-Nov-20 05:01	1
1,2,3,4,7,8-HxCDF	10.4				14-Nov-20 05:01	1
1,2,3,6,7,8-HxCDF	4.97				14-Nov-20 05:01	1
2,3,4,6,7,8-HxCDF	8.00				14-Nov-20 05:01	1
1,2,3,7,8,9-HxCDF	1.60			J	14-Nov-20 05:01	1
1,2,3,4,6,7,8-HpCDF	149				14-Nov-20 05:01	1
1,2,3,4,7,8,9-HpCDF	7.02				14-Nov-20 05:01	1
OCDF	433				14-Nov-20 05:01	1
Toxic Equivalent						
TEQMinWHO2005Dioxin	58.3					
Totals						
Total TCDD	12.9		13.8			
Total PeCDD	45.0					
Total HxCDD	669					
Total HpCDD	6130					
Total TCDF	17.2		17.6			
Total PeCDF	65.4					
Total HxCDF	264					
Total HpCDF	561					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	98.5	25 - 164		14-Nov-20 05:01	1
13C-1,2,3,7,8-PeCDD	IS	98.7	25 - 181		14-Nov-20 05:01	1
13C-1,2,3,4,7,8-HxCDD	IS	96.6	32 - 141		14-Nov-20 05:01	1
13C-1,2,3,6,7,8-HxCDD	IS	97.6	28 - 130		14-Nov-20 05:01	1
13C-1,2,3,7,8,9-HxCDD	IS	97.3	32 - 141		14-Nov-20 05:01	1
13C-1,2,3,4,6,7,8-HpCDD	IS	115	23 - 140		14-Nov-20 05:01	1
13C-OCDD	IS	98.1	17 - 157	D	14-Nov-20 16:24	20
13C-2,3,7,8-TCDF	IS	99.3	24 - 169		14-Nov-20 05:01	1
13C-1,2,3,7,8-PeCDF	IS	103	24 - 185		14-Nov-20 05:01	1
13C-2,3,4,7,8-PeCDF	IS	105	21 - 178		14-Nov-20 05:01	1
13C-1,2,3,4,7,8-HxCDF	IS	93.3	26 - 152		14-Nov-20 05:01	1
13C-1,2,3,6,7,8-HxCDF	IS	92.2	26 - 123		14-Nov-20 05:01	1
13C-2,3,4,6,7,8-HxCDF	IS	92.9	28 - 136		14-Nov-20 05:01	1
13C-1,2,3,7,8,9-HxCDF	IS	95.2	29 - 147		14-Nov-20 05:01	1
13C-1,2,3,4,6,7,8-HpCDF	IS	91.3	28 - 143		14-Nov-20 05:01	1
13C-1,2,3,4,7,8,9-HpCDF	IS	98.6	26 - 138		14-Nov-20 05:01	1
13C-OCDF	IS	108	17 - 157		14-Nov-20 05:01	1
37Cl-2,3,7,8-TCDD	CRS	107	35 - 197		14-Nov-20 05:01	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
K	EMPC (specific projects only)
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

2002336 2.3°C

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory Reference #: 10-264

Laboratory: Vista Analytical Laboratory

Turnaround Request: 1 Day | 2 Day | 3 Day | (Standard)

Project Manager: David Baumeister

Attention: Jennifer Miller

email: dbaumeister@onsite-env.com

Address: 1104 Windfield Way, El Dorado Hills, CA 95762

Project Number: 202005-0101

Phone Number: (916) 673-1520

Other: _____

Project Name: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	TP-5-0-0.5	10/20/20	9:57	S	1	Dioxin/Furans

Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	COSE	10/27/20	1600	CLIENT QA/QC
Received by:	UPS			
Relinquished by:	UPS			
Received by:	VAL	10/28/20	09:49	
Relinquished by:				
Received by:				

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2002336 TAT Std

Samples Arrival:	**Date/Time** 10/28/20 09:49		**Initials:**		**Location:** WR-2 **Shelf/Rack:** NA		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 2.3 (uncorrected) **Temp °C:** 2.3 (corrected)			**Probe used:** Y / N		**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			X
Airbill — Trk # 1Z684E1W0195332127	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / Client / Retain / Return / Dispose	✓		
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/30/20 1041	**Initials:** VBB	**Location:** WR-2 **Shelf/Rack:**
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 2002336

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002336-01	A TP-5-0-0.5 (A) ☑		20-Oct-20 09:57 ☑	Clear Glass Jar, 250mL (B)	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)		✓	
Preservation Documented: Na2S2O3 Trizma None Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:

(A) Sample label Analysis "Metals"
(B) Sample rec'd in clear glass jar

Verifed by/Date: YBB 10/30/20

Vista Analytical Laboratory

ANOMALY FORM

Vista Work Order 2002336

Initial/Date		The following checked issues were noted during sample receipt and login:
_____	☐	**1. The samples were received out of temperature at (WI-PHT):** _____ Was Ice present: Yes No Melted Blue Ice
_____	☐	2. The Chain-of-Custody (CoC) was not relinquished properly.
_____	☐	3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
_____	☐	4. The sample(s) did not include a sample collection time. All or Sample Name: _____
_____	☐	5. A sample ID discrepancy was found. See the Reconciliation report. The CoC Sample ID will be used unless notified otherwise.
_____	☐	6. A sample date and/or time discrepancy was found. See the Reconciliation report. The CoC Sample date/time will be used unless notified otherwise.
_____	☐	**7. The CoC did not include a sample matrix. The following sample matrix will be used:** _____
_____	☐	**8. Insufficent volume received for analysis. All or Sample Name:** _____
_____	☐	9. The backup bottle was received broken. Sample Name: _____
_____	☐	**10. CoC not received, illegible or destroyed.**
_____	☐	**11. The sample(s) were received out of holding time. All or Sample Name:** _____
_____	☐	**12. The CoC did not include an analysis. All or Sample Name:** _____
_____	☐	**13. Sample(s) received without collection date. All or Sample Name:** _____
_____	☐	**14. Sample(s) not received. All or Sample Name:** _____
_____	☐	**15. Sample(s) received broken. All or Sample Name:** _____
NJB 10/30/20	☑	**16. An incorrect container-type was used. All or Sample Name:** TP-5-0-0.5 *
_____	☐	17. Other:

* Sample label analysis "Metals"

Bolded items require sign-off

Client Contacted: Yes, via email

Date of Contact: 10/30/2020

Vista Client Manager: KJR

Resolution: Client informed of container type in acknowledgement letter email

10-264

Chain of Custody Record & Laboratory Analysis Request

Laboratory Name: Onsite
Date: 10/20/2020
Project Name: ABC Recycling Phase 2
Project Number: 202005-01.01
Project Manager: Derek Ormerod/Matt Wolfram
Phone Number: 206-331-1738
Shipment Method: FedEX

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Mercury / Metals (PP metals)	Total Solids / PAHs	Grain Size	Total Organic Carbon	Dioxin/Furans	Archive	TPHDx / ETPH DX	GRO	PCBs	TCLP Metals (RCRA 8)	DUPLICATE		Total Solids ASTM	HOLD	Comments/Preservation
1	TP-5-0-0.5	10/20/20 0957	S	7	⊗	⊗			⊗		⊗	⊗	⊗	⊗	⊗		⊗		~~HOLD~~ DUPLICATE
2	TP-8-0-0.5	10/20/20 1150	S	7	⊗	⊗					⊗	⊗					⊗		
3	TP-8-2.5-3	10/20/20 1217	S	10	X	X			X		X	X	X	⊗				X	
4	TP-10-2-2.5	10/20/20 1435	S	7	X	X					X	X						X	
5	TP-10-2-2.5-DUP	10/20/20 1435	S	7	X	X					X	X						X	
6	TP-11-0-0.5	10/20/20 1512	S	7	X	X					X	X						X	
7	TP-11-1.5-2	10/20/20 1531	S	7	X	X					X	X						X	
8	TP-12-0-0.5	10/20/20 168	S	10	⊗	⊗			X		⊗	⊗	X				⊗		
9	TP-12-3-3.5	10/20/20 1638	S	7	X	X					X	X						X	
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			

Test Parameters

ANCHOR QEA

Notes: HOLD ALL SAMPLES UNTIL FURTHER INSTRUCTION PROVIDED
(X) Added 10/26/2020. DB (STA)

Relinquished By:	Company: Anchor QEA, LLC	Received By:	Company: OE
Tanner Kamila 10/20/20 1801		Matthew Straw 10/22/20 1000	
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Sample/Cooler Receipt and Acceptance Checklist

Client: ANC

Client Project Name/Number: A 202005-01.01

OnSite Project Number: 10-264

Initiated by: VL

Date Initiated: 10/22/20

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	Yes	(No)	N/A	1 2 3 4	
1.2 Were the custody seals intact?	Yes	No	(N/A)	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	Yes	No	(N/A)	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	(No)	N/A	Temperature:	11.4
1.6 Have shipping bills (if any) been attached to the back of this form?	(Yes)	N/A			
1.7 How were the samples delivered?	Client	Courier	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	No	(N/A)	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	(Yes)	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#2		N/A	1 2 3 4

Explain any discrepancies:

2.4 Sample TP-1200.5 1 jar not labeled

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 17, 2020

Derek Ormerod
Anchor QEA
1201 3rd Ave, Suite 2600
Seattle, WA 98101

Re: Analytical Data for Project 202005-01.01
Laboratory Reference No. 2010-279

Dear Derek:

Enclosed are the analytical results and associated quality control data for samples submitted on October 23, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

Case Narrative

Samples were collected on October 21 and 22, 2020 and received by the laboratory on October 23, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PCBs EPA 8082A Analysis

The Sample TP-7-4.5-5 was used as the MS/MSD pair. The RPD between the MS/MSD (26%) was above quality control limit of 15%. The sample was re-extracted and rerun with similar results and attributed to matrix effect. All other QC was within their corresponding quality control limits. No further action was performed.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-9-0-0.5**					
Laboratory ID:	10-279-01					
Antimony	**75**	2.6	EPA 6010D	10-28-20	10-29-20	
Arsenic	**160**	2.6	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.17**	0.11	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.47**	0.11	EPA 6020B	11-2-20	11-4-20	
Chromium	**74**	0.53	EPA 6010D	10-28-20	10-29-20	
Copper	**240**	1.1	EPA 6010D	10-28-20	10-29-20	
Lead	**110**	5.3	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.14**	0.026	EPA 7471B	11-4-20	11-4-20	
Nickel	**52**	13	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.6	EPA 6010D	10-28-20	10-29-20	
Silver	**0.41**	0.26	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	2.6	EPA 6010D	10-28-20	10-29-20	
Zinc	**280**	13	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Antimony	**8.8**	3.5	EPA 6010D	10-28-20	10-29-20	
Arsenic	**25**	3.5	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.19**	0.14	EPA 6020B	11-2-20	11-4-20	
Cadmium	**3.0**	0.14	EPA 6020B	11-2-20	11-4-20	
Chromium	**25**	0.69	EPA 6010D	10-28-20	10-29-20	
Copper	**40**	1.4	EPA 6010D	10-28-20	10-29-20	
Lead	**39**	6.9	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.11**	0.035	EPA 7471B	11-4-20	11-4-20	
Nickel	**22**	3.5	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.5	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.35	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.5	EPA 6010D	10-28-20	10-29-20	
Zinc	**140**	3.5	EPA 6010D	10-28-20	10-29-20	

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-4-0-0.5**					
Laboratory ID:	10-279-03					
Antimony	**46**	3.1	EPA 6010D	10-28-20	10-29-20	
Arsenic	**100**	3.1	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.36**	0.12	EPA 6020B	11-2-20	11-4-20	
Cadmium	**3.8**	0.12	EPA 6020B	11-2-20	11-4-20	
Chromium	**26**	0.62	EPA 6010D	10-28-20	10-29-20	
Copper	**90**	1.2	EPA 6010D	10-28-20	10-29-20	
Lead	**130**	6.2	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.25**	0.031	EPA 7471B	11-4-20	11-4-20	
Nickel	**17**	3.1	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.1	EPA 6010D	10-28-20	10-29-20	
Silver	**0.50**	0.31	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.1	EPA 6010D	10-28-20	10-29-20	
Zinc	**250**	3.1	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Antimony	**5.3**	2.8	EPA 6010D	10-28-20	10-29-20	
Arsenic	**19**	2.8	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.26**	0.11	EPA 6020B	11-2-20	11-4-20	
Cadmium	**1.6**	0.11	EPA 6020B	11-2-20	11-4-20	
Chromium	**11**	0.57	EPA 6010D	10-28-20	10-29-20	
Copper	**37**	1.1	EPA 6010D	10-28-20	10-29-20	
Lead	**15**	5.7	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.11**	0.028	EPA 7471B	11-4-20	11-4-20	
Nickel	**9.0**	2.8	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.8	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.28	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	2.8	EPA 6010D	10-28-20	10-29-20	
Zinc	**65**	2.8	EPA 6010D	10-28-20	10-29-20	

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Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-16-5-5.5**					
Laboratory ID:	10-279-07					
Antimony	**ND**	3.7	EPA 6010D	10-28-20	10-29-20	
Arsenic	**6.4**	3.7	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.52**	0.15	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.79**	0.15	EPA 6020B	11-2-20	11-4-20	
Chromium	**43**	0.74	EPA 6010D	10-28-20	10-29-20	
Copper	**30**	1.5	EPA 6010D	10-28-20	10-29-20	
Lead	**16**	7.4	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.048**	0.037	EPA 7471B	11-4-20	11-4-20	
Nickel	**41**	3.7	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.7	EPA 6010D	10-28-20	10-29-20	
Silver	**0.38**	0.37	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.7	EPA 6010D	10-28-20	10-29-20	
Zinc	**130**	3.7	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-13-1.5-2**					
Laboratory ID:	10-279-08					
Antimony	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Arsenic	**6.5**	3.2	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.34**	0.13	EPA 6020B	11-2-20	11-4-20	
Cadmium	**ND**	0.13	EPA 6020B	11-2-20	11-4-20	
Chromium	**50**	0.63	EPA 6010D	10-28-20	10-29-20	
Copper	**41**	1.3	EPA 6010D	10-28-20	10-29-20	
Lead	**3.9**	1.3	EPA 6020B	11-2-20	11-5-20	
Mercury	**0.051**	0.032	EPA 7471B	11-4-20	11-4-20	
Nickel	**48**	3.2	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.32	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Zinc	**64**	3.2	EPA 6010D	10-28-20	10-29-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Antimony	**ND**	4.1	EPA 6010D	10-28-20	10-29-20	
Arsenic	**13**	4.1	EPA 6010D	10-28-20	10-29-20	
Beryllium	**1.8**	0.16	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.71**	0.16	EPA 6020B	11-2-20	11-4-20	
Chromium	**16**	0.82	EPA 6010D	10-28-20	10-29-20	
Copper	**36**	1.6	EPA 6010D	10-28-20	10-29-20	
Lead	**31**	8.2	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.34**	0.041	EPA 7471B	11-4-20	11-4-20	
Nickel	**18**	4.1	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	4.1	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.41	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	4.1	EPA 6010D	10-28-20	10-29-20	
Zinc	**42**	4.1	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-15-1-1.5**					
Laboratory ID:	10-279-10					
Antimony	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Arsenic	**9.9**	3.0	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.34**	0.12	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.17**	0.12	EPA 6020B	11-2-20	11-4-20	
Chromium	**45**	0.60	EPA 6010D	10-28-20	10-29-20	
Copper	**43**	1.2	EPA 6010D	10-28-20	10-29-20	
Lead	**4.0**	1.2	EPA 6020B	11-2-20	11-5-20	
Mercury	**0.047**	0.030	EPA 7471B	11-4-20	11-4-20	
Nickel	**48**	3.0	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.30	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Zinc	**77**	3.0	EPA 6010D	10-28-20	10-29-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-14-1.5-2**					
Laboratory ID:	10-279-11					
Antimony	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Arsenic	**7.2**	3.0	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.29**	0.12	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.13**	0.12	EPA 6020B	11-2-20	11-4-20	
Chromium	**44**	0.60	EPA 6010D	10-28-20	10-29-20	
Copper	**27**	1.2	EPA 6010D	10-28-20	10-29-20	
Lead	**3.8**	1.2	EPA 6020B	11-2-20	11-5-20	
Mercury	**0.042**	0.030	EPA 7471B	11-4-20	11-4-20	
Nickel	**35**	3.0	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.30	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.0	EPA 6010D	10-28-20	10-29-20	
Zinc	**49**	3.0	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-1-0.5-1.5**					
Laboratory ID:	10-279-12					
Antimony	**3.4**	3.2	EPA 6010D	10-28-20	10-29-20	
Arsenic	**11**	3.2	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.37**	0.13	EPA 6020B	11-2-20	11-4-20	
Cadmium	**0.44**	0.13	EPA 6020B	11-2-20	11-4-20	
Chromium	**28**	0.65	EPA 6010D	10-28-20	10-29-20	
Copper	**17**	1.3	EPA 6010D	10-28-20	10-29-20	
Lead	**14**	6.5	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.039**	0.032	EPA 7471B	11-4-20	11-4-20	
Nickel	**27**	3.2	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.32	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Zinc	**98**	3.2	EPA 6010D	10-28-20	10-29-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-2-1.5-2**					
Laboratory ID:	10-279-13					
Antimony	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Arsenic	**11**	3.2	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.49**	0.13	EPA 6020B	11-2-20	11-4-20	
Cadmium	**ND**	0.13	EPA 6020B	11-2-20	11-4-20	
Chromium	**64**	0.65	EPA 6010D	10-28-20	10-29-20	
Copper	**53**	1.3	EPA 6010D	10-28-20	10-29-20	
Lead	**6.9**	6.5	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.067**	0.032	EPA 7471B	11-4-20	11-4-20	
Nickel	**58**	3.2	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Silver	**ND**	0.32	EPA 6020B	11-2-20	11-4-20	
Thallium	**ND**	3.2	EPA 6010D	10-28-20	10-29-20	
Zinc	**87**	3.2	EPA 6010D	10-28-20	10-29-20	
Client ID:	**TP-3-1.5-2**					
Laboratory ID:	10-279-14					
Antimony	**26**	5.1	EPA 6010D	10-28-20	10-29-20	
Arsenic	**93**	5.1	EPA 6010D	10-28-20	10-29-20	
Beryllium	**0.25**	0.20	EPA 6020B	11-2-20	11-4-20	
Cadmium	**79**	0.20	EPA 6020B	11-2-20	11-4-20	
Chromium	**28**	1.0	EPA 6010D	10-28-20	10-29-20	
Copper	**59**	2.0	EPA 6010D	10-28-20	10-29-20	
Lead	**2600**	10	EPA 6010D	10-28-20	10-29-20	
Mercury	**0.25**	0.051	EPA 7471B	11-4-20	11-4-20	
Nickel	**8.1**	5.1	EPA 6010D	10-28-20	10-29-20	
Selenium	**30**	5.1	EPA 6010D	10-28-20	10-29-20	
Silver	**11**	0.51	EPA 6020B	11-2-20	11-4-20	
Thallium	**8.9**	5.1	EPA 6010D	10-28-20	10-29-20	
Zinc	**290**	5.1	EPA 6010D	10-28-20	10-29-20	

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102SM1					
Lead	**ND**	1.0	EPA 6020B	11-2-20	11-5-20	
Laboratory ID:	MB1028SH1					
Antimony	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Arsenic	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Chromium	**ND**	0.50	EPA 6010D	10-28-20	10-29-20	
Copper	**ND**	1.0	EPA 6010D	10-28-20	10-29-20	
Lead	**ND**	5.0	EPA 6010D	10-28-20	10-29-20	
Nickel	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Selenium	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Thallium	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Zinc	**ND**	2.5	EPA 6010D	10-28-20	10-29-20	
Laboratory ID:	MB1102SM1					
Beryllium	**ND**	0.10	EPA 6020B	11-2-20	11-4-20	
Cadmium	**ND**	0.10	EPA 6020B	11-2-20	11-4-20	
Silver	**ND**	0.25	EPA 6020B	11-2-20	11-4-20	
Laboratory ID:	MB1104S1					
Mercury	**ND**	0.025	EPA 7471B	11-4-20	11-4-20	

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-279-02									
	ORIG	DUP								
Antimony	**6.30**	**7.95**	NA	NA		NA	NA	23	20	
Arsenic	**18.0**	**20.0**	NA	NA		NA	NA	11	20	
Chromium	**18.2**	**19.9**	NA	NA		NA	NA	9	20	
Copper	**28.9**	**30.7**	NA	NA		NA	NA	6	20	
Lead	**28.2**	**33.5**	NA	NA		NA	NA	17	20	
Nickel	**16.2**	**17.1**	NA	NA		NA	NA	5	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Thallium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Zinc	**104**	**124**	NA	NA		NA	NA	18	20	
Laboratory ID:	10-279-02									
Beryllium	**0.135**	**0.155**	NA	NA		NA	NA	14	20	
Cadmium	**2.16**	**2.04**	NA	NA		NA	NA	5	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
Mercury	**0.0769**	**0.127**	NA	NA		NA	NA	49	20	
Laboratory ID:	10-279-02									
	ORIG	DUP								
Lead	**14.3**	**13.3**	NA	NA		NA	NA	7	20	

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Antimony	**88.0**	**83.5**	100	100	6.30	**82**	**77**	75-125	5	20	
Arsenic	**114**	**111**	100	100	18.0	**96**	**93**	75-125	3	20	
Chromium	**104**	**105**	100	100	18.2	**86**	**86**	75-125	0	20	
Copper	**80.5**	**76.0**	50.0	50.0	28.9	**103**	**94**	75-125	6	20	
Lead	**241**	**233**	250	250	28.2	**85**	**82**	75-125	3	20	
Nickel	**98.5**	**98.0**	100	100	16.2	**82**	**82**	75-125	1	20	
Selenium	**97.5**	**94.5**	100	100	ND	**98**	**95**	75-125	3	20	
Thallium	**44.4**	**43.9**	50.0	50.0	ND	**89**	**88**	75-125	1	20	
Zinc	**190**	**183**	100	100	104	**87**	**79**	75-125	4	20	
Laboratory ID:	10-279-02										
Beryllium	**49.8**	**51.3**	50.0	50.0	0.135	**99**	**102**	75-125	3	20	
Cadmium	**46.8**	**47.3**	50.0	50.0	2.16	**89**	**90**	75-125	1	20	
Silver	**22.5**	**22.3**	25.0	25.0	ND	**90**	**89**	75-125	1	20	
Laboratory ID:	10-279-02										
Mercury	**0.559**	**0.515**	0.500	0.500	0.0769	**96**	**88**	80-120	8	20	
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Lead	**251**	**252**	250	250	14.3	**95**	**95**	75-125	0	20	

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-9-0-0.5**					
Laboratory ID:	10-279-01					
Naphthalene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.087**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.38**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**ND**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.79**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.79**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.84**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.77**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**1.3**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**0.41**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.96**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.74**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**0.18**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.76**	0.070	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*46 - 113*				
Pyrene-d10	*95*	*45 - 114*				
Terphenyl-d14	*100*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Naphthalene	**0.077**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**0.088**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**0.078**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**0.0070**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**0.0047**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**0.0093**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**0.089**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**0.014**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**0.040**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**0.037**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**0.027**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**0.040**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**0.037**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**0.0073**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**0.023**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**0.022**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**0.0083**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**0.030**	0.0046	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*46 - 113*				
Pyrene-d10	*76*	*45 - 114*				
Terphenyl-d14	*77*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-4-0-0.5**					
Laboratory ID:	10-279-03					
Naphthalene	**0.28**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.80**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.54**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**ND**	0.084	EPA 8270E/SIM	10-29-20	10-31-20	U1
Phenanthrene	**0.62**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.082**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.17**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.18**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.13**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.22**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.13**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**ND**	0.082	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*80*	*46 - 113*				
Pyrene-d10	*84*	*45 - 114*				
Terphenyl-d14	*86*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Naphthalene	**1.2**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**4.4**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**2.5**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.36	EPA 8270E/SIM	10-29-20	10-31-20	U1
Fluorene	**0.41**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**3.6**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.13**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.35**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.49**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.41**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.94**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.33**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.17**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**0.087**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.17**	0.076	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*105*	*46 - 113*				
Pyrene-d10	*113*	*45 - 114*				
Terphenyl-d14	*121*	*49 - 121*				

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Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-16-5-5.5**					
Laboratory ID:	10-279-07					
Naphthalene	**0.086**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.048**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.039**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**0.0055**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**ND**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.066**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.0071**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.049**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.032**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.011**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.025**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.030**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**0.0060**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.011**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.017**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**ND**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.023**	0.0049	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*46 - 113*				
Pyrene-d10	*69*	*45 - 114*				
Terphenyl-d14	*69*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-13-1.5-2**					
Laboratory ID:	10-279-08					
Naphthalene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**0.0044**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0042	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*65*	*46 - 113*				
Pyrene-d10	*78*	*45 - 114*				
Terphenyl-d14	*76*	*49 - 121*				

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Samples Submitted: October 23, 2020
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Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Naphthalene	**0.098**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.25**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.25**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.014	EPA 8270E/SIM	10-29-20	10-31-20	U1
Acenaphthene	**ND**	0.012	EPA 8270E/SIM	10-29-20	10-31-20	U1
Fluorene	**ND**	0.016	EPA 8270E/SIM	10-29-20	10-31-20	U1
Phenanthrene	**0.16**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**0.029**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.036**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.039**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.043**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.037**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.025**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.020**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**0.0091**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**0.0053**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.018**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*51*	*46 - 113*				
Pyrene-d10	*57*	*45 - 114*				
Terphenyl-d14	*65*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-15-1-1.5**					
Laboratory ID:	10-279-10					
Naphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*72*	*46 - 113*				
Pyrene-d10	*84*	*45 - 114*				
Terphenyl-d14	*83*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-14-1.5-2**					
Laboratory ID:	10-279-11					
Naphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0040	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*74*	*46 - 113*				
Pyrene-d10	*85*	*45 - 114*				
Terphenyl-d14	*81*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-1-0.5-1.5**					
Laboratory ID:	10-279-12					
Naphthalene	**0.015**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.019**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.016**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.015**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.0073**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.0062**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.0079**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.0077**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**ND**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.0064**	0.0044	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*66*	*46 - 113*				
Pyrene-d10	*70*	*45 - 114*				
Terphenyl-d14	*71*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-2-1.5-2**					
Laboratory ID:	10-279-13					
Naphthalene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0043	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*73*	*46 - 113*				
Pyrene-d10	*81*	*45 - 114*				
Terphenyl-d14	*78*	*49 - 121*				

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Samples Submitted: October 23, 2020
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Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-3-1.5-2**					
Laboratory ID:	10-279-14					
Naphthalene	**0.022**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
2-Methylnaphthalene	**0.050**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
1-Methylnaphthalene	**0.035**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthylene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Acenaphthene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Fluorene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Phenanthrene	**0.040**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Anthracene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Fluoranthene	**0.0075**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Pyrene	**0.0066**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]anthracene	**0.0064**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Chrysene	**0.014**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[b]fluoranthene	**0.0082**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo(j,k)fluoranthene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[a]pyrene	**0.0044**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Dibenz[a,h]anthracene	**ND**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Benzo[g,h,i]perylene	**0.0047**	0.0041	EPA 8270E/SIM	10-29-20	10-31-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*60*	*46 - 113*				
Pyrene-d10	*68*	*45 - 114*				
Terphenyl-d14	*66*	*49 - 121*				

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Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029S2					
Naphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
2-Methylnaphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
1-Methylnaphthalene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthylene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Acenaphthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Fluorene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Phenanthrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Chrysene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[b]fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo(j,k)fluoranthene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[a]pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Dibenz[a,h]anthracene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Benzo[g,h,i]perylene	**ND**	0.0020	EPA 8270E/SIM	10-29-20	10-30-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*75*	*46 - 113*				
Pyrene-d10	*83*	*45 - 114*				
Terphenyl-d14	*82*	*49 - 121*				

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PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.120**	**0.121**	0.0833	0.0833	0.0558	77	78	51 - 115	1	26	
Acenaphthylene	**0.0623**	**0.0653**	0.0833	0.0833	0.00504	69	72	53 - 121	5	24	
Acenaphthene	**0.0677**	**0.0754**	0.0833	0.0833	0.00339	77	86	52 - 121	11	25	
Fluorene	**0.0644**	**0.0705**	0.0833	0.0833	0.00667	69	77	58 - 127	9	23	
Phenanthrene	**0.126**	**0.136**	0.0833	0.0833	0.0641	74	86	46 - 129	8	28	
Anthracene	**0.0732**	**0.0793**	0.0833	0.0833	0.0100	76	83	57 - 124	8	21	
Fluoranthene	**0.0877**	**0.0932**	0.0833	0.0833	0.0287	71	77	46 - 136	6	29	
Pyrene	**0.0859**	**0.0921**	0.0833	0.0833	0.0266	71	79	41 - 136	7	32	
Benzo[a]anthracene	**0.0983**	**0.114**	0.0833	0.0833	0.0191	95	114	56 - 136	15	25	
Chrysene	**0.0890**	**0.102**	0.0833	0.0833	0.0288	72	88	49 - 130	14	22	
Benzo[b]fluoranthene	**0.0813**	**0.0937**	0.0833	0.0833	0.0267	66	80	51 - 135	14	26	
Benzo(j,k)fluoranthene	**0.0686**	**0.0758**	0.0833	0.0833	0.00528	76	85	56 - 124	10	23	
Benzo[a]pyrene	**0.0728**	**0.0833**	0.0833	0.0833	0.0163	68	80	54 - 133	13	26	
Indeno(1,2,3-c,d)pyrene	**0.0727**	**0.0819**	0.0833	0.0833	0.0159	68	79	52 - 134	12	20	
Dibenz[a,h]anthracene	**0.0685**	**0.0791**	0.0833	0.0833	0.00596	75	88	58 - 127	14	17	
Benzo[g,h,i]perylene	**0.0763**	**0.0861**	0.0833	0.0833	0.0215	66	78	54 - 129	12	21	
Surrogate:											
2-Fluorobiphenyl						*62*	*67*	*46 - 113*			
Pyrene-d10						*70*	*77*	*45 - 114*			
Terphenyl-d14						*71*	*80*	*49 - 121*			

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-9-0-0.5**					
Laboratory ID:	10-279-01					
Diesel Range Organics	**ND**	26	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil	**190**	53	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Diesel Range Organics	**ND**	35	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	69	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**TP-4-0-0.5**					
Laboratory ID:	10-279-03					
Diesel Range Organics	**34**	31	NWTPH-Dx	10-29-20	10-29-20	N
Lube Oil	**410**	62	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Diesel Range Organics	**71**	29	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**160**	57	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**TP-16-5-5.5**					
Laboratory ID:	10-279-07					
Diesel Range Organics	**ND**	37	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	73	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**TP-13-1.5-2**					
Laboratory ID:	10-279-08					
Diesel Range Organics	**ND**	32	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*81*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Diesel Range Organics	**ND**	41	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	82	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**TP-15-1-1.5**					
Laboratory ID:	10-279-10					
Diesel Range Organics	**ND**	30	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	61	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*94*	*50-150*				
Client ID:	**TP-14-1.5-2**					
Laboratory ID:	10-279-11					
Diesel Range Organics	**ND**	30	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*91*	*50-150*				
Client ID:	**TP-1-0.5-1.5**					
Laboratory ID:	10-279-12					
Diesel Range Organics	**ND**	33	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**95**	65	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*95*	*50-150*				
Client ID:	**TP-2-1.5-2**					
Laboratory ID:	10-279-13					
Diesel Range Organics	**ND**	33	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	65	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**TP-3-1.5-2**					
Laboratory ID:	10-279-14					
Diesel Range Organics	**ND**	51	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	100	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				

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Project: 202005-01.01

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029S2					
Diesel Range Organics	**ND**	25	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*96*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-279-02										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*91*	*100*	*50-150*			
Laboratory ID:	10-264-01										
	ORIG	DUP									
Diesel Range Organics	**50.4**	**50.5**	NA	NA		NA		NA	0	NA	N
Lube Oil	**308**	**289**	NA	NA		NA		NA	6	NA	
Surrogate:											
o-Terphenyl						*97*	*91*	*50-150*			

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Project: 202005-01.01

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-9-0-0.5**					
Laboratory ID:	10-279-01					
Gasoline	**ND**	6.0	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*110*	*58-129*				
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Gasoline	**ND**	21	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*120*	*58-129*				
Client ID:	**TP-4-0-0.5**					
Laboratory ID:	10-279-03					
Gasoline	**ND**	7.9	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*109*	*58-129*				
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Gasoline	**19**	9.2	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*105*	*58-129*				
Client ID:	**TP-16-5-5.5**					
Laboratory ID:	10-279-07					
Gasoline	**ND**	11	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*112*	*58-129*				
Client ID:	**TP-13-1.5-2**					
Laboratory ID:	10-279-08					
Gasoline	**ND**	7.8	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*58-129*				
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Gasoline	**ND**	17	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*58-129*				

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Project: 202005-01.01

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-15-1-1.5**					
Laboratory ID:	10-279-10					
Gasoline	**ND**	7.3	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*102*	*58-129*				
Client ID:	**TP-14-1.5-2**					
Laboratory ID:	10-279-11					
Gasoline	**ND**	7.3	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*113*	*58-129*				
Client ID:	**TP-1-0.5-1.5**					
Laboratory ID:	10-279-12					
Gasoline	**ND**	10	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*58-129*				
Client ID:	**TP-2-1.5-2**					
Laboratory ID:	10-279-13					
Gasoline	**ND**	9.6	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*113*	*58-129*				
Client ID:	**TP-3-1.5-2**					
Laboratory ID:	10-279-14					
Gasoline	**ND**	22	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*108*	*58-129*				

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GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Soil
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1028S2					
Gasoline	**ND**	5.0	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*95*	*58-129*				
Laboratory ID:	MB1028S3					
Gasoline	**ND**	5.0	NWTPH-Gx	10-28-20	10-28-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*94*	*58-129*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-279-02										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*120*	*121*	*58-129*			
Laboratory ID:	10-264-01										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*107*	*108*	*58-129*			

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Project: 202005-01.01

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Aroclor 1016	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1221	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1232	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1242	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1248	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1254	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1260	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1262	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1268	**ND**	0.035	EPA 8082A	11-4-20	11-4-20	X
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*98*	*46-125*				
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Aroclor 1016	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1221	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1232	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1242	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1248	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1254	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1260	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1262	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Aroclor 1268	**ND**	0.029	EPA 8082A	11-4-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*46-125*				

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1104S1					
Aroclor 1016	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1221	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1232	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1242	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1248	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1254	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1260	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1262	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1268	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*98*	*46-125*				
Laboratory ID:	MB1104S1					
Aroclor 1016	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1221	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1232	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1242	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1248	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1254	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1260	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1262	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Aroclor 1268	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	X
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*97*	*46-125*				

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.224**	**0.292**	0.250	0.250	ND	**89**	**117**	43-125	26	15	L, X
Surrogate:											
DCB						*102*	*102*	*46-125*			
SPIKE BLANKS											
Laboratory ID:	SB1104S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.280**	**0.260**	0.250	0.250	N/A	**112**	**104**	50-134	7	18	
Surrogate:											
DCB						*96*	*96*	*46-125*			
Laboratory ID:	SB1104S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.301**	**0.272**	0.250	0.250	N/A	**120**	**109**	50-134	10	18	X
Surrogate:											
DCB						*102*	*101*	*46-125*			

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**0.46**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**1.5**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1030TM1					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	
Laboratory ID:	MB1030T1					
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-279-02									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.462**	**0.462**	NA	NA		NA	NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
MATRIX SPIKES										
Laboratory ID:	10-279-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	**3.92**	**3.90**	4.00	4.00	ND	**98**	**98**	75-125	1	20
Barium	**4.29**	**4.30**	4.00	4.00	0.462	**96**	**96**	75-125	0	20
Cadmium	**1.82**	**1.81**	2.00	2.00	ND	**91**	**90**	75-125	1	20
Chromium	**3.80**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	1	20
Lead	**9.55**	**9.51**	10.0	10.0	ND	**96**	**95**	75-125	0	20
Selenium	**4.05**	**4.01**	4.00	4.00	ND	**101**	**100**	75-125	1	20
Silver	**0.960**	**0.968**	1.00	1.00	ND	**96**	**97**	75-125	1	20
Laboratory ID:	10-279-02									
Mercury	**0.0488**	**0.0486**	0.0500	0.0500	ND	**98**	**97**	75-125	0	20

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G

Matrix: Soil
Units: % Solids

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-9-0-0.5**					
Laboratory ID:	10-279-01					
Total Solids	**95**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-7-4.5-5**					
Laboratory ID:	10-279-02					
Total Solids	**72**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-4-0-0.5**					
Laboratory ID:	10-279-03					
Total Solids	**81**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-6-0-0.5**					
Laboratory ID:	10-279-05					
Total Solids	**88**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-16-5-5.5**					
Laboratory ID:	10-279-07					
Total Solids	**68**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-13-1.5-2**					
Laboratory ID:	10-279-08					
Total Solids	**79**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-17-1.5-2**					
Laboratory ID:	10-279-09					
Total Solids	**61**	0.50	SM 2540G	10-29-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G

Matrix: Soil
Units: % Solids

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**TP-15-1-1.5**					
Laboratory ID:	10-279-10					
Total Solids	**83**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-14-1.5-2**					
Laboratory ID:	10-279-11					
Total Solids	**83**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-1-0.5-1.5**					
Laboratory ID:	10-279-12					
Total Solids	**77**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-2-1.5-2**					
Laboratory ID:	10-279-13					
Total Solids	**77**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**TP-3-1.5-2**					
Laboratory ID:	10-279-14					
Total Solids	**49**	0.50	SM 2540G	10-29-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 23, 2020
Laboratory Reference: 2010-279
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G
QUALITY CONTROL

Matrix: Soil
Units: % Solids

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-279-02								
	ORIG	DUP							
Total Solids	**72.1**	**70.8**	NA	NA	NA	NA	2	20	
Laboratory ID:	10-264-01								
	ORIG	DUP							
Total Solids	**89.3**	**91.7**	NA	NA	NA	NA	3	20	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

November 17, 2020

Vista Work Order No. 2002337

Mr. David Baumeister
OnSite Environmental Inc.
14648 NE 95th Street
Redmond, WA 98052

Dear Mr. Baumeister,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 28, 2020 under your Project Name '202005-0101'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

Vista Work Order No. 2002337
Case Narrative

Sample Condition on Receipt:

One solid sample was received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The sample was received in good condition and within the method temperature requirements. The sample was received in a clear glass jar.

Analytical Notes:

EPA Method 1613B

This sample was extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1613B using a ZB-DIOXIN GC column.

Holding Times

The sample was extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002336-01	TP-5-0-0.O	21-c t -209 12:13	27-c t -209 08:48	Clear 9 Glass 9 Jar, 9 2C 0mL

Vis a 9 Projet : 9 20023369

Clien 9 Projet : 9 9 20200O-0101

ANALYTICAL RESULTS

Sample ID: Method Blank — EPA Method 1613B

Client Data

Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid

Laboratory Data

Lab Sample: B0K0041-BLK1
QC Batch: B0K0041 Date Extracted: 05-Nov-20
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0263			13-Nov-20 10:55	1
1,2,3,7,8-PeCDD	ND	0.0497			13-Nov-20 10:55	1
1,2,3,4,7,8-HxCDD	ND	0.0568			13-Nov-20 10:55	1
1,2,3,6,7,8-HxCDD	ND	0.0574			13-Nov-20 10:55	1
1,2,3,7,8,9-HxCDD	ND	0.0721			13-Nov-20 10:55	1
1,2,3,4,6,7,8-HpCDD	ND	0.0573			13-Nov-20 10:55	1
OCDD	ND	0.116			13-Nov-20 10:55	1
2,3,7,8-TCDF	ND	0.0198			13-Nov-20 10:55	1
1,2,3,7,8-PeCDF	ND	0.0288			13-Nov-20 10:55	1
2,3,4,7,8-PeCDF	ND	0.0235			13-Nov-20 10:55	1
1,2,3,4,7,8-HxCDF	ND	0.0329			13-Nov-20 10:55	1
1,2,3,6,7,8-HxCDF	ND	0.0337			13-Nov-20 10:55	1
2,3,4,6,7,8-HxCDF	ND	0.0389			13-Nov-20 10:55	1
1,2,3,7,8,9-HxCDF	ND	0.0698			13-Nov-20 10:55	1
1,2,3,4,6,7,8-HpCDF	ND	0.0487			13-Nov-20 10:55	1
1,2,3,4,7,8,9-HpCDF	ND	0.0568			13-Nov-20 10:55	1
OCDF	ND	0.0915			13-Nov-20 10:55	1
Toxic Equivalent						
TEQMinWHO2005Dioxin	0.00					
Totals						
Total TCDD	ND	0.0263				
Total PeCDD	ND	0.0497				
Total HxCDD	ND	0.0721				
Total HpCDD	ND	0.0573				
Total TCDF	ND	0.0198				
Total PeCDF	ND	0.0288				
Total HxCDF	ND	0.0698				
Total HpCDF	ND	0.0568				

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	80.4	25 - 164		13-Nov-20 10:55	1
13C-1,2,3,7,8-PeCDD	IS	81.8	25 - 181		13-Nov-20 10:55	1
13C-1,2,3,4,7,8-HxCDD	IS	88.4	32 - 141		13-Nov-20 10:55	1
13C-1,2,3,6,7,8-HxCDD	IS	89.3	28 - 130		13-Nov-20 10:55	1
13C-1,2,3,7,8,9-HxCDD	IS	80.0	32 - 141		13-Nov-20 10:55	1
13C-1,2,3,4,6,7,8-HpCDD	IS	80.0	23 - 140		13-Nov-20 10:55	1
13C-OCDD	IS	74.4	17 - 157		13-Nov-20 10:55	1
13C-2,3,7,8-TCDF	IS	83.2	24 - 169		13-Nov-20 10:55	1
13C-1,2,3,7,8-PeCDF	IS	84.6	24 - 185		13-Nov-20 10:55	1
13C-2,3,4,7,8-PeCDF	IS	90.3	21 - 178		13-Nov-20 10:55	1
13C-1,2,3,4,7,8-HxCDF	IS	82.0	26 - 152		13-Nov-20 10:55	1
13C-1,2,3,6,7,8-HxCDF	IS	82.7	26 - 123		13-Nov-20 10:55	1
13C-2,3,4,6,7,8-HxCDF	IS	83.8	28 - 136		13-Nov-20 10:55	1
13C-1,2,3,7,8,9-HxCDF	IS	71.1	29 - 147		13-Nov-20 10:55	1
13C-1,2,3,4,6,7,8-HpCDF	IS	75.5	28 - 143		13-Nov-20 10:55	1
13C-1,2,3,4,7,8,9-HpCDF	IS	71.1	26 - 138		13-Nov-20 10:55	1
13C-OCDF	IS	71.5	17 - 157		13-Nov-20 10:55	1
37Cl-2,3,7,8-TCDD	CRS	95.5	35 - 197		13-Nov-20 10:55	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 1613B**

Client Data
Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid

Laboratory Data
Lab Sample: B0K0041-BS1
QC Batch: B0K0041 Date Extracted: 05-Nov-20 06:05
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	21.0	20.0	105	67-158		13-Nov-20 09:25	1
1,2,3,7,8-PeCDD	106	100	106	70-142		13-Nov-20 09:25	1
1,2,3,4,7,8-HxCDD	101	100	101	70-164		13-Nov-20 09:25	1
1,2,3,6,7,8-HxCDD	104	100	104	76-134		13-Nov-20 09:25	1
1,2,3,7,8,9-HxCDD	103	100	103	64-162		13-Nov-20 09:25	1
1,2,3,4,6,7,8-HpCDD	102	100	102	70-140		13-Nov-20 09:25	1
OCDD	204	200	102	78-144		13-Nov-20 09:25	1
2,3,7,8-TCDF	19.4	20.0	96.8	75-158		13-Nov-20 09:25	1
1,2,3,7,8-PeCDF	102	100	102	80-134		13-Nov-20 09:25	1
2,3,4,7,8-PeCDF	102	100	102	68-160		13-Nov-20 09:25	1
1,2,3,4,7,8-HxCDF	103	100	103	72-134		13-Nov-20 09:25	1
1,2,3,6,7,8-HxCDF	101	100	101	84-130		13-Nov-20 09:25	1
2,3,4,6,7,8-HxCDF	100	100	100	70-156		13-Nov-20 09:25	1
1,2,3,7,8,9-HxCDF	98.9	100	98.9	78-130		13-Nov-20 09:25	1
1,2,3,4,6,7,8-HpCDF	103	100	103	82-122		13-Nov-20 09:25	1
1,2,3,4,7,8,9-HpCDF	100	100	100	78-138		13-Nov-20 09:25	1
OCDF	200	200	100	63-170		13-Nov-20 09:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	88.5	20-175		13-Nov-20 09:25	1
13C-1,2,3,7,8-PeCDD	IS	89.5	21-227		13-Nov-20 09:25	1
13C-1,2,3,4,7,8-HxCDD	IS	91.6	21-193		13-Nov-20 09:25	1
13C-1,2,3,6,7,8-HxCDD	IS	91.8	25-163		13-Nov-20 09:25	1
13C-1,2,3,7,8,9-HxCDD	IS	90.8	21-193		13-Nov-20 09:25	1
13C-1,2,3,4,6,7,8-HpCDD	IS	87.0	26-166		13-Nov-20 09:25	1
13C-OCDD	IS	79.6	13-199		13-Nov-20 09:25	1
13C-2,3,7,8-TCDF	IS	88.7	22-152		13-Nov-20 09:25	1
13C-1,2,3,7,8-PeCDF	IS	93.6	21-192		13-Nov-20 09:25	1
13C-2,3,4,7,8-PeCDF	IS	95.6	13-328		13-Nov-20 09:25	1
13C-1,2,3,4,7,8-HxCDF	IS	84.0	19-202		13-Nov-20 09:25	1
13C-1,2,3,6,7,8-HxCDF	IS	85.3	21-159		13-Nov-20 09:25	1
13C-2,3,4,6,7,8-HxCDF	IS	85.0	22-176		13-Nov-20 09:25	1
13C-1,2,3,7,8,9-HxCDF	IS	87.1	17-205		13-Nov-20 09:25	1
13C-1,2,3,4,6,7,8-HpCDF	IS	78.0	21-158		13-Nov-20 09:25	1
13C-1,2,3,4,7,8,9-HpCDF	IS	75.8	20-186		13-Nov-20 09:25	1
13C-OCDF	IS	77.7	13-199		13-Nov-20 09:25	1
37Cl-2,3,7,8-TCDD	CRS	106	31-191		13-Nov-20 09:25	1

Sample ID: TP-5-0-0.L **APMh etdr1 6563B**

Client Data

Name: OnSite Environmental Inc.
Project: 202005-0101
Matrix: Solid
Date Collected: 21-Oct-20 12:13

baoryatryE Data

Lab Sample: 2002336-01
QC Batch: B0K0041
Sample Size: 12.2 7
% Solids: 82.4

Date Xeceived: 28-Oct-20 09:49
Date Extracted: 05-Nov-20
Colgmn: uB-DIOZIN

MnalEte	Crnc. (pg/g)	ADb	Ah PC	Qualifieys	MnalEze1	Dilutirn
2R6R-, CDD	ND		0.0966		14-Nov-20 05:4T	1
1R6R-PeCDD	0.TT5			H	14-Nov-20 05:4T	1
1R6R-F xCDD	ND		0.812		14-Nov-20 05:4T	1
1R6R-F xCDD	12.T				14-Nov-20 05:4T	1
1R6R9-F xCDD	5.14				14-Nov-20 05:4T	1
1R6R-F pCDD	186				14-Nov-20 05:4T	1
OCDD	1620				14-Nov-20 05:4T	1
2R6R-, CDJ	0.160			H	14-Nov-20 05:4T	1
1R6R-PeCDJ	0.189			H	14-Nov-20 05:4T	1
2R6R-PeCDJ	0.3T1			H	14-Nov-20 05:4T	1
1R6R-F xCDJ	0.504			H	14-Nov-20 05:4T	1
1R6R-F xCDJ	0.332			H	14-Nov-20 05:4T	1
2R6R-F xCDJ	0.225			H	14-Nov-20 05:4T	1
1R6R9-F xCDJ	0.0933			H	14-Nov-20 05:4T	1
1R6R-F pCDJ	10.2				14-Nov-20 05:4T	1
1R6R9-F pCDJ	0.509			H	14-Nov-20 05:4T	1
OCDJ	43.1				14-Nov-20 05:4T	1
Trxic Aquivalent						
, EQMinWF O2005Dioxin	5.19					
Trtals						
, otal , CDD	1.82		1.9T			
, otal PeCDD	3.80		4.69			
, otal F xCDD	89.3		90.1			
, otal F pCDD	409					
, otal , CDJ	0.T20		0.T90			
, otal PeCDJ	3.64		4.32			
, otal F xCDJ	15.1					
, otal F pCDJ	41.1					

baoele1 Stan1ay1s	TEpe	% RecrveyE	bimits	Qualifieys	MnalEze1	Dilutirn
13C-2R6R-, CDD	IS	95.6	25 - 1T4		14-Nov-20 05:4T	1
13C-1R6R-PeCDD	IS	90.9	25 - 181		14-Nov-20 05:4T	1
13C-1R6R-F xCDD	IS	92.6	32 - 141		14-Nov-20 05:4T	1
13C-1R6R-F xCDD	IS	95.1	28 - 130		14-Nov-20 05:4T	1
13C-1R6R9-F xCDD	IS	94.9	32 - 141		14-Nov-20 05:4T	1
13C-1R6R-F pCDD	IS	93.8	23 - 140		14-Nov-20 05:4T	1
13C-OCDD	IS	89.4	16 - 156		14-Nov-20 05:4T	1
13C-2R6R-, CDJ	IS	96.3	24 - 1T9		14-Nov-20 05:4T	1
13C-1R6R-PeCDJ	IS	99.0	24 - 185		14-Nov-20 05:4T	1
13C-2R6R-PeCDJ	IS	96.5	21 - 168		14-Nov-20 05:4T	1
13C-1R6R-F xCDJ	IS	88.9	2T - 152		14-Nov-20 05:4T	1
13C-1R6R-F xCDJ	IS	90.9	2T - 123		14-Nov-20 05:4T	1
13C-2R6R-F xCDJ	IS	90.T	28 - 13T		14-Nov-20 05:4T	1
13C-1R6R9-F xCDJ	IS	91.5	29 - 146		14-Nov-20 05:4T	1
13C-1R6R-F pCDJ	IS	85.1	28 - 143		14-Nov-20 05:4T	1
13C-1R6R9-F pCDJ	IS	8T.8	2T - 138		14-Nov-20 05:4T	1
13C-OCDJ	IS	83.4	16 - 156		14-Nov-20 05:4T	1
36Cl-2R6R-, CDD	CXS	10T	35 - 196		14-Nov-20 05:4T	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximgm possible concentration

, he resglts are reported in dry wei7ht.
, he sample size is reported in wet wei7ht.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
K	EMPC (specific projects only)
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

2002337 2.3

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory Reference #: 10-279

Laboratory: Vista Analytical Laboratory

Attention: Jennifer Miller

Address: 1104 Windfield Way, El Dorado Hills, CA 95762

Phone Number: (916) 673-1520

Turnaround Request

1 Day 2 Day 3 Day

(Standard)

Other:

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 202005-0101

Project Name:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	TP-6-0-0.5	10/21/20	12:13	S	1	Dioxin/Furans

Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by:	OSE	10/27/20	1600	
Received by:	UPS			
Relinquished by:	UPS			
Received by:	VAL	10/28/20	09:49	
Relinquished by:				
Received by:				

Vista Analytical Laboratory

Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2002337 TAT Std

Samples Arrival:	**Date/Time** 10/28/20 09:49		**Initials:**		**Location:** WR-2 **Shelf/Rack:** NA		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 2.3 (uncorrected) **Temp °C:** 2.3 (corrected)			**Probe used: Y / N**		**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			X
Airbill — Trk # 1Z684E1W0195332127	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / Client / Retain / Return / Dispose	✓		
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 10/30/20 1107	**Initials:** VBB	**Location:** WR-2 **Shelf/Rack:** F2
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 2002337

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002337-01	A TP-6-0-0.5 ☑		21-Oct-20 12:13 ☑	Clear Glass Jar, 250mL (A)	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)		✓	
Preservation Documented: Na2S2O3 Trizma None Other			✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:
(A) Sample rec'd in clear glass jar.

Verifed by/Date: BDB 10/30/20

Vista Analytical Laboratory

ANOMALY FORM

Vista Work Order 2002337

Initial/Date — The following checked issues were noted during sample receipt and login:

_____ ☐ **1. The samples were received out of temperature at (WI-PHT):** _____
Was Ice present: Yes No Melted Blue Ice

_____ ☐ 2. The Chain-of-Custody (CoC) was not relinquished properly.

_____ ☐ 3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.

_____ ☐ 4. The sample(s) did not include a sample collection time. All or Sample Name: _____

_____ ☐ 5. A sample ID discrepancy was found. See the Reconciliation report.
The CoC Sample ID will be used unless notified otherwise.

_____ ☐ 6. A sample date and/or time discrepancy was found. See the Reconciliation report.
The CoC Sample date/time will be used unless notified otherwise.

_____ ☐ **7. The CoC did not include a sample matrix. The following sample matrix will be used:** _____

_____ ☐ **8. Insufficent volume received for analysis. All or Sample Name:** _____

_____ ☐ 9. The backup bottle was received broken. Sample Name: _____

_____ ☐ **10. CoC not received, illegible or destroyed.**

_____ ☐ **11. The sample(s) were received out of holding time. All or Sample Name:** _____

_____ ☐ **12. The CoC did not include an analysis. All or Sample Name:** _____

_____ ☐ **13. Sample(s) received without collection date. All or Sample Name:** _____

_____ ☐ **14. Sample(s) not received. All or Sample Name:** _____

_____ ☐ **15. Sample(s) received broken. All or Sample Name:** _____

JJB 10/30/20 ☑ **16. An incorrect container-type was used. All or Sample Name:** TP-6-0.0.5

_____ ☐ 17. Other:

Bolded items require sign-off

Client Contacted: Yes, via email

Date of Contact: 10/30/2020

Vista Client Manager: KJR

Resolution: Client informed of container type in acknowledgement letter email

10-279

Chain of Custody Record & Laboratory Analysis Request

Laboratory Name: OnSite
Date: 10/22/2020
Project Name: ABC Recycling Phase 2
Project Number: 202005-61.01
Project Manager: Derek Ormerod/Matt Wolfram
Phone Number: 206-331-1738
Shipment Method: FedEx

ANCHOR QEA

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: Mercury/Metals (PP Metals)	Total Solids/PAHs	Grain Size	Total Organic Carbon	Dioxin/Furans	Archive	TPH Dx/EFH	GRO	MS/MSD	PCBs	TCLP Metals	HOLD	TOTAL SOLIDS 2540G	Comments/Preservation
1	TP-9-0-0.5	10/21/2020 0837	S	4	⊗	⊗			X	X	⊗	⊗					⊗	~~HOLD~~
2	TP-7-4.5-5	10/21/2020 1016	S	4	⊗	⊗			X	X	⊗	⊗	⊗	⊗	⊗		⊗	MS/MSD SAMPLE
3	TP-4-0-0.5	10/21/2020 1111	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
4	TP-4-3.5-4	10/21/2020 1133	S	4	X	X			X	X	X	X				X		
5	TP-6-0-0.5	10/21/2020 1213	S	4	⊗	⊗			⊗	X	⊗	⊗		⊗			⊗	
6	TP-16-0-0.5	10/21/2020 1410	S	4	X	X			X	X	X	X				X		
7	TP-16-5-5.5	10/21/2020 1527	S	3	⊗	⊗			X		⊗	⊗					⊗	
8	TP-13-1.5-2	10/22/2020 0837	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
9	TP-17-1.5-2	10/22/2020 0926	S	4	⊗	⊗			X	X	⊗	⊗			⊗		⊗	
10	TP-15-1-1.5	10/22/2020 1010	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
11	TP-14-1.5-2	10/22/2020 1034	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
12	TP-1-0.5-1.5	10/22/2020 1145	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
13	TP-2-1.5-2	10/22/2020 1214	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
14	TP-3-1.5-2	10/22/2020 1256	S	4	⊗	⊗			X	X	⊗	⊗					⊗	
15																		
16																		
17																		
18																		

Notes: Hold until further instruction provided
(⊗ Added 10/26/2020. DB (STA)

Relinquished By:	Company: Anchor QEA, LLC
Tanner Kamila	10/22/2020 1402
Signature/Printed Name	Date/Time

Received By:	Company: O&E
M. Voun	10/23/20 1115
Signature/Printed Name	Date/Time

Relinquished By:	Company:
Signature/Printed Name	Date/Time

Received By:	Company:
Signature/Printed Name	Date/Time

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Sample/Cooler Receipt and Acceptance Checklist

Client: ANC

Client Project Name/Number: 202005-01.01

OnSite Project Number: 10-279

Initiated by: MW

Date Initiated: 10/23/20

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	N/A	Temperature:	5.5
1.6 Have shipping bills (if any) been attached to the back of this form?	(Yes)	(N/A)			
1.7 How were the samples delivered?	Client	Courier	(UPS/FedEx)	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	Yes	(No)		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	(Yes)	No		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	(Yes)	No	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	Yes	No	(N/A)	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	(Yes)	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	2	N/A	1 2 3 4

Explain any discrepancies:

2.4) #7) -6- in 1 jar

3.2) #8-14) MeOH vials horizontal

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 17, 2020

Derek Ormerod
Anchor QEA
1201 3rd Ave, Suite 2600
Seattle, WA 98101

Re: Analytical Data for Project 202005-01.01
Laboratory Reference No. 2010-327

Dear Derek:

Enclosed are the analytical results and associated quality control data for samples submitted on October 28, 2020.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

Case Narrative

Samples were collected on October 26 and 27, 2020 and received by the laboratory on October 28, 2020. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

NWTPH-Gx (soil) Analysis

The surrogate percent recovery is outside control limits on the high end for sample GP-2-25-27 due to reduced methanol volumes in the provided field-extracted Method 5035A VOA vial. Because the sample is non-detect, no further action was taken.

PCBs EPA 8082A (soil) Analysis

The Sample 10-279-02 was used as the MS/MSD pair. The RPD between the MS/MSD (26%) was above quality control limit of 15%. The sample was re-extracted and rerun with similar results and attributed to matrix effect. All other QC was within their corresponding quality control limits. No further action was performed.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Sediment
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-8-9**					
Laboratory ID:	10-327-01					
Gasoline	**ND**	8.1	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*107*	*58-129*				
Client ID:	**GP-2-25-27**					
Laboratory ID:	10-327-03					
Gasoline	**ND**	20	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*163*	*58-129*				Q
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Gasoline	**ND**	7.0	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*102*	*58-129*				
Client ID:	**GP-1-20-22**					
Laboratory ID:	10-327-06					
Gasoline	**ND**	7.8	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*113*	*58-129*				
Client ID:	**GP-1-20-22-Dup**					
Laboratory ID:	10-327-07					
Gasoline	**ND**	7.6	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*111*	*58-129*				
Client ID:	**GP-5-6.9-7.5**					
Laboratory ID:	10-327-08					
Gasoline	**ND**	6.5	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*98*	*58-129*				
Client ID:	**GP-5-20-22**					
Laboratory ID:	10-327-10					
Gasoline	**ND**	6.4	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*106*	*58-129*				

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GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Sediment
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-10.8-15**					
Laboratory ID:	10-327-11					
Gasoline	**ND**	6.3	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				
Client ID:	**GP-4-7.8-8.7**					
Laboratory ID:	10-327-13					
Gasoline	**ND**	11	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*90*	*58-129*				
Client ID:	**GP-4-15-18.7**					
Laboratory ID:	10-327-14					
Gasoline	**ND**	8.0	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*115*	*58-129*				
Client ID:	**GP-3-14.4-15.9**					
Laboratory ID:	10-327-16					
Gasoline	**ND**	6.6	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*92*	*58-129*				

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GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Solid
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029S1					
Gasoline	**ND**	5.0	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*96*	*58-129*				
Laboratory ID:	MB1029S2					
Gasoline	**ND**	5.0	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*96*	*58-129*				

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-327-10								
	ORIG	DUP							
Gasoline	**ND**	**ND**	NA	NA	NA	NA	NA	30	
Surrogate:									
Fluorobenzene					*106* *108*	*58-129*			
Laboratory ID:	10-349-01								
	ORIG	DUP							
Gasoline	**ND**	**ND**	NA	NA	NA	NA	NA	30	
Surrogate:									
Fluorobenzene					*96* *96*	*58-129*			

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GASOLINE RANGE ORGANICS
NWTPH-Gx

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-GW**					
Laboratory ID:	10-327-12					
Gasoline	**ND**	100	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*65-120*				
Client ID:	**GP-3-GW**					
Laboratory ID:	10-327-17					
Gasoline	**ND**	100	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*65-120*				
Client ID:	**GP-3-GW-Dup**					
Laboratory ID:	10-327-18					
Gasoline	**ND**	100	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*83*	*65-120*				
Client ID:	**TB-201026**					
Laboratory ID:	10-327-19					
Gasoline	**ND**	100	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*86*	*65-120*				

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GASOLINE RANGE ORGANICS
NWTPH-Gx
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029W1					
Gasoline	**ND**	100	NWTPH-Gx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
Fluorobenzene	*84*	*65-120*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-327-17										
	ORIG	DUP									
Gasoline	**ND**	**ND**	NA	NA		NA		NA	NA	30	
Surrogate:											
Fluorobenzene						*83*	*83*	*65-120*			

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-8-9**					
Laboratory ID:	10-327-01					
Diesel Range Organics	**ND**	33	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	67	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*85*	*50-150*				
Client ID:	**GP-2-25-27**					
Laboratory ID:	10-327-03					
Diesel Range Organics	**ND**	33	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	66	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Diesel Range Organics	**ND**	32	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	64	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*79*	*50-150*				
Client ID:	**GP-1-20-22**					
Laboratory ID:	10-327-06					
Diesel Range Organics	**ND**	34	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	69	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*75*	*50-150*				
Client ID:	**GP-1-20-22-Dup**					
Laboratory ID:	10-327-07					
Diesel Range Organics	**ND**	35	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	70	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*78*	*50-150*				
Client ID:	**GP-5-6.9-7.5**					
Laboratory ID:	10-327-08					
Diesel Range Organics	**ND**	32	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-5-20-22**					
Laboratory ID:	10-327-10					
Diesel Range Organics	**ND**	31	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	62	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Client ID:	**GP-6-10.8-15**					
Laboratory ID:	10-327-11					
Diesel Range Organics	**ND**	31	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	63	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*87*	*50-150*				
Client ID:	**GP-4-7.8-8.7**					
Laboratory ID:	10-327-13					
Diesel Range Organics	**ND**	38	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	76	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*80*	*50-150*				
Client ID:	**GP-4-15-18.7**					
Laboratory ID:	10-327-14					
Diesel Range Organics	**ND**	35	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	69	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*83*	*50-150*				
Client ID:	**GP-3-14.4-15.9**					
Laboratory ID:	10-327-16					
Diesel Range Organics	**ND**	30	NWTPH-Dx	11-6-20	11-6-20	
Lube Oil Range Organics	**ND**	60	NWTPH-Dx	11-6-20	11-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*105*	*50-150*				

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Project: 202005-01.01

DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	11-2-20	11-2-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*92*	*50-150*				
Laboratory ID:	MB1106S1					
Diesel Range Organics	**ND**	25	NWTPH-Dx	11-6-20	11-6-20	
Lube Oil Range Organics	**ND**	50	NWTPH-Dx	11-6-20	11-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*106*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-327-10										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*92*	*74*	*50-150*			
Laboratory ID:	SB1102S1										
	ORIG	DUP									
Diesel Fuel #2	**100**	**94.0**	NA	NA		NA		NA	6	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*100*	*91*	*50-150*			
Laboratory ID:	SB1106S1										
	ORIG	DUP									
Diesel Fuel #2	**91.0**	**85.2**	NA	NA		NA		NA	7	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*102*	*98*	*50-150*			

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-GW**					
Laboratory ID:	10-327-12					
Diesel Range Organics	**ND**	0.10	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	0.20	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*86*	*50-150*				
Client ID:	**GP-3-GW**					
Laboratory ID:	10-327-17					
Diesel Range Organics	**0.12**	0.10	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**0.29**	0.20	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				
Client ID:	**GP-3-GW-Dup**					
Laboratory ID:	10-327-18					
Diesel Range Organics	**0.11**	0.10	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**0.27**	0.20	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*97*	*50-150*				

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DIESEL AND HEAVY OIL RANGE ORGANICS
NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1029W1					
Diesel Range Organics	**ND**	0.10	NWTPH-Dx	10-29-20	10-29-20	
Lube Oil Range Organics	**ND**	0.20	NWTPH-Dx	10-29-20	10-29-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*90*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-327-17										
	ORIG	DUP									
Diesel Range Organics	**0.120**	**0.0927**	NA	NA		NA		NA	26	NA	
Lube Oil Range Organics	**0.287**	**0.221**	NA	NA		NA		NA	26	NA	
Surrogate:											
o-Terphenyl						*97*	*81*	*50-150*			

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-8-9**					
Laboratory ID:	10-327-01					
Naphthalene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*48*	*46 - 113*				
Pyrene-d10	*52*	*45 - 114*				
Terphenyl-d14	*54*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-25-27**					
Laboratory ID:	10-327-03					
Naphthalene	**0.0078**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**0.013**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**0.0084**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**0.024**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**0.037**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**0.11**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**0.025**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**0.20**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**0.14**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**0.066**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**0.065**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**0.055**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**0.016**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**0.021**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**0.0058**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**0.0048**	0.0044	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*90*	*46 - 113*				
Pyrene-d10	*102*	*45 - 114*				
Terphenyl-d14	*101*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Naphthalene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0043	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*85*	*46 - 113*				
Pyrene-d10	*97*	*45 - 114*				
Terphenyl-d14	*100*	*49 - 121*				

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PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-20-22**					
Laboratory ID:	10-327-06					
Naphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*93*	*46 - 113*				
Pyrene-d10	*104*	*45 - 114*				
Terphenyl-d14	*106*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-20-22-Dup**					
Laboratory ID:	10-327-07					
Naphthalene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
2-Methylnaphthalene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
1-Methylnaphthalene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthylene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Fluorene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Phenanthrene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Anthracene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Fluoranthene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Pyrene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]anthracene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Chrysene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[b]fluoranthene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo(j,k)fluoranthene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]pyrene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Dibenz[a,h]anthracene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[g,h,i]perylene	**ND**	0.0047	EPA 8270E/SIM	11-3-20	11-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*53*	*46 - 113*				
Pyrene-d10	*60*	*45 - 114*				
Terphenyl-d14	*62*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-5-6.9-7.5**					
Laboratory ID:	10-327-08					
Naphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
2-Methylnaphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
1-Methylnaphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthylene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Fluorene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Phenanthrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Chrysene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[b]fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo(j,k)fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Dibenz[a,h]anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[g,h,i]perylene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*50*	*46 - 113*				
Pyrene-d10	*58*	*45 - 114*				
Terphenyl-d14	*60*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-5-20-22**					
Laboratory ID:	10-327-10					
Naphthalene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0041	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*92*	*46 - 113*				
Pyrene-d10	*101*	*45 - 114*				
Terphenyl-d14	*99*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-10.8-15**					
Laboratory ID:	10-327-11					
Naphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0042	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*54*	*46 - 113*				
Pyrene-d10	*56*	*45 - 114*				
Terphenyl-d14	*57*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-4-7.8-8.7**					
Laboratory ID:	10-327-13					
Naphthalene	**0.043**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**0.050**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**0.042**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**0.028**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**0.0053**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**0.010**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**0.0094**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**0.013**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**0.020**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**0.015**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**0.013**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**0.0077**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**0.0047**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**0.012**	0.0040	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*79*	*46 - 113*				
Pyrene-d10	*55*	*45 - 114*				
Terphenyl-d14	*75*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-4-15-18.7**					
Laboratory ID:	10-327-14					
Naphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
2-Methylnaphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
1-Methylnaphthalene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthylene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Acenaphthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Fluorene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Phenanthrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Chrysene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[b]fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo(j,k)fluoranthene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[a]pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Dibenz[a,h]anthracene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Benzo[g,h,i]perylene	**ND**	0.0046	EPA 8270E/SIM	11-3-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*50*	*46 - 113*				
Pyrene-d10	*50*	*45 - 114*				
Terphenyl-d14	*51*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-3-14.4-15.9**					
Laboratory ID:	10-327-16					
Naphthalene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
2-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
1-Methylnaphthalene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Acenaphthylene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Acenaphthene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Fluorene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Phenanthrene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Anthracene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Fluoranthene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Pyrene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[a]anthracene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Chrysene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[b]fluoranthene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo(j,k)fluoranthene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[a]pyrene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Dibenz[a,h]anthracene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[g,h,i]perylene	**ND**	0.0040	EPA 8270E/SIM	11-6-20	11-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*67*	*46 - 113*				
Pyrene-d10	*83*	*45 - 114*				
Terphenyl-d14	*86*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1103S1					
Naphthalene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
2-Methylnaphthalene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
1-Methylnaphthalene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthylene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Acenaphthene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Fluorene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Phenanthrene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Anthracene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Fluoranthene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Pyrene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]anthracene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Chrysene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[b]fluoranthene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo(j,k)fluoranthene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[a]pyrene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Dibenz[a,h]anthracene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Benzo[g,h,i]perylene	**ND**	0.0027	EPA 8270E/SIM	11-3-20	11-3-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*61*	*46 - 113*				
Pyrene-d10	*58*	*45 - 114*				
Terphenyl-d14	*56*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1106S1					
Naphthalene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
2-Methylnaphthalene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
1-Methylnaphthalene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Acenaphthylene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Acenaphthene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Fluorene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Phenanthrene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Anthracene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Fluoranthene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Pyrene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[a]anthracene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Chrysene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[b]fluoranthene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo(j,k)fluoranthene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[a]pyrene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Dibenz[a,h]anthracene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Benzo[g,h,i]perylene	**ND**	0.0033	EPA 8270E/SIM	11-6-20	11-6-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*84*	*46 - 113*				
Pyrene-d10	*106*	*45 - 114*				
Terphenyl-d14	*95*	*49 - 121*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-327-10										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.0710**	**0.0687**	0.0833	0.0833	ND	85	82	51 - 115	3	26	
Acenaphthylene	**0.0733**	**0.0704**	0.0833	0.0833	ND	88	85	53 - 121	4	24	
Acenaphthene	**0.0729**	**0.0707**	0.0833	0.0833	ND	88	85	52 - 121	3	25	
Fluorene	**0.0787**	**0.0800**	0.0833	0.0833	ND	94	96	58 - 127	2	23	
Phenanthrene	**0.0779**	**0.0754**	0.0833	0.0833	ND	94	91	46 - 129	3	28	
Anthracene	**0.0802**	**0.0781**	0.0833	0.0833	ND	96	94	57 - 124	3	21	
Fluoranthene	**0.0829**	**0.0843**	0.0833	0.0833	ND	100	101	46 - 136	2	29	
Pyrene	**0.0775**	**0.0823**	0.0833	0.0833	ND	93	99	41 - 136	6	32	
Benzo[a]anthracene	**0.0804**	**0.0845**	0.0833	0.0833	ND	97	101	56 - 136	5	25	
Chrysene	**0.0790**	**0.0777**	0.0833	0.0833	ND	95	93	49 - 130	2	22	
Benzo[b]fluoranthene	**0.0792**	**0.0869**	0.0833	0.0833	ND	95	104	51 - 135	9	26	
Benzo(j,k)fluoranthene	**0.0769**	**0.0730**	0.0833	0.0833	ND	92	88	56 - 124	5	23	
Benzo[a]pyrene	**0.0777**	**0.0798**	0.0833	0.0833	ND	93	96	54 - 133	3	26	
Indeno(1,2,3-c,d)pyrene	**0.0804**	**0.0821**	0.0833	0.0833	ND	97	99	52 - 134	2	20	
Dibenz[a,h]anthracene	**0.0788**	**0.0784**	0.0833	0.0833	ND	95	94	58 - 127	1	17	
Benzo[g,h,i]perylene	**0.0787**	**0.0784**	0.0833	0.0833	ND	94	94	54 - 129	0	21	
Surrogate:											
2-Fluorobiphenyl						*88*	*84*	*46 - 113*			
Pyrene-d10						*96*	*98*	*45 - 114*			
Terphenyl-d14						*95*	*102*	*49 - 121*			

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB1106S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	**0.0752**	**0.0705**	0.0833	0.0833	90	85	60 - 116	6	16	
Acenaphthylene	**0.0794**	**0.0800**	0.0833	0.0833	95	96	60 - 125	1	15	
Acenaphthene	**0.0789**	**0.0776**	0.0833	0.0833	95	93	60 - 121	2	15	
Fluorene	**0.0802**	**0.0803**	0.0833	0.0833	96	96	65 - 126	0	15	
Phenanthrene	**0.0806**	**0.0801**	0.0833	0.0833	97	96	65 - 120	1	15	
Anthracene	**0.0796**	**0.0811**	0.0833	0.0833	96	97	67 - 125	2	15	
Fluoranthene	**0.0854**	**0.0829**	0.0833	0.0833	103	100	66 - 125	3	15	
Pyrene	**0.0838**	**0.0820**	0.0833	0.0833	101	98	62 - 125	2	15	
Benzo[a]anthracene	**0.0884**	**0.0859**	0.0833	0.0833	106	103	72 - 129	3	15	
Chrysene	**0.0845**	**0.0835**	0.0833	0.0833	101	100	66 - 123	1	15	
Benzo[b]fluoranthene	**0.0867**	**0.0859**	0.0833	0.0833	104	103	68 - 128	1	15	
Benzo(j,k)fluoranthene	**0.0825**	**0.0784**	0.0833	0.0833	99	94	63 - 128	5	16	
Benzo[a]pyrene	**0.0829**	**0.0792**	0.0833	0.0833	100	95	66 - 130	5	15	
Indeno(1,2,3-c,d)pyrene	**0.0754**	**0.0807**	0.0833	0.0833	91	97	63 - 135	7	15	
Dibenz[a,h]anthracene	**0.0704**	**0.0760**	0.0833	0.0833	85	91	65 - 130	8	15	
Benzo[g,h,i]perylene	**0.0729**	**0.0775**	0.0833	0.0833	88	93	66 - 127	6	15	
Surrogate:										
2-Fluorobiphenyl					*98*	*90*	*46 - 113*			
Pyrene-d10					*95*	*94*	*45 - 114*			
Terphenyl-d14					*103*	*106*	*49 - 121*			

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-GW**					
Laboratory ID:	10-327-12					
Naphthalene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
2-Methylnaphthalene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
1-Methylnaphthalene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthylene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Fluorene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Phenanthrene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Anthracene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Fluoranthene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Pyrene	**ND**	0.060	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]anthracene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Chrysene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[b]fluoranthene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]pyrene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Dibenz[a,h]anthracene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[g,h,i]perylene	**ND**	0.0060	EPA 8270E/SIM	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*52*	*20 - 106*				
Pyrene-d10	*65*	*26 - 104*				
Terphenyl-d14	*64*	*44 - 127*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-3-GW**					
Laboratory ID:	10-327-17					
Naphthalene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
2-Methylnaphthalene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
1-Methylnaphthalene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthylene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Fluorene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Phenanthrene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Anthracene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Fluoranthene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Pyrene	**ND**	0.056	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]anthracene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Chrysene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[b]fluoranthene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]pyrene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Dibenz[a,h]anthracene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[g,h,i]perylene	**ND**	0.0056	EPA 8270E/SIM	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*47*	*20 - 106*				
Pyrene-d10	*61*	*26 - 104*				
Terphenyl-d14	*62*	*44 - 127*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-3-GW-Dup**					
Laboratory ID:	10-327-18					
Naphthalene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
2-Methylnaphthalene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
1-Methylnaphthalene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthylene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Fluorene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Phenanthrene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Anthracene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Fluoranthene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Pyrene	**ND**	0.051	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]anthracene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Chrysene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[b]fluoranthene	**0.0053**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]pyrene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Dibenz[a,h]anthracene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[g,h,i]perylene	**ND**	0.0051	EPA 8270E/SIM	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*62*	*20 - 106*				
Pyrene-d10	*70*	*26 - 104*				
Terphenyl-d14	*72*	*44 - 127*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102W1					
Naphthalene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
2-Methylnaphthalene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
1-Methylnaphthalene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthylene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Acenaphthene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Fluorene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Phenanthrene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Anthracene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Fluoranthene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Pyrene	**ND**	0.050	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]anthracene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Chrysene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[b]fluoranthene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo(j,k)fluoranthene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[a]pyrene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Indeno(1,2,3-c,d)pyrene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Dibenz[a,h]anthracene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Benzo[g,h,i]perylene	**ND**	0.0050	EPA 8270E/SIM	11-2-20	11-2-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
2-Fluorobiphenyl	*47*	*20 - 106*				
Pyrene-d10	*65*	*26 - 104*				
Terphenyl-d14	*63*	*44 - 127*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PAHs EPA 8270E/SIM
QUALITY CONTROL

Matrix: Water
Units: ug/L

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-327-17										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	**0.283**	**0.250**	0.552	0.521	ND	51	48	30 - 98	12	40	
Acenaphthylene	**0.326**	**0.295**	0.552	0.521	ND	59	57	39 - 106	10	28	
Acenaphthene	**0.348**	**0.313**	0.552	0.521	ND	63	60	36 - 114	11	35	
Fluorene	**0.361**	**0.339**	0.552	0.521	ND	65	65	45 - 112	6	29	
Phenanthrene	**0.401**	**0.373**	0.552	0.521	ND	73	72	51 - 109	7	23	
Anthracene	**0.348**	**0.324**	0.552	0.521	ND	63	62	49 - 109	7	22	
Fluoranthene	**0.378**	**0.349**	0.552	0.521	ND	68	67	53 - 115	8	20	
Pyrene	**0.376**	**0.346**	0.552	0.521	ND	68	66	49 - 129	8	27	
Benzo[a]anthracene	**0.513**	**0.462**	0.552	0.521	ND	93	89	61 - 123	10	20	
Chrysene	**0.427**	**0.382**	0.552	0.521	ND	77	73	59 - 114	11	22	
Benzo[b]fluoranthene	**0.427**	**0.404**	0.552	0.521	ND	77	78	60 - 125	6	24	
Benzo(j,k)fluoranthene	**0.436**	**0.354**	0.552	0.521	ND	79	68	58 - 121	21	23	
Benzo[a]pyrene	**0.393**	**0.350**	0.552	0.521	ND	71	67	58 - 118	12	23	
Indeno(1,2,3-c,d)pyrene	**0.450**	**0.407**	0.552	0.521	ND	82	78	59 - 124	10	23	
Dibenz[a,h]anthracene	**0.443**	**0.393**	0.552	0.521	ND	80	75	59 - 123	12	23	
Benzo[g,h,i]perylene	**0.431**	**0.383**	0.552	0.521	ND	78	74	58 - 120	12	23	
Surrogate:											
2-Fluorobiphenyl						*47*	*44*	*20 - 106*			
Pyrene-d10						*63*	*62*	*26 - 104*			
Terphenyl-d14						*64*	*61*	*44 - 127*			

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PCBs EPA 8082A

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Aroclor 1016	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1221	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1232	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1242	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1248	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1254	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1260	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1262	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Aroclor 1268	**ND**	0.032	EPA 8082A	11-4-20	11-5-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*76*	*46-125*				

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1104S1					
Aroclor 1016	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1221	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1232	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1242	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1248	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1254	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1260	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1262	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Aroclor 1268	**ND**	0.025	EPA 8082A	11-4-20	11-4-20	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*98*	*46-125*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	10-279-02										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	**0.224**	**0.292**	0.250	0.250	ND	**89**	**117**	43-125	26	15	L, X
Surrogate:											
DCB						*102*	*102*	*46-125*			
SPIKE BLANKS											
Laboratory ID:	SB1104S1										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**0.280**	**0.260**	0.250	0.250	N/A	**112**	**104**	50-134	7	18	
Surrogate:											
DCB						*96*	*96*	*46-125*			

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-8-9**					
Laboratory ID:	10-327-01					
Antimony	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Arsenic	**9.8**	3.3	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.43**	0.067	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.077**	0.067	EPA 6020B	11-4-20	11-5-20	
Chromium	**60**	0.67	EPA 6010D	11-2-20	11-2-20	
Copper	**49**	1.3	EPA 6010D	11-2-20	11-2-20	
Lead	**4.8**	0.67	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.085**	0.013	EPA 7471B	11-4-20	11-5-20	
Nickel	**58**	3.3	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.17	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Zinc	**72**	3.3	EPA 6010D	11-2-20	11-2-20	
Client ID:	**GP-2-25-27**					
Laboratory ID:	10-327-03					
Antimony	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Arsenic	**5.3**	3.3	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.15**	0.066	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.12**	0.066	EPA 6020B	11-4-20	11-5-20	
Chromium	**31**	0.66	EPA 6010D	11-2-20	11-2-20	
Copper	**21**	1.3	EPA 6010D	11-2-20	11-2-20	
Lead	**2.9**	0.66	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.038**	0.013	EPA 7471B	11-4-20	11-5-20	
Nickel	**29**	3.3	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.16	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.3	EPA 6010D	11-2-20	11-2-20	
Zinc	**42**	3.3	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Antimony	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Arsenic	**9.3**	3.2	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.33**	0.064	EPA 6020B	11-4-20	11-5-20	
Cadmium	**ND**	0.064	EPA 6020B	11-4-20	11-5-20	
Chromium	**55**	0.64	EPA 6010D	11-2-20	11-2-20	
Copper	**48**	1.3	EPA 6010D	11-2-20	11-2-20	
Lead	**3.2**	0.64	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.062**	0.013	EPA 7471B	11-4-20	11-5-20	
Nickel	**58**	3.2	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.16	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Zinc	**64**	3.2	EPA 6010D	11-2-20	11-2-20	
Client ID:	**GP-1-20-22**					
Laboratory ID:	10-327-06					
Antimony	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Arsenic	**6.0**	3.4	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.18**	0.068	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.13**	0.068	EPA 6020B	11-4-20	11-5-20	
Chromium	**42**	0.68	EPA 6010D	11-2-20	11-2-20	
Copper	**35**	1.4	EPA 6010D	11-2-20	11-2-20	
Lead	**2.0**	0.68	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.037**	0.014	EPA 7471B	11-4-20	11-5-20	
Nickel	**46**	3.4	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.17	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Zinc	**64**	3.4	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-20-22-Dup**					
Laboratory ID:	10-327-07					
Antimony	**ND**	3.5	EPA 6010D	11-2-20	11-2-20	
Arsenic	**6.3**	3.5	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.19**	0.070	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.11**	0.070	EPA 6020B	11-4-20	11-5-20	
Chromium	**44**	0.70	EPA 6010D	11-2-20	11-2-20	
Copper	**35**	1.4	EPA 6010D	11-2-20	11-2-20	
Lead	**2.0**	0.70	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.045**	0.014	EPA 7471B	11-4-20	11-5-20	
Nickel	**46**	3.5	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.5	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.18	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.5	EPA 6010D	11-2-20	11-2-20	
Zinc	**62**	3.5	EPA 6010D	11-2-20	11-2-20	
Client ID:	**GP-5-6.9-7.5**					
Laboratory ID:	10-327-08					
Antimony	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Arsenic	**7.5**	3.2	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.36**	0.063	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.093**	0.063	EPA 6020B	11-4-20	11-5-20	
Chromium	**43**	0.63	EPA 6010D	11-2-20	11-2-20	
Copper	**22**	1.3	EPA 6010D	11-2-20	11-2-20	
Lead	**4.7**	0.63	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.059**	0.013	EPA 7471B	11-4-20	11-5-20	
Nickel	**33**	3.2	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.16	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.2	EPA 6010D	11-2-20	11-2-20	
Zinc	**61**	3.2	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-5-20-22**					
Laboratory ID:	10-327-10					
Antimony	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Arsenic	**5.0**	3.1	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.16**	0.062	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.093**	0.062	EPA 6020B	11-4-20	11-5-20	
Chromium	**31**	0.62	EPA 6010D	11-2-20	11-2-20	
Copper	**19**	1.2	EPA 6010D	11-2-20	11-2-20	
Lead	**2.0**	0.62	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.024**	0.012	EPA 7471B	11-4-20	11-5-20	
Nickel	**28**	3.1	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.15	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Zinc	**36**	3.1	EPA 6010D	11-2-20	11-2-20	
Client ID:	**GP-6-10.8-15**					
Laboratory ID:	10-327-11					
Antimony	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Arsenic	**3.6**	3.1	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.13**	0.063	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.092**	0.063	EPA 6020B	11-4-20	11-5-20	
Chromium	**27**	0.63	EPA 6010D	11-2-20	11-2-20	
Copper	**15**	1.3	EPA 6010D	11-2-20	11-2-20	
Lead	**1.4**	0.63	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.022**	0.013	EPA 7471B	11-4-20	11-5-20	
Nickel	**28**	3.1	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.16	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.1	EPA 6010D	11-2-20	11-2-20	
Zinc	**29**	3.1	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-4-7.8-8.7**					
Laboratory ID:	10-327-13					
Antimony	**4.6**	3.8	EPA 6010D	11-2-20	11-2-20	
Arsenic	**14**	3.8	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.37**	0.076	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.90**	0.076	EPA 6020B	11-4-20	11-5-20	
Chromium	**37**	0.76	EPA 6010D	11-2-20	11-2-20	
Copper	**30**	1.5	EPA 6010D	11-2-20	11-2-20	
Lead	**44**	1.5	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.095**	0.015	EPA 7471B	11-4-20	11-5-20	
Nickel	**38**	3.8	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.8	EPA 6010D	11-2-20	11-2-20	
Silver	**0.22**	0.19	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.8	EPA 6010D	11-2-20	11-2-20	
Zinc	**120**	3.8	EPA 6010D	11-2-20	11-2-20	
Client ID:	**GP-4-15-18.7**					
Laboratory ID:	10-327-14					
Antimony	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Arsenic	**6.0**	3.4	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.21**	0.068	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.13**	0.068	EPA 6020B	11-4-20	11-5-20	
Chromium	**41**	0.68	EPA 6010D	11-2-20	11-2-20	
Copper	**28**	1.4	EPA 6010D	11-2-20	11-2-20	
Lead	**2.4**	0.68	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.030**	0.014	EPA 7471B	11-4-20	11-5-20	
Nickel	**39**	3.4	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.17	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.4	EPA 6010D	11-2-20	11-2-20	
Zinc	**53**	3.4	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-3-14.4-15.9**					
Laboratory ID:	10-327-16					
Antimony	**ND**	3.0	EPA 6010D	11-2-20	11-2-20	
Arsenic	**3.9**	3.0	EPA 6010D	11-2-20	11-2-20	
Beryllium	**0.11**	0.060	EPA 6020B	11-4-20	11-5-20	
Cadmium	**0.078**	0.060	EPA 6020B	11-4-20	11-5-20	
Chromium	**28**	0.60	EPA 6010D	11-2-20	11-2-20	
Copper	**16**	1.2	EPA 6010D	11-2-20	11-2-20	
Lead	**1.3**	0.60	EPA 6020B	11-4-20	11-5-20	
Mercury	**0.016**	0.012	EPA 7471B	11-4-20	11-5-20	
Nickel	**24**	3.0	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	3.0	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.15	EPA 6020B	11-4-20	11-5-20	
Thallium	**ND**	3.0	EPA 6010D	11-2-20	11-2-20	
Zinc	**30**	3.0	EPA 6010D	11-2-20	11-2-20	

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1102SH1					
Antimony	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Arsenic	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.50	EPA 6010D	11-2-20	11-2-20	
Copper	**ND**	1.0	EPA 6010D	11-2-20	11-2-20	
Nickel	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Thallium	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Zinc	**ND**	2.5	EPA 6010D	11-2-20	11-2-20	
Laboratory ID:	MB1104SM1					
Beryllium	**ND**	0.050	EPA 6020B	11-4-20	11-5-20	
Cadmium	**ND**	0.050	EPA 6020B	11-4-20	11-5-20	
Lead	**ND**	0.50	EPA 6020B	11-4-20	11-5-20	
Silver	**ND**	0.13	EPA 6020B	11-4-20	11-5-20	
Laboratory ID:	MB1104S1					
Mercury	**ND**	0.010	EPA 7471B	11-4-20	11-5-20	

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TOTAL METALS
EPA 6010D/6020B/7471B
QUALITY CONTROL

Matrix: Soil
Units: mg/Kg (ppm)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	10-327-10										
	ORIG	DUP									
Antimony	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Arsenic	**4.07**	**4.38**	NA	NA		NA		NA	7	20	
Chromium	**25.2**	**26.1**	NA	NA		NA		NA	4	20	
Copper	**15.5**	**15.4**	NA	NA		NA		NA	1	20	
Nickel	**22.6**	**23.2**	NA	NA		NA		NA	3	20	
Selenium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Thallium	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Zinc	**29.0**	**29.8**	NA	NA		NA		NA	3	20	
Laboratory ID:	10-327-10										
Beryllium	**0.134**	**0.123**	NA	NA		NA		NA	9	20	
Cadmium	**0.0755**	**0.0695**	NA	NA		NA		NA	8	20	
Lead	**1.66**	**1.40**	NA	NA		NA		NA	17	20	
Silver	**ND**	**ND**	NA	NA		NA		NA	NA	20	
Laboratory ID:	10-327-10										
Mercury	**0.0197**	**0.0201**	NA	NA		NA		NA	2	20	
MATRIX SPIKES											
Laboratory ID:	10-327-10										
	MS	MSD	MS	MSD		MS	MSD				
Antimony	**88.5**	**88.5**	100	100	ND	**89**	**89**	75-125	0	20	
Arsenic	**99.5**	**101**	100	100	4.07	**95**	**96**	75-125	1	20	
Chromium	**121**	**122**	100	100	25.2	**96**	**97**	75-125	1	20	
Copper	**67.5**	**64.0**	50.0	50.0	15.5	**104**	**97**	75-125	5	20	
Nickel	**125**	**124**	100	100	22.6	**102**	**101**	75-125	1	20	
Selenium	**95.5**	**93.5**	100	100	ND	**96**	**94**	75-125	2	20	
Thallium	**48.2**	**51.0**	50.0	50.0	ND	**96**	**102**	75-125	6	20	
Zinc	**129**	**124**	100	100	29.0	**100**	**95**	75-125	4	20	
Laboratory ID:	10-327-10										
Beryllium	**48.9**	**47.7**	50.0	50.0	0.134	**97**	**95**	75-125	2	20	
Cadmium	**46.1**	**44.7**	50.0	50.0	0.0755	**92**	**89**	75-125	3	20	
Lead	**227**	**223**	250	250	1.66	**90**	**88**	75-125	2	20	
Silver	**20.7**	**19.9**	25.0	25.0	ND	**83**	**80**	75-125	4	20	
Laboratory ID:	10-327-10										
Mercury	**0.529**	**0.528**	0.500	0.500	0.0197	**102**	**102**	80-120	0	20	

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TCLP METALS
EPA 1311/6010D/7470A

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**0.47**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	

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TCLP METALS
EPA 1311/6010D/7470A
QUALITY CONTROL

Matrix: TCLP Extract
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1030TM1					
Arsenic	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Barium	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Cadmium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Chromium	**ND**	0.020	EPA 6010D	11-2-20	11-2-20	
Lead	**ND**	0.20	EPA 6010D	11-2-20	11-2-20	
Selenium	**ND**	0.40	EPA 6010D	11-2-20	11-2-20	
Silver	**ND**	0.040	EPA 6010D	11-2-20	11-2-20	
Laboratory ID:	MB1030T1					
Mercury	**ND**	0.0050	EPA 7470A	10-30-20	10-30-20	

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-279-02									
	ORIG	DUP								
Arsenic	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Barium	**0.462**	**0.462**	NA	NA		NA	NA	0	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Selenium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Laboratory ID:	10-279-02									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
MATRIX SPIKES										
Laboratory ID:	10-279-02									
	MS	MSD	MS	MSD		MS	MSD			
Arsenic	**3.92**	**3.90**	4.00	4.00	ND	**98**	**98**	75-125	1	20
Barium	**4.29**	**4.30**	4.00	4.00	0.462	**96**	**96**	75-125	0	20
Cadmium	**1.82**	**1.81**	2.00	2.00	ND	**91**	**90**	75-125	1	20
Chromium	**3.80**	**3.78**	4.00	4.00	ND	**95**	**95**	75-125	1	20
Lead	**9.55**	**9.51**	10.0	10.0	ND	**96**	**95**	75-125	0	20
Selenium	**4.05**	**4.01**	4.00	4.00	ND	**101**	**100**	75-125	1	20
Silver	**0.960**	**0.968**	1.00	1.00	ND	**96**	**97**	75-125	1	20
Laboratory ID:	10-279-02									
Mercury	**0.0488**	**0.0486**	0.0500	0.0500	ND	**98**	**97**	75-125	0	20

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-GW**					
Laboratory ID:	10-327-12					
Antimony	**ND**	1.0	EPA 200.8		11-5-20	
Arsenic	**0.76**	0.50	EPA 200.8		11-5-20	
Beryllium	**ND**	0.20	EPA 200.8		11-5-20	
Cadmium	**ND**	0.20	EPA 200.8		11-5-20	
Chromium	**ND**	1.0	EPA 200.8		11-5-20	
Copper	**ND**	1.0	EPA 200.8		11-5-20	
Lead	**ND**	0.50	EPA 200.8		11-5-20	
Mercury	**ND**	0.025	EPA 7470A		11-5-20	
Nickel	**17**	1.0	EPA 200.8		11-5-20	
Selenium	**5.6**	1.0	EPA 200.8		11-5-20	
Silver	**ND**	0.20	EPA 200.8		11-5-20	
Thallium	**ND**	0.20	EPA 200.8		11-5-20	
Zinc	**3.0**	2.5	EPA 200.8		11-5-20	
Client ID:	**GP-3-GW**					
Laboratory ID:	10-327-17					
Antimony	**ND**	1.0	EPA 200.8		11-5-20	
Arsenic	**0.68**	0.50	EPA 200.8		11-5-20	
Beryllium	**ND**	0.20	EPA 200.8		11-5-20	
Cadmium	**ND**	0.20	EPA 200.8		11-5-20	
Chromium	**ND**	1.0	EPA 200.8		11-5-20	
Copper	**ND**	1.0	EPA 200.8		11-5-20	
Lead	**ND**	0.50	EPA 200.8		11-5-20	
Mercury	**ND**	0.025	EPA 7470A		11-5-20	
Nickel	**13**	1.0	EPA 200.8		11-5-20	
Selenium	**1.4**	1.0	EPA 200.8		11-5-20	
Silver	**ND**	0.20	EPA 200.8		11-5-20	
Thallium	**ND**	0.20	EPA 200.8		11-5-20	
Zinc	**7.0**	2.5	EPA 200.8		11-5-20	

Date of Report: November 17, 2020
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Project: 202005-01.01

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-3-GW-Dup**					
Laboratory ID:	10-327-18					
Antimony	**ND**	1.0	EPA 200.8		11-5-20	
Arsenic	**0.56**	0.50	EPA 200.8		11-5-20	
Beryllium	**ND**	0.20	EPA 200.8		11-5-20	
Cadmium	**ND**	0.20	EPA 200.8		11-5-20	
Chromium	**ND**	1.0	EPA 200.8		11-5-20	
Copper	**ND**	1.0	EPA 200.8		11-5-20	
Lead	**ND**	0.50	EPA 200.8		11-5-20	
Mercury	**ND**	0.025	EPA 7470A		11-5-20	
Nickel	**15**	1.0	EPA 200.8		11-5-20	
Selenium	**1.4**	1.0	EPA 200.8		11-5-20	
Silver	**ND**	0.20	EPA 200.8		11-5-20	
Thallium	**ND**	0.20	EPA 200.8		11-5-20	
Zinc	**6.6**	2.5	EPA 200.8		11-5-20	

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

DISSOLVED METALS
EPA 200.8/7470A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB1105D1					
Antimony	**ND**	1.0	EPA 200.8		11-5-20	
Arsenic	**ND**	0.50	EPA 200.8		11-5-20	
Beryllium	**ND**	0.20	EPA 200.8		11-5-20	
Cadmium	**ND**	0.20	EPA 200.8		11-5-20	
Chromium	**ND**	1.0	EPA 200.8		11-5-20	
Copper	**ND**	1.0	EPA 200.8		11-5-20	
Lead	**ND**	0.50	EPA 200.8		11-5-20	
Nickel	**ND**	0.50	EPA 200.8		11-5-20	
Selenium	**ND**	1.0	EPA 200.8		11-5-20	
Silver	**ND**	0.20	EPA 200.8		11-5-20	
Thallium	**ND**	0.20	EPA 200.8		11-5-20	
Zinc	**ND**	2.5	EPA 200.8		11-5-20	
Laboratory ID:	MB1105D1					
Mercury	**ND**	0.025	EPA 7470A		11-5-20	

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

DISSOLVED METALS
EPA 200.8/7470A
QUALITY CONTROL

Matrix: Water
Units: ug/L (ppb)

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	10-327-17									
	ORIG	DUP								
Antimony	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Arsenic	**0.680**	**0.702**	NA	NA		NA	NA	3	20	
Beryllium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Cadmium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Chromium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Copper	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Lead	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Nickel	**12.8**	**13.3**	NA	NA		NA	NA	4	20	
Selenium	**1.37**	**1.34**	NA	NA		NA	NA	2	20	
Silver	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Thallium	**ND**	**ND**	NA	NA		NA	NA	NA	20	
Zinc	**7.02**	**6.84**	NA	NA		NA	NA	3	20	
Laboratory ID:	10-327-17									
Mercury	**ND**	**ND**	NA	NA		NA	NA	NA	20	
MATRIX SPIKES										
Laboratory ID:	10-327-17									
	MS	MSD	MS	MSD		MS	MSD			
Antimony	**84.0**	**84.8**	80.0	80.0	ND	**105**	**106**	75-125	1	20
Arsenic	**86.0**	**84.4**	80.0	80.0	0.680	**107**	**105**	75-125	2	20
Beryllium	**77.2**	**77.6**	80.0	80.0	ND	**97**	**97**	75-125	1	20
Cadmium	**77.0**	**78.0**	80.0	80.0	ND	**96**	**98**	75-125	1	20
Chromium	**76.6**	**75.4**	80.0	80.0	ND	**96**	**94**	75-125	2	20
Copper	**71.6**	**72.0**	80.0	80.0	ND	**90**	**90**	75-125	1	20
Lead	**74.8**	**75.2**	80.0	80.0	ND	**94**	**94**	75-125	1	20
Nickel	**87.0**	**86.6**	80.0	80.0	12.8	**93**	**92**	75-125	0	20
Selenium	**96.4**	**94.8**	80.0	80.0	1.37	**119**	**117**	75-125	2	20
Silver	**69.4**	**68.0**	80.0	80.0	ND	**87**	**85**	75-125	2	20
Thallium	**74.4**	**75.8**	80.0	80.0	ND	**93**	**95**	75-125	2	20
Zinc	**83.2**	**81.0**	80.0	80.0	7.02	**95**	**93**	75-125	3	20
Laboratory ID:	10-327-17									
Mercury	**5.78**	**5.78**	6.25	6.25	ND	**92**	**92**	75-125	0	20

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G

Matrix: Soil
Units: % Solids

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-2-8-9**					
Laboratory ID:	10-327-01					
Total Solids	**75**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-2-25-27**					
Laboratory ID:	10-327-03					
Total Solids	**76**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-1-5.7-9.7**					
Laboratory ID:	10-327-04					
Total Solids	**78**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-1-20-22**					
Laboratory ID:	10-327-06					
Total Solids	**73**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-1-20-22-Dup**					
Laboratory ID:	10-327-07					
Total Solids	**71**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-5-6.9-7.5**					
Laboratory ID:	10-327-08					
Total Solids	**79**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-5-20-22**					
Laboratory ID:	10-327-10					
Total Solids	**81**	0.50	SM 2540G	10-29-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G

Matrix: Soil
Units: % Solids

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**GP-6-10.8-15**					
Laboratory ID:	10-327-11					
Total Solids	**80**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-4-7.8-8.7**					
Laboratory ID:	10-327-13					
Total Solids	**66**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-4-15-18.7**					
Laboratory ID:	10-327-14					
Total Solids	**73**	0.50	SM 2540G	10-29-20	10-30-20	
Client ID:	**GP-3-14.4-15.9**					
Laboratory ID:	10-327-16					
Total Solids	**83**	0.50	SM 2540G	10-29-20	10-30-20	

Date of Report: November 17, 2020
Samples Submitted: October 28, 2020
Laboratory Reference: 2010-327
Project: 202005-01.01

TOTAL SOLIDS
SM 2540G
QUALITY CONTROL

Matrix: Soil
Units: % Solids

Analyte	Result		Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE									
Laboratory ID:	10-264-01								
	ORIG	DUP							
Total Solids	**89.3**	**91.7**	NA	NA	NA	NA	3	20	
Laboratory ID:	10-327-10								
	ORIG	DUP							
Total Solids	**81.1**	**81.2**	NA	NA	NA	NA	0	20	

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

November 17, 0808

Vista Work Order No. 2002347

S r. Mavid Baumeister
Onkite Environmental Inc.
1D6D4 NE 95th ktreet
Redmond, WA 94850

Mear S r. Baumeister,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on October 28, 0808 under your Project Name '080885-81.81'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-672-1508 or by email at mmaier3 vista-analytical.com.

@hanT you for choosing Vista as part of your analytical support team.

kincerely,

S artha S aier
Laboratory Mirector

Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 2002347
Case Narrative

Sample Condition on Receipt:

One solid sample was received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The sample was received in good condition and within the method temperature requirements. The sample was received in a clear glass jar.

Analytical Notes:

EPA Method 1613B

This sample was extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 1612B using a ZB-MIOXIN GC column.

Holding Times

The sample was extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002347-01	GP-1-5.7-9.7	26-Oct-20 13:15	30-Oct-20 07:49	Clear Glass Jar, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank	**EPA Method 1613B**

Client Data

Name: n vpxtezd vI xrovmevta z vcM
Project: 202005-01M1
i atrxS: po xO

Laboratory Data

baQpaml e: B0K0041-BbK1
Ch zBatcD: B0K0041
paml ezpxLe: 10Mzg
Eatezd StracteO: 05-NoI -20
h o umv: ZB-E.n X.N

Analyte	Conc. (pg/g)	EDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-Th E E	NE	0M263			13-NoI -20z10:55	1
1,2,3,7,8-Peh E E	NE	0M497			13-NoI -20z10:55	1
1,2,3,4,7,8-HSh E E	NE	0M568			13-NoI -20z10:55	1
1,2,3,6,7,8-HSh E E	NE	0M574			13-NoI -20z10:55	1
1,2,3,7,8,9-HSh E E	NE	0M721			13-NoI -20z10:55	1
1,2,3,4,6,7,8-Hl h E E	NE	0M573			13-NoI -20z10:55	1
n h E E	NE	0M16			13-NoI -20z10:55	1
2,3,7,8-Th E F	NE	0M198			13-NoI -20z10:55	1
1,2,3,7,8-Peh E F	NE	0M288			13-NoI -20z10:55	1
2,3,4,7,8-Peh E F	NE	0M235			13-NoI -20z10:55	1
1,2,3,4,7,8-HSh E F	NE	0M329			13-NoI -20z10:55	1
1,2,3,6,7,8-HSh E F	NE	0M337			13-NoI -20z10:55	1
2,3,4,6,7,8-HSh E F	NE	0M389			13-NoI -20z10:55	1
1,2,3,7,8,9-HSh E F	NE	0M698			13-NoI -20z10:55	1
1,2,3,4,6,7,8-Hl h E F	NE	0M487			13-NoI -20z10:55	1
1,2,3,4,7,8,9-Hl h E F	NE	0M568			13-NoI -20z10:55	1
n h E F	NE	0M915			13-NoI -20z10:55	1
Toxic Equivalent						
TdCi xvWHn 2005E xoSxv	0M0					
Totals						
Tota zTh E E	NE	0M263				
Tota zPeh E E	NE	0M497				
Tota zHSh E E	NE	0M721				
Tota zHl h E E	NE	0M573				
Tota zTh E F	NE	0M198				
Tota zPeh E F	NE	0M288				
Tota zHSh E F	NE	0M698				
Tota zHl h E F	NE	0M568				

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13h -2,3,7,8-Th E E	.p	80M	z25z-z164		13-NoI -20z10:55	1
13h -1,2,3,7,8-Peh E E	.p	81M	z25z-z181		13-NoI -20z10:55	1
13h -1,2,3,4,7,8-HSh E E	.p	88M	z32z-z141		13-NoI -20z10:55	1
13h -1,2,3,6,7,8-HSh E E	.p	89M	z28z-z130		13-NoI -20z10:55	1
13h -1,2,3,7,8,9-HSh E E	.p	80M	z32z-z141		13-NoI -20z10:55	1
13h -1,2,3,4,6,7,8-Hl h E E	.p	80M	z23z-z140		13-NoI -20z10:55	1
13h -n h E E	.p	74M	z17z-z157		13-NoI -20z10:55	1
13h -2,3,7,8-Th E F	.p	83M	z24z-z169		13-NoI -20z10:55	1
13h -1,2,3,7,8-Peh E F	.p	84M	z24z-z185		13-NoI -20z10:55	1
13h -2,3,4,7,8-Peh E F	.p	90M	z21z-z178		13-NoI -20z10:55	1
13h -1,2,3,4,7,8-HSh E F	.p	82M	z26z-z152		13-NoI -20z10:55	1
13h -1,2,3,6,7,8-HSh E F	.p	82M	z26z-z123		13-NoI -20z10:55	1
13h -2,3,4,6,7,8-HSh E F	.p	83M	z28z-z136		13-NoI -20z10:55	1
13h -1,2,3,7,8,9-HSh E F	.p	71M	z29z-z147		13-NoI -20z10:55	1
13h -1,2,3,4,6,7,8-Hl h E F	.p	75M	z28z-z143		13-NoI -20z10:55	1
13h -1,2,3,4,7,8,9-Hl h E F	.p	71M	z26z-z138		13-NoI -20z10:55	1
13h -n h E F	.p	71M	z17z-z157		13-NoI -20z10:55	1
37h -2,3,7,8-Th E E	h Rp	95M	z35z-z197		13-NoI -20z10:55	1

dEbz-zpaml ezsl ecxfczestxmateOzOetectxovz xmxtzzzzzzzzzzzzz
di Ph z-zd stxmateOzmaSxmumz l ossxQezcovcevtratxovzzzzzzzzz

TDezresu tszarezrel orteOzxvzOryzwexgDMzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz
TDezsaml ezsxLezszrel orteOzxvzwetzwexgDMzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzzz

Sample ID: OPR **EPA Method 1613B**

Client Data
Name: n vpxtezdvIxrovmevta zvcM
Project: 202005-01MMl
i atrxS: po xO

Laboratory Data
baQpaml e: B0K0041-Bp1
ChzBatcD: B0K0041 EatezdStracteO: 05-NoI-20z06:05
paml epxLe: 10MMzg h o umv: ZB-E.n X.N

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-Th EE	21M	20M	105	67z-158		13-NoI-20z09:25	1
1,2,3,7,8-Peh EE	106	100	106	70z-142		13-NoI-20z09:25	1
1,2,3,4,7,8-HSh EE	101	100	101	70z-164		13-NoI-20z09:25	1
1,2,3,6,7,8-HSh EE	104	100	104	76z-134		13-NoI-20z09:25	1
1,2,3,7,8,9-HSh EE	103	100	103	64z-162		13-NoI-20z09:25	1
1,2,3,4,6,7,8-Hl h EE	102	100	102	70z-140		13-NoI-20z09:25	1
n h EE	204	200	102	78z-144		13-NoI-20z09:25	1
2,3,7,8-Th EF	19M	20M	96M	75z-158		13-NoI-20z09:25	1
1,2,3,7,8-Peh EF	102	100	102	80z-134		13-NoI-20z09:25	1
2,3,4,7,8-Peh EF	102	100	102	68z-160		13-NoI-20z09:25	1
1,2,3,4,7,8-HSh EF	103	100	103	72z-134		13-NoI-20z09:25	1
1,2,3,6,7,8-HSh EF	101	100	101	84z-130		13-NoI-20z09:25	1
2,3,4,6,7,8-HSh EF	100	100	100	70z-156		13-NoI-20z09:25	1
1,2,3,7,8,9-HSh EF	98M	100	98M	78z-130		13-NoI-20z09:25	1
1,2,3,4,6,7,8-Hl h EF	103	100	103	82z-122		13-NoI-20z09:25	1
1,2,3,4,7,8,9-Hl h EF	100	100	100	78z-138		13-NoI-20z09:25	1
n h EF	200	200	100	63z-170		13-NoI-20z09:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13h-2,3,7,8-Th EE	.p	88M	20z-175		13-NoI-20z09:25	1
13h-1,2,3,7,8-Peh EE	.p	89M	21z-227		13-NoI-20z09:25	1
13h-1,2,3,4,7,8-HSh EE	.p	91M	21z-193		13-NoI-20z09:25	1
13h-1,2,3,6,7,8-HSh EE	.p	91M	25z-163		13-NoI-20z09:25	1
13h-1,2,3,7,8,9-HSh EE	.p	90M	21z-193		13-NoI-20z09:25	1
13h-1,2,3,4,6,7,8-Hl h EE	.p	87M	26z-166		13-NoI-20z09:25	1
13h-n h EE	.p	79M	13z-199		13-NoI-20z09:25	1
13h-2,3,7,8-Th EF	.p	88M	22z-152		13-NoI-20z09:25	1
13h-1,2,3,7,8-Peh EF	.p	93M	21z-192		13-NoI-20z09:25	1
13h-2,3,4,7,8-Peh EF	.p	95M	13z-328		13-NoI-20z09:25	1
13h-1,2,3,4,7,8-HSh EF	.p	84M	19z-202		13-NoI-20z09:25	1
13h-1,2,3,6,7,8-HSh EF	.p	85M	21z-159		13-NoI-20z09:25	1
13h-2,3,4,6,7,8-HSh EF	.p	85M	22z-176		13-NoI-20z09:25	1
13h-1,2,3,7,8,9-HSh EF	.p	87M	17z-205		13-NoI-20z09:25	1
13h-1,2,3,4,6,7,8-Hl h EF	.p	78M	21z-158		13-NoI-20z09:25	1
13h-1,2,3,4,7,8,9-Hl h EF	.p	75M	20z-186		13-NoI-20z09:25	1
13h-n h EF	.p	77M	13z-199		13-NoI-20z09:25	1
37h -2,3,7,8-Th EE	hRp	106	35z-191		13-NoI-20z09:25	1

Sample ID: GP-1-5.7-9.7

EPA Method 1613B

Client Data

Name: OnSite Environmental Inc.
Project: 202005-01.01
Matrix: Solid
Date Collected: 26-Oct-20 13:15

Laboratory Data

Lab Sample: 2002347-01
QC Batch: B0K0041
Sample Size: 12.9 g
% Solids: 77.8
Date Received: 30-Oct-20 07:49
Date Extracted: 05-Nov-20
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0323			14-Nov-20 06:31	1
1,2,3,7,8-PeCDD	ND	0.0816			14-Nov-20 06:31	1
1,2,3,4,7,8-HxCDD	ND	0.140			14-Nov-20 06:31	1
1,2,3,6,7,8-HxCDD	ND	0.147			14-Nov-20 06:31	1
1,2,3,7,8,9-HxCDD	ND	0.165			14-Nov-20 06:31	1
1,2,3,4,6,7,8-HpCDD	2.60				14-Nov-20 06:31	1
OCDD	34.6				14-Nov-20 06:31	1
2,3,7,8-TCDF	ND	0.0247			14-Nov-20 06:31	1
1,2,3,7,8-PeCDF	ND	0.0301			14-Nov-20 06:31	1
2,3,4,7,8-PeCDF	ND	0.0256			14-Nov-20 06:31	1
1,2,3,4,7,8-HxCDF	ND	0.0403			14-Nov-20 06:31	1
1,2,3,6,7,8-HxCDF	ND	0.0387			14-Nov-20 06:31	1
2,3,4,6,7,8-HxCDF	ND	0.0418			14-Nov-20 06:31	1
1,2,3,7,8,9-HxCDF	ND	0.0675			14-Nov-20 06:31	1
1,2,3,4,6,7,8-HpCDF	ND	0.0849			14-Nov-20 06:31	1
1,2,3,4,7,8,9-HpCDF	ND	0.0805			14-Nov-20 06:31	1
OCDF	ND	0.101			14-Nov-20 06:31	1
Toxic Equivalent						
TEQMinWHO2005Dioxin	0.0364					
Totals						
Total TCDD	0.134					
Total PeCDD	0.194					
Total HxCDD	0.947		1.38			
Total HpCDD	6.48					
Total TCDF	0.0999					
Total PeCDF	ND	0.0301				
Total HxCDF	ND	0.0675				
Total HpCDF	ND	0.0849				

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	94.5	25 - 164		14-Nov-20 06:31	1
13C-1,2,3,7,8-PeCDD	IS	94.1	25 - 181		14-Nov-20 06:31	1
13C-1,2,3,4,7,8-HxCDD	IS	93.6	32 - 141		14-Nov-20 06:31	1
13C-1,2,3,6,7,8-HxCDD	IS	94.5	28 - 130		14-Nov-20 06:31	1
13C-1,2,3,7,8,9-HxCDD	IS	95.3	32 - 141		14-Nov-20 06:31	1
13C-1,2,3,4,6,7,8-HpCDD	IS	91.5	23 - 140		14-Nov-20 06:31	1
13C-OCDD	IS	88.0	17 - 157		14-Nov-20 06:31	1
13C-2,3,7,8-TCDF	IS	97.2	24 - 169		14-Nov-20 06:31	1
13C-1,2,3,7,8-PeCDF	IS	99.6	24 - 185		14-Nov-20 06:31	1
13C-2,3,4,7,8-PeCDF	IS	100	21 - 178		14-Nov-20 06:31	1
13C-1,2,3,4,7,8-HxCDF	IS	89.4	26 - 152		14-Nov-20 06:31	1
13C-1,2,3,6,7,8-HxCDF	IS	91.2	26 - 123		14-Nov-20 06:31	1
13C-2,3,4,6,7,8-HxCDF	IS	93.5	28 - 136		14-Nov-20 06:31	1
13C-1,2,3,7,8,9-HxCDF	IS	93.2	29 - 147		14-Nov-20 06:31	1
13C-1,2,3,4,6,7,8-HpCDF	IS	86.8	28 - 143		14-Nov-20 06:31	1
13C-1,2,3,4,7,8,9-HpCDF	IS	89.8	26 - 138		14-Nov-20 06:31	1
13C-OCDF	IS	86.3	17 - 157		14-Nov-20 06:31	1
37Cl-2,3,7,8-TCDD	CRS	105	35 - 197		14-Nov-20 06:31	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
K	EMPC (specific projects only)
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-23
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Vermont Department of Health	VT-4042
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

2.3°C 2002347

OnSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Laboratory Reference #: 10-327

Laboratory: Vista Analytical Laboratory

Attention: Jennifer Miller

Address: 1104 Windfield Way, El Dorado Hills, CA 95762

Phone Number: (916) 673-1520

Turnaround Request

1 Day 2 Day 3 Day

Standard

Other: _____

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 202005-01.01

Project Name: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analyses
	GP-1-5.7-9.7	10/26/20	13:15	S	1	Dioxins/Furans

Signature	Company	Date	Time	Comments/Special Instructions
Relinquished by: [signature]	OSE	10/29/20	1600	EDDs
Received by: [signature]	VAL	10/30/20	07:49	
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 2002347 TAT Std

Samples Arrival:	**Date/Time** 10/30/20 7:49		**Initials:** URW		**Location:** WR-2 **Shelf/Rack:** A		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice		Techni Ice	Dry Ice	None	
Temp °C: 2.3 (uncorrected) **Temp °C:** 2.3 (corrected)		**Probe used:** Y / N			**Thermometer ID:** IR-4		

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			X
Airbill — Trk # 1Z684E1W1595788339	✓		
Shipping Documentation Present?	✓		
Shipping Container: Vista / Client / Retain / Return / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 11/02/20 0909	**Initials:** KS	**Location:** WR-2 **Shelf/Rack:** F-3
COC Anomaly/Sample Acceptance Form completed?	✓		

Comments:

CoC/Label Reconciliation Report WO# 2002347

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2002347-01	A GP-1-5.7-9.7 ☑		26-Oct-20 13:15 ☑	Clear Glass Jar, 250mL	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)		✓	
Preservation Documented: Na2S2O3 Trizma (None) Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:
* Reconciled with container lid

Verifed by/Date: KS 11/02/20

Vista Analytical Laboratory

ANOMALY FORM

Vista Work Order 2002347

Initial/Date		The following checked issues were noted during sample receipt and login:
_____	☐	**1. The samples were received out of temperature at (WI-PHT):** _____ Was Ice present: Yes No Melted Blue Ice
_____	☐	2. The Chain-of-Custody (CoC) was not relinquished properly.
_____	☐	3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
_____	☐	4. The sample(s) did not include a sample collection time. All or Sample Name: _____
_____	☐	5. A sample ID discrepancy was found. See the Reconciliation report. The CoC Sample ID will be used unless notified otherwise.
_____	☐	6. A sample date and/or time discrepancy was found. See the Reconciliation report. The CoC Sample date/time will be used unless notified otherwise.
_____	☐	**7. The CoC did not include a sample matrix. The following sample matrix will be used:** _____
_____	☐	**8. Insufficent volume received for analysis. All or Sample Name:** _____
_____	☐	9. The backup bottle was received broken. Sample Name: _____
_____	☐	**10. CoC not received, illegible or destroyed.**
_____	☐	**11. The sample(s) were received out of holding time. All or Sample Name:** _____
_____	☐	**12. The CoC did not include an analysis. All or Sample Name:** _____
_____	☐	**13. Sample(s) received without collection date. All or Sample Name:** _____
_____	☐	**14. Sample(s) not received. All or Sample Name:** _____
_____	☐	**15. Sample(s) received broken. All or Sample Name:** _____
KS 11/6/20	☑	**16. An incorrect container-type was used. All or Sample Name:** All
_____	☐	17. Other:

Bolded items require sign-off

Client Contacted: Yes, via email

Date of Contact: 11/02/2020

Vista Client Manager: KJR

Resolution: Client contacted in body of acknowledgement letter.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Anchor QEA
Project Number: 202005-01.01
Project Name: ABC Recycling
Project Manager: Derek Ormerod
Sampled by: MH/DP

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 10-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total ~~MTCA~~ Metals (6010C/7471A)	TCLP Metals	HEM (oil and grease) 1664A	Dioxin/furans	MS/MSD		HOLD	% Moisture 2540G TOTAL SOLIDS
1	GP-2-8-9	10.26.20	1030	Soil	3			X	X					X	X					X			X				X
2	GP-2-14-20		1045		3			X	X					X	X					X			X			X	X
3	GP-2-25.27		1050		3			X	X					X	X					X			X				X
4	GP-1-~~10-12.3~~ 5.7-9.7		1315		3			X	X					X	X					X	X		X				X
5	GP-1-10-12.3		1320		3			X	X					X	X					X			X			X	X
6	GP-1-20-22		1330		3			X	X					X	X					X			X				X
7	GP-1-20-22-Dup		1331		3			X	X					X	X					X			X				X
8	GP-5-6.9-7.5		1515		3			X	X					X	X					X			X				X
9	GP-5-10-11		1525		3			X	X					X	X					X			X			X	X
10	GP-5-20-22		1530		3			X	X					X	X					X			X	X			X

	Signature	Company	Date	Time
Relinquished		Anchor QEA	10/28/20	0820
Received		Speedy	10-28-20	0820
Relinquished		Speedy	10-28-20	0855
Received			10/28/20	0855
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions
Sb, As, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Th, Zn
X-HOLD
~~Hold all samples pending further instructions.~~
(X) Added 10/28/2020. DB( )

Data Package: Standard ☐ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☒

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Anchor QEA
Project Number: 202005-01.01
Project Name: ABC Recycling
Project Manager: Derek Ormerod
Sampled by: MH/DP

Turnaround Request (in working days)
(Check One)
☐ Same Day ☐ 1 Day
☐ 2 Days ☐ 3 Days
☒ Standard (7 Days)
☐ _____ (other)

Laboratory Number: 10-327

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (☐ Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total ~~MTCA~~ Metals (6010C/7471A) PP Metals	TCLP Metals	HEM (oil and grease) 1664A	Dioxin/Furans	Diss. Metals (6010C/200.8) (PP metals)	MS/MSD	HOLD	%~~Moisture~~ 2540G TOTAL SOLIDS
11	GP-6-10.8-15	10.26.20	1650	Soil	3			X	X					X	X					X			X				X
12	GP-6-GW	↓	1750	GW	11			X	X					X	X								X	X			
13	GP-4-7.8-8.7	10.27.20	1020	Soil	3			X	X					X	X					X			X				X
14	GP-4-15-18.7	↓	1030	↓	3			X	X					X	X					X			X				X
15	GP-3-12.7-13.4		1205		3			X	X					X	X					X			X			X	X
16	GP-3-14.4-15.9		1215		3			X	X					X	X					X			X				X
17	GP-3-GW		1315	GW	23			X	X					X	X					*			X	X	X		
18	GP-3-GW-Dup		1320		11			X	X					X	X					*			X	X			
19	TB-201026	10.26.20	1015	W	2			X																			

	Signature	Company	Date	Time
Relinquished		Anchor QEA	10/28/20	0820
Received		Speedy	10-28-20	0820
Relinquished		Speedy	10-28-20	0855
Received			10/28/20	0855
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Data Package: Standard ☐ Level III ☐ Level IV ☐
Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☒

Sample/Cooler Receipt and Acceptance Checklist

Client: ANC

Client Project Name/Number: 202005-01.01

OnSite Project Number: 10-327

Initiated by: MV

Date Initiated: 10/28/20

1.0 Cooler Verification

1.1 Were there custody seals on the outside of the cooler?	(Yes)	No	N/A	1 2 3 4	
1.2 Were the custody seals intact?	(Yes)	No	N/A	1 2 3 4	
1.3 Were the custody seals signed and dated by last custodian?	(Yes)	No	N/A	1 2 3 4	
1.4 Were the samples delivered on ice or blue ice?	(Yes)	No	N/A	1 2 3 4	
1.5 Were samples received between 0-6 degrees Celsius?	(Yes)	No	N/A	Temperature:	2,3,3,4
1.6 Have shipping bills (if any) been attached to the back of this form?	Yes	(N/A)			
1.7 How were the samples delivered?	Client	(Courier)	UPS/FedEx	OSE Pickup	Other

2.0 Chain of Custody Verification

2.1 Was a Chain of Custody submitted with the samples?	(Yes)	No		1 2 3 4
2.2 Was the COC legible and written in permanent ink?	(Yes)	No		1 2 3 4
2.3 Have samples been relinquished and accepted by each custodian?	(Yes)	No		1 2 3 4
2.4 Did the sample labels (ID, date, time, preservative) agree with COC?	(Yes)	No		1 2 3 4
2.5 Were all of the samples listed on the COC submitted?	(Yes)	No		1 2 3 4
2.6 Were any of the samples submitted omitted from the COC?	Yes	(No)		1 2 3 4

3.0 Sample Verification

3.1 Were any sample containers broken or compromised?	Yes	(No)		1 2 3 4
3.2 Were any sample labels missing or illegible?	Yes	(No)		1 2 3 4
3.3 Have the correct containers been used for each analysis requested?	(Yes)	No		1 2 3 4
3.4 Have the samples been correctly preserved?	Yes	(No)	N/A	1 2 3 4
3.5 Are volatiles samples free from headspace and bubbles greater than 6mm?	(Yes)	No	N/A	1 2 3 4
3.6 Is there sufficient sample submitted to perform requested analyses?	(Yes)	No		1 2 3 4
3.7 Have any holding times already expired or will expire in 24 hours?	Yes	(No)		1 2 3 4
3.8 Was method 5035A used?	(Yes)	No	N/A	1 2 3 4
3.9 If 5035A was used, which sampling option was used (#1, 2, or 3).	#	2	N/A	1 2 3 4

Explain any discrepancies:

3.4) 1/2L ambers unpreserved

1 - Discuss issue in Case Narrative

2 - Process Sample As-is

3 - Client contacted to discuss problem

4 - Sample cannot be analyzed or client does not wish to proceed

APPENDIX D
Terrestrial Ecological Evaluation

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Marine Drive Property	
Facility/Site Address: Whatcom County Tax Parcel 380223106374	
Facility/Site No: NA	VCP Project No.: NA

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Mark Havighorst			Title: Associate Engineer
Organization: GeoEngineers, Inc.			
Mailing address: 5820 South Kelly Avenue, Suite B			
City: Portland		State: OR	Zip code: 97239
Phone: 503-460-7146	Fax:		E-mail: mhavighorst@geoengineers.com

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UNKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☒ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☐ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☐ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

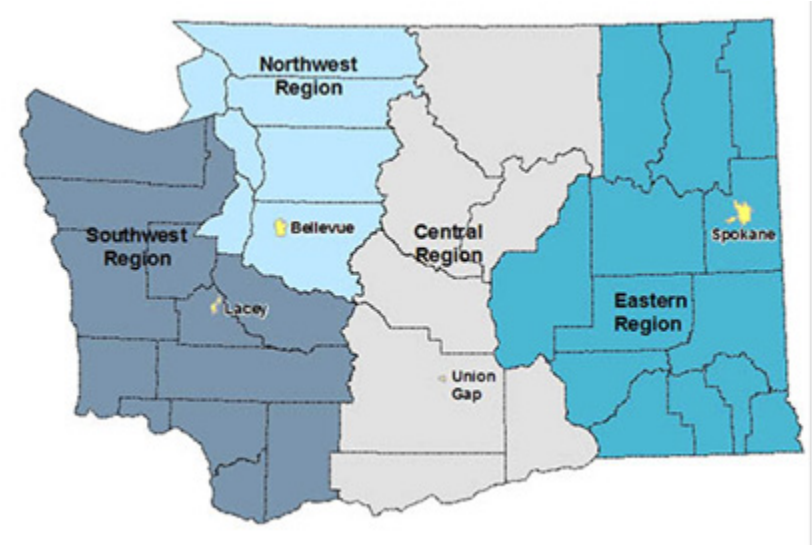
5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

☐ No

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.



Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295

If you need this publication in an alternate format, please call the Toxics Cleanup Program at 360-407-7170. People with hearing loss can call 711 for Washington Relay Service. People with a speech disability can call 877-833-6341.

APPENDIX E
Report Limitations and Guidelines for Use

APPENDIX E
REPORT LIMITATIONS AND GUIDELINES FOR USE[4]

This Appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers, Inc. (GeoEngineers) includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for ABC Recycling Realty Corp. (ABC Recycling). ABC Recycling may distribute copies of this report to ABC Recycling authorized agents and regulatory agencies as may be required for the project. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except ABC Recycling should rely on this report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

This report applies to the property at Whatcom County Washington Tax Parcel 380223106374 (referred to herein as the Marine Drive Property). GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,
- Not prepared for the specific site explored, or
- Completed before important project changes were made.

[4] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

If important changes are made after the date of this remedial action plan, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers, Inc. before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The CULs referenced in this report are site- and situation-specific. The CULs may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced CULs. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. It is always possible that contamination exists in areas that were not explored, sampled or analyzed. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Geotechnical, Geologic, and Geoenvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If the client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

GeoEngineers