

REPORT ON
PEND OREILLE MINE HISTORIC DEBRIS FIELD, DATA GAP
ASSESSMENT AND FEASIBILITY STUDY
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

by
Haley & Aldrich, Inc.
Spokane, Washington

for
Teck Washington Incorporated
Metaline Falls, WA

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PEND OREILLE MINE HISTORIC DEBRIS FIELD
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PEND OREILLE MINE
METALINE FALLS, WASHINGTON**

**PREPARED FOR
TECK WASHINGTON INCORPORATED
METALINE FALLS, WA**

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1. Introduction

Teck Washington, Inc. (TWI) has prepared this Data Gap Assessment and Feasibility Study (FS) report for the Pend Oreille Mine Historic Debris Field (Debris Field), Washington State Department of Ecology (Ecology) Facility Site ID:15428546, that is being addressed as part of Ecology's Voluntary Cleanup Program (VCP). The Debris Field primarily is located within the boundaries of the Pend Oreille Mine (POM) property. The POM is an underground lead-zinc mine located approximately 2 miles north of Metaline Falls, in Pend Oreille County, Washington (see "Vicinity Map", Figure 1) and is owned and managed by TWI. The mine generally consists of underground mine workings, administrative offices and maintenance buildings, closed Tailings Disposal Facilities (TDF) 1 and 2 (TDF1 and TDF2), an open TDF (TDF3), a Waste Rock Pile, and associated trafficways and parking areas. The mine layout is shown on the "Site Plan," Figure 2. Mining and milling operations at the POM ceased in 2019 and TWI decided to permanently close the mine in April 2021.

The Debris Field was first observed on April 6, 2005 during a scheduled inspection by the U.S. Environmental Protection Agency (EPA) and is located west-northwest of the former Load Out Building. In June 2005, TWI (then operating as Teck Cominco American, Incorporated) and adjacent property owner Seattle City Light (SCL), engaged GeoEngineers, Inc. (GeoEngineers) to assess the size of the Debris Field and identify potential contaminants of concern (COC) contained in the debris media. Findings from the assessment indicated trichloroethene (TCE) is present in a portion of the Debris Field at concentrations exceeding Ecology's Model Toxics Control Act (MTCA) Method A Cleanup Level for Unrestricted Land Use (cleanup level).

The site entered the VCP in 2022. On October 3, 2022, Ecology provided TWI an opinion and technical assistance letter for the Debris Field following review of existing assessment documents. Ecology indicated sufficient characterization of the Debris Field has been conducted, but data gaps remained regarding the magnitude and extent of hazardous waste, potential heavy metals present in soil and seep water, and slope stability. Regarding the potential presence of heavy metals, Ecology's opinion letter also stated: "Ecology does not believe that the presence of heavy metals would affect the extent of the debris field as it is currently known but may impact the designation and disposal options for any wastes generated."

To address these data gaps, TWI contracted Haley & Aldrich, Inc. (Haley & Aldrich) to prepare and implement a Data Gap Assessment and FS Work Plan. Ecology provided a subsequent opinion and technical assistance letter on April 4, 2023 that approved the work plan and provided further guidance on the data gap assessment. Haley & Aldrich completed assessment activities in 2023, and those findings are incorporated herein.

2. Background

Mining activities at the POM began in the early 1900s and continued until operations were suspended in 1977. The Debris Field was generated during this period, well before TWI's predecessor acquired the property in 1990. The limits of the Debris Field were estimated by GeoEngineers using hand-auger and hand-excavated explorations informed by a geophysical assessment conducted by GeoPotential Environmental and Exploration Geophysics (GeoPotential) in 2005. GeoEngineers estimated that the Debris Field extended northwest from the former Load Out Building and may be present on both the TWI and SCL property. GeoEngineers also conducted a slope stability assessment of the Debris Field area to evaluate whether remedial actions could result in slope failure. As part of mine closure, TWI conducted a data gap assessment in 2023 to better understand the magnitude and extent of the Debris Field.

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3. Site Geology and Hydrogeology

The surface operations of the POM are underlain by glaciolacustrine deposits consisting of laminated clay, silt, and fine sand with thin beds of localized stratified sand and gravel (GeoEngineers, 2006). Glaciolacustrine sand and gravel terraces are also present on surrounding mountains at altitudes up to 2,600 feet, and sand and gravel overburden covers the valley floor to depths between 10 and 250 feet. The glaciolacustrine deposits at the POM are underlain by bedrock consisting of the Ledbetter Slate and Metaline Limestone Formations; the Metaline Limestone Formations contain the Josephine and Yellowhead horizons that were mined during POM's operational history.

The Ledbetter Slate formed in the Ordovician Period and occurred in thicknesses up to about 3,000 feet and the Metaline Limestone formed in the mid Cambrian Period and occurs in thicknesses up to about 2,500 feet. The Pend Oreille River valley floor, lower hills, and valley walls are comprised of these formations. The Maitlen Formation, consisting of phyllite, limestone, and shale, and the Gypsy Formation (quartzite) underlie the Metaline Limestone and are exposed in the valley walls in some locations. The Josephine Horizon is present in the upper 500 feet of the Metaline Limestone and the Yellowhead Horizon is present about 500 feet below the Josephine Horizon between about 1,000 and 2,400 feet beneath the top of the Metaline Limestone.

According to the 2000 Final Environmental Impact Statement (FEIS) for the POM, the shallow sediments of the Metaline Falls area create an unconfined aquifer that is primarily influenced by precipitation in the highland areas to the east and west of the Pend Oreille River and by the river itself, which acts as a groundwater sink. The glacial sediments can be locally saturated with groundwater in depressions and along major river courses (ENSR, 2000).

Based on the FEIS, the bedrock aquifer is located beneath the Ledbetter, which acts as an aquiclude to downward movement in the area of the Debris Field. Groundwater generally flows toward the Pend Oreille River, from the south to the northwest (ENSR, 2000). Groundwater discharges from seeps and springs in the glacial sediments east of the Debris Field

4. Debris Field Assessment History

During the 2005 assessment, several soil samples were collected from hand auger borings and hand excavated test-pits and analyzed for: total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), cyanide, pH, organochlorine pesticides, and polychlorinated biphenyls (PCBs). Analytical results indicated that TCE was identified at concentrations greater than the MTCA Method A cleanup level of 0.03 milligrams per kilogram (mg/kg) at three locations. Analytical results indicated that TPH, cyanide, dichloro-diphenyl-trichloroethane (DDT), beta-hexachlorocyclohexane (beta-BHC), and PCBs were present in several soil samples, but at concentrations less than applicable cleanup levels.

GeoEngineers also collected one water sample from a seep located near the northwest limits of the Debris Field during the 2005 assessment; the sample was collected over two consecutive days to obtain enough volume for planned analyses. The sample was analyzed for TPH, VOCs, cyanide, pH, organochlorine pesticides, and PCBs. Analytical results from the water sample indicate benzene and methyl tert-butyl ether (MTBE) were detected at concentrations less than the applicable cleanup levels. In addition, analytical results indicate that endosulfan was detected below cleanup levels and that TPH, cyanide, and PCB concentrations in the seep water sample were not detected at concentrations greater than the analytical method reporting limit (MRL).

During the 2005 slope stability assessment, GeoEngineers observed a failure of relatively loose soil/debris within the Debris Field that could have occurred during a time of heavy precipitation (GeoEngineers, 2006). Additionally, GeoEngineers concluded that “the existing slope and Debris Field are generally stable in the current configuration” and that complete removal (at the time of the assessment) is not appropriate because of the high risk to structural integrity of the buildings located upgradient of the Debris Field (i.e., the former Load Out Building).

In 2009, TWI contracted URS Corporation (URS) to prepare a mine Reclamation Plan for the POM, including a plan to reclaim the Debris Field. URS prepared the mine Reclamation Plan after reviewing assessment data from previous investigations; no additional assessment was conducted. URS concluded that there was a 5 percent chance the Debris Field could irreversibly impact the environment. URS notes that implementing controls to address risks from the Debris Field could reduce the severity of potential impacts to the environment. URS recommended that TWI selectively remove waste material from the Debris Field and revegetate the hillside to reduce the potential for erosion and improve slope stability. URS additionally acknowledged special care should be taken to prevent slope failure of the debris into the Pend Oreille River.

In 2023, TWI contracted Haley & Aldrich to conduct a Data Gap Assessment to fill data gaps remaining from the 2005 assessment and prepare an FS to consider remediation alternatives for the Debris Field. Haley & Aldrich’s data gap assessment included field activities and laboratory analyses to further refine the limits of the Debris Field, assess the magnitude and extent of contaminated soil, update the slope stability analysis, and assess heavy metals in soil and seep water samples as requested by Ecology. With the findings documented herein, the Debris Field has been sufficiently delineated and defined horizontally by completed explorations for purposes of this VCP site assessment and preparation of an FS. Findings from site assessments conducted by GeoEngineers, URS, and Haley & Aldrich are further discussed in the following sections.

5. Previous Assessments

TWI contracted GeoEngineers, URS, and Haley & Aldrich to investigate the Debris Field in 2005, 2009, and 2023, respectively. The investigations generally identified COC concentrations and the approximate magnitude and extent of COCs in the Debris Field. Locations of select explorations from assessments conducted by GeoEngineers and Haley & Aldrich are found in “Debris Field”, Figure 3. Summaries of the investigations and their findings are provided below.

5.1 SOLID WASTE DISPOSAL ASSESSMENT

GeoEngineers completed a Solid Waste Disposal Assessment in June and August of 2005. Nine explorations were completed including five augers and four test pits using hand exploration techniques in the assumed area of the Debris Field. Depths of explorations ranged from 1 to 5-1/2 feet below ground surface (bgs). Silts, sands, and gravels were observed within the explorations and six media samples were collected and submitted for the following analyses:

- VOCs by EPA Method 8260B;
- petroleum hydrocarbons by Northwest Total Petroleum Hydrocarbons (NWTPH);
- cyanide by EPA Method 335.2;
- pH by EPA Method 9045B;
- organochlorine pesticides (pesticides) by EPA Method 8081A; and
- PCBs by EPA Method 8082.

Additionally, a seep water sample was collected over two days from a seep located near the base of the Debris Field hillside and submitted for the following analyses:

- VOCs by EPA Method 8260B,
- cyanide by EPA Method 335.2, and
- petroleum hydrocarbons by NWTPH-Dx.

Analytical results for media and the seep water sample are summarized in “Summary of Chemical Analytical Results - 2005”, Table 1.

Slope stability conditions were evaluated by reviewing geologic data from publicly available sources, reviewing hand auger and test pit logs, observing for surface water runoff/seepage, reviewing local hydrogeologic conditions, and assessing slope geometry. GeoEngineers also contracted GeoPotential to survey the Debris Field using a magnetometer, ground penetrating radar (GPR), and an electromagnetic tracer to estimate the aerial extent of metal debris. The effectiveness of the magnetometer and GPR on the hillside was limited due to the steep slopes and dense vegetation.

5.1.1 2005 Solid Waste Disposal Assessment Findings

Field observations by GeoEngineers generally delineated the Debris Field as the area with smaller-diameter trees and dense underbrush; surface debris consisting of metal drums, vehicle and machine parts, wood debris; and features indicative of historical dumping of fill and debris. The Debris Field was

laterally defined as being bounded by two drainage channels to the northeast and southwest. Explorations indicated the fill and debris material deposited on the hillside is at least 5-1/2 feet thick.

Analytical results indicated that TPH, cyanide, DDT, beta-BHC, and PCBs were present in soil samples, but at concentrations less than applicable cleanup levels. Analytical results of media samples indicate TCE was present in three samples (TC-6, TC-7, and TC-9) at concentrations greater than the cleanup level. TCE was detected at concentrations greater than cleanup levels at 2 feet bgs in TC-6 and 4-1/2 feet bgs in exploration locations TC-7 and TC-9. Soil sample analytical results are presented in “Analytical Results VOCs 0 to 7 Feet”, Figure 4 and in Table 1.

Analytical results of the seep water sample indicate benzene, MTBE, and endosulfan were detected at concentrations greater than the MRL but less than applicable cleanup levels. Petroleum hydrocarbons, the remaining VOCs, cyanide, the remaining pesticides, and PCBs were not detected at concentrations greater than the MRLs (see Table 1). Because the seep water sample did not contain TCE, it was concluded that TCE-contaminated soil likely is not impacting groundwater and, therefore, the threat to human health and the environment from TCE in soil is low.

The slope stability evaluation concluded that the existing slope and Debris Field generally are stable in the current condition. GeoEngineers recommended aggressive stormwater management controls to reduce potential surface water run on through the Debris Field in combination with periodic monitoring of the slope stability. GeoEngineers concluded that complete removal of the Debris Field presented a high risk of instability to the structural integrity of the former Load Out Building and remaining hillside. GeoEngineers indicated the appropriate time for removal of the Debris Field, if necessary, is during mine closure when the incline of the overall slope could be reduced, lessening the potential for erosion of the hillside.

5.2 RECLAMATION PLAN

URS prepared a mine Reclamation Plan in September 2009 and identified potential areas of the POM that could be reclaimed. The plan included a mine reclamation cost estimate, identification of activities that can be implemented prior to mine closure, register of potential risk with identified hazards, and a framework for stakeholder engagement. The plan addressed multiple areas of the POM, including the Debris Field.

5.2.1 Reclamation Plan Findings and Recommendations

URS describes the Debris Field area as about 200 feet wide and 300 feet long (approximately 1.2 acres) and containing an estimated 9,960 cubic yards of material. The URS estimate of the Debris Field area/volume includes the portion located on SCL property. Their reclamation estimate assumes removal of debris/contaminated media to a depth of 5 feet over the areal extent of the Debris Field.

The Reclamation Plan recommended by URS proposes to remove and dispose of debris and potentially hazardous materials. After removal, the plan recommends regrading and revegetating the disturbed area to reduce the potential for erosion and improve slope stability.

5.3 2023 DATA GAP ASSESSMENT

Haley & Aldrich completed a Data Gap Assessment at the Debris Field in June, October, and December of 2023. 37 hand auger explorations were advanced within and near the Debris Field as previously delineated (see Figure 3); assessment locations primarily focused around locations that previously contained TCE concentrations greater than cleanup levels (TC-6, TC-7, and TC-9). Depths between 1 and 7 feet bgs (refusal) were explored and soil samples were collected at 1-foot depth intervals. Materials encountered are described in “Exploration Logs”, Appendix A. One seep water sample was collected from the previous seep sampled by GeoEngineers in 2005 (see Figure 3) and one media sample was collected from a metal drum containing granular, tailings-like media found in the Debris Field.

A total of 49 soil samples, the seep water sample, and the drum media sample were submitted to Eurofins Environment Testing Northwest, LLC (Eurofins) analytical laboratory in Spokane Valley, Washington for chemical analyses. Eurofins analyzed the soil samples for the following Contaminants of Potential Concern (COPC):

- total metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and zinc) by EPA Method 6010D and (mercury) by EPA Method 7471B (see “Summary of Soil Analytical Results - Metals”, Table 2);
- diesel and oil-range petroleum hydrocarbons (DRPH and ORPH, respectively) by NWTPH-Dx (see “Summary of Soil Analytical Results - PCBs and TPH”, Table 3);
- pesticides by EPA Method 8081B (see “Summary of Soil Analytical Results - Pesticides”, Table 4);
- VOCs by EPA Method 8260D (see “Summary of Soil Analytical Results - VOCs”, Table 5);
- PCBs by EPA Method 8082A (see Table 3); and
- cyanide by EPA Method 9012B (see Table 4).

Eurofins analyzed the media sample from the metal drum for total metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and zinc) by EPA Method 6010D and (mercury) by EPA Method 7471B. Eurofins analyzed the seep water sample for total metals by EPA Method 8260D and 7470A and VOCs by EPA Method 8260D (see “Summary of Seep Water Analytical Results - Metals”, Table 6 and “Summary of Seep Water Analytical Results - VOCs”, Table 7). Analytical reports for soil, drum media, and water samples are provided in “Laboratory Reports” Appendix B.

A slope stability assessment was also conducted by completing hand-driven cone penetrometer tests (CPT) at five locations in the Debris Field to evaluate relative competency of the material. These tests were conducted in areas of the Debris Field where fill material was assumed to be the thickest. Readings were converted to Standard Penetration Test (SPT) blows per foot (N) for correlation. In addition, the area was visually surveyed by walking three transects along the Debris Field slope and measuring angles of inclination of the hillside.

5.3.1 Data Gap Assessment Findings - Debris Field Limits and Slope Stability

Field observations during our assessment indicate the contiguous area of the Debris Field likely covers a smaller area than previously estimated. Haley & Aldrich generally defined the Debris Field limits based on the materials encountered during explorations and visual observations: locations containing fill material and/or various debris (metal, glass, wood, etc.) were considered as within the Debris Field limits; locations that lacked fill and/or debris were considered outside of the Debris Field limits. Based

on these indicators, the Debris Field is approximately 123 feet long and 155 feet wide and covers an area of approximately 0.25 acres; the revised estimated extent of the Debris Field is shown on Figure 3.

Results from CPT tests indicate the N values range from 20 to 51 blows per foot with an average of 33 blows per foot. Blow counts indicated the Debris Field soil ranges from medium dense to very dense. Based on standard correlation methodology, the average blow count indicates the soil has an internal friction angle of approximately 40 degrees. The interpreted relative density and friction angle are high enough to indicate the material is stable in its current condition. Due to the irregular configuration and varying thickness, it is difficult to model the Debris Field using conventional limit-equilibrium stability analysis; therefore, Haley & Aldrich relied on physical observations and professional judgement from a professional engineer licensed in the state of Washington to evaluate the slope stability.

Based on the visual inspection and the dynamic CPTs the Debris Field is considered stable and likely will remain so into the foreseeable future under current conditions. Minor settlement and sloughing is expected on a small scale as wood and other materials decompose. Haley & Aldrich recommends the Debris Field be left undisturbed (both the debris and the vegetation) unless removal of hazardous materials is required. Haley & Aldrich recommends stormwater runoff from up slope be directed around the Debris Field to limit saturation or erosion of the materials. Haley & Aldrich generated three cross section figures to visually represent profiles of the slopes and locations and depths of observed fill material; these are provided in "Cross Section A-A", Figure 5; "Cross Section B-B", Figure 6; and "Cross Section C-C", Figure 7. Locations of transects are shown on Figure 3.

5.3.2 Data Gap Assessment Findings - Chemical Analyses

Analytical results indicate several metals were detected in the samples analyzed, including: arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and zinc. DRPH and ORPH were detected between 18 and 74 mg/kg in the three samples analyzed, well below the MTCA Method A cleanup level of 2,000 mg/kg. PCBs, pesticides, and most VOCs were not detected at concentrations greater than method reporting limits. The VOCs p-isopropyltoluene, naphthalene, n-butylbenzene, toluene, and xylenes were detected in several samples, but at concentrations less than applicable MTCA Method A cleanup levels. Benzene was detected in one sample at an estimated concentration slightly greater than the MTCA Method A cleanup level. TCE also was detected at concentrations greater than cleanup levels in 16 samples from various depths.

Analytical results indicate that the eight samples collected from around TC-6 and TC-7 (exploration locations DF-HA-9 through -12 and DF-HA-3 through -6, respectively) did not contain TCE concentrations greater than the method detection limit (MDL). These results indicate that the TCE contamination at TC-6 and TC 7 is localized. Alternatively, 16 of the samples collected from around TC-9 contained concentrations of TCE greater than cleanup level. Haley & Aldrich collected these samples from the DF HA-19, -28, -33, -34, and -35 exploration locations (see Figure 4). TCE was detected at these locations between 1 and 7 feet bgs; however, vertical extent of TCE contamination at these locations could not be fully assessed due to steep slopes and challenging subsurface conditions. TCE concentrations encountered in DF-HA-19 increase from 0 to 4 feet bgs and then decrease from 4 to 7 feet bgs indicating TCE concentrations decrease with depth below 4 feet bgs. Exploration locations with TCE concentrations greater than cleanup levels are shown in Figure 4.

Analytical results for the seep water sample indicate the metals arsenic, barium, cadmium, chromium, lead, selenium, and silver were detected at various concentrations but less than applicable cleanup levels. VOCs, including TCE, were not detected at concentrations greater than the MRL.

Analytical results from the data gap assessment confirm previous findings made by GeoEngineers: TCE is present in soil at concentrations greater than cleanup levels. Benzene, cyanide, MTBE, organochlorine pesticides, DRPH, ORPH, and PCBs each were not detected in site media at concentrations greater than applicable cleanup levels. Per Ecology's 2022 opinion letter, metals exceedances within the existing Debris Field will be used to further guide the designation and disposal options for any wastes generated during remediation but will not affect the extent of the Debris Field as it is currently known. Given the above, TCE in soil remains the focus of remediation planning and is the only COC carried forward in this evaluation.

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6. Conceptual Site Model

The conceptual site model (CSM) focuses on TCE as the primary contaminant within the Debris Field. The CSM assesses potential contaminant sources, fate and transport of chemical substances, media exposure pathways (i.e., surface soil, surface water, groundwater, and air) and potential human, aquatic, and terrestrial life receptors. The CSM is detailed in the following sections.

6.1 CONTAMINANT RELEASE

The exact source of the TCE contamination is unknown. TCE commonly has been used in stain removers, aerosol degreasers, cleaning wipes, adhesives and sealants, lubricants, and paints and coatings. It is likely that spent product was disposed in the Debris Field from maintenance activities prior to TWI operations. Detected TCE concentrations in the Debris Field generally are found in samples from exploration locations that also contained metal and/or glass debris and other fill materials indicating TCE contamination likely is co-located with other solid wastes disposed in the Debris Field.

6.2 FATE AND TRANSPORT

Analytical data from previous assessment indicates TCE concentrations are present within the delineated lateral extent of the Debris Field and the two localized areas near TC-6 and TC-7. Five hand auger locations sampled during the 2023 data gap assessment contained TCE concentrations greater than cleanup levels; these explorations are proximal to each other and are present down slope of mapped debris and/or other indications of slope failures. In addition, the greatest TCE concentrations detected are present in exploration DF-HA-19 at depths between 3 and 5 feet bgs. These findings indicate a TCE source likely is located near hand auger location DF-HA-19.

TCE does not bioaccumulate, is moderately soluble in water, is denser than water, and is not readily degraded in groundwater. TCE can breakdown the structure of clayey minerals making them more permeable. TCE does not readily bind to soil particles but will accumulate in small, residual quantities in soil pore spaces due to capillary pressure (EPA, 2024). TCE might degrade under anaerobic conditions; however, daughter products like dichloroethylene and vinyl chloride can be produced and are more difficult to degrade. Likely transportation mechanisms of TCE at the Debris Field include: infiltration, erosion (stormwater, mass wasting, anthropogenic influences, etc.), and volatilization.

6.2.1 Infiltration

The Debris Field likely was generated during mining operations prior to 1977 and has been exposed to the environment for a minimum of 47 years (as supported by the age and size of trees growing in the area). Analytical results from hand auger location DF-HA-19 indicate TCE concentrations exceed cleanup levels at 7 feet bgs, indicating infiltration of TCE might have occurred over time. The exploration log for DF-HA-19 indicates fill materials were encountered to a depth of approximately 5-1/2 feet bgs with native materials below. However, TCE contamination at this location extends to at least 7 feet bgs (refusal) indicating TCE has infiltrated into native soils beneath the debris.

6.2.2 Erosion - Stormwater

Stormwater runoff is a potential transport mechanism for TCE to enter surface water bodies-. The Debris Field is located on a steep hillside north of the former Load Out Building. The hillside slopes north/northwest toward the Pend Oreille River shoreline. Heavy storm events could have the potential to generate surface water runoff that may flow over/through the Debris Field to the north/northwest and down to the Pend Oreille River.

6.2.3 Erosion - Mass Wasting

Mass wasting is the movement of materials downslope under the influence of gravity. Mass wasting of the Debris Field was identified by GeoEngineers (2006) and by Haley & Aldrich in 2023. GeoEngineers identified a slope failure that occurred within the relatively loose soil/debris. The slope failure observed within the Debris Field likely occurred during a period of heavy precipitation when loose debris and soil became heavy and saturated and moved downhill under the force of gravity. GeoEngineers indicated these types of failures should be expected as materials in the debris degrade over time. Slope failures present a risk that large portions of the Debris Field could travel downslope, potentially introducing TCE contaminated material into the Pend Oreille River.

Haley & Aldrich did observe tilted trees during the data gap assessment. Tilted trees are commonly used as an indication of ground creep, a slow and continual movement of shallow soils downslope. Creep can be a mechanism for downslope movement over long periods of time and does not indicate a significant risk to immediate contaminant transport. However, ground creep can increase the risk of a more catastrophic mass wasting event occurring as shallow material moves downslope and other factors such as slope modification, saturated soils, and/or stormwater runoff contribute to unstable slope conditions.

6.2.4 Erosion - Anthropogenic

Potential remediation efforts may negatively influence stability of the hillside by eliminating underlying or lateral support. Remedial activities can result in fugitive dust emissions; however, this can be controlled by construction means and methods. It is likely that, after closure of the POM is complete, the Debris Field will not be subject to anthropogenic erosion.

6.2.5 Volatilization

Volatilization occurs when liquid organic compounds are converted to the gaseous phase. TCE is a VOC that has a high vapor pressure and is readily volatilized to the atmosphere. When released as a liquid to soil, TCE likely will evaporate to the atmosphere or infiltrate into the subsurface. TCE will form a vapor plume above vadose zone soils over a dissolved phase plume. When released to surface water, TCE will evaporate with a half-life of minutes or hours, depending on the surface water flow characteristics (EPA, 2024).

6.3 POTENTIAL RECEPTORS AND EXPOSURE

The potential receptors at the Debris Field include plants, animals, and humans. Potential exposure pathways include dermal contact, ingestion, and/or inhalation. Given the location of the Debris Field and steep slopes, TWI expects human activity to be rare (i.e., a random trespasser that would not linger due to the steepness of the slope); therefore, humans are not considered a primary receptor. Primary receptors going forward include soil biota, insects, avians, and small and large mammals.

6.3.1 Dermal

TWI expects small and large wildlife in the area may briefly come in contact with TCE contaminated soil. The Environmental Impact Statement (EIS) completed by ENSR in 200, identified several wildlife at the POM including:

- Amphibians and reptiles (i.e. frogs, salamander, toads, snakes turtles, and lizards),
- Birds (i.e. sparrows, thrushes, warbles, owls, and other migratory birds),
- Small and large mammals (i.e. rabbits, squirrels, gophers, mice, deer, bears, large cats)

TWI expects animal activity in the Debris Field area to primarily be transient: nesting, burrowing, and bedding areas were not observed during field activities. Dermal absorption of TCE by animals is expected to be a low risk. TWI assumes dermal contact with contaminated media is not a high-risk scenario for potential receptors.

6.3.2 Ingestion

Mammals in the area may be exposed to TCE by ingestion of small soil particles. Birds might also consume worms and other insects with soil particles attached that could contain TCE. Humans could ingest soil particles in the form of dust from the Debris Field during disturbance. Surface water samples collected from groundwater seeps did not contain detectable amounts of TCE; therefore, exposure to TCE from ingesting groundwater from seeps is not considered a complete pathway.

6.3.3 Inhalation

TCE is a volatile compound that can evaporate into the atmosphere. It is possible receptors passing through the Debris Field might be exposed to minute concentrations of TCE in the gaseous phase. However, the concentrations of TCE detected in soil samples generally are low, the lateral extent of contaminated material is relatively small, and the soil has been exposed to atmospheric conditions for at least 47 years; therefore, the risk of inhalation exposure is considered low.

7. Terrestrial Ecological Evaluation

A Terrestrial Ecological Evaluation (TEE) is required as part of the cleanup process under WAC 173-340. The goal of the TEE is to protect ecological receptors from adverse effects resulting from soil contamination. However, there are several exclusions that exclude a site from further evaluation listed under WAC 173-340-7491. Based on the preferred alternative that presented in the following sections, the site qualifies for an exclusion from the TEE process under WAC 173-340-7491 (1)(a) which states “All soil contaminated with hazardous substances is, or will be, located below the point of compliance established under WAC 173-340-7490(4). To qualify for this exclusion, an institutional control shall be required by the department under WAC 173-340-440. An institutional control is not required if the contamination is at least 15 feet bgs (WAC 173-340-7490 (4)(b)). An exclusion based on planned future land use shall include a completion date for such future development that is acceptable to the department.” The considered alternatives will remediate soil contamination up to the established point of compliance; therefore, the site is excluded from the TEE process.

The Debris Field is a steep, undeveloped, wooded hillside and likely will remain undeveloped. Considering the location of the Debris Field and closure of the POM, TWI expects that human exposures to the Debris Field contaminants likely are low and primarily would apply to trespasser scenarios. Flora and fauna are more likely receptors with complete exposure pathways. TWI plans to use the MTCA TCE Method A cleanup level of 0.03 mg/kg for unrestricted land use (cleanup level) for contaminated soil at the Debris Field. Seep sample analytical results indicate TCE contamination in soil has not impacted groundwater; therefore, remediation efforts should focus on soil and not the groundwater pathway.

8. Feasibility Study

The purpose of the FS is to consider and evaluate cleanup action alternatives and provide a recommended cleanup action for the site. Haley & Aldrich considered several factors when evaluating potential cleanup options including: the physical and chemical properties of TCE, areas of the Debris Field impacted by TCE, location of the Debris Field, and technologies and remedial techniques capable of addressing the contaminated media. The FS will provide cleanup alternatives to address TCE present in Debris Field soil at concentrations greater than 0.03 mg/kg. The desired timeframe to implement the cleanup action alternative is summer of 2025.

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9. Point of Compliance and Remedial Action Goals

Analytical results from the Data Gap Assessment indicate TCE concentrations decrease with depth and the deepest sample was collected from about 7 feet bgs. The concentration of TCE at 7 feet bgs was slightly greater than the cleanup level (0.03 mg/kg); therefore, the vertical extent of contamination is estimated to be 8 to 10 feet bgs, which is less than the standard point of compliance in MTCA (15 feet bgs). The horizontal extent of contamination is delineated by exploration locations that contain TCE concentrations greater than the MTCA Method A cleanup level; these areas are shown on “Estimated Areal Extent of TCE Contamination”, Figure 8. For the purposes of this FS, the cleanup level for TCE is assumed to be 0.03 mg/kg, the MTCA Method A cleanup level for unrestricted land use listed in Table 740-1 in WAC 173 340-900.

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10. Contaminated Media Characteristics

Results from investigations indicate that soil/debris materials in the Debris Field are contaminated with TCE, likely sorbed to small particles and volatilized in pore spaces. Soil material generally consists of silts, sands, and gravels, typical of native soils found at the POM. Debris material varies (glass, metal, wood, machine parts, etc.). The estimated areal extent of contamination is shown on Figure 8 and assessed depth of TCE contamination is shown on Figure 4. Haley & Aldrich used the extents of contamination shown in Figure 8, estimated depths of contamination, and ArcGIS (with a factor of safety) to estimate the volumes of contaminated soil present at the site (see “Estimated Volume of Contaminated Media”, Table 8). The estimated volume of contaminated media is 875 cubic yards.

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11. Considered Remedial Technologies, Techniques, and Alternatives Screening

Remediation technologies considered in this FS are applicable to remediate soil contaminated with TCE. Haley & Aldrich identified five remediation technologies/alternatives (thermal remediation – electrical resistance, soil vapor extraction [SVE], *in situ* capping, removal and disposal, and the no action alternative) capable of remediating TCE contaminated soil in the Debris Field. The identified technologies are described in the following sections.

11.1 THERMAL REMEDIATION - ELECTRICAL RESISTANCE

Electrical resistance heating involves installing an *in situ* treatment system capable of inducing a direct electrical current in the soil, increasing temperatures to at least 212 degrees Fahrenheit. Electrical resistance heating requires installation of an array of electrodes around a central electrode to generate a current directed toward the central electrode. The array of electrodes is paired with vapor extraction wells that remove vapors and steam generated from the induced heat. The high temperatures introduced to contaminated soil will mobilize and volatilize VOCs like TCE. Extraction wells then remove vapors and steam containing TCE, thereby reducing TCE concentrations in soil. This technology is effective at removing TCE from soil, reducing/eliminating exposure pathways, and is considered a long-term permanent solution.

The advantage of thermal remediation is that the contaminated material remains *in situ*, eliminating potential risks and challenges associated with removal and has the potential to remediate the soil within the desired timeframe. However, this technology is known to be expensive, energy intensive, and complex to implement. The thermal reaction induced by the electrical current could react with other materials or waste products present in the Debris Field in unexpected ways and potentially generate hazardous byproducts.

11.2 SVE

SVE involves using extraction wells and induced vacuum pressure to volatilize and extract VOCs from soil. SVE technology works by installing a network of vapor extraction wells into vadose zone soil to induce subsurface airflow through contaminated soil. The induced airflow promotes volatilization of TCE, which is then expelled to the atmosphere, following treatment if necessary to comply with air quality regulations. Typical treatment includes using a filter media like granular activated carbon. SVE treatment can either be passive or active.

Passive SVE – can enhance natural attenuation of VOCs by using natural pressure gradients between the subsurface and the atmosphere; additional enhancements can be achieved by using renewable energy resources (wind and solar). This technology is limited by soil moisture and permeability. Renewable energy solutions also can be limited by daylight hours and wind variability. Passive SVE is best suited for sites with low levels of contamination and typically is performed over a longer time frame.

Active SVE – removes VOCs from soil by applying vacuum pressure using powered blowers. This technology also can be limited by soil moisture and permeability; but, the use of powered equipment generally can overcome some subsurface conditions and shortens remediation timeframes.

SVE is a viable option to treat TCE contamination, both active and passive SVE, requires permeable and low moisture soils. Based on the exploration logs, Debris Field soils primarily consist of poorly graded gravel with silt and sand which generally are favorable for SVE. In addition, concentrations of TCE greater than cleanup levels are estimated to be within 10 feet of the ground surface. Passive SVE with solar application might be limited at the Debris Field due to tree canopy cover; however, wind options are also possible and could be combined with solar to extend run times. Active SVE remediation is a viable option at the Debris Field and power for an active SVE system is available from existing infrastructure at the POM.

11.3 IN SITU CAPPING

Engineered caps are designed to remove the direct-contact pathway to contaminated media by covering the contaminated media with a barrier. Caps can be constructed using earthen materials, low permeability layers, hard caps, or other methods. The advantage of capping is that contaminated soils remain in place, eliminating challenges associated with difficult site conditions (i.e., steep slopes, unstable materials, etc.), transporting contaminated media on public roads (with the associated emissions), and disposal. In-place caps should address pathways for ecological receptors, consider surface water management to prevent infiltration, and require designs to minimize erosion and/or other disturbances that could compromise capping materials. Low-permeability caps may be used as final cover for soil disposal areas. These types of covers typically consist of a clay or high-density polyethylene (HDPE) low-permeability layer covered with topsoil and shallow-rooting vegetation to reduce infiltration of surface water and prevent contamination from migrating. Like soil capping, hard caps (such as concrete and asphalt) can prevent human contact by creating an impermeable physical barrier.

Capping material (soil, sand, gravel, rock, etc.) may be purchased from offsite sources. However, the design process should consider the use of materials generated on site or available from nearby sources as an alternative to purchased materials. Regardless of cap design, a restrictive covenant must be recorded on the property following cap installation; the restrictive covenant will limit future use of the property and require maintenance of the cap.

11.4 REMOVAL AND DISPOSAL

Removal and disposal generally refers to excavating and removing material with TCE concentrations greater than the cleanup level, properly designating the waste, including considering the presence of heavy metals, and transporting the materials off site to an appropriate disposal facility. Contaminated media typically are transported to a landfill facility compliant with Resource, Conservation, and Recovery Act (RCRA) Subtitle C (for hazardous waste) or RCRA Subtitle D (for non-hazardous waste). This remedial alternative assumes contaminated material is removed along with solid waste from within the estimated areal extent of the Debris Field to approximately 7 to 10 feet bgs (see Figure 8). The advantage of this alternative is that it removes the direct-contact pathway, generally can be accomplished in short timeframes, and permanently removes contaminated media from the site. After removal and disposal, the hillside can be reclaimed to resemble native conditions with grading and native vegetation.

11.5 NO ACTION

A no action alternative can be an effective strategy to maintain the current ecosystem established on the Debris Field. Any implementation of the previously mentioned alternatives will necessarily disturb the existing ecosystem and could induce some instability of the slope. The current ecosystem of the

Debris Field appears to be flourishing where vegetation density and indications of wildlife appears to be similar to other, undisturbed, areas of the POM. According to the slope stability analyses conducted by GeoEngineers and Haley & Aldrich, the Debris Field is stable and a no action approach will maintain slope stability.

11.6 CLEANUP ALTERNATIVE SCREENING

Haley & Aldrich prepared a table to rank the considered remedial technologies for protectiveness, complexity, long-term effectiveness, and implementability. The alternative attributes were scored on a scale of 1 through 5 and the remedial alternatives with the highest scores were advanced for further consideration. Results of the alternative ranking are summarized in “Cleanup Alternatives Screening”, Table 9.

Given the complexity and risks associated with thermal remediation – electrical resistance TWI did not advance this remedial technology as a feasible alternative. TWI also did not advance capping as a preferred cleanup alternative because the Debris Field slopes increase the complexity and implementability of this alternative. TWI considers SVE, removal and disposal, and no action as feasible alternatives.

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12. Evaluated Cleanup Alternatives

Haley & Aldrich evaluated both passive and active SVE systems along with removal and disposal alternatives to address TCE contamination at the Debris Field. Alternative scenarios focused on cleanup near explorations DF-HA-19, -33, -34, -37, and TC-9 within the approximate areal extent of TCE contamination (see Figure 8). The removal and disposal alternative assumes removal of the material contaminated with TCE at concentrations greater than MTCA Method A cleanup levels and partial reclamation of the hillside.

The estimated extent of the material to be addressed for each alternative is shown in Figure 8 and summarized in Table 8. Haley & Aldrich evaluated the alternatives detailed below based on the remedial action objectives and cost (collectively referred to herein as “performance criteria”). Detailed descriptions of each alternative and evaluations are provided in the following sections.

12.1 ALTERNATIVES 1A AND 1B - SVE

Alternatives 1A and 1B include *in situ* SVE treatment of contaminated soils with concentrations of TCE greater than cleanup levels within the approximate areal extent of TCE contamination (See Figure 8). These alternatives generally include:

- Pilot Study;
- Design;
- Installation of an SVE system;
- Operation, monitoring, and maintenance/ repair; and
- Decommissioning.

12.1.1 Alternative 1A - Passive SVE

Alternative 1A includes the design, installation, and operation of a passive SVE within the approximate areal extent of TCE contamination shown in Figure 8. TWI will backfill with borrow material sourced on site and will plant native grasses and trees.

This alternative assumes a pilot study will be completed to collect data to estimate air flow rates in soil and estimate the appropriate number of vapor extraction wells. The passive SVE system will use wind turbines to induce airflow through the soil for extraction of TCE vapors. This alternative assumes up to five vapor extraction wells will be installed and screened approximately 5 to 10 feet bgs; the wells will be completed aboveground and equipped with wind-driven turbines at the top of the well casings. TWI assumes this alternative will discharge TCE vapors to the atmosphere at concentrations that will not require an air quality permit. This alternative assumes quarterly monitoring (including sampling and analysis of TCE vapors) to track declines in TCE concentrations.

Protectiveness: This alternative would provide a high degree of protectiveness by removing TCE from the soil and reducing concentrations to below applicable cleanup levels.

Permanence: TCE would be removed from the Debris Field under this alternative, reducing the likelihood of exposure to receptors.

Long-Term Effectiveness: This alternative results in the removal of TCE in the Debris Field. As a result, this alternative is effective in the long-term.

Management of Short-Term Risk: There is potential for minor short-term risks associated with this alternative, primarily exposure to volatilized TCE from vapor well emissions. However, anticipated TCE emissions from this system are expected to be diluted and low concentrations. Short-term risks could be further minimized by administrated means (i.e., preparing and operating under a Health & Safety Plan [HASP]).

Implementability: SVE technology is an effective and widely used remediation alternative. Additionally, results from the pilot study will further determine implementability of this alternative. Contractors and supplies to support this alternative are available within 100 miles of the POM and can readily be implemented. However, the area around the TCE contamination is densely wooded and the slopes are steep; therefore, access to drill system wells will be challenging.

Consideration of Public Concerns: The Debris Field is located over 3 miles from the nearest town and the site is on private land. Public concern for this alternative likely would be minimal. This alternative will not have impacts on vulnerable populations or overburdened communities.

Restoration Time Frame: Without a pilot study to generate extraction rates, the timeframe for this option is difficult to approximate. Considering TCE concentrations, potential soil permeability, and variability of weather conditions, this option likely would require up to seven years of treatment to achieve cleanup. This alternative would require monitoring during the treatment phase.

Cost: The estimated total cost of this alternative is \$1,019,000 (costs are rounded up to the nearest thousand). The assumptions, anticipated tasks, labor and materials, and associated costs used to develop this estimate are summarized in “Alternative 1A - Cost Estimate”, Table 10.

12.1.2 Alternative 1B - Active SVE

Alternative 1B includes the design, installation, and operation of an active SVE system within the approximate areal extent of TCE contamination.

This alternative assumes a pilot study will be completed to collect data to estimate air flow rates in soil and estimate the appropriate number of vapor extraction wells. This alternative assumes an active SVE system comprised of two vapor extraction wells, associated piping, and mechanical shed will be installed at the site. Each extraction well will be manifolded to blowers that extract soil vapors. After extraction, the soil vapors will pass through a moisture knock-out system and then through a granular active carbon filter to remove TCE. This alternative assumes the system is monitored monthly to confirm system operation and to collect air samples to monitor filter performance. The active SVE system would operate until confirmation soil sample analyses confirm TCE concentrations have reduced to acceptable levels.

Protectiveness: This alternative provides a high degree of protectiveness by removing TCE from the soil and reducing concentrations to below applicable cleanup levels

Permanence: TCE would be removed from the Debris Field under this alternative, reducing the likelihood of exposure to receptors.

Long-Term Effectiveness: This alternative results in the removal of TCE in the Debris Field. As a result, this alternative is effective in the long-term.

Management of Short-Term Risk: There is potential for minor short-term risks associated with this alternative, primarily exposure to volatilized TCE from vapor well emissions. However, anticipated TCE emissions from this system will be treated. Short-term risks could be further minimized by administrated means (i.e., preparing and operating under a HASP).

Implementability: SVE technology is an effective and widely used remediation strategy. Additionally, results from the pilot study will further determine implementability of this alternative. Contractors and supplies to support this alternative are available within 100 miles of the site and, with controls in place to prevent worker exposure, can readily be implemented. This option does require electricity but, power is available at the site.

Consideration of Public Concerns: The site is located over 3 miles from the nearest town and public access to the site is not readily available. Public concern likely would be minimal with this alternative. Additionally, this alternative will not have impacts on vulnerable populations or overburdened communities.

Restoration Time Frame: A pilot study would be conducted to assess extraction rates and better estimate the timeframe to reach cleanup; but this alternative would restore soil concentrations in a shorter time period when compared to a passive SVE system (Alternative 1A). Depending on soil permeability, this option likely would achieve cleanup levels within one year of operation. This alternative would require monitoring during the treatment phase.

Cost: The estimated total cost of this alternative is between approximately \$696,000 (costs are rounded up to the nearest thousand). The assumptions, anticipated tasks, labor and materials, and associated costs used to develop this estimate are summarized in “Alternative 1B - Cost Estimate”, Table 11.

12.2 ALTERNATIVE 2 - REMOVAL AND DISPOSAL

Alternative 2 includes the removal of TCE-contaminated media within the approximate areal extent shown on Figure 8. It is estimated that there is approximately 863 cubic yards of material within these areas to be removed. This alternative includes removing and disposing of TCE-contaminated material and associated debris off site. This alternative generally includes:

- Clearing trees for site access;
- Excavating TCE-contaminated soil and debris (i.e. drums, metal, glass, etc.);
- Properly designating the waste including analytical results for RCRA 8 metals (samples DF-HA-19);
- Transporting and disposing of materials at an appropriate disposal facility; and
- Backfilling using on-site borrow sources.

Protectiveness: This alternative would provide the highest degree of protectiveness by removing TCE contaminated media from the site until confirmation samples indicate TCE concentrations are reduced to acceptable levels.

Permanence: Debris and TCE-contaminated media would be removed from the site under this alternative, removing the exposure pathway for receptors.

Long-Term Effectiveness: This alternative results in the removal of debris and TCE-contaminated material from the site. As a result, this alternative provides a high degree of effectiveness over the long term.

Management of Short-Term Risk: There is potential for minor short-term risks associated with this alternative, primarily worker exposure to volatilized TCE from excavated materials. However, short-term risks could be minimized by administrated means (i.e., preparing and operating under a HASP). Physical risks include working on steep slopes and potentially unstable soil/debris conditions.

Implementability: The area is accessible from the former Load Out Building area but is on a steeper slope and would pose a greater challenge to access, excavate, and backfill. This alternative could be implemented but poses several challenges.

Consideration of Public Concerns: Transportation of contaminated media off site through residential and public rights-of-way could be public concern but, the transportation route primarily passes through rural lands. This alternative would generate a larger volume of materials when compared to Alternative 2 and a proportional increase in traffic through town areas but, this increase would occur for a short duration (eight weeks). This alternative is not anticipated to have impacts on vulnerable populations or overburdened communities.

Restoration Time Frame: This alternative does not require long-term monitoring and would be considered complete following removal, confirmation sampling and analysis, and backfilling. Removal of TCE contaminated media from the site likely would be completed in eight weeks. The restoration timeframe for this alternative is relatively short compared to the SVE alternatives.

Cost: The estimated total cost of this alternative is \$1,006,000 (costs are rounded up to the nearest thousand). The scope of work breakdown and associated costs used to develop this estimate are summarized in “Alternative 2 - Cost Estimate”, Table 12.

12.3 ALTERNATIVE 3 - NO ACTION

Alternative 3 includes no action taken to address the TCE contamination present at the Debris Field. This alternative leaves the Debris Field undisturbed and in its current state, preserving the natural habitat that has developed over the Debris Field. This option reduces the risk of erosion that inevitably is increased by vegetation removal and excavation. Under this alternative, TCE present in the subsurface would be left in-place to attenuate through natural processes over time.

Protectiveness: This alternative would provide low protectiveness by allowing TCE contaminated material to remain in place and untreated.

Permanence: Debris and TCE-contaminated media would not be removed or remediated from the site providing no permanence in remediation.

Long-Term Effectiveness: This alternative results in TCE contaminated material remaining in place. As a result, this alternative provides a low degree of effectiveness over the long term.

Management of Short-Term Risk: There is no potential for short term risks to this alternative. This alternative will eliminate short term risks associated with loose or unstable debris.

Implementability: The implementability of this alternative is high as no action is necessary.

Consideration of Public Concerns: There will no considerations of public concern to implement this alternative.

Restoration Time Frame: Restoration time frame to attenuate TCE concentrations to acceptable levels (based on a first order decay model with starting concentration of 5.7 mg/kg and ending concentration of 0.03 mg/kg) is approximately 52 years.

Cost: The estimated total cost of this alternative is zero dollars.

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13. Preferred Alternative

Haley & Aldrich compared each of the three cleanup alternatives listed above by ranking the performance criteria of each from 1 to 5, with 1 being the lowest score and 5 being the highest. Performance criteria considered included: protectiveness, performance, long-term effectiveness, short-term risk, implementability, consideration of public concerns, and restoration timeframe. The alternatives also were ranked 1 through 4 using a disproportionate cost analysis (DCA) where the most expensive alternative was ranked the lowest (1) and the least expensive alternative was ranked the highest (4). The total score for each alternative is simply the sum of the individual performance criteria values plus the DCA value. Total scores and rankings are provided in “Alternative Ranking and Disproportionate Cost Analysis”, Table 13. Alternatives 1A, 1B, 2, and 3 scored 28, 29, 27, and 24 respectively.

Alternative 1B had the highest total score of 29 and has a similar performance criteria score when compared to Alternatives 1A and 2. Alternative 1B requires less disturbance of the hillside and is more protective of the established ecosystem within the Debris Field when compared to the removal option (Alternative 2). Additionally, Alternative 1B has a shorter restoration timeframe than Alternative 1A and is estimated to be about \$323,000 less expensive than installing and monitoring a passive SVE system (Alternative 1A). With no cost to implement, the benefit of maintaining the established ecosystem currently present above the Debris Field, and a score of 24, Alternative 3 should be considered if maintaining the ecosystem is considered a greater benefit than remediation of TCE in the Debris Field. However, based on the alternative ranking and disproportionate cost analysis, Alternative 1B is the recommended remedial action to address TCE-contaminated media in the Debris Field.

14. Limitations

Work for this project was performed, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. This report is intended for the exclusive use of TWI for specific application to the referenced property. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made.

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15. References

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TABLES

TABLE 1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS - 2005
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Sample Name	Sample Date	Sample Type	Sample Depth (feet bgs)	Total Petroleum Hydrocarbons		VOCs			Organochlorine Pesticides					PCBs	Conventional		
				Diesel-range Petroleum Hydrocarbons mg/kg	Oil-range Petroleum Hydrocarbons mg/kg	Trichloroethene mg/kg	Benzene --	MTBE --	Beta-BHC µg/kg	4,4'-DDT µg/kg	4,4'-DDD µg/kg	4,4'-DDE µg/kg	4,4'-DDT µg/kg	Endosulfan I µg/kg	Aroclor 1260 µg/kg	Cyanide mg/kg	pH pH units
TC-1	6/14/2005	soil	0-1	ND	29.7	ND	NA	NA	2.24	ND	ND	ND	ND	ND	ND	ND	7.77
TC-6	6/14/2005	soil	0-2	ND	1,510	1.76	NA	NA	ND	3.05	ND	ND	ND	ND	65.5	0.0719	7.21
TC-7	6/15/2005	soil	4-4.5	ND	521	0.205	NA	NA	ND	ND	7.95	3.77	13.0	ND	87.8	ND	7.16
TC-8	6/15/2005	soil	2-2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
TC-9	6/15/2005	soil	4-4.5	ND	1,740	0.144	NA	NA	ND	ND	ND	ND	ND	ND	49.7	0.393	7.75
MTCA Method A Cleanup Level Unrestricted Land Use				2000	2000	0.03	--	--	--	3	--	--	3	--	--	--	--
MTCA Method B Direct Contact Noncancer				--	--	--	--	--	0.56	--	40	40	--	480	0.5	50	--
TC-WS1	6/14/2005	water	--	ND	ND	ND	2.84	1.8	ND	ND	ND	ND	ND	NA	NA	ND	NA
	6/15/2005	water	--	NA	NA	ND	NA	NA	ND	ND	ND	ND	ND	0.0226	ND	NA	NA
MTCA Method A Cleanup Level Unrestricted Land Use				500	500	5	5	20	--	--	--	--	--	--	0.1	--	--

Notes:

Only samples with analyte detections are shown.
 Samples collected and submitted for laboratory analysis by GeoEngineers, Inc
 -- = Not analyzed or not applicable
 µg/kg = micrograms per kilogram
 bgs = below ground surface
 Diesel- and Oil-range petroleum hydrocarbons analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPHDx
 ft = feet
 mg/kg = Milligrams per kilogram.
 MTBE = Methyl tert-butyl ether
 MTCA = Model Toxics Control Act
 NA = Not Analyzed
 ND = Not detected at concentration greater than laboratory reporting limit

TABLE 3
SUMMARY OF SOIL ANALYTICAL RESULTS - PCBs and TPH
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth (bgs)	PCBs																		Total Petroleum Hydrocarbons					
				Aroclor-1016 (PCB-1016) mg/kg	Aroclor-1221 (PCB-1221) mg/kg	Aroclor-1232 (PCB-1232) mg/kg	Aroclor-1242 (PCB-1242) mg/kg	Aroclor-1248 (PCB-1248) mg/kg	Aroclor-1254 (PCB-1254) mg/kg	Aroclor-1260 (PCB-1260) mg/kg	Aroclor-1262 (PCB-1262) mg/kg	Aroclor-1268 (PCB-1268) mg/kg	Total PCBs	Diesel-range Petroleum Hydrocarbons (C10-C25) mg/kg	Oil-range Petroleum Hydrocarbons (C25-C36) mg/kg												
DF-HA-6	DF-HA-6(1)	06/05/2023	1 (ft)	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.019	-	0.011	U	0.011	U	0.019		18	J	28	J
DF-HA-10	DF-HA-10(1)	06/06/2023	1 (ft)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		31	J	58	J
DF-HA-20	DF-HA-20(1)	06/07/2023	1 (ft)	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	21	J	74	J
MTCA Method A Cleanup Level Unrestricted Land Use																						1	2,000	2,000			

Notes:

- Bold** denotes a detected concentration.
- Blue shading denotes a detected analyte concentration exceeding a MTCA Method A Unrestricted Cleanup Level.
- : Not analyzed or not available.
- bgs: below ground surface
- Diesel- and Oil-range petroleum hydrocarbons analyzed by Northwest Total Petroleum Hydrocarbon Method NWTPHDx
- ft: feet
- J: Value is estimated
- mg/kg: Milligrams per kilogram.
- MTCA: Model Toxics Control Act
- PCBs: Polychlorinated biphenyls
- U: Not detected above the indicated laboratory method detection limit.

TABLE 5
SUMMARY OF SOIL ANALYTICAL RESULTS - VOCs
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth (bgs)	Volatile Organic Compounds (VOCs) (mg/kg)																					
				tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (CFC-11)	Vinyl chloride	Trichloroethene by 8260DSIM	m,p-Xylenes	o-Xylene	Xylene (Total)										
DF-HA-3	DF-HA-3(1)	06/05/2023	1 (ft)	0.29	U	0.12	U	0.29	U	0.29	U	0.29	U	0.022	U	0.58	U	0.17	U	-	1.2	U	0.58	U	-
DF-HA-4	DF-HA-4(1)	06/05/2023	1 (ft)	0.26	U	0.1	U	0.26	U	0.26	U	0.26	U	0.02	U	0.52	U	0.15	U	-	1	U	0.52	U	-
DF-HA-5	DF-HA-5(1)	06/05/2023	1 (ft)	0.32	U	0.13	U	0.043	J	0.32	U	0.32	U	0.025	U	0.64	U	0.19	U	-	1.3	U	0.64	U	-
DF-HA-6	DF-HA-6(1)	06/05/2023	1 (ft)	0.26	U	0.11	U	0.26	U	0.26	U	0.26	U	0.02	U	0.53	U	0.16	U	-	1.1	U	0.53	U	-
DF-HA-9	DF-HA-9(1)	06/06/2023	1 (ft)	0.21	U	0.084	U	0.21	U	0.21	U	0.21	U	0.016	U	0.42	U	0.13	U	-	0.84	U	0.42	U	-
DF-HA-10	DF-HA-10(1)	06/06/2023	1 (ft)	0.23	U	0.091	U	0.23	U	0.23	U	0.23	U	0.017	U	0.46	U	0.14	U	-	0.91	U	0.46	U	-
DF-HA-11	DF-HA-11(1)	06/06/2023	1 (ft)	0.3	U	0.12	U	0.3	U	0.3	U	0.3	U	0.022	U	0.59	U	0.18	U	-	1.2	U	0.59	U	-
DF-HA-12	DF-HA-12(1)	06/06/2023	1 (ft)	0.24	U	0.095	U	0.24	U	0.24	U	0.24	U	0.018	U	0.48	U	0.14	U	-	0.95	U	0.48	U	-
DF-HA-19	DF-HA-19(1)	06/07/2023	1 (ft)	0.38	U	0.15	U	0.38	U	0.38	U	0.38	U	0.48	U	0.76	U	0.23	U	-	1.5	U	0.76	U	-
	DF-HA-19(2)	06/07/2023	2 (ft)	0.25	U	0.098	U	0.035	J	0.25	U	0.25	U	1	U	0.49	U	0.15	U	-	0.98	U	0.49	U	-
	DF-HA-19(3)	06/07/2023	3 (ft)	0.31	UJ	0.12	UJ	0.31	UJ	0.31	UJ	0.31	UJ	4.3	J	0.62	UJ	0.19	UJ	-	1.2	UJ	0.62	UJ	-
	DF-HA-19(4)	06/07/2023	4 (ft)	0.31	UJ	0.12	UJ	0.31	UJ	0.31	UJ	0.31	UJ	5.7	J	0.61	UJ	0.18	UJ	-	1.2	UJ	0.61	UJ	-
	DF-HA-19(5)	10/30/2023	5 (ft)	0.32	U	0.13	U	0.12	J	0.32	U	0.32	U	2.3	U	0.65	U	0.19	U	-	1.3	U	0.65	U	1.9
	DF-HA-19(6)	10/30/2023	6 (ft)	0.25	U	0.1	U	0.25	U	0.25	U	0.25	U	0.15	U	0.12	J	0.15	U	-	1	U	0.5	U	-
	DF-HA-19(7)	10/30/2023	7 (ft)	0.28	U	0.11	U	0.28	U	0.28	U	0.28	U	0.5	U	0.56	U	0.17	U	-	1.1	U	0.56	U	-
DF-HA-20	DF-HA-20(1)	06/07/2023	1 (ft)	0.29	U	0.11	U	0.29	U	0.29	U	0.29	U	0.022	U	0.57	U	0.17	U	-	1.1	U	0.57	U	-
DF-HA-21	DF-HA-21(1)	06/08/2023	1 (ft)	0.22	U	0.086	U	0.22	U	0.22	U	0.22	U	0.016	U	0.43	U	0.13	U	-	0.86	U	0.43	U	-
DF-HA-28	DF-HA-28(1)	10/30/2023	1 (ft)	0.31	U	0.12	U	0.31	U	0.31	U	0.31	U	0.12	U	0.62	U	0.19	U	-	1.2	U	0.62	U	1.9
	DF-HA-28(2)	10/30/2023	2 (ft)	0.3	U	0.12	U	0.3	U	0.3	U	0.3	U	0.31	U	0.6	U	0.18	U	-	1.2	U	0.6	U	-
	DF-HA-28(2.5)	10/30/2023	2.5 (ft)	0.25	U	0.1	U	0.25	U	0.25	U	0.25	U	0.37	U	0.51	U	0.15	U	-	1	U	0.51	U	-
DF-HA-29	DF-HA-29(1)	10/30/2023	1 (ft)	0.27	U	0.11	U	0.27	U	0.27	U	0.27	U	0.021	U	0.55	U	0.16	U	-	1.1	U	0.068	J	1.6
DF-HA-30	DF-HA-30(1)	10/30/2023	1 (ft)	0.31	U	0.12	U	0.31	U	0.31	U	0.31	U	0.023	U	0.61	U	0.18	U	-	1.2	U	0.61	U	-
DF-HA-31	DF-HA-31 (1)	12/01/2023	1 (ft)	0.36	U	0.15	U	0.36	U	0.36	U	0.36	U	0.028	U	0.73	U	0.22	U	-	1.5	U	0.73	U	-
DF-HA-32	DF-HA-32 (1)	12/01/2023	1 (ft)	0.37	U	0.15	U	0.37	U	0.37	U	0.37	U	0.028	U	0.75	U	0.22	U	-	1.5	U	0.75	U	-
DF-HA-33	DF-HA-33 (1)	12/01/2023	1 (ft)	0.28	U	0.11	U	0.28	U	0.28	U	0.28	U	0.065	J	0.55	U	0.17	U	0.04	1.1	U	0.55	U	-
	DF-HA-33 (2)	12/01/2023	1 (ft)	0.26	U	0.1	U	0.26	U	0.26	U	0.26	U	0.04	J	0.52	U	0.16	U	-	1	U	0.52	U	-
DF-HA-34	DF-HA-34 (1)	12/01/2023	1 (ft)	0.26	U	0.1	U	0.26	U	0.26	U	0.26	U	0.21	U	0.52	U	0.16	U	-	1	U	0.52	U	-
	DF-HA-34 (2)	12/01/2023	1 (ft)	0.27	U	0.11	U	0.27	U	0.27	U	0.27	U	0.66	U	0.53	U	0.16	U	-	1.1	U	0.53	U	-
DF-HA-35	DF-HA-35 (1)	12/01/2023	1 (ft)	0.33	U	0.13	U	0.33	UF1	0.33	UF1	0.33	U	0.59	U	0.67	U	0.2	U	-	1.3	U	0.67	U	-
	DF-HA-35 (2)	12/01/2023	1 (ft)	0.29	U	0.12	U	0.29	U	0.29	U	0.29	U	1.7	U	0.58	U	0.17	U	-	1.2	U	0.58	U	-
DF-HA-36	DF-HA-36 (1)	12/01/2023	1 (ft)	3.4	U	1.4	U	3.4	U	3.4	U	3.4	U	0.26	U	6.8	U	2	U	-	14	U	6.8	U	-
DF-HA-37	DF-HA-37 (1)	12/01/2023	1 (ft)	0.19	U	0.076	U	0.19	U	0.19	U	0.19	U	0.014	U	0.38	U	0.11	U	-	0.76	U	0.38	U	-
MTCA Method A Cleanup Level Unrestricted Land Use				-	-	0.05	7	-	-	-	-	-	0.03	-	-	-	-	-	-	0.03	-	-	-	-	9
MTCA Method B Direct Contact				8,000	-	-	-	1,600	-	-	-	-	24,000	240	-	-	-	-	-	-	-	-	16,000	-	-

Notes:
Bold denotes a detected concentration.
 Blue shading denotes a detected analyte concentration exceeding a cleanup level.
 -: Not analyzed or not available.
 *+: LCS and/or LCSD is outside acceptance limits, high biased.
 bgs: below ground surface
 F1: MS and/or MSD recovery exceeds control limits.
 ft: feet
 J: Value is estimated
 mg/kg: Milligrams per kilogram.
 MTCA: Model Toxics Control Act
 NA: No Action level established
 R: value rejected, the data are unusable
 U: Not detected above the indicated laboratory reporting limit.
 Not detected above the indicated method detection limit for Trichloroethene.

TABLE 6
SUMMARY OF SEEP WATER ANALYTICAL RESULTS - METALS
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth	Inorganic Compounds (µg/L)																															
				Arsenic, Dissolved		Barium, Dissolved		Cadmium, Dissolved		Chromium, Dissolved		Lead, Dissolved		Mercury, Dissolved		Selenium, Dissolved		Silver, Dissolved		Arsenic, Total		Barium, Total		Cadmium, Total		Chromium, Total		Lead, Total		Mercury, Total		Selenium, Total		Silver, Total	
DF-SW-1		6/5/2023	NA	10	UJ	89		1.2	UJ	1.7	U	5.1	UJ	0.09	U	49	U	2.5	U	10	UJ	89		1.2	UJ	1.7	U	5.1	UJ	0.09	U	49	U	2.70	J
MTCA Method A Cleanup Level Unrestricted Land Use				5		-		5		50		15		2		-		-		5		-		5		50		15		2		-		-	
MTCA Method B Noncancer				-		-		-		-		-		2700		26000		-		1000		-		-		-		-		-		2700		26000	

Notes:
Bold values indicate a detected concentration.
J: value is an estimate
 MTCA: Model Toxics Control Act
U: not detected, value is the method detection limit
 µg/L: micrograms per Liter



TABLE 7
SUMMARY OF SEEP WATER ANALYTICAL RESULTS - VOCs
 HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth	Volatile Organic Compounds (µg/L)																							
				1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane (Ethylene Dibromide)	1,2-Dichlorobenzene	1,2-Dichloroethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Chlorotoluene		
DF-SW-1		6/5/2023	NA	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	2 U	1 U		
MTCA Method A Cleanup Level Unrestricted Land Use				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MTCA Method B Cancer				-	-	7	25	-	-	-	-	-	2	-	-	-	-	59	43	-	-	-	22	-	-		
MTCA Method B Noncancer				-	930,000	-	-	-	23,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

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TABLE 7
SUMMARY OF SEEP WATER ANALYTICAL RESULTS - VOCs
 HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth	Volatile Organic Compounds (µg/L)																						
				2-Phenylbutane (sec-Butylbenzene)	4-Chlorotoluene	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane (Methyl Bromide)	Carbon tetrachloride	Chlorobenzene	Chlorobromomethane	Chloroethane	Chloroform (Trichloromethane)	Chloromethane (Methyl Chloride)	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Cymene (p-Isopropyltoluene)	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane (CFC-12)	Ethylbenzene	Hexachlorobutadiene	Isopropylbenzene (Cumene)	
DF-SW-1		6/5/2023	NA	1 U	1 U	0 U	1 U	1 U	5 U	5 U	1 U	1 U	2 U	2 U	1 U	3 U	1 U	1 U	1 U	2 U	2 U	2 U	1 U	2 U	1 U	
MTCA Method A Cleanup Level Unrestricted Land Use				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	-	-	
MTCA Method B Cancer				-	-	23	-	28	220	-	5	-	-	56	-	-	-	-	-	21	-	-	-	-	30	-
MTCA Method B Noncancer				-	-	-	-	-	-	970	-	5,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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TABLE 7
SUMMARY OF SEEP WATER ANALYTICAL RESULTS - VOCs
 HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location	Sample Name	Sample Date	Sample Depth	Volatile Organic Compounds (µg/L)																
				Methyl Tert Butyl Ether (MTBE)	Methylene chloride (Dichloromethane)	Naphthalene	n-Butylbenzene	n-Propylbenzene	Styrene	tert-Butylbenzene	Tetrachloroethene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichloroethene	Trichlorofluoromethane (CFC-11)	Vinyl chloride	m,p-Xylenes	o-Xylene	Total Xylenes
DF-SW-1		6/5/2023	NA	1 U	5 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	2 U	1 U	3 U
MTCA Method A Cleanup Level Unrestricted Land Use				20	5	160	-	-	-	-	5	1,000	5	0.22	200	-	0.20	-	-	1,000
MTCA Method B Cancer				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MTCA Method B Noncancer				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:
Bold values indicate a detected concentration.
J: value is an estimate
 MTCA: Model Toxics Control Act
 U: not detected, value is the laboratory reporting limit
 µg/L: micrograms per Liter



TABLE 8
ESTIMATED VOLUME OF CONTAMINATED MEDIA
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INCORPORATED
 METALLINE FALLS, WASHINGTON

Location ID		Estimated Excavation Limits to Achieve Cleanup (length x width x depth (feet))	Estimated volume (cu yds)
DF-HA-19	TC-9 Area	2330 square feet x 10	863
DF-HA-28			
DF-HA-33			
DF-HA-34			
DF-HA-35			
Total Volume			875

Notes:

*Excavation dimensions are approximate
 cu yds = Cubic yards*

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Technology/Alternative		Protectiveness	Complexity	Long-Term Effectiveness	Implementability	Score
Thermal Remediation - Electrical Resistance	Electrical Resistance Heating involves installing an in-situ treatment system capable of inducing a direct electrical current in the soil material to increase soil temperatures to at least 212 degrees fahrenheit. The heated soil will volatilize the TCE present in the soil thereby reducing concentrations. The steam and vapors produced by the reaction will be captured and treated at the surface.	5	1	5	1	12
Soil Vapor Extraction	Soil vapor extraction includes installation of extraction wells designed to remove vapor within pore space of soil. This technology can be applied either passively or actively and will work to create a flow of air that removes volatile contaminants from the soil.	5	3	5	4	17
Capping	Capping includes placing a low permeability barrier on top of the contaminated soil. The barrier will reduce potential of meteoric water infiltration into the subsurface eliminating the surface soil to groundwater pathway.	3	4	4	1	12
Removal and Disposal	Removal and disposal include excavating and disposing of TCE contaminated soil and/or solid waste. Soil material will be excavated, transported offsite, and disposed of in a landfill at an acceptable disposal facility.	5	5	5	2	17
No Action	No action alternative includes leaving all soil material in place and limiting access to site.	1	5	2	5	13

Note:

Criteria ranked between 1 and 5. 1 represents the least protective, most complex, least effective, and most difficult to implement and 5 represents the most protective least complex, most effective, and easiest to implement.

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Alternative 1A - Passive SVE				
- Installation of passive soil vapor extraction; - Monitoring, maintenance, and sampling of the system periodically; - Decommissioning of System following remediation of TCE contaminated soil; and				
Assumptions:				
- Assumes remedial alternative timeframe of seven years. - Assume monthly monitoring/ sampling and system maintenance for the first year. - Assume quarterly monitoring/ sampling and system maintenance after the first year. - Assumes only one round of confirmation sampling is required. - Drilling will be required for soil confirmation sampling				
Item	Quantity	Unit	Unit Cost	Cost
Capital Costs				
Documents and Permitting				
Sampling Analysis Plan	1	LS	\$ 25,000.00	\$ 25,000.00
Bid Preparation/ System Design	1	LS	\$ 50,000.00	\$ 50,000.00
Completion Report	1	LS	\$ 30,000.00	\$ 30,000.00
Operation and Maintenance Manual	1	LS	\$ 15,000.00	\$ 15,000.00
Restrictive Covenant	1	LS	\$ 10,000.00	\$ 10,000.00
Site Preparation				
Pilot Study(includes well install)	1	LS	\$ 50,000.00	\$ 50,000.00
Mobilization/ Demobilization	2	LS	\$ 10,000.00	\$ 20,000.00
Tree Clearing	1	LS	\$ 19,000.00	\$ 19,000.00
SVE Equipment and Installation				
Wind-driven turbine ventilation fans	5	LS	\$ 200.00	\$ 1,000.00
Pressure or flow meter datalogger	1	LS	\$ 6,000.00	\$ 6,000.00
One way valves for well riser (Baroballs)	5	EA	\$ 500.00	\$ 2,500.00
Electrical for power supply for data logger (solar panel)	5	EA	\$ 700.00	\$ 3,500.00
Injection/Extraction Wells	2	LS	\$ 2,800.00	\$ 5,600.00
Installation	1	LS	\$ 40,000.00	\$ 40,000.00
Operation and Maintenance				
Monthly Sampling and Analytical	36	MN	\$ 5,692.00	\$ 204,912.00
Quarterly Sampling and Analytical	48	QU	\$ 5,692.00	\$ 273,216.00
Decommissioning				
Mobilization/ Demobilization	2	LS	\$ 10,000.00	\$ 20,000.00
Decommissioning	1	LS	\$ 30,000.00	\$ 30,000.00
Confirmation Soil Sampling and Analytical for SVE system	1	LS	\$ 60,000.00	\$ 60,000.00
Professional/ Technical Services				
Project Management	7	AN	\$ 10,000.00	\$ 70,000.00
			Subtotal	\$ 935,728.00
			Tax	\$ 83,279.79
			Total	\$ 1,019,007.79

Notes:

- AC = acre
- AN = Annually
- CY = cubic yards.
- DA = day.
- LS = lump sum.
- TN = Ton
- MN = Monthly
- QU = Quarterly

Alternative 1B - Active SVE				
- Installation of passive extraction wells, moisture collection piping, and GAC filters;				
- Monitoring, maintenance, and sampling of the system monthly;				
- Decommissioning of System following favorable soil concentrations; and				
Assumptions:				
- Assumes remedial alternative will take 1 years to complete.				
- Assumes GAC Filter replacement twice per year.				
- Assume System monitoring/ sampling and maintenance monthly.				
- Assumes only one round of confirmation sampling is required.				
Item	Quantity	Unit	Unit Cost	Cost
Capital Costs				
Documents and Permitting				
Sampling Analysis Plan	1	LS	\$ 25,000.00	\$ 25,000.00
Bid Preparation/ System Design	1	LS	\$ 50,000.00	\$ 50,000.00
Completion Report	1	LS	\$ 30,000.00	\$ 30,000.00
Operation and Maintenance Manual	1	LS	\$ 15,000.00	\$ 15,000.00
Restrictive Covenant	1	LS	\$ 10,000.00	\$ 10,000.00
Site Preparation				
Pilot Study	1	LS	\$ 50,000.00	\$ 50,000.00
Mobilization/ Demobilization	2	LS	\$ 10,000.00	\$ 20,000.00
Tree Clearing	1	LS	\$ 19,000.00	\$ 19,000.00
SVE Equipment and Installation				
Vacuum System	1	LS	\$ 100,000.00	\$ 100,000.00
Extraction Wells	2	LS	\$ 4,000.00	\$ 8,000.00
Electrical Installation	1000	LF	\$ 25.00	\$ 25,000.00
GAC Filters	2	LS	\$ 1,000.00	\$ 2,000.00
Installation	1	LS	\$ 65,000.00	\$ 65,000.00
Operation and Maintenance				
Sampling and Analytical	12	MN	\$ 5,692.00	\$ 68,304.00
VGAC profile analysis	2	LS	\$ 1,000.00	\$ 2,000.00
VGAC Removal and disposal	2	LS	\$ 1,000.00	\$ 2,000.00
Replacement GAC	2	LS	\$ 900.00	\$ 1,800.00
Condensate water profile analysis	1	EA	\$ 600.00	\$ 600.00
Condensate water disposal budget	1	Estimate	\$ 5,000.00	\$ 5,000.00
Decommissioning				
Mobilization/ Demobilization	2	LS	\$ 20,000.00	\$ 40,000.00
Decommissioning	1	LS	\$ 30,000.00	\$ 30,000.00
Confirmation Soil Sampling and Analytical for SVE system	1	LS	\$ 60,000.00	\$ 60,000.00
Professional/ Technical Services				
Project Management	1	AN	\$ 10,000.00	\$ 10,000.00
			Subtotal	\$ 638,704.00
			Tax	\$ 56,844.66
			Total	\$ 695,548.66

Notes:

- AC = acre
- AN = Annually
- CY = cubic yards.
- DA = day.
- EA = Each
- LF = Linear Foot
- LS = lump sum.
- TN = Ton
- MN = Monthly

Alternative 2 - Removal and Disposal				
- Clear trees for site access; - Excavation of impacted materials within identified extent; - Transport and dispose of materials at Waste Management's ChemWaste Subtitle C landfill in Arlington, Oregon (ChemWaste) or Graham Road Subtitle D landfill in Medical Lake, Washington (Graham Road); and - Backfill.				
Assumptions:				
- Assumes single mobilization and demobilization of equipment and personnel to jobsite once. Includes kickoff meeting with Senior Construction Manager in attendance. - RS Means utilized for aggregate base course cost. Assumes road is left in place at project completion. - Assumes one day of time to clear trees from impacted soils area. - Assumes 600 tons per day can be loaded and transported to landfill. - Assumes it takes five days to backfill excavated areas. Assumes dozer tracking is sufficient for compaction. Does not include compaction testing. Assumes 15 percent shrink for imported soils. - Assumes that excavation, disposal, sampling, and backfill timeframe of one months. - Assumes soil confirmation samples are analyzed by a mobile analytical lab and final confirmation samples are submitted to an analytical laboratory.				
Item	Quantity	Unit	Unit Cost	Cost
Capital Costs				
Documents and Permitting				
Sampling Analysis Plan	1	LS	\$ 20,000.00	\$ 20,000.00
Grading and Clearing Permit	1	LS	\$ 10,000.00	\$ 10,000.00
Bid Preparation	1	LS	\$ 70,000.00	\$ 70,000.00
Completion Report	1	LS	\$ 32,000.00	\$ 32,000.00
Site Preparation				
Mobilization/ Demobilization	2	LS	\$ 19,500.00	\$ 39,000.00
Tree Clearing	1	LS	\$ 19,000.00	\$ 19,000.00
Excavation and Offsite Disposal				
Excavation of Contaminated Media	863	CY	\$ 29.00	\$ 25,027.00
Load, Transport & Dispose	1208	TN	\$ 477.00	\$ 576,216.00
Backfill and Restoration				
Native Seed Mix	0.25	AC	\$ 2,000	\$ 500.00
Confirmation Sampling				
Excavation Oversite	30	DA	\$ 1,655.00	\$ 49,650.00
Mobile analytical Lab for Construction Confirmation Sampling	1	LS	\$ 54,000.00	\$ 54,000.00
Additional Confirmation Sampling	1	LS	\$ 8,000.00	\$ 8,000.00
Professional/ Technical Services				
Project Management	1	LS	\$ 20,000.00	\$ 20,000.00
			Subtotal	\$ 923,393.00
			Tax	\$ 82,181.98
			Total	\$ 1,005,574.98

Notes:

- AC = acre
- CY = cubic yards.
- DA = day.
- LS = lump sum.
- TN = Ton

TABLE 13
ALTERNATIVE RANKING AND DISPROPORTIONATE COST ANALYSIS
HISTORIC DEBRIS FIELD
 PEND OREILLE MINE
 TECK WASHINGTON INC
 METALLINE FALLS, WASHINGTON

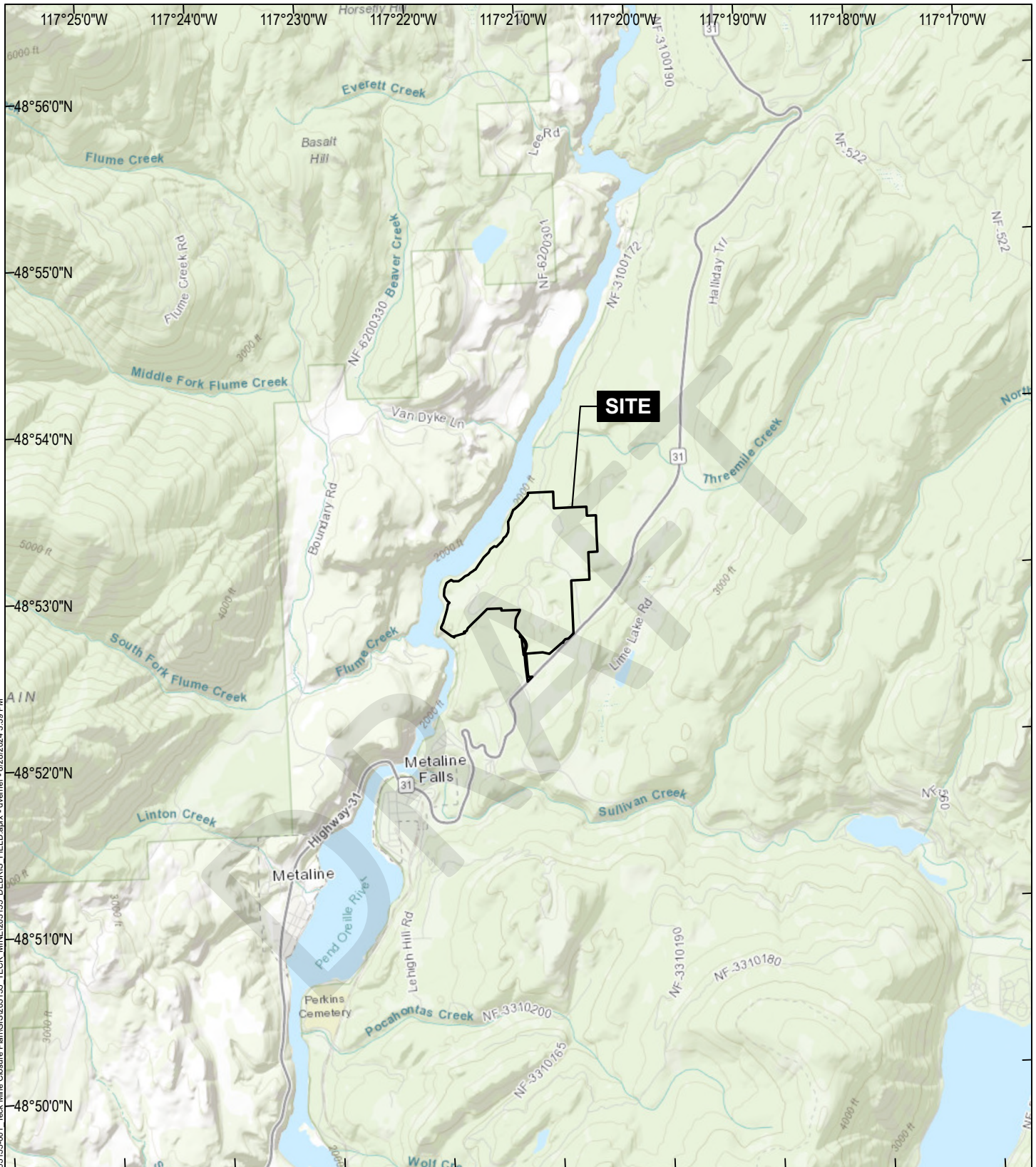
Alternative		Performance Criteria							Disproportionate Cost Analysis		Total Score	
		Protectiveness	Permanence	Long-Term Effectiveness	Short-Term Risk	Implementability	Consideration of Public Concerns	Restoration Time Frame	Score	Estimated Net Present Value		Cost Ranking
Alternative 1 A – Passive SVE	The design, installation, and use of a passive Soil Vapor Extraction (SVE) system. Continuous/ quarterly monitoring and sampling. Maintenance and repair. Decommissioning of system following favorable analytical.	4	3	4	4	4	5	2	26	\$ 1,019,008	2	28
Alternative 1B – Active SVE	The design, installation, and use of an Active SVE system. Continuous/ quarterly monitoring and sampling. Maintenance and repair. Decommissioning of system following favorable analytical.	4	3	4	4	3	5	3	26	\$ 695,549	3	29
Alternative 2 – Removal and Disposal	Pre-excavation tree clearing. The complete excavation of materials within the “Approximate Areal Extent of TCE Contamination” with concentrations exceeding MTCA Method A cleanup levels. Disposal of materials generated from the excavation. Backfill	5	5	5	2	2	3	4	26	\$ 1,005,575	1	27
Alternative 3 – No Action	No remedial action will be conducted.	1	1	4	5	5	3	1	20	\$ -	4	24

Notes:

- Alternative performance criteria ranked between 1 and 5 with 1 representing the lowest performance and 5 representing the highest performance.
- Costs for alternatives ranked between 1 and 4, with 4 being the least expensive and 1 being the most expensive.

DRAFT

FIGURES



GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\2023155-001_Teck_Mine_Closure_Plan\GIS\203155_DEBRIS_FIELD.aprx - dverrier - 8/28/2024 3:39 PM



MAP SOURCE: ESRI
 SITE COORDINATES: 48°53'00"N, 117°21'00"W

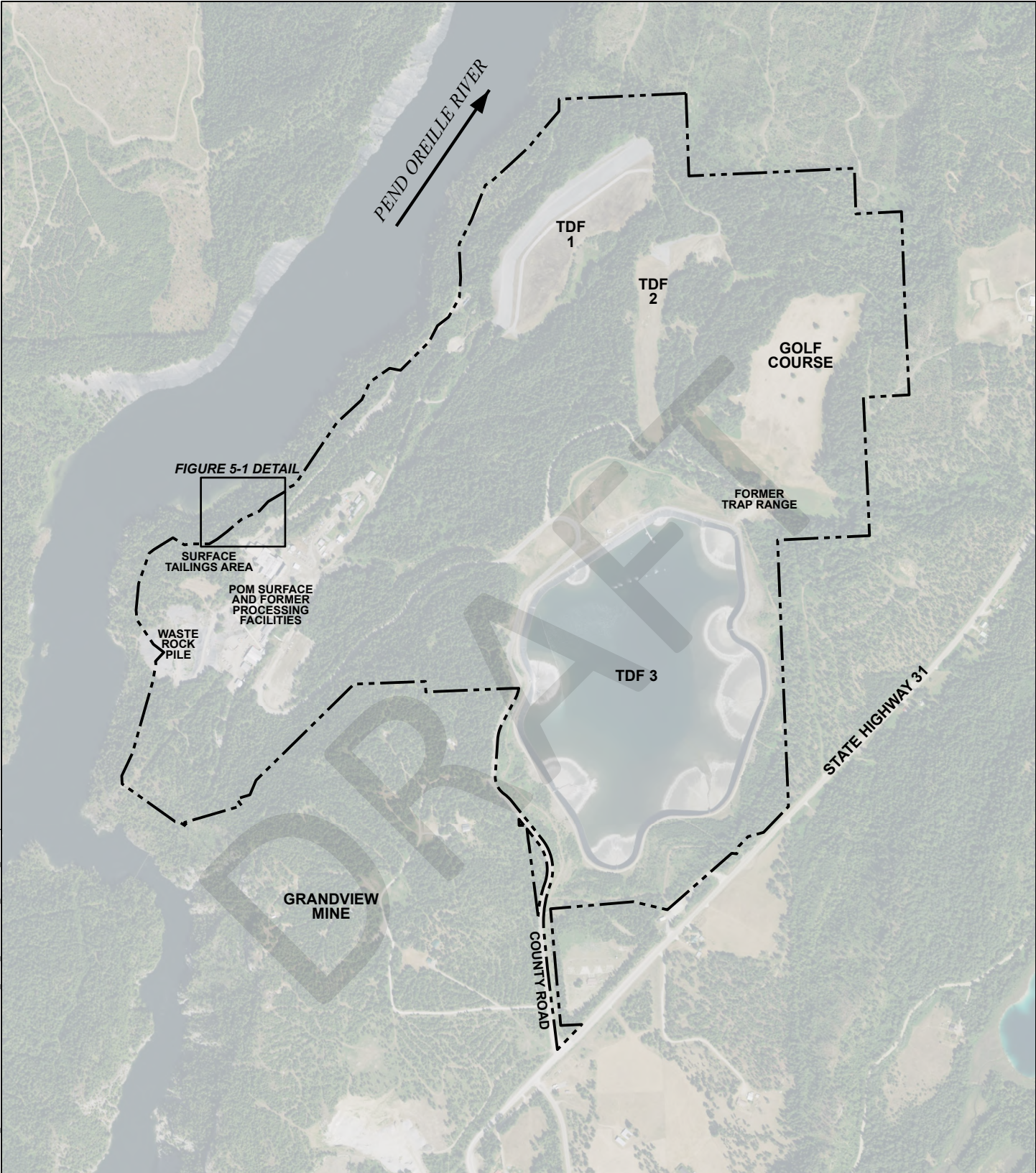
**HALEY
 ALDRICH**

TECK WASHINGTON, INC.,
 PEND OREILLE MINE
 METALINE FALLS, WASHINGTON

VICINITY MAP



APPROXIMATE SCALE: 1 IN = 5000 FT
 SEPTEMBER 2024

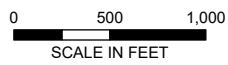
FIGURE 1



GIS: \\haleyaldrich.com\share\pdx_data\Notebooks\0203155-001_Teck_Mine_Closure_Plan\GIS\0203155_DEBRIS_FIELD.aprx - dverrier - 8/28/2024 3:39 PM

LEGEND

-  RIVER FLOW DIRECTION
-  SITE BOUNDARY



AERIAL IMAGERY SOURCE: UNITED STATES
DEPARTMENT OF AGRICULTURE (USDA)
NATIONAL AGRICULTURE IMAGERY
PROGRAM (NAIP), 2019



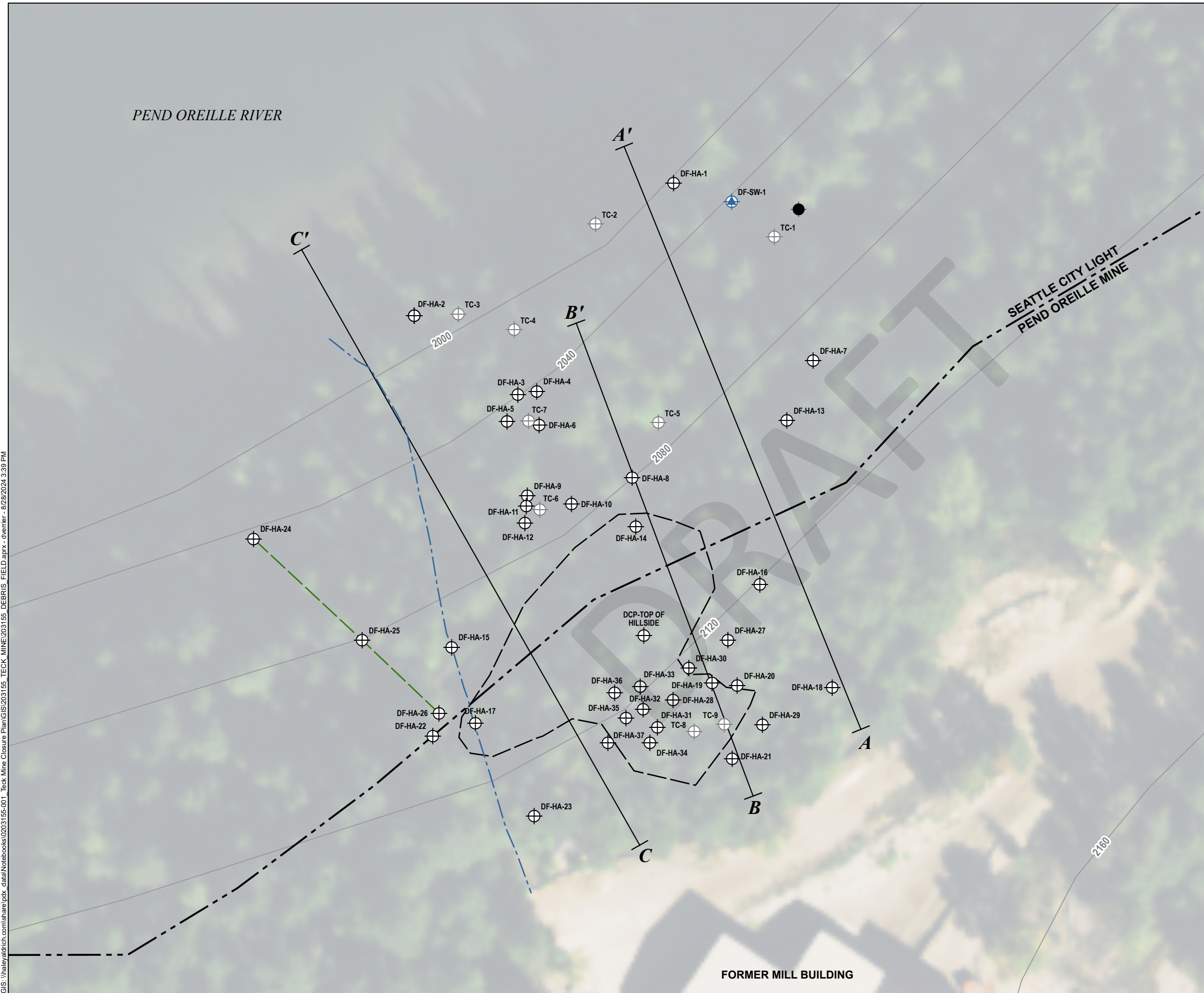
TECK WASHINGTON, INC.,
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

SITE PLAN

SEPTEMBER 2024

FIGURE 2

GIS: \\haleyaldrich.com\share\pdx_data\Notes\0203155-001_Teck Mine Closure Plan\GIS\0203155-001_Teck Mine Closure Plan\GIS\0203155-001_DEBRIS FIELD.aprx - 8/29/2024 3:39 PM

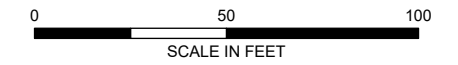


LEGEND

- 2005 HAND AUGER BORING
- 2023 HAND AUGER
- WATER SAMPLE
- SEEP
- DEBRIS FIELD EXTENT
- DRAINAGE CHANNEL
- ESTIMATED 2023 DEBRIS EXTENT
- TRANSECT
- TOPOGRAPHIC ELEVATION CONTOUR, 40-FT INTERVAL (NAVD 88)
- SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. HISTORICAL DEBRIS FIELD SAMPLE LOCATIONS AND SITE FEATURES ARE BASED ON 2005 ASSESSMENT.
3. NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
4. TOPOGRAPHIC CONTOURS SOURCE: UNITED STATES GEOLOGICAL SURVEY (USGS)
5. AERIAL IMAGERY SOURCE: UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP), 2019



TECK WASHINGTON, INC.,
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

DEBRIS FIELD

SEPTEMBER 2024












FIGURE 3

FORMER MILL BUILDING

PEND OREILLE RIVER

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LEGEND

-  SEEP
-  2005 HAND AUGER BORING
-  2023 HAND AUGER (SAMPLED COLLECTED BUT NOT ANALYZED FOR VOCs)
-  2005 HAND AUGER BORING WITH TRICHLOROETHENE (TCE) EXCEEDING CLEANUP LEVELS
-  2005 HAND AUGER WITH SAMPLE COLLECTED AND ANALYZED, NO EXCEEDANCES
-  SOIL SAMPLE GREATER THAN TCE MCTA METHOD A CLEANUP LEVEL
-  SOIL SAMPLE LESS THAN MCTA METHOD A CLEANUP LEVEL
-  DRAINAGE CHANNEL
-  HISTORICAL TIMBER SLUICE BOX STRUCTURE
-  TOPOGRAPHIC ELEVATION CONTOUR, 40-FT INTERVAL (NAVD 88)
-  SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. HISTORICAL DEBRIS FIELD SAMPLE LOCATIONS AND SITE FEATURES ARE BASED ON 2005 ASSESSMENT.
3. NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
4. TOPOGRAPHIC CONTOURS DATA SOURCE: UNITED STATES GEOLOGICAL SURVEY (USGS)
5. LIDAR DATA SOURCE: EAGLE MAPPING LTD. FOR TECK WASHINGTON INC, 28 NOVEMBER 2012

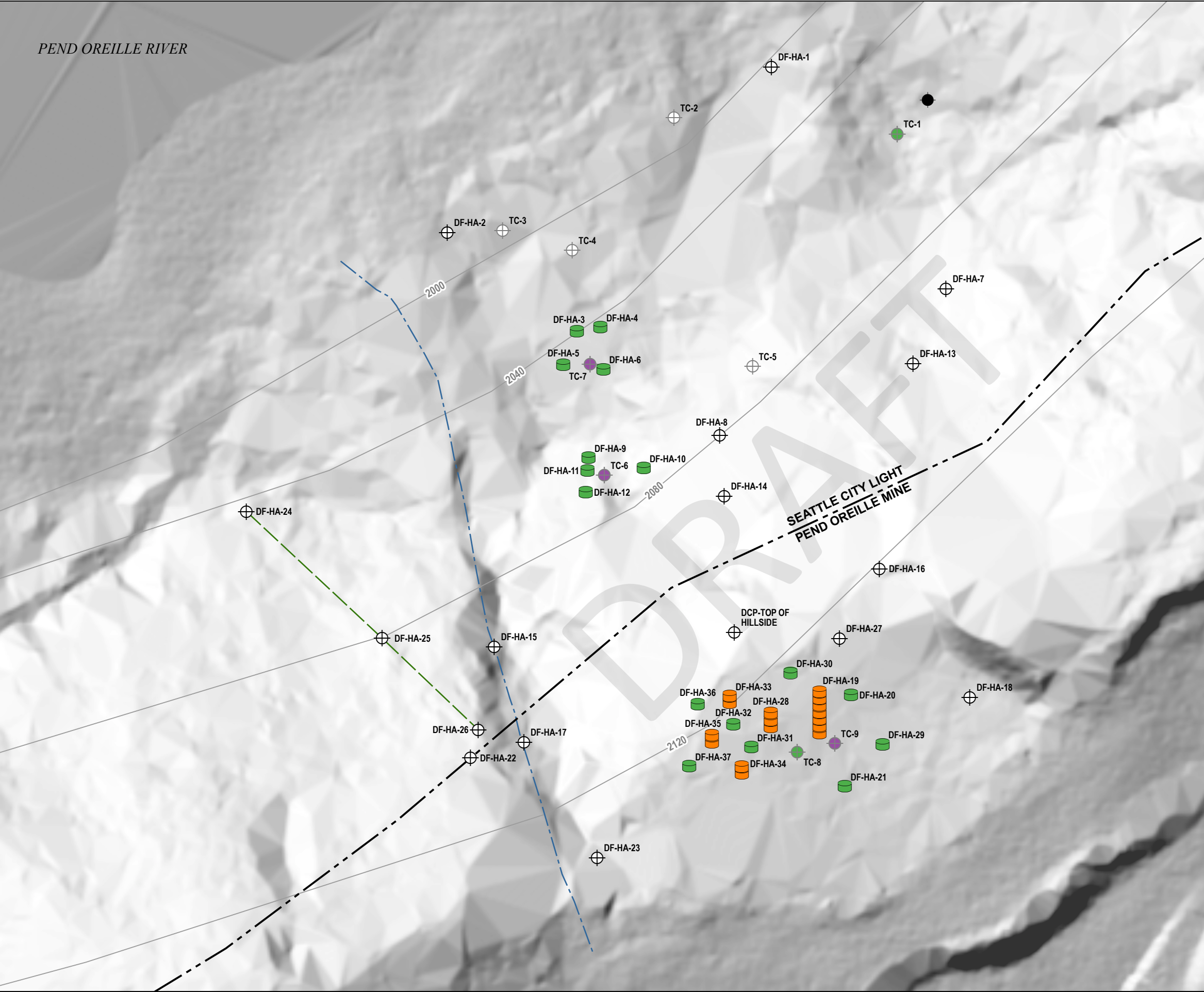


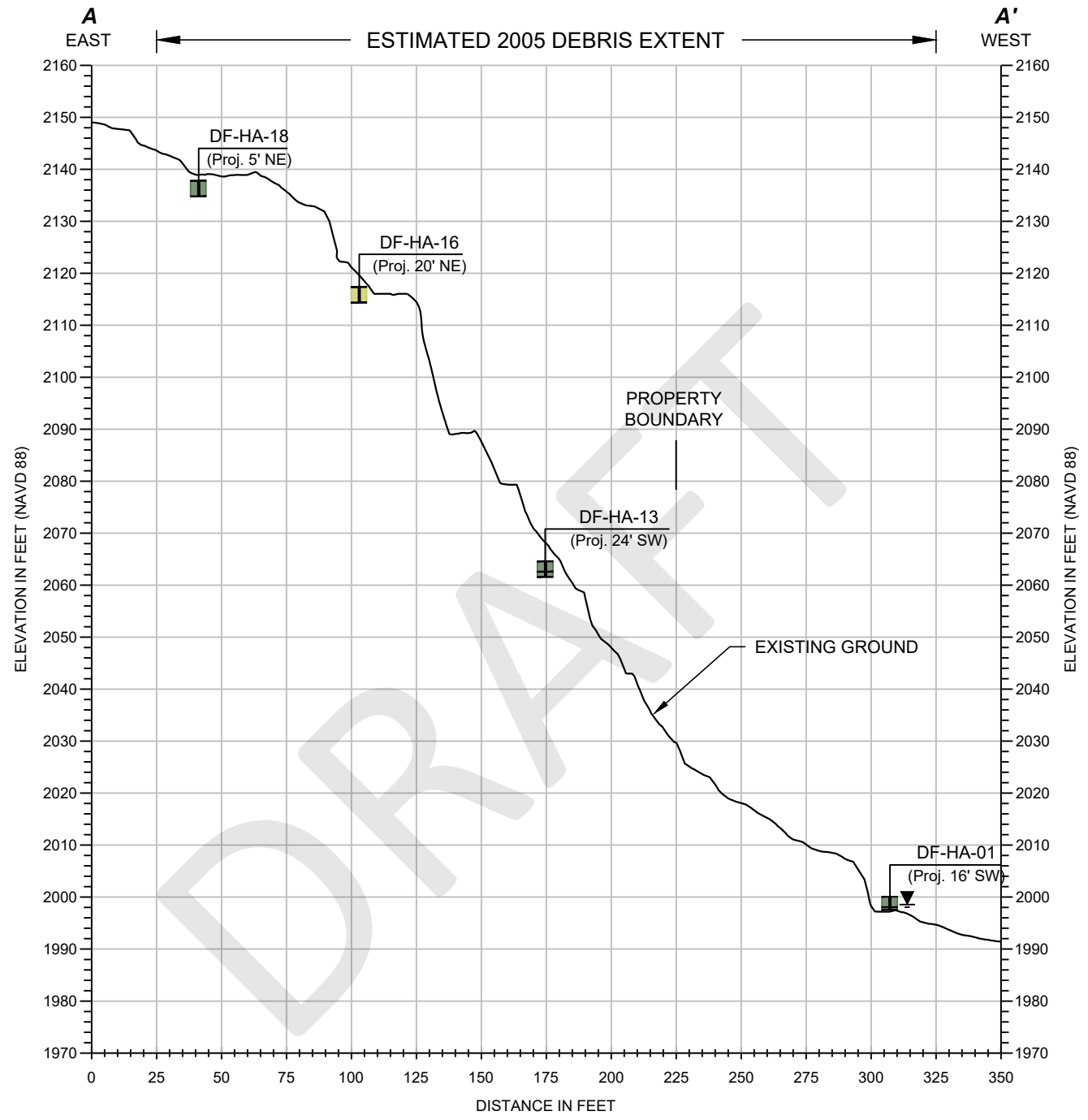
HALEY ALDRICH TECK WASHINGTON, INC.,
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

**ANALYTICAL RESULTS VOCs
0 TO 7 FEET**

SEPTEMBER 2024

FIGURE 4





DTE \\HALEYALDRICH.COM\SHARE\FPROJECTS\0203155_001\203155_013_0005_CROSS_SECTIONS_ABC.DWG
 Printed: 9/17/2024 12:47 PM Sheet: FIG 5

BORING NAME DF-HA-18
 WITH OFFSET (Proj. 5' NE)

BORING LOCATION —

N-VALUE 22

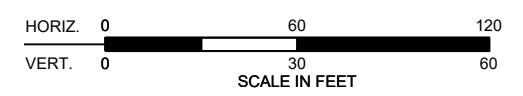
WATER LEVEL
 SCREEN INTERVAL

LEGEND

— EXISTING GROUND SURFACE
 ■ FILL
 ■ ALLUVIUM

NOTES

1. ALL LOCATIONS ARE APPROXIMATE
2. EXISTING GROUND SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)



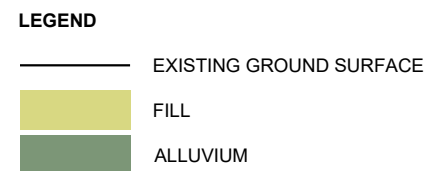
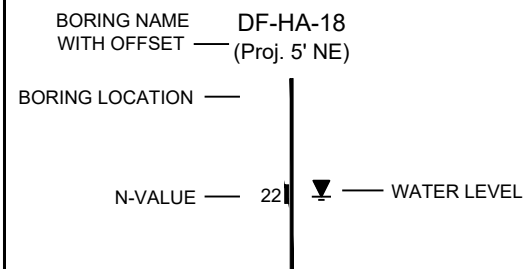
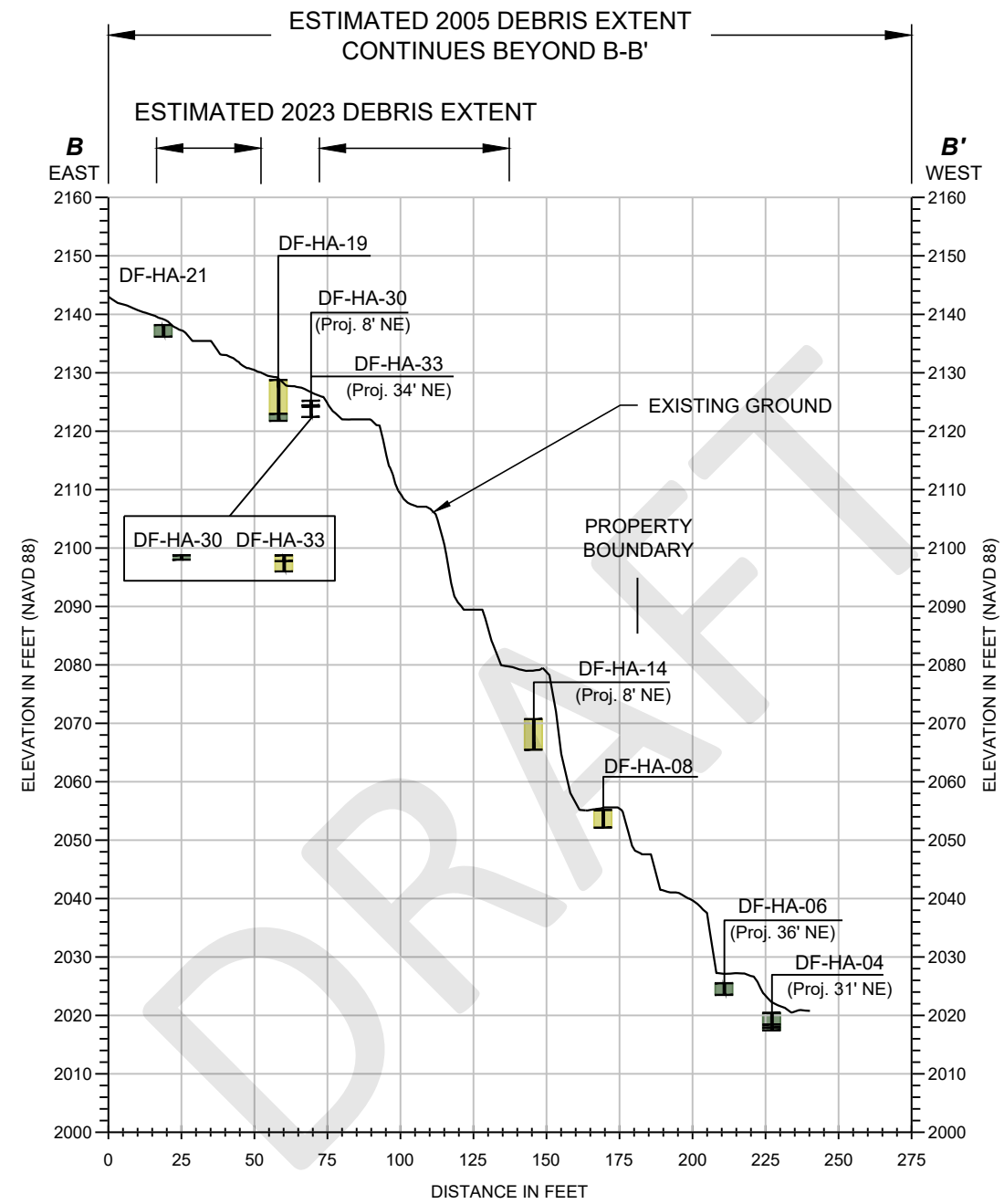
HALEY ALDRICH TECK WASHINGTON, INC.
 PEND OREILLE MINE
 METALINE FALLS, WASHINGTON

CROSS SECTION A-A'

SEPTEMBER 2024

FIGURE 5

DTE \\HALEYALDRICH.COM\SHARE\FPROJECTS\0203155_001\203155_013_0005_CROSS_SECTIONS_ABC.DWG
 Printed: 9/17/2024 12:47 PM Sheet: FIG 6



- NOTES**
1. ALL LOCATIONS ARE APPROXIMATE
 2. EXISTING GROUND SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)



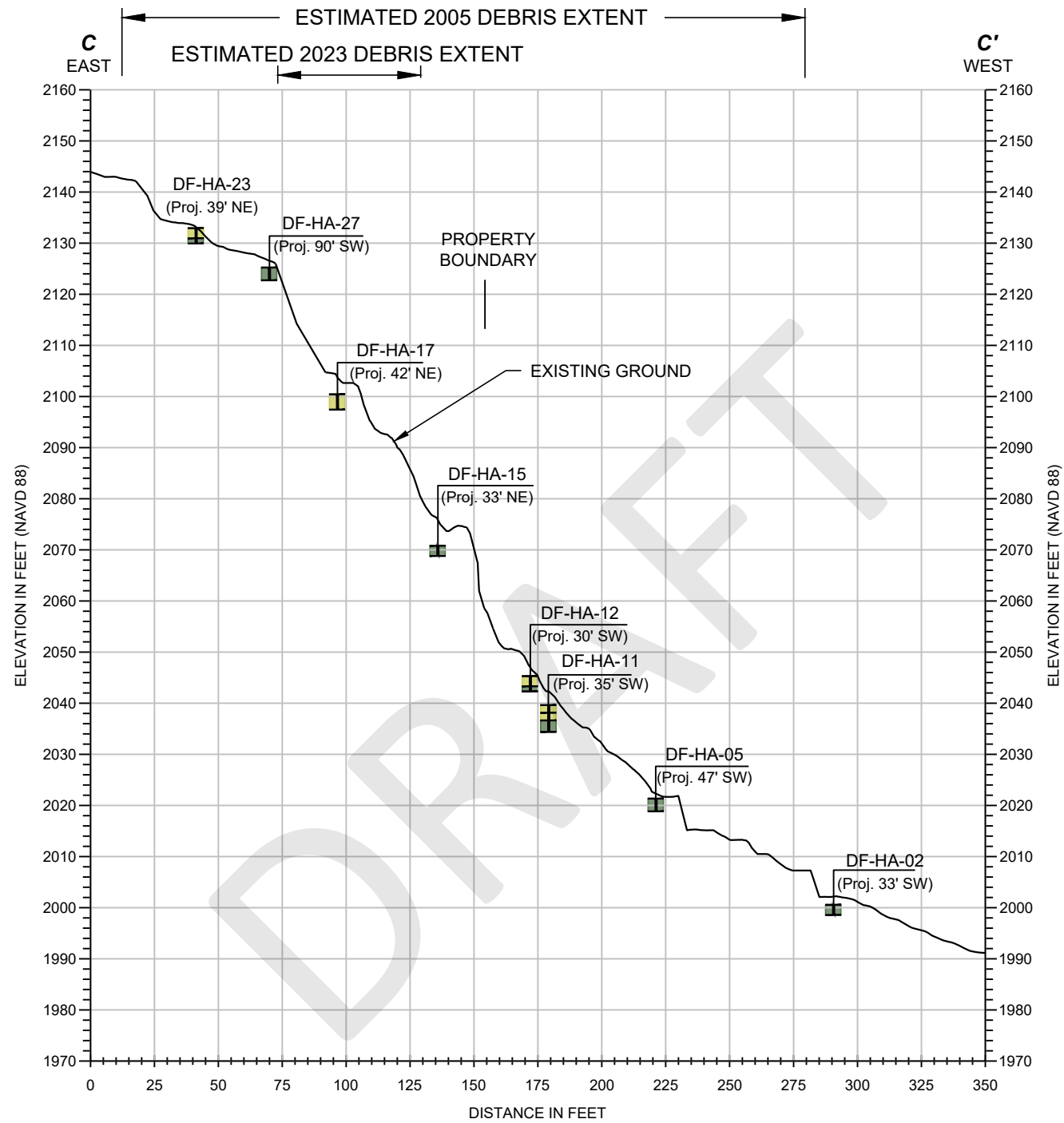
HALEY ALDRICH TECK WASHINGTON, INC.
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

CROSS SECTION B-B'

SEPTEMBER 2024

FIGURE 6

Printed: 9/17/2024 12:47 PM Sheet: FIG 7
 \\HALEYALDRICH.COM\SHARE\CF\PROJECTS\0203154\CAD\FIGURES\0203155_001\203155_013_0005_CROSS_SECTIONS_ABC.DWG



BORING NAME DF-HA-18
 WITH OFFSET (Proj. 5' NE)

BORING LOCATION —

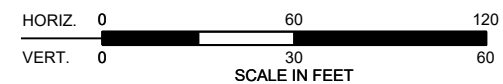
N-VALUE — 22 | WATER LEVEL

LEGEND

- EXISTING GROUND SURFACE
- FILL
- ALLUVIUM

NOTES

1. ALL LOCATIONS ARE APPROXIMATE
2. EXISTING GROUND SOURCE: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)



HALEY ALDRICH
 TECK WASHINGTON, INC.
 PEND OREILLE MINE
 METALINE FALLS, WASHINGTON

CROSS SECTION C-C'

SEPTEMBER 2024











FIGURE 7

GIS: \\haleyaldrich.com\share\pdx_data\Notes\020315-01_Teck Mine Closure Plan\GIS\020315-01_Teck Mine Closure Plan\GIS\020315-01_DEBRIS_FIELD.aprx - 8/29/2024 3:39 PM

PEND OREILLE RIVER

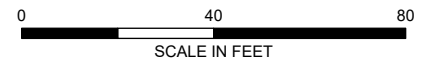


LEGEND

-  SOIL SAMPLE GREATER THAN TCE MCTA METHOD A CLEANUP LEVEL
-  SOIL SAMPLE LESS THAN MCTA METHOD A CLEANUP LEVEL
-  2023 HAND AUGER (SAMPLED COLLECTED BUT NOT ANALYZED FOR VOCs)
-  2005 HAND AUGER BORING WITH TCE EXCEEDING CLEANUP LEVELS
-  2005 HAND AUGER WITH SAMPLE COLLECTED AND ANALYZED, NO EXCEEDANCES
-  2005 HAND AUGER BORING
-  SEEP
-  TOPOGRAPHIC ELEVATION CONTOUR, 40-FT INTERVAL (NAVD 88)
-  APPROXIMATE AREAL EXTENT OF TCE CONTAMINATION
-  SITE BOUNDARY

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. DEFINITIONS:
TCE = TRICHLOROETHENE
MCTA = MODEL TOXINS CONTROL ACT
NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
3. TOPOGRAPHIC CONTOURS DATA SOURCE: UNITED STATES GEOLOGICAL SURVEY (USGS)
4. AERIAL IMAGERY SOURCE: UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP), 2019



HALEY ALDRICH TECK WASHINGTON, INC.,
PEND OREILLE MINE
METALINE FALLS, WASHINGTON

ESTIMATED AREAL EXTENT OF TCE CONTAMINATION

SEPTEMBER 2024

FIGURE 8

DRAFT

APPENDIX A
Exploration Logs

Sample Description

Identification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field nor laboratory testing unless presented herein. ASTM D 2488 visual-manual identification methods were used as a guide. Where laboratory testing confirmed visual-manual identifications, then ASTM D 2487 was used to classify the soils.

Relative Density/Consistency

Soil density/consistency in borings is related primarily to the standard penetration resistance (N). Soil density/consistency in test pits and probes is estimated based on visual observation and is presented parenthetically on the logs.

SAND or GRAVEL Relative Density	N (Blows/Foot)	SILT or CLAY Consistency	N (Blows/Foot)
Very loose	0 to 4	Very soft	0 to 1
Loose	5 to 10	Soft	2 to 4
Medium dense	11 to 30	Medium stiff	5 to 8
Dense	31 to 50	Stiff	9 to 15
Very dense	>50	Very stiff	16 to 30
		Hard	>30

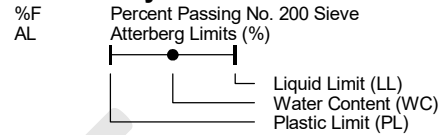
Moisture

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

Minor Constituents

Minor Constituents	Estimated Percentage
Sand, Gravel	
Trace	<5
Few	5 - 15
Cobbles, Boulders	
Trace	<5
Few	5 - 10
Little	15 - 25
Some	30 - 45

Soil Test Symbols



CA	Chemical Analysis
CAUC	Consolidated Anisotropic Undrained Compression
CAUE	Consolidated Anisotropic Undrained Extension
CBR	California Bearing Ratio
CIDC	Consolidated Drained Isotropic Triaxial Compression
CIUC	Consolidated Isotropic Undrained Compression
CK0DC	Consolidated Drained k0 Triaxial Compression
CK0DSS	Consolidated k0 Undrained Direct Simple Shear
CK0UC	Consolidated k0 Undrained Compression
CK0UE	Consolidated k0 Undrained Extension
CRSCN	Constant Rate of Strain Consolidation
DS	Direct Shear
DSS	Direct Simple Shear
DT	In Situ Density
GS	Grain Size Classification
HYD	Hydrometer
ILCN	Incremental Load Consolidation
K0CN	k0 Consolidation
kc	Constant Head Permeability
kf	Falling Head Permeability
MD	Moisture Density Relationship
OC	Organic Content
OT	Tests by Others
P	Pressuremeter
PID	Photoionization Detector Reading
PP	Pocket Penetrometer
SG	Specific Gravity
TRS	Torsional Ring Shear
TV	Torvane
UC	Unconfined Compression
UUC	Unconsolidated Undrained Triaxial Compression
VS	Vane Shear
WC	Water Content (%)

USCS Soil Classification Chart (ASTM D 2487)

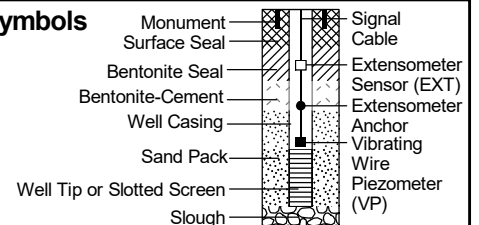
Major Divisions		Symbols		Typical Descriptions
		Graph	USCS	
Coarse Grained Soils More than 50% of Material Retained on No. 200 Sieve	Gravel and Gravelly Soils More than 50% of Coarse Fraction Retained on No. 4 Sieve		GW	Well-Graded Gravel; Well-Graded Gravel with Sand
			GP	Poorly Graded Gravel; Poorly Graded Gravel with Sand
			GW-GM	Well-Graded Gravel with Silt; Well-Graded Gravel with Silt and Sand
			GW-GC	Well-Graded Gravel with Clay; Well-Graded Gravel with Clay and Sand
			GP-GM	Poorly Graded Gravel with Silt; Poorly Graded Gravel with Silt and Sand
			GP-GC	Poorly Graded Gravel with Clay; Poorly Graded Gravel with Clay and Sand
	Sand and Sandy Soils More than 50% of Coarse Fraction Passing No. 4 Sieve		GM	Silty Gravel; Silty Gravel with Sand
			GC	Clayey Gravel; Clayey Gravel with Sand
			SW	Well-Graded Sand; Well-Graded Sand with Gravel
			SP	Poorly Graded Sand; Poorly Graded Sand with Gravel
Fine Grained Soils More than 50% of Material Passing No. 200 Sieve	Sands (5-12% fines)		SW-SM	Well-Graded Sand with Silt Well-Graded Sand with Silt and Gravel
			SW-SC	Well-Graded Sand with Clay; Well-Graded Sand with Clay and Gravel
			SP-SM	Poorly Graded Sand with Silt; Poorly Graded Sand with Silt and Gravel
	Sands with Fines (>12% fines)		SP-SC	Poorly Graded Sand with Clay; Poorly Graded Sand with Clay and Gravel
			SM	Silty Sand; Silty Sand with Gravel
			SC	Clayey Sand; Clayey Sand with Gravel
Silt		ML	Silt; Silt with Sand or Gravel; Sandy or Gravelly Silt	
		MH	Elastic Silt; Elastic Silt with Sand or Gravel; Sandy or Gravelly Elastic Silt	
	Silty Clay (based on Atterberg Limits)		CL-ML	Silty Clay; Silty Clay with Sand or Gravel; Gravelly or Sandy Silty Clay
		Clays		CL
	CH		Fat Clay; Fat Clay with Sand or Gravel; Sandy or Gravelly Fat Clay	
Organics		OL/OH	Organic Soil; Organic Soil with Sand or Gravel; Sandy or Gravelly Organic Soil	
	Highly Organic (>50% organic material)		PT	Peat - Decomposing Vegetation - Fibrous to Amorphous Texture

Groundwater Indicators

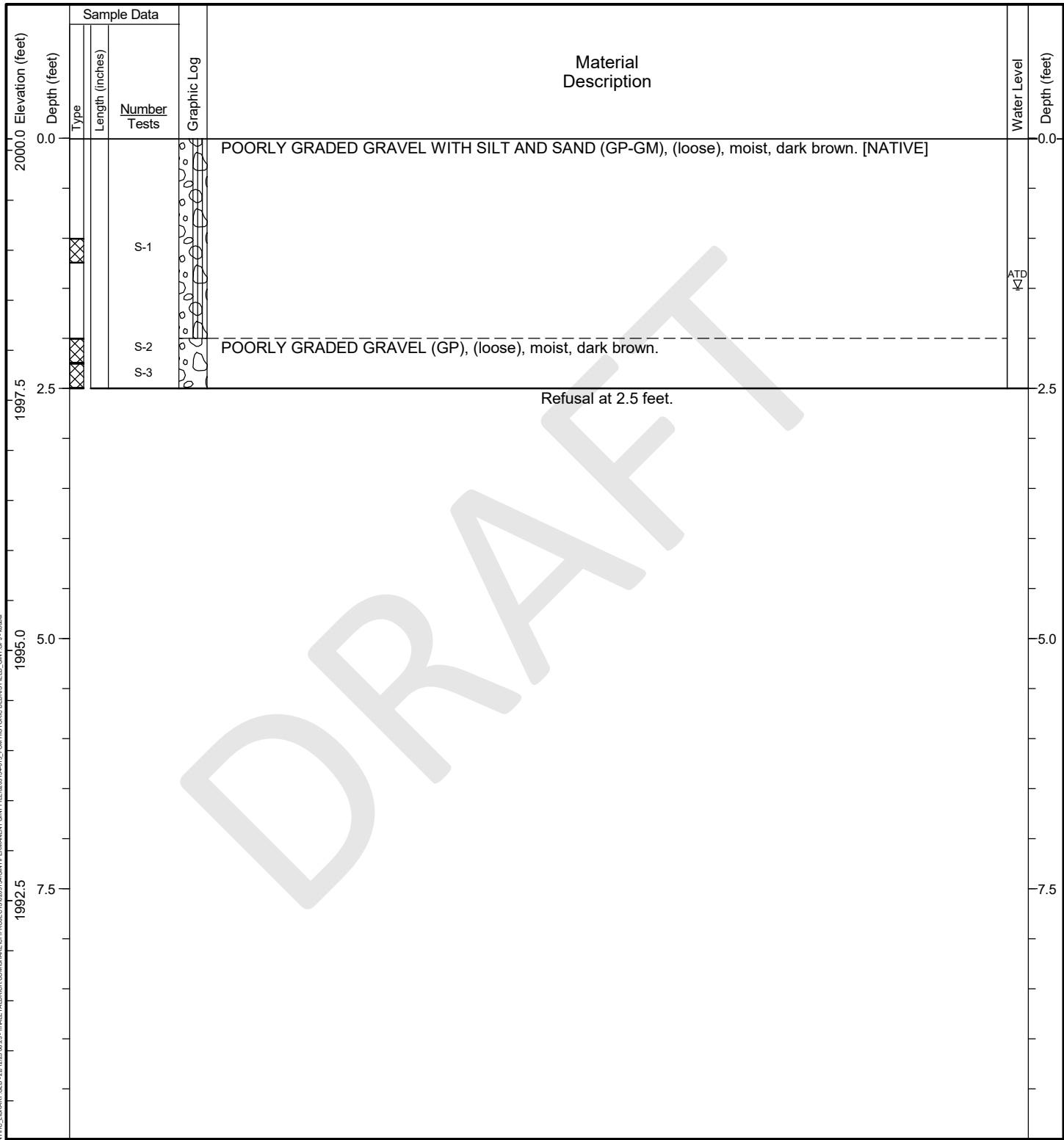
	Groundwater Level on Date or At Time of Drilling (ATD)
	Groundwater Level on Date Measured in Piezometer
	Groundwater Seepage (Test Pits)

Sample Symbols

Well Symbols



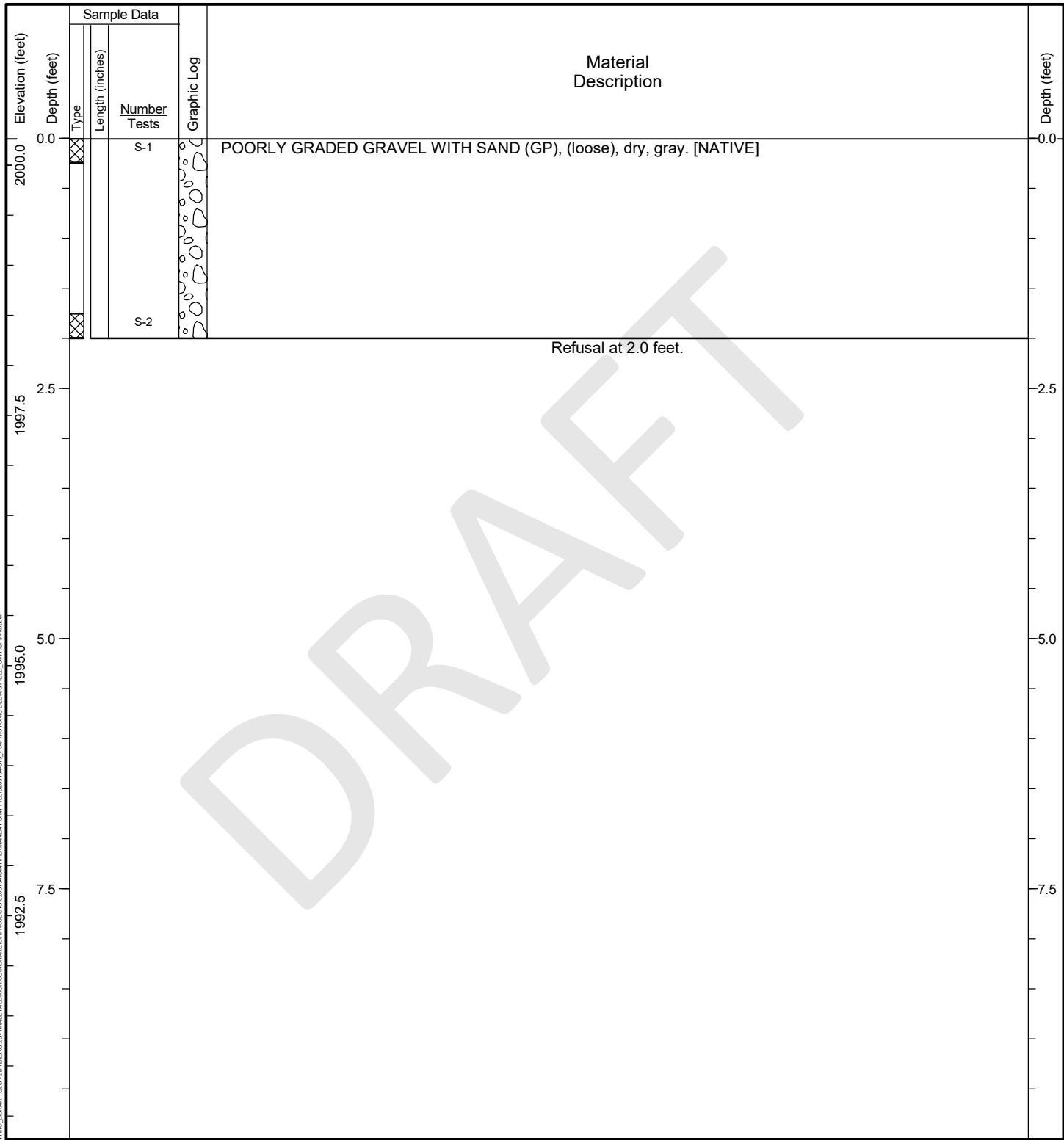
Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884856 Long: -117.360978 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,000.12 feet (NAVD 88) Total Depth: 2.5 feet Depth to Groundwater: 1.5 feet
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC\08885.FIELD.GP.L-16064

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

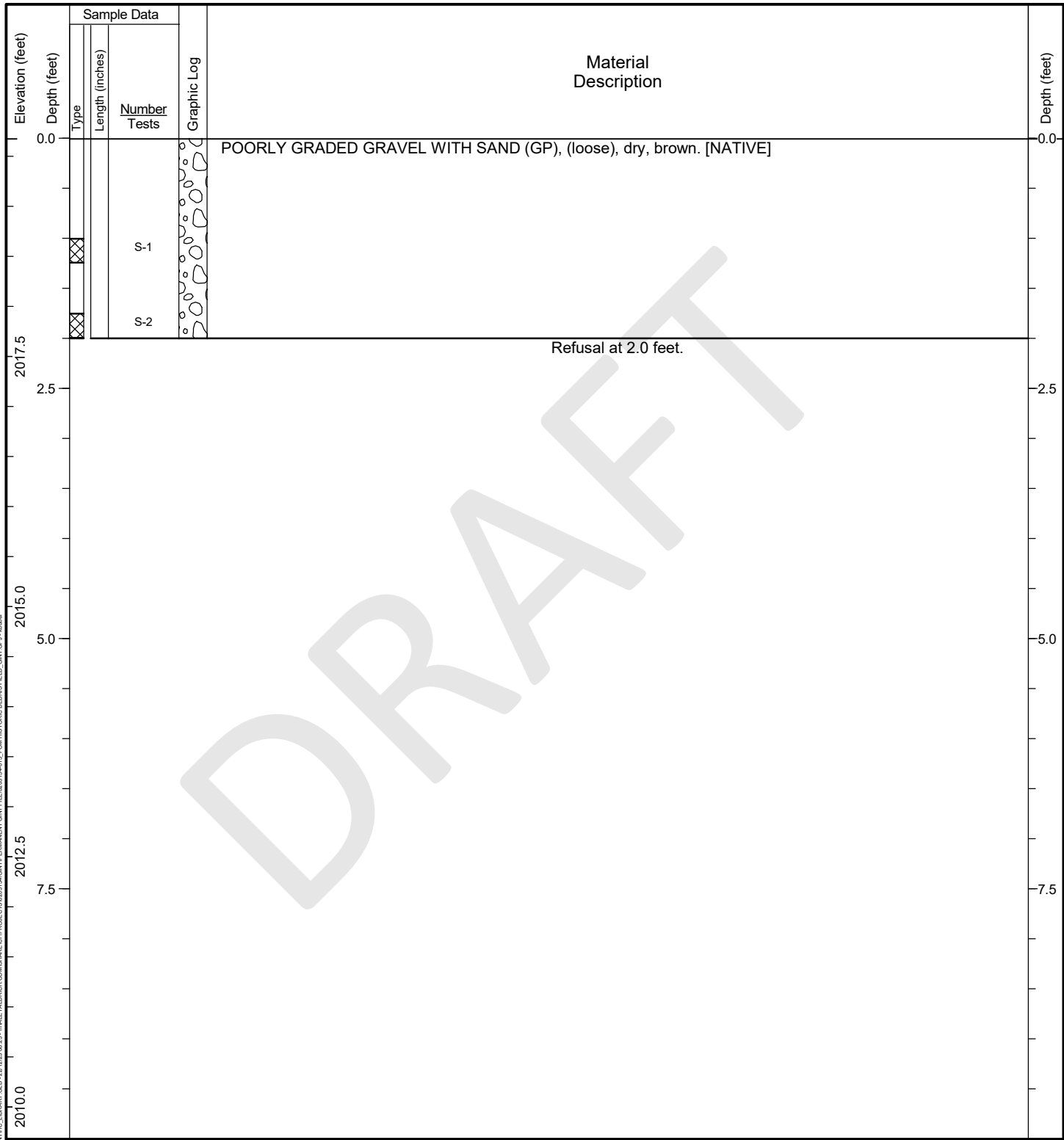
Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884689 Long: -117.361535 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,000.27 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC\0203154\GINT.GPJ - 10/24/2023 10:22:02 AM - 2023/06/05 10:22:02 AM - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC\0203154\GINT.GPJ - 10/24/2023 10:22:02 AM - 2023/06/05 10:22:02 AM

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

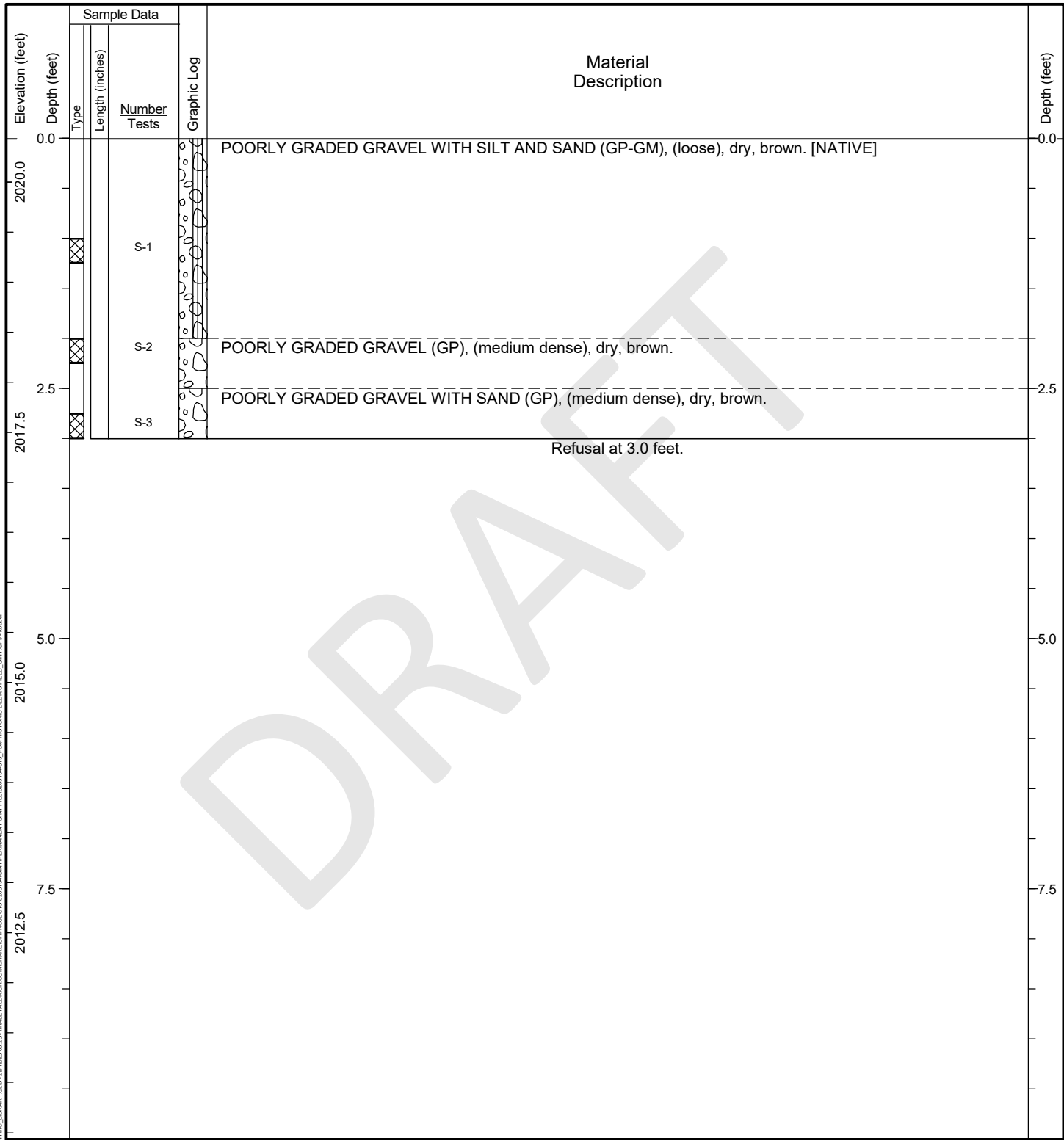
Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884574 Long: -117.361325 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,019.68 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PERMANENT GINT FILE\0203154-013_POM-HISTORIC DBRBS FIELD_GINT_GP_1-16-24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884577 Long: -117.361285 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,020.44 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____

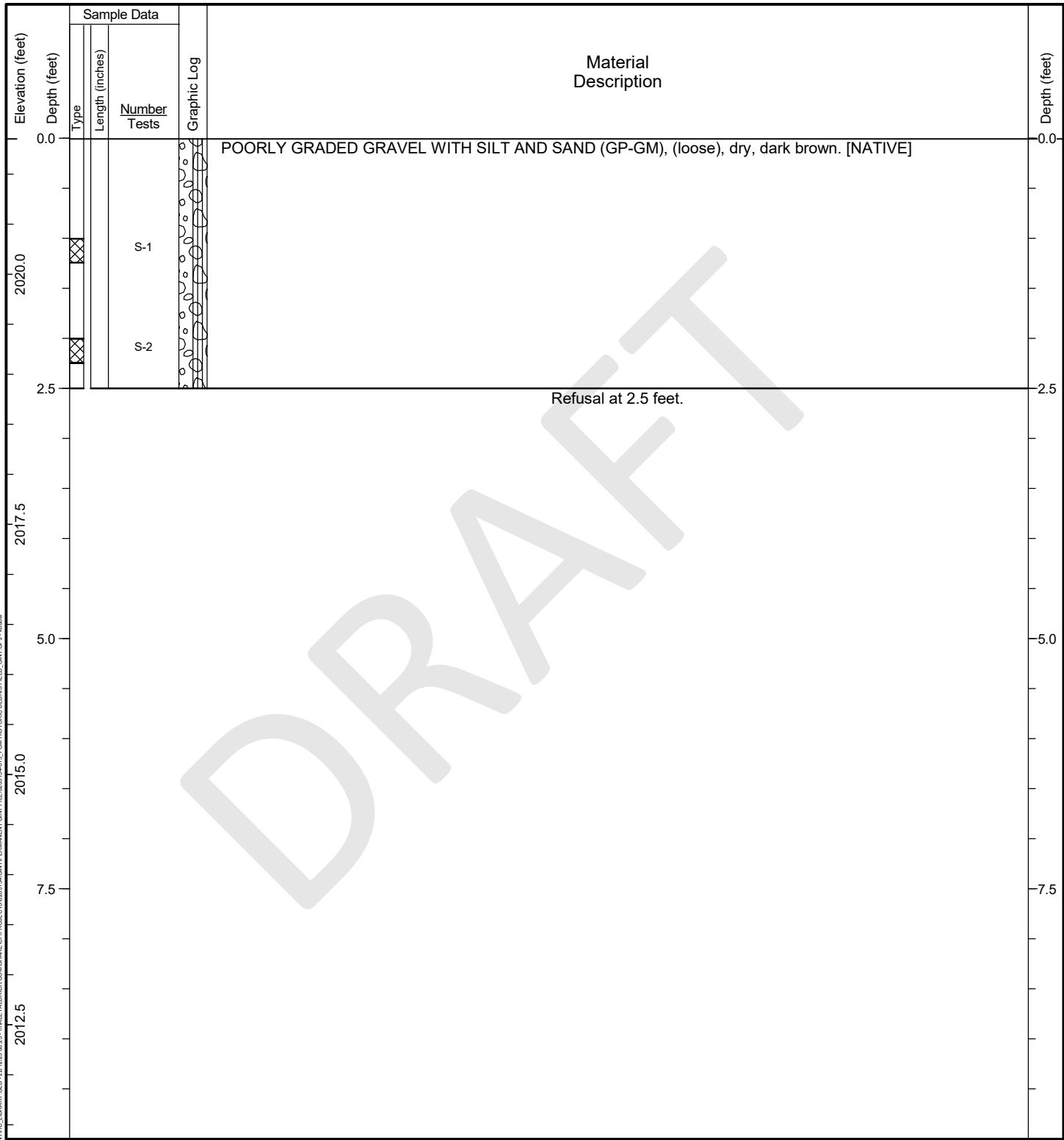


HA-PUSH-PROBE - \\HALEY\ALDRICH\COMMON\SHARE\PROJECTS\0203154\GINT\PERMANENT_GINT_FILE\0203154\01_POM-HIT-TO-RC DBBERS-FIELD_GINT_GP_1-1624

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

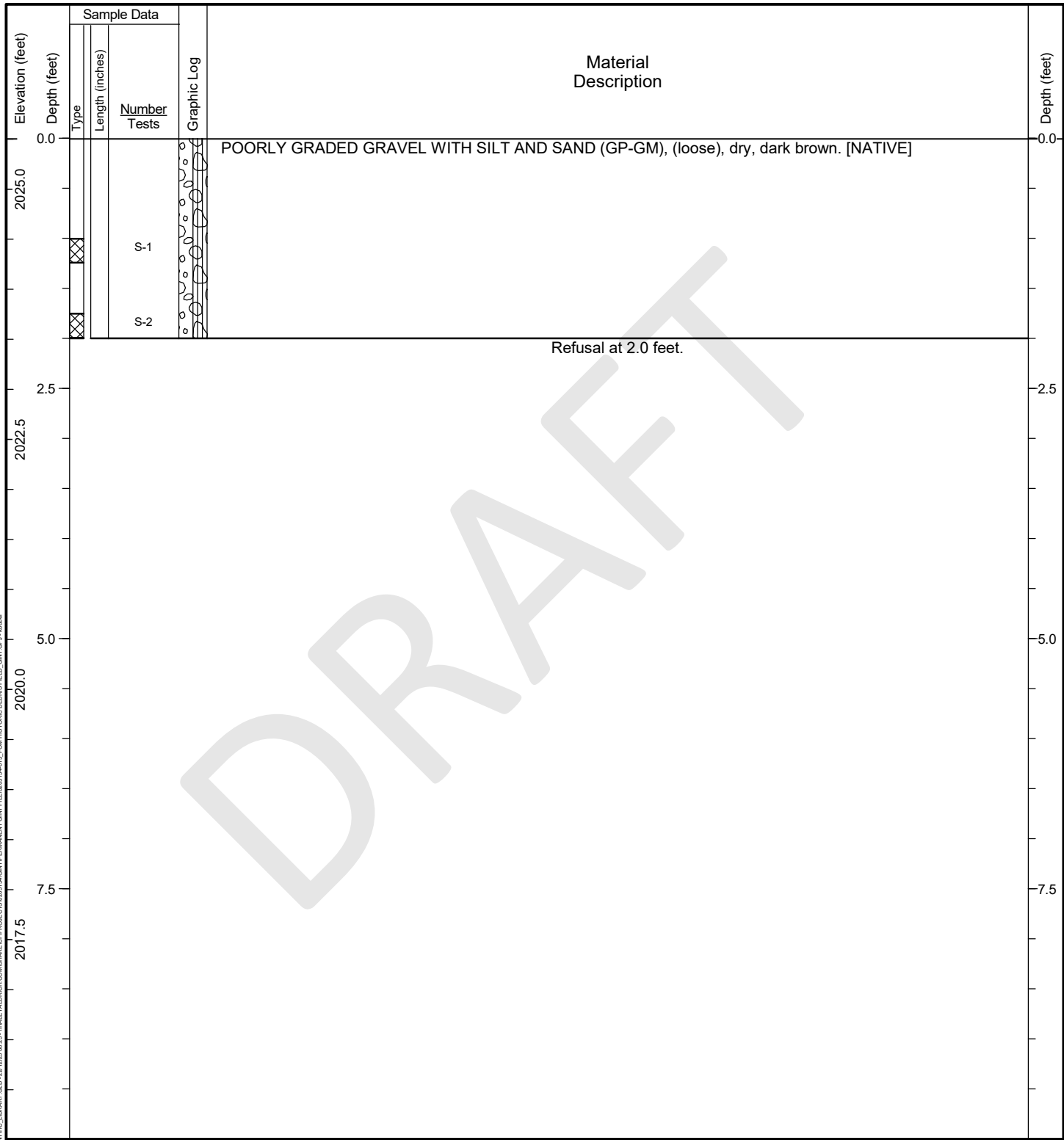
Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884537 Long: -117.361350 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,021.36 feet (NAVD 88) Total Depth: 2.5 feet Depth to Groundwater: Not Identified
 Comments: _____



HA PUSHPROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0220\B-23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC\0203154_GINT.GPJ-1-10-24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 06/05/2023 Date Completed: 06/05/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884530 Long: -117.361283 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,025.51 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



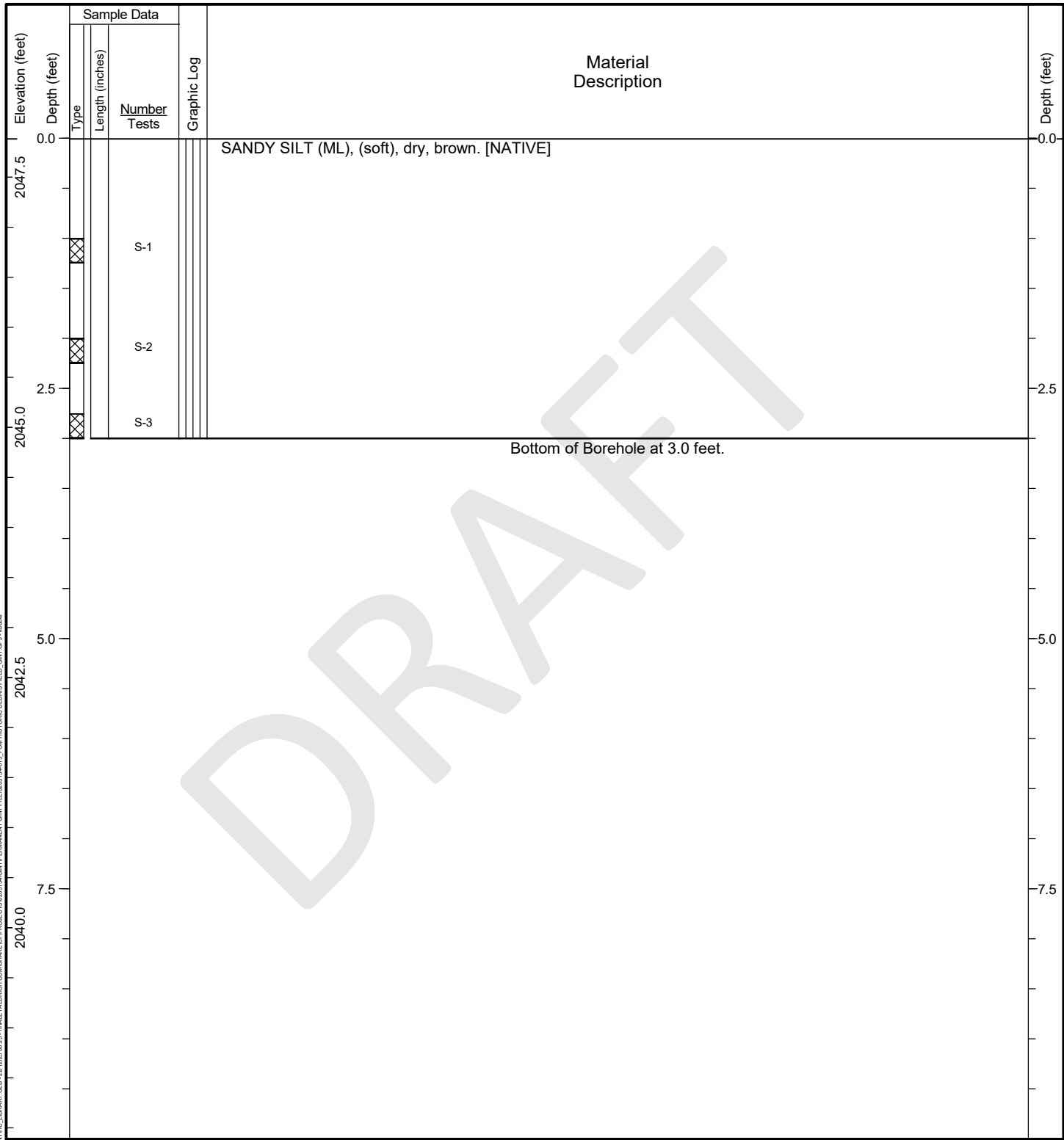
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General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\DC\PROJECTS\0203154\GINT\PERMANENT_GINT_FILE\0203154\013_POM-HISTORIC-DBRBS-FIELD_GP-1-ha04

Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884602 Long: -117.360702 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,047.89 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



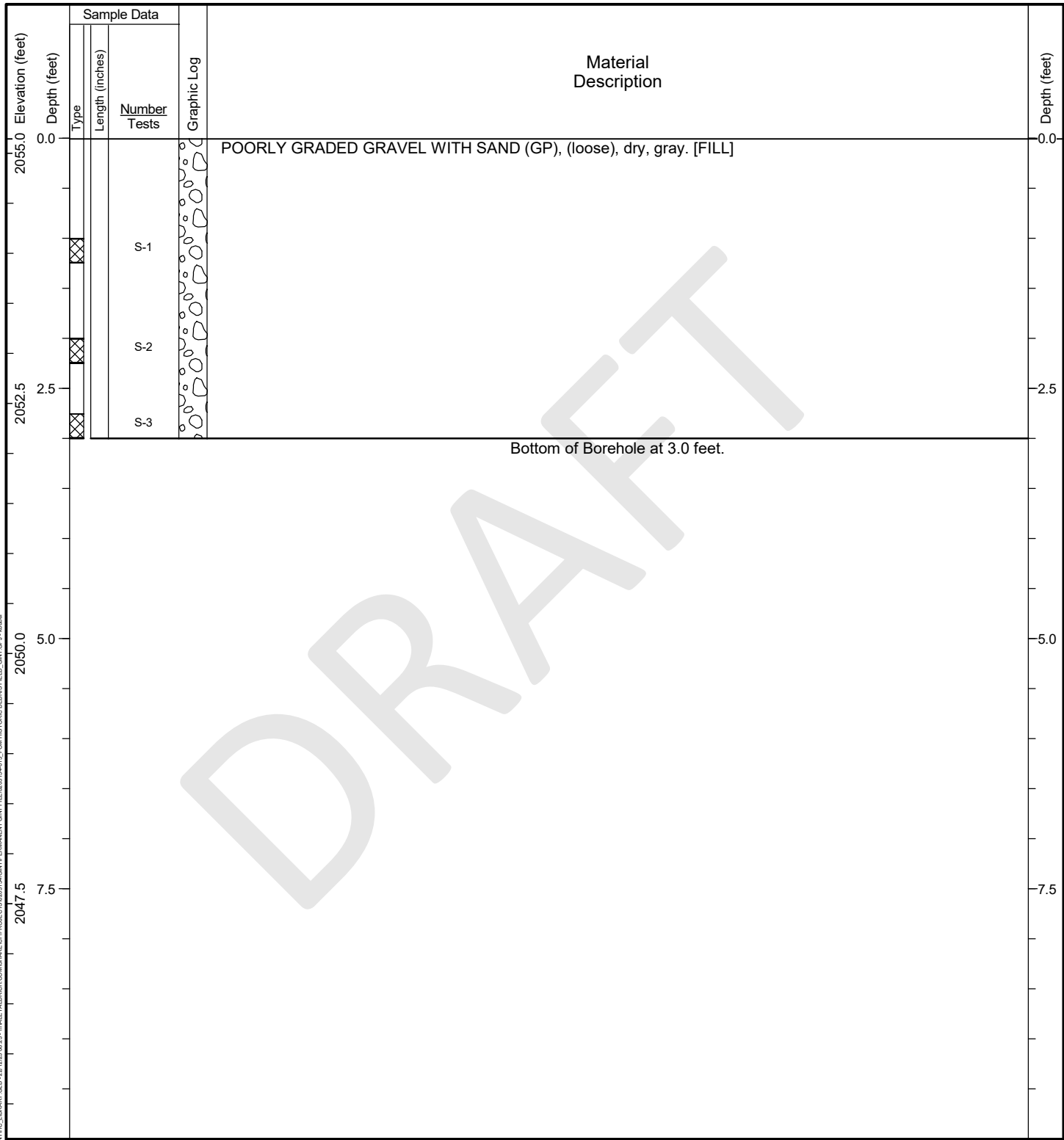
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HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\LIBRARY\GUL-22\0220\B-23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_P04_HISTORIC DBBERS FIELD_GINT.GPJ-1-16-24

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

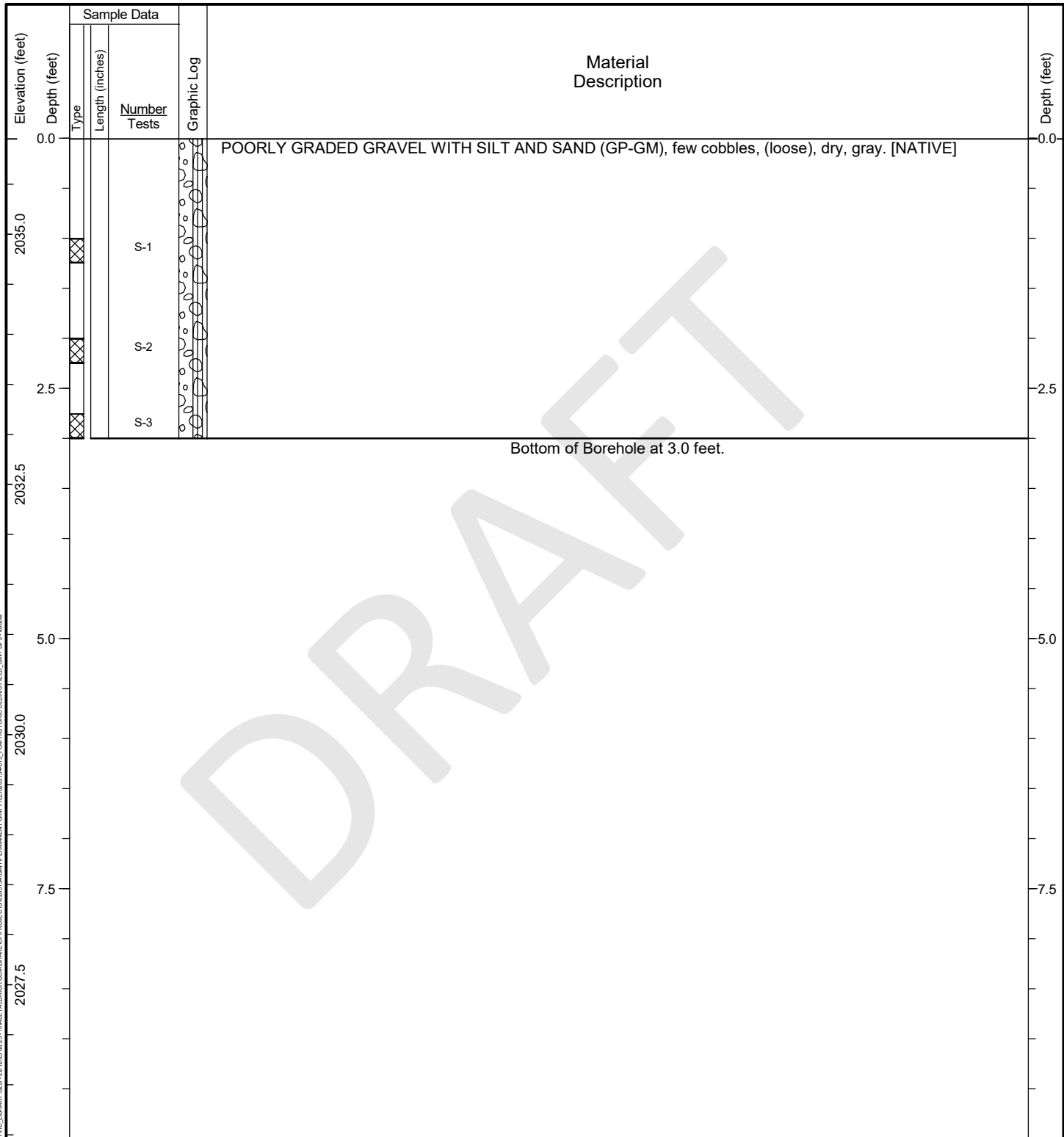
Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884452 Long: -117.361093 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,055.15 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\NC\LIBRARY\GUL-22\0220\B-23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC-DBERS-FIELD-GINT.GPJ - 10/24/2024

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

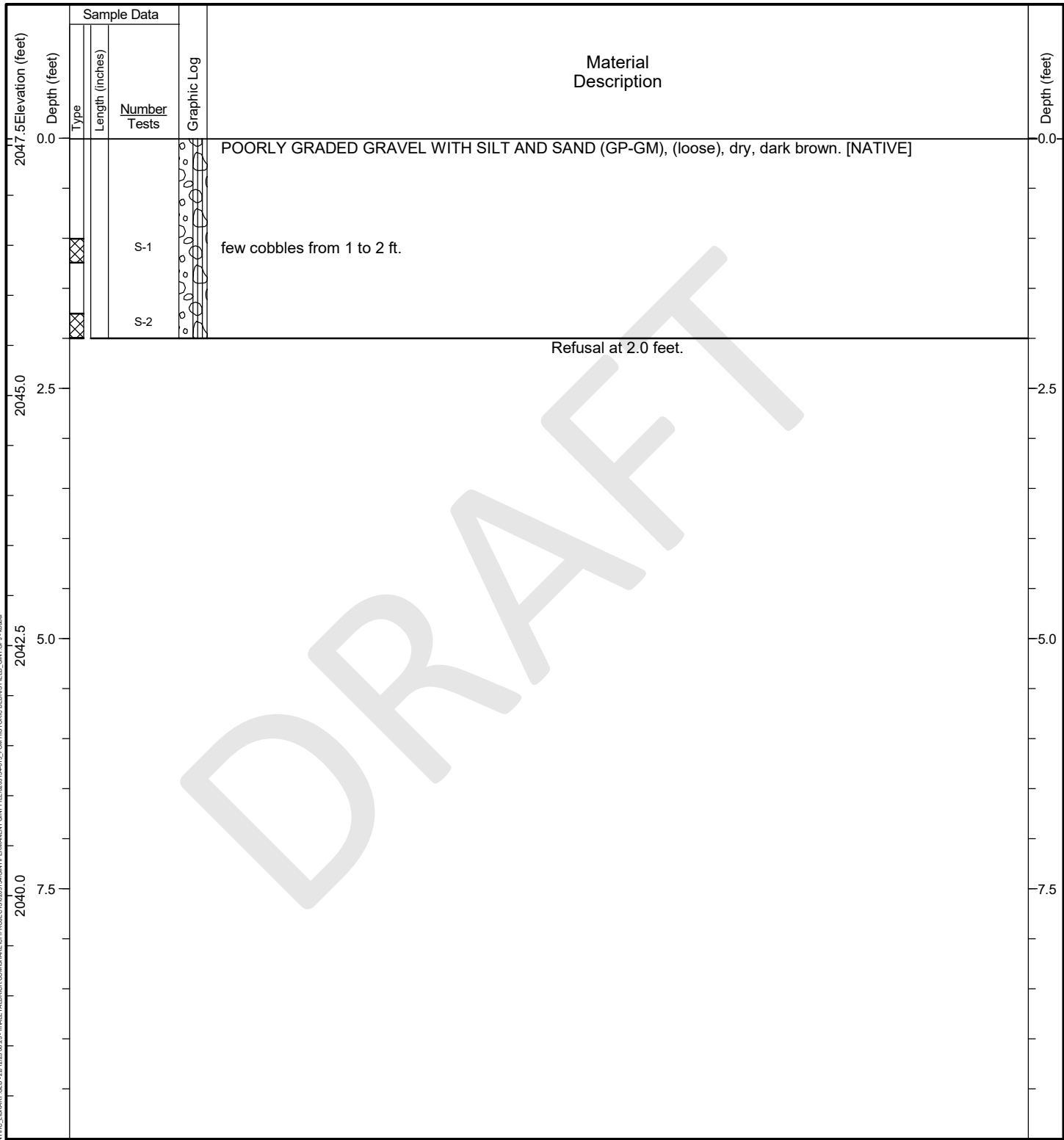
Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884433 Long: -117.361315 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,035.96 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0228\23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC\0203154\GINT\GP-1-0624

- General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

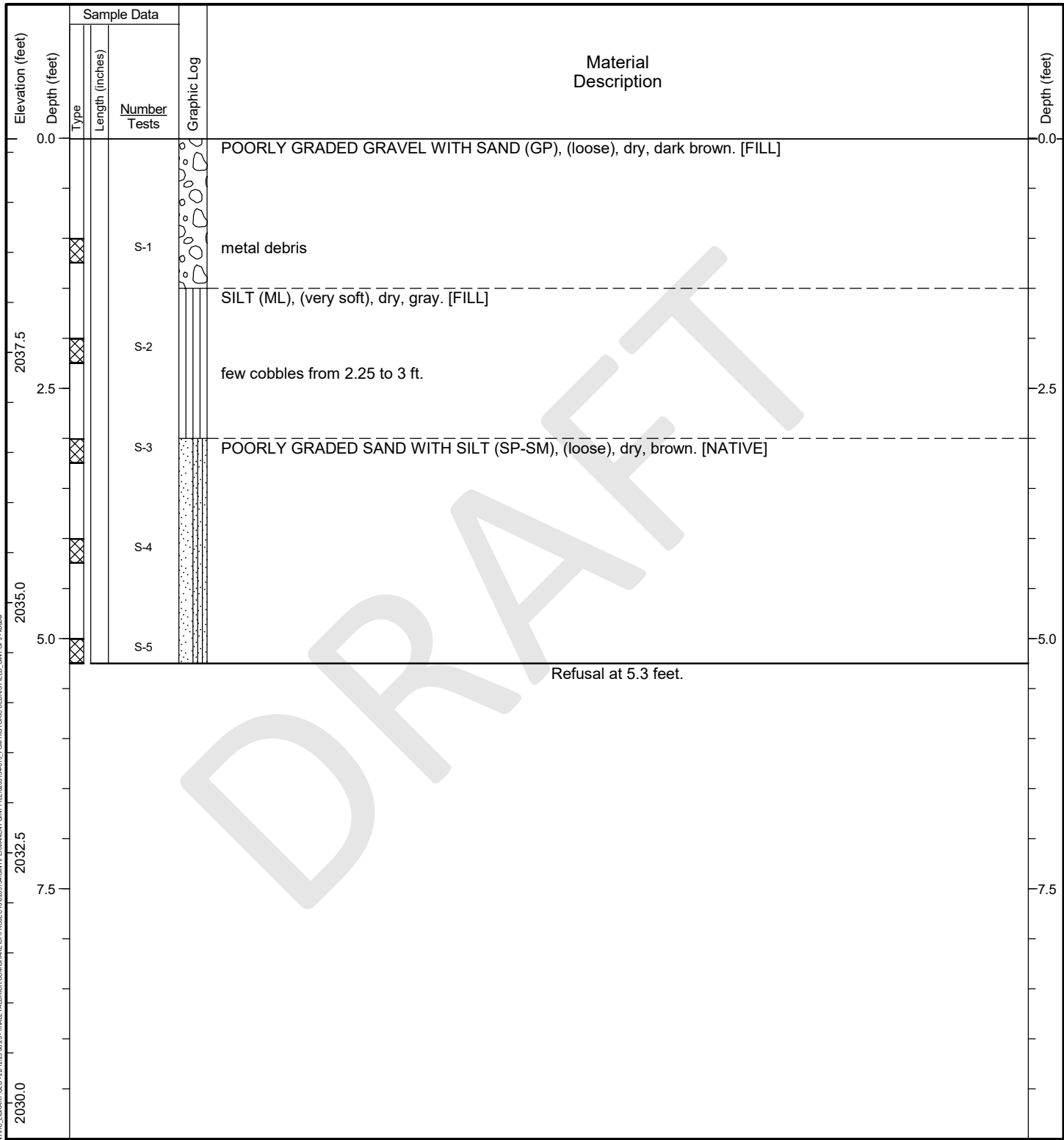
Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884419 Long: -117.361223 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,047.57 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\DC\PROJECTS\0203154\GINT\PERMANENT_GINT_FILE\0203154\013_POM-HIST-ORIG-DBBERS-FIELD-GP-L-0604

Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884419 Long: -117.361317 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,039.64 feet (NAVD 88) Total Depth: 5.25 feet Depth to Groundwater: Not Identified
 Comments: _____

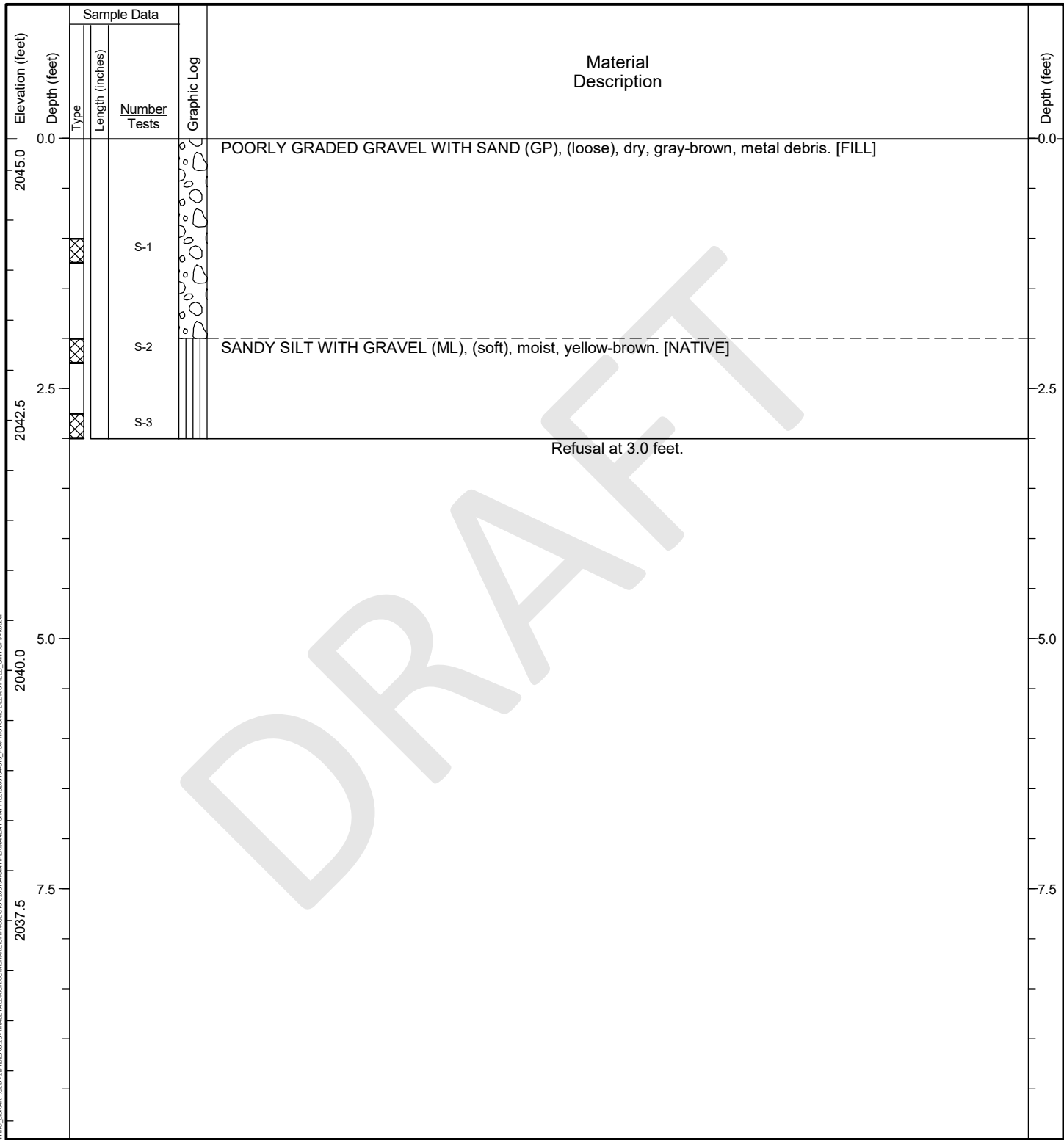


HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PERMANENT GINT FILE\0203154-013_P04_HISTORIC COBBERS FIELD_GINT_GP_1-16-24

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

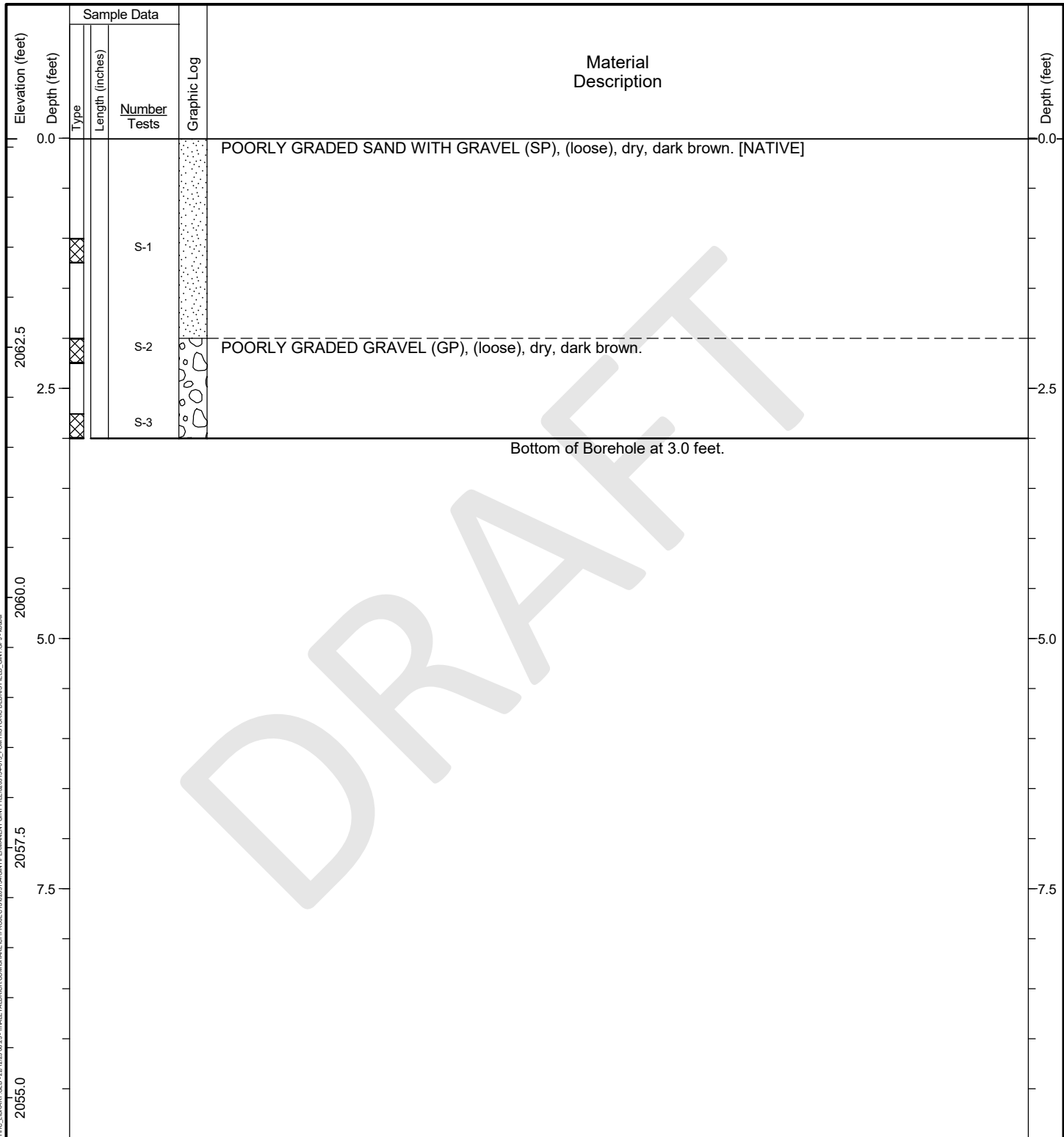
Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884395 Long: -117.361322 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,045.32 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\NIC LIBRARY\GUL-22\0220\B-23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC DBBERS FIELD_GINT.GPJ - 10/24/24

Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884521 Long: -117.360763 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,064.59 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____

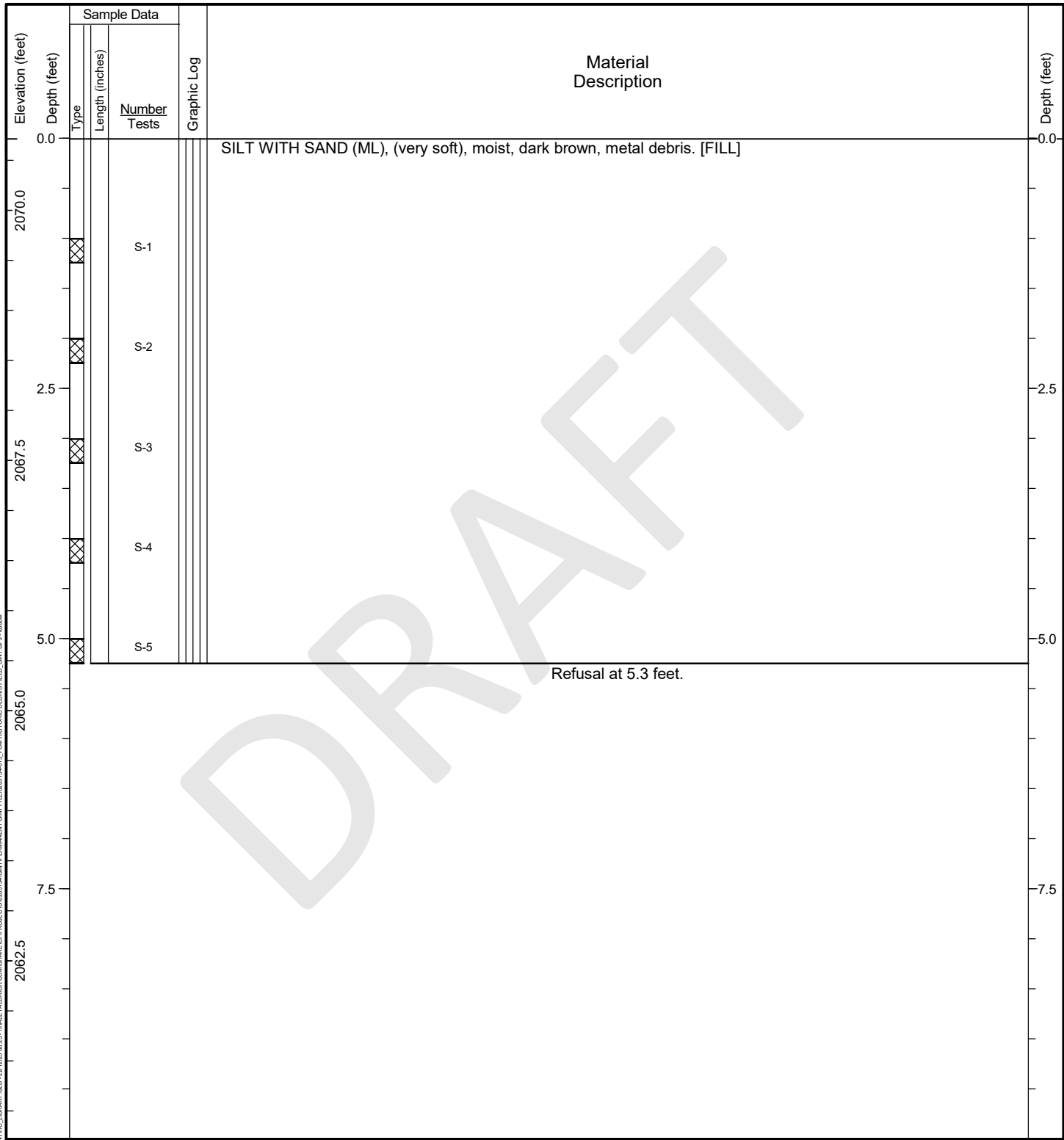


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HA P15H PROBE - HALEY ALDRICH CONSULTING LIBRARY GUL-221222 B3-3 - HALEY ALDRICH COMPANY PROJECTS/0203154/013 PERMANENT GINT FILE/0203154/013_P01_HISTORIC DBBERS FIELD_GINT_GP_1-1624

- General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884384 Long: -117.361090 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,070.72 feet (NAVD 88) Total Depth: 5.25 feet Depth to Groundwater: Not Identified
 Comments: _____

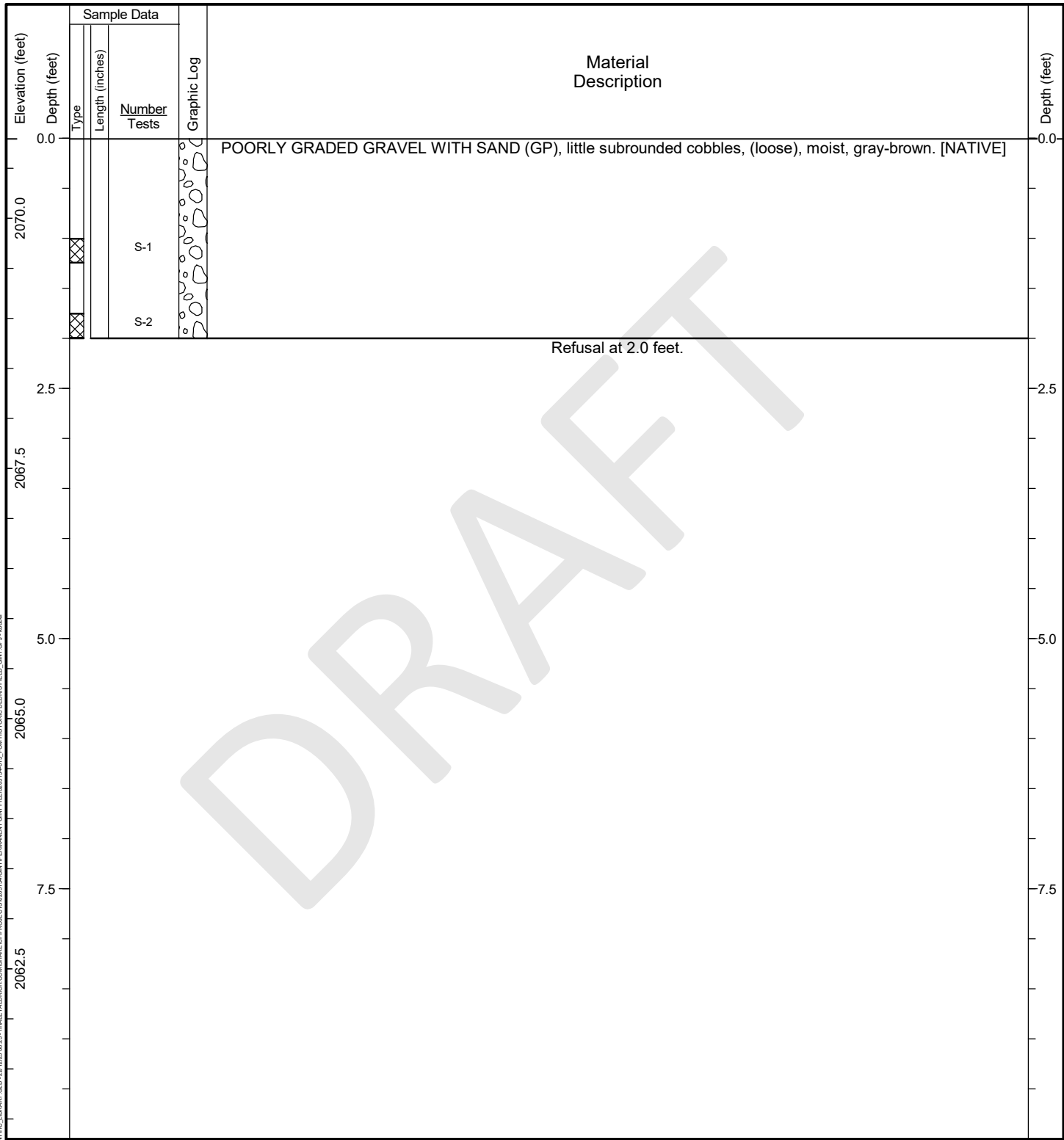


HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\DC LIBRARY\GUL-22\0208\23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_P04_HISTORIC DBBERS FIELD_GINT.GPJ-1-16-24

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884229 Long: -117.361487 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,070.80 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



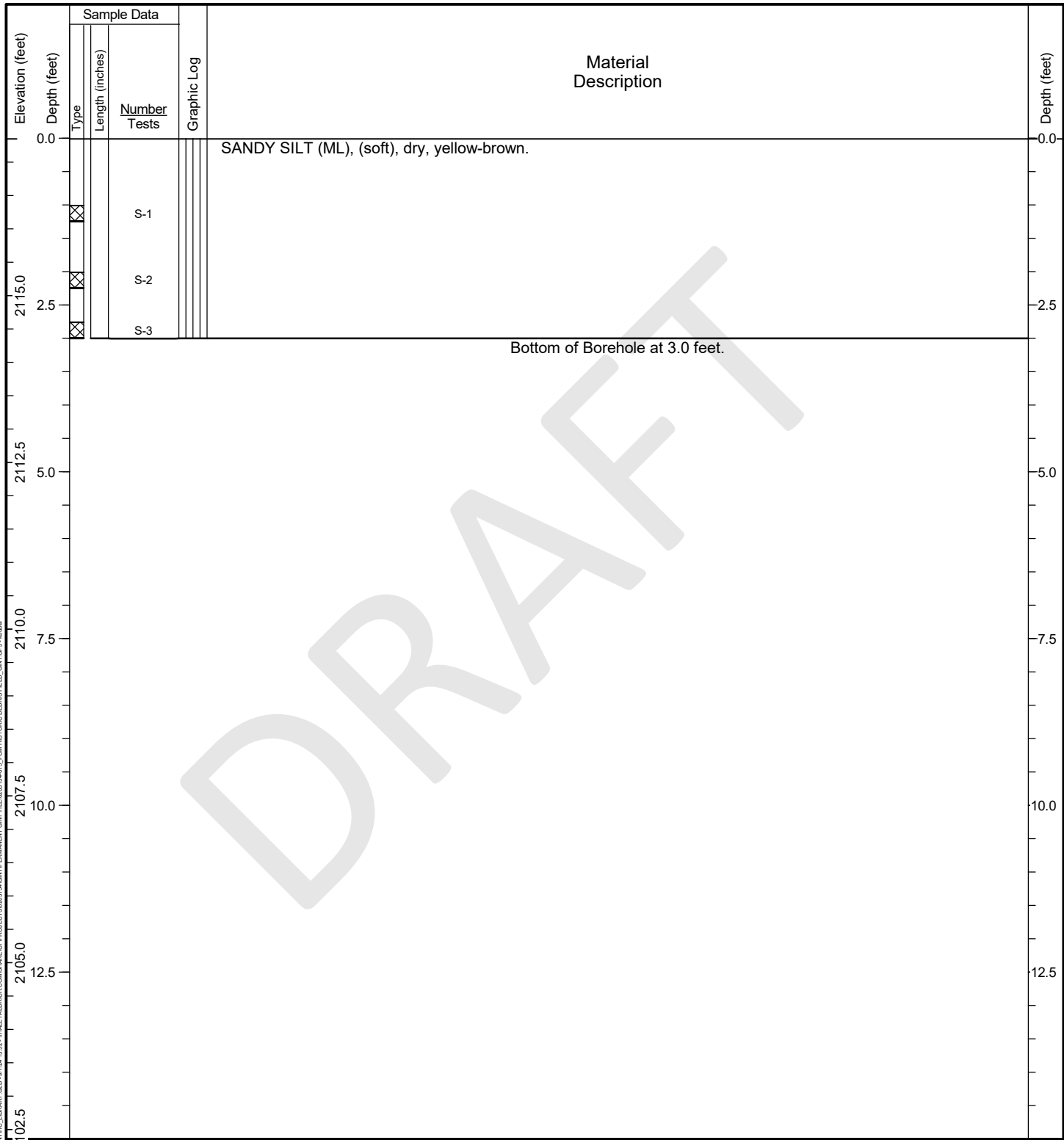
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General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\NIC LIBRARY\GUL-22\0220\B-23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC COBBLES FIELD_GINT.GPJ - 10604

Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884296 Long: -117.360835 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,117.36 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____

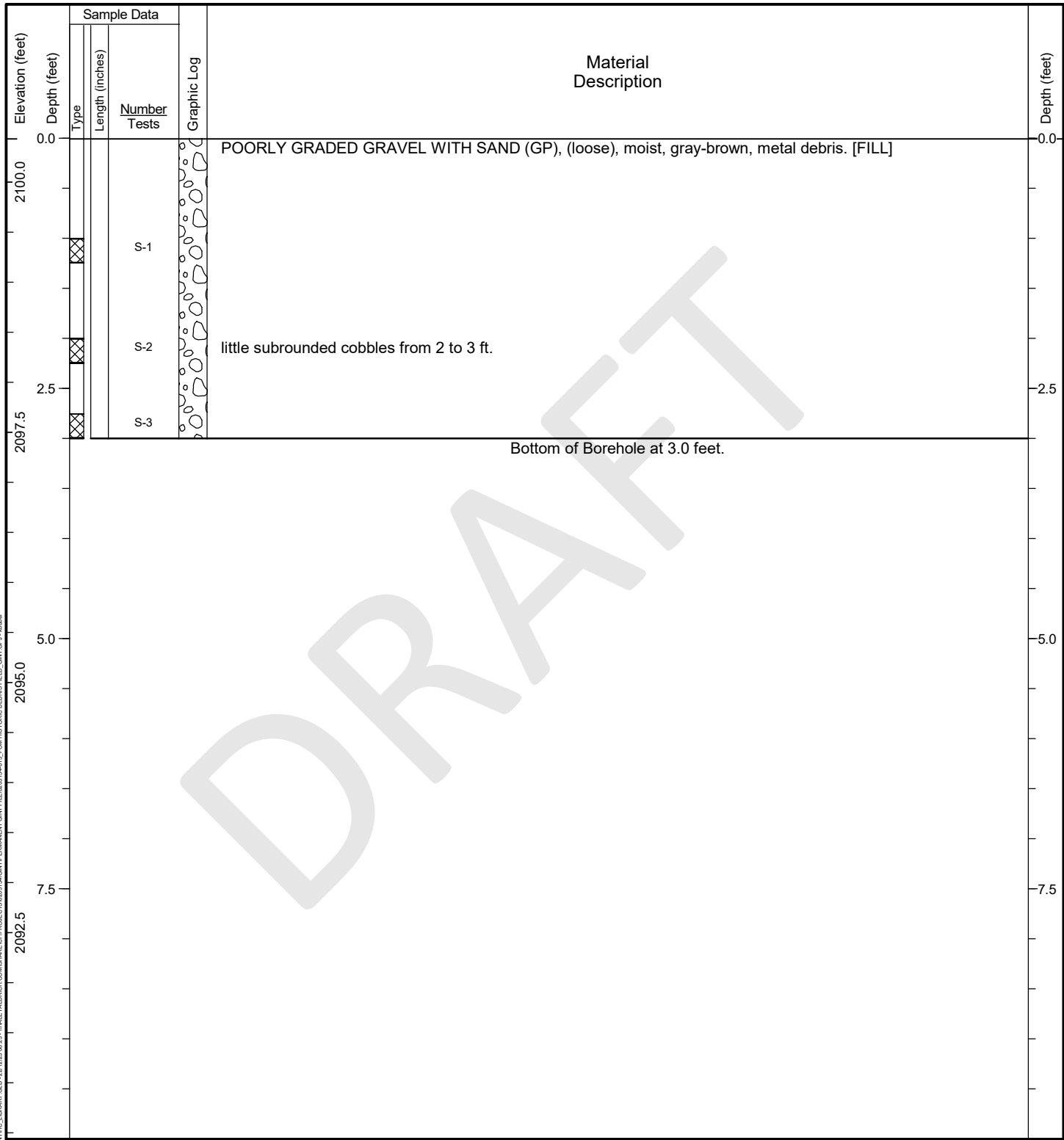


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General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - HALEYALDRICH.COM\SHARES\DATA\GINT\IC LIBRARY\GULI - 9/1/24 13:22 - HALEYALDRICH.COM\SHARES\PROJECTS\0203154\GINT\PERMANENT GINT FILES\0203154-013_POM\HISTORIC DEBERS.FLD_GINT.GPJ - 3/6/24

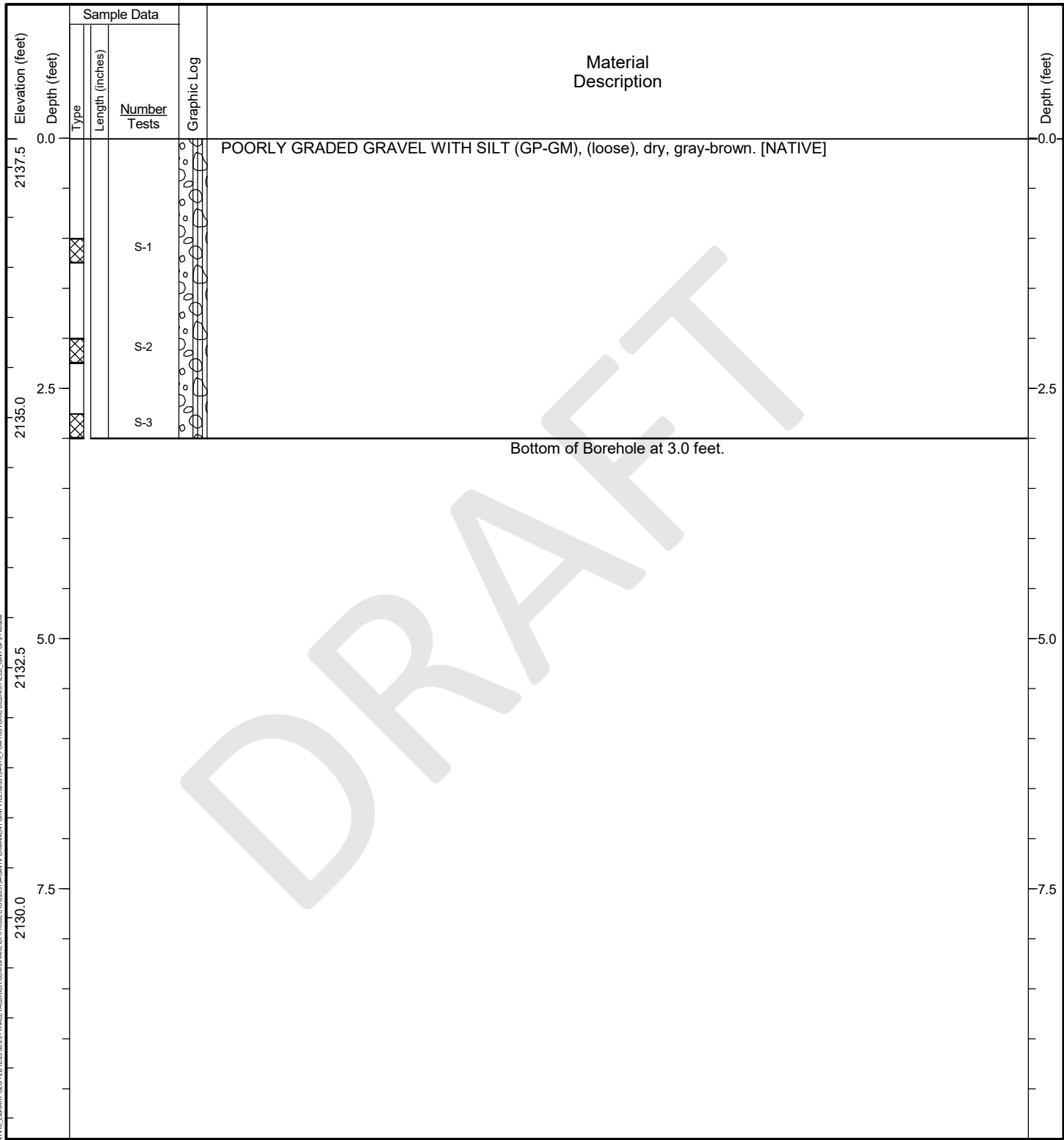
Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884122 Long: -117.361445 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,100.44 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0228\23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\01_P04-HISTORIC COBBERS FIELD_GINT_GP_1-06-24

- General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884149 Long: -117.360693 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,137.79 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____

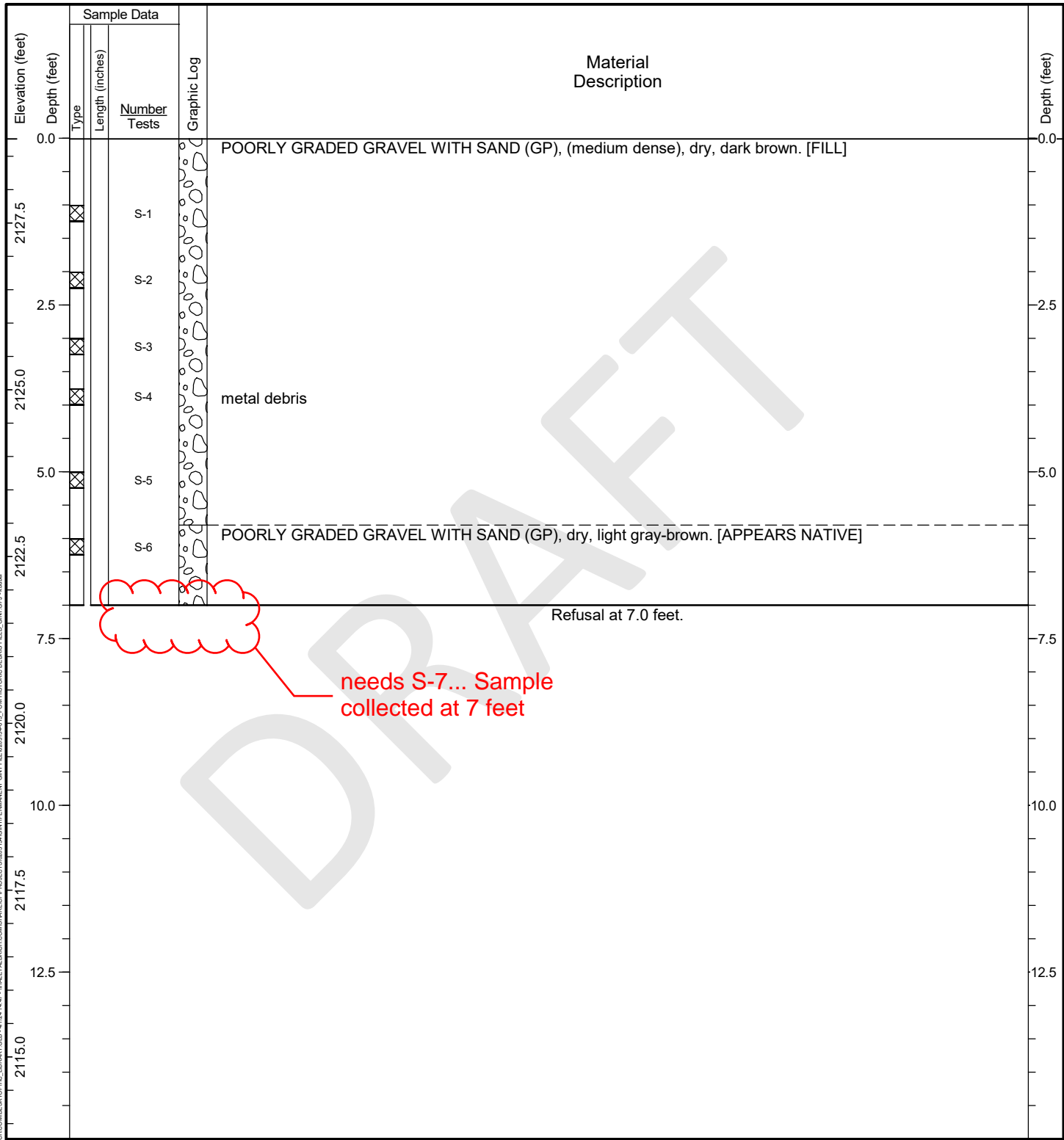


HA PLSH PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0228\23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_P04_HISTORIC DBBERS FIELD_GINT.GPJ - 06/04/2024

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

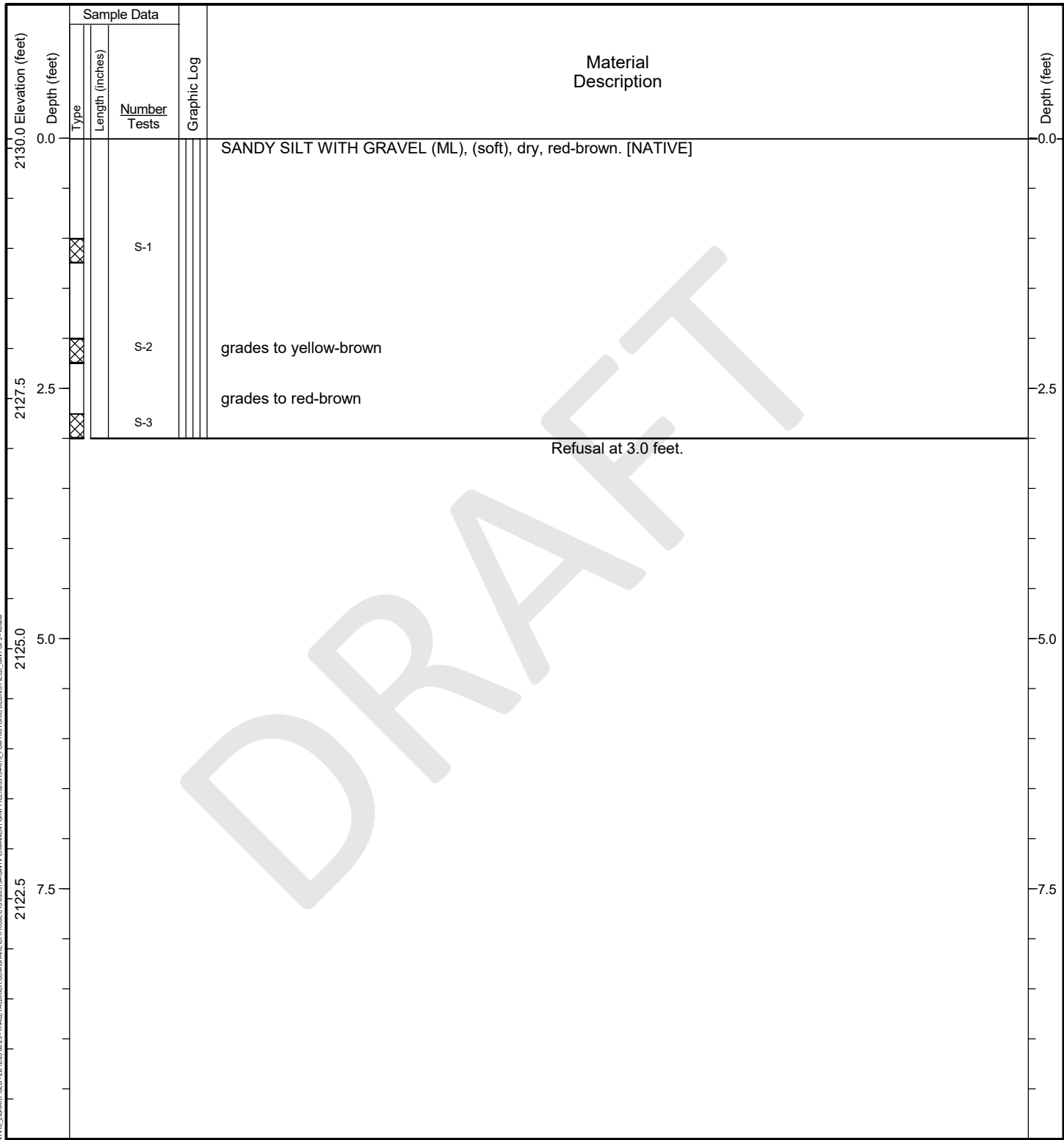
Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884163 Long: -117.360945 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,128.77 feet (NAVD 88) Total Depth: 7 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA\PUSH\PROBE - C:\USERS\BLOMBLONER\BLOMBLONER\HALEY\ALDRICH\COMSER\PROJECTS\0203154\0203154\GINT\PERMANENT GINT FILE\0203154-013.DWG HISTORIC DEBRIS FIELD GINT - 10.08.23

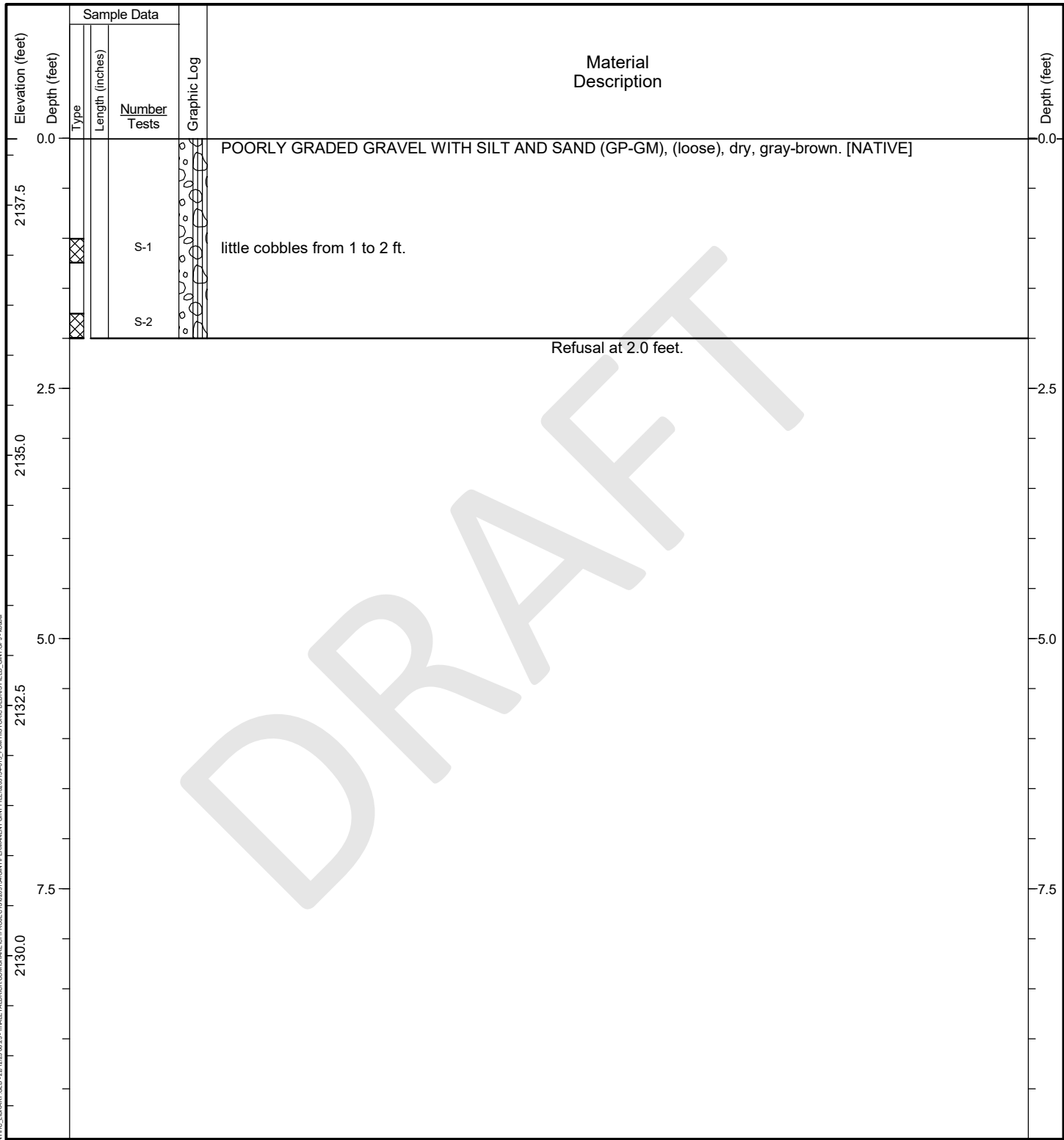
Date Started: 06/07/2023 Date Completed: 06/07/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884158 Long: -117.360892 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,130.10 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\DC\PROJECTS\0203154\GINT\PERMANENT_GINT_FILE\0203154\013_POM-HISTORIC-DBERS-FIELD_GINT.GPJ - 06/04

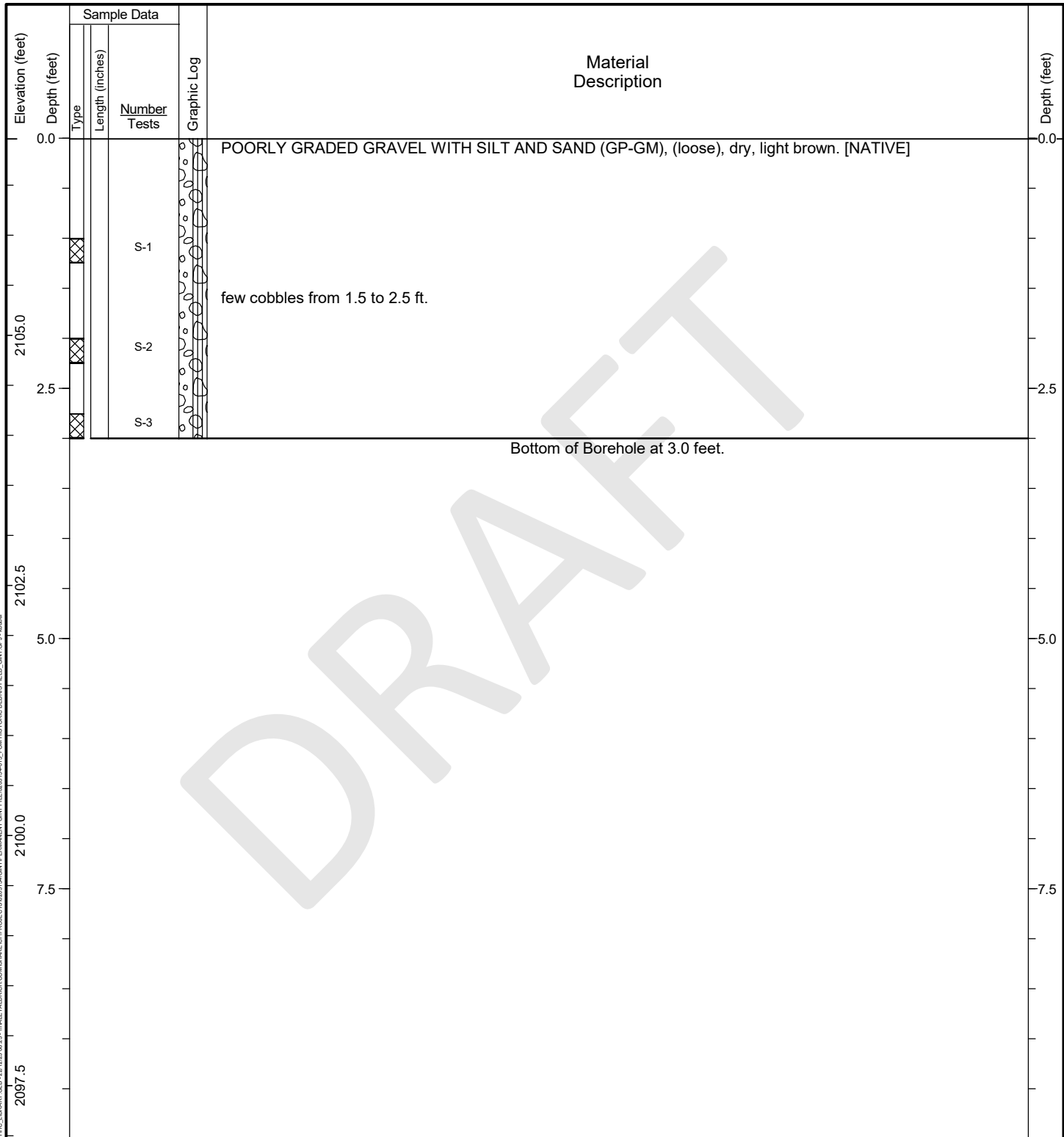
Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884057 Long: -117.360910 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,138.17 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-1518-PROBE - HALEY/ALDRICH/CONSHA/RESSEA_DATA/GNTHIC_LIBRARY/GUL-22/020823-1-1HALEY/ALDRICH/CONSHA/RESSEA/PROJECTS/0203154/GNTP/PERMANENT_GNTH_FILE/0203154-013_POM_HISTORIC/CBERS/FIELD_GNTH_GP-1-ha24

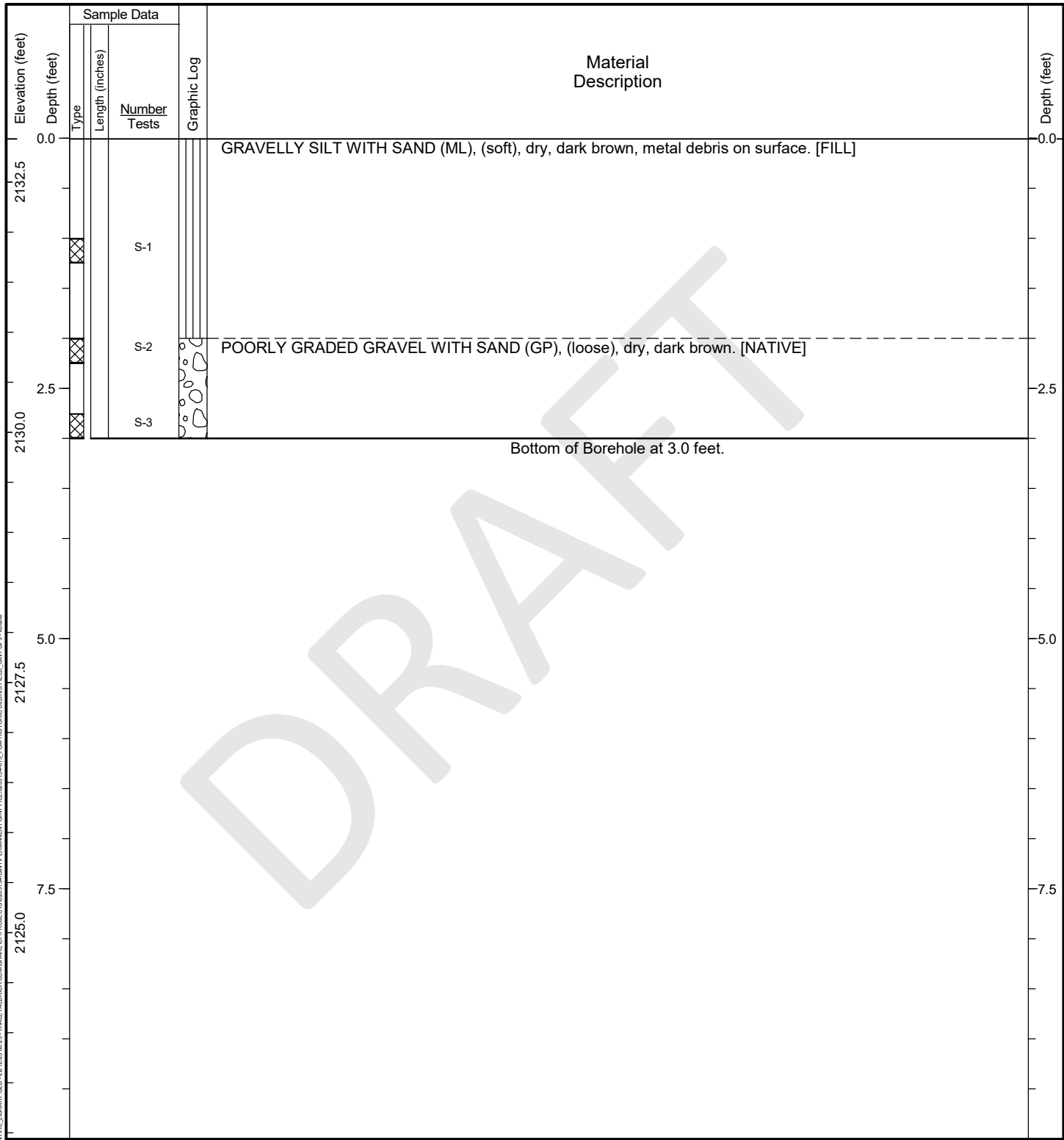
Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884107 Long: -117.361535 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,106.97 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\DC\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\01_P04_HISTORIC DBRBS FIELD_GINT_GP_1.tbl

- General Notes:
1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

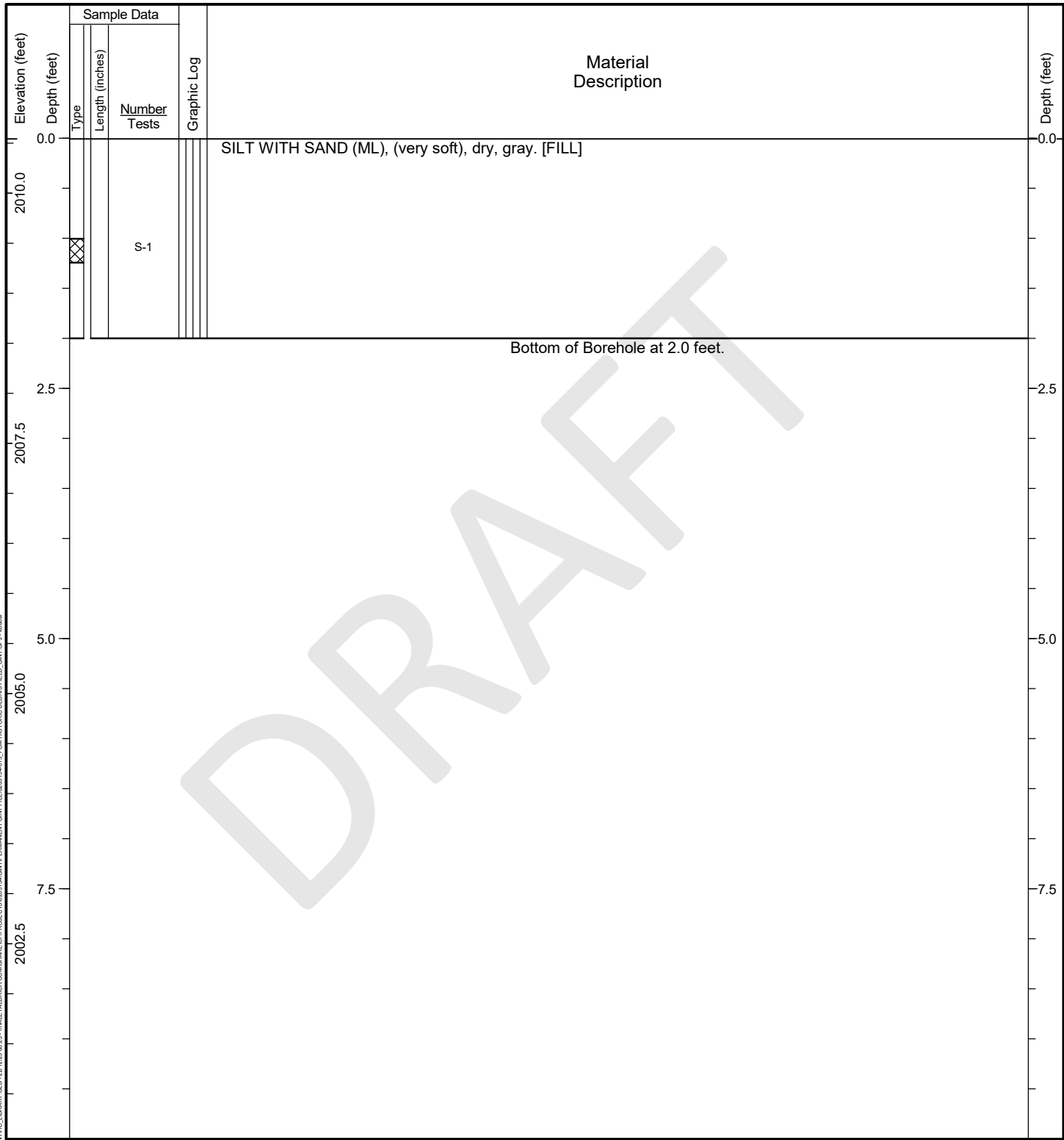
Date Started: 06/06/2023 Date Completed: 06/06/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.883990 Long: -117.361330 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,132.94 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\022018-23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HI-HISTORIC DBBERS FIELD_GINT_GP_1-16-24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884391 Long: -117.361893 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,010.55 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____

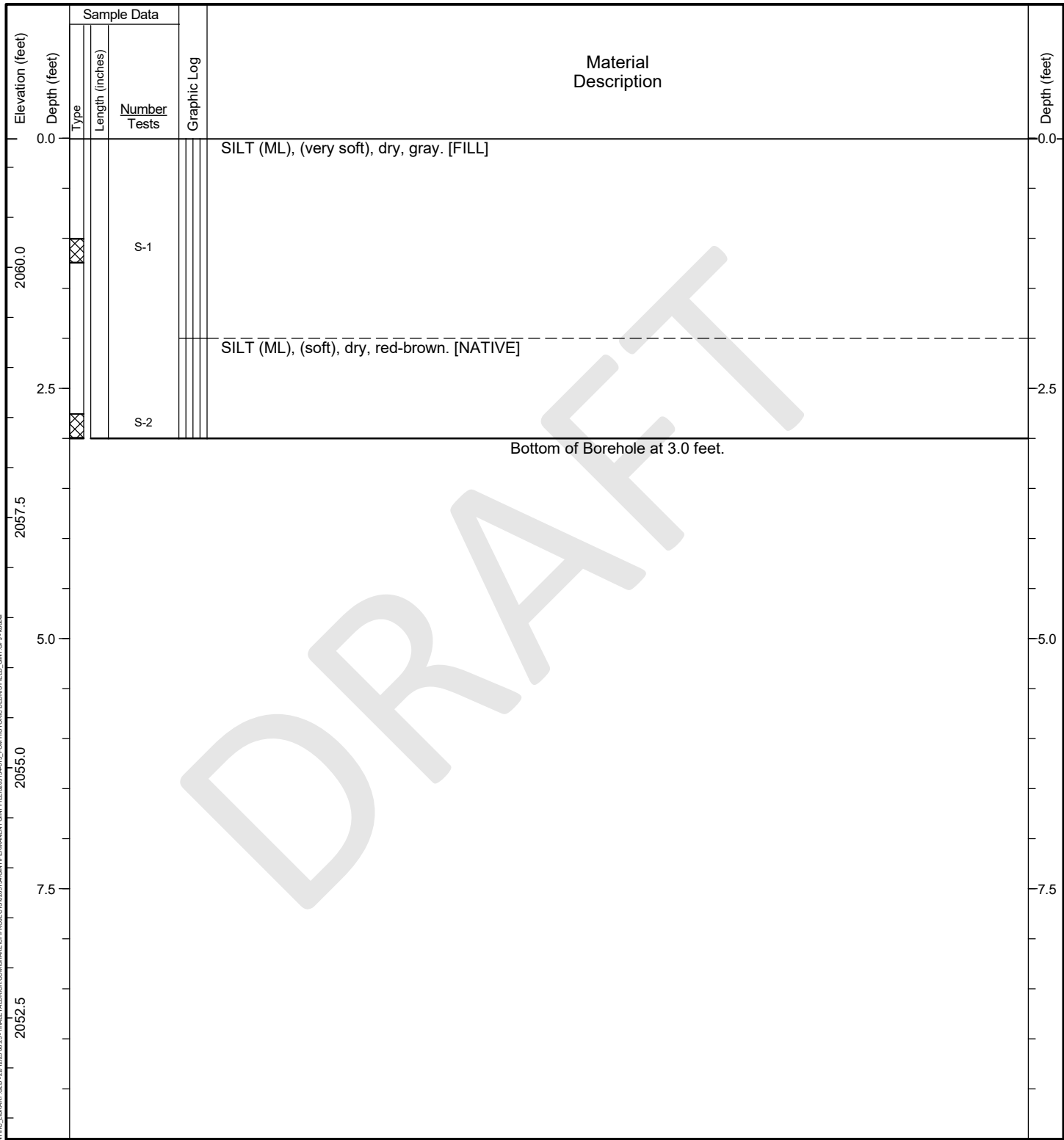


DRAFT

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
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 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\LIBRARY\GUL-22\0220\B-23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC DBBERS FIELD_GINT.GPJ - 06/04

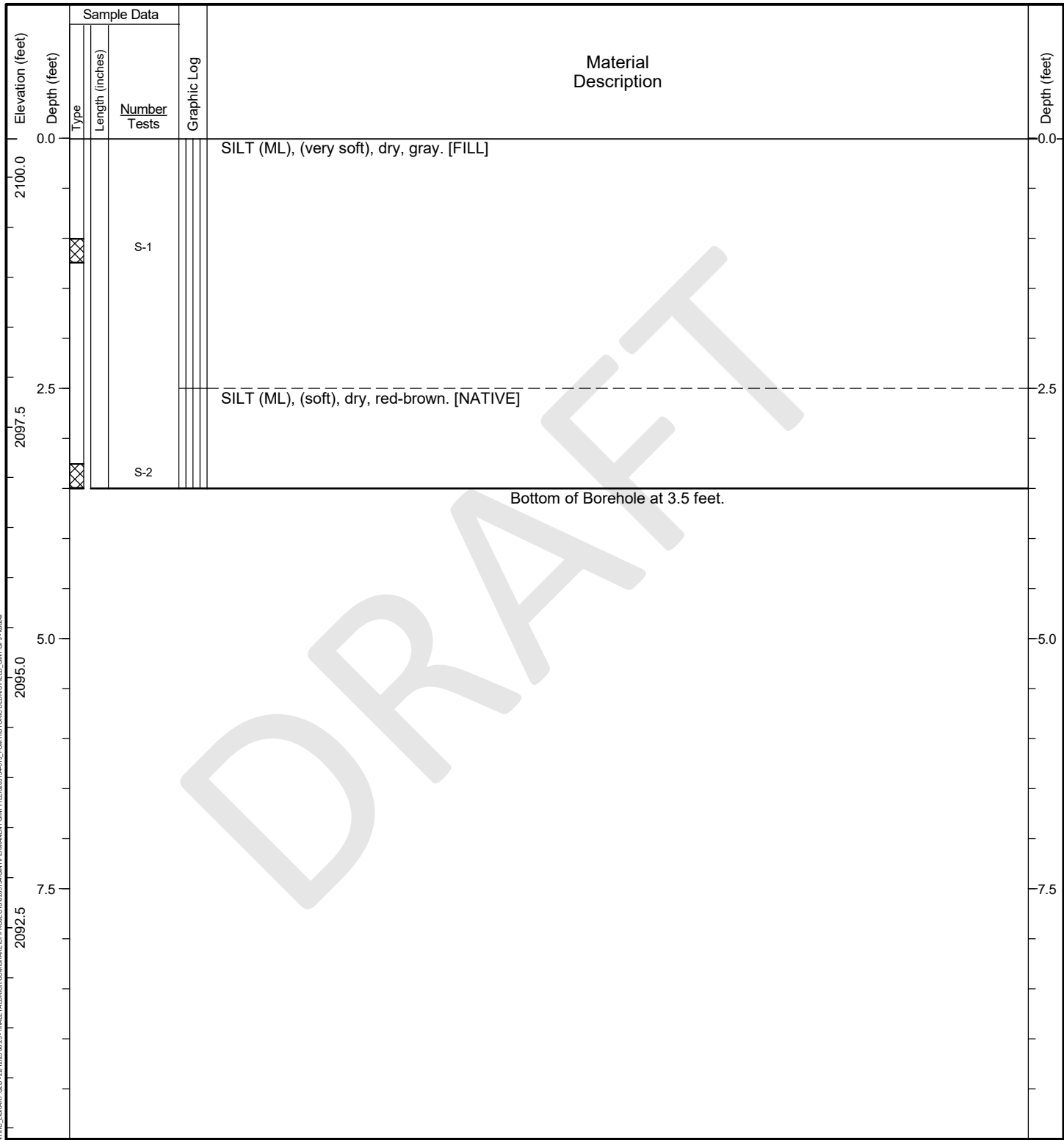
Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884244 Long: -117.361674 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,061.29 feet (NAVD 88) Total Depth: 3 feet Depth to Groundwater: Not Identified
 Comments: _____



General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0220\B-23 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC\0203154_013.GINT.GPJ - 10/24/2024

Date Started: 06/08/2023 Date Completed: 06/08/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: M.Clark Checked by: K.Huddleston Rig Model/Type: Hand Auger
 Location: Lat: 48.884138 Long: -117.361520 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,100.39 feet (NAVD 88) Total Depth: 3.5 feet Depth to Groundwater: Not Identified
 Comments: _____

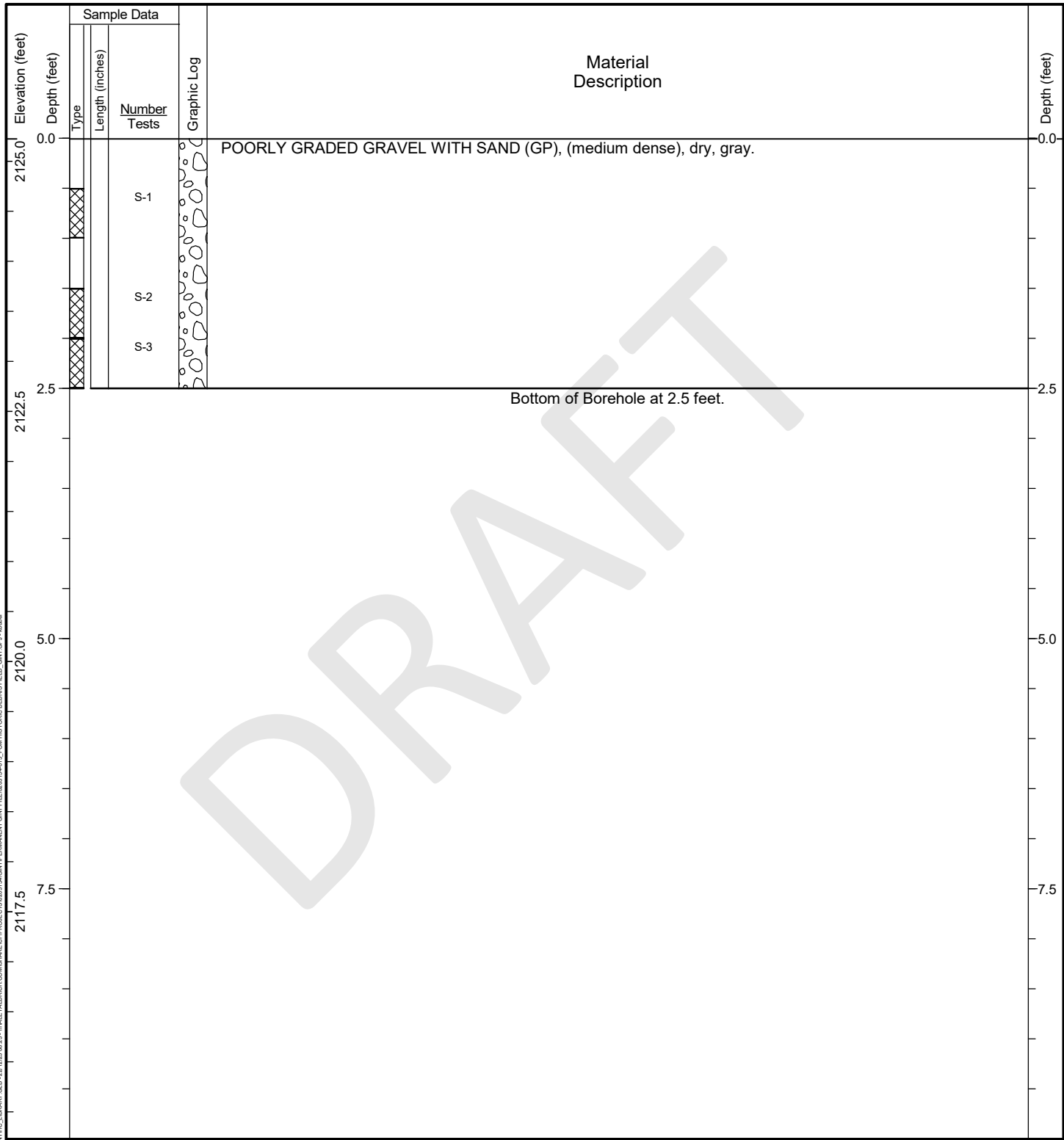


General Notes:
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 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMMON\SHARES\DATA\GINT\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC-DBBERS-FIELD_GINT.GPJ-1-10-24

Date Started: 10/30/2023 Date Completed: 10/30/2023
 Logged by: K.Huddleston/ W.McDonald Checked by: M.Clark
 Location: Lat: 48.884221 Long: -117.360907 (WGS 84)
 Ground Surface Elevation: 2,125.23 feet (NAVD 88)
 Comments: _____

Contractor/Crew: Haley & Aldrich, Inc.
 Rig Model/Type: Hand Auger
 Hole Diameter: 4 inches Well Casing Diameter: NA
 Total Depth: 2.5 feet Depth to Groundwater: Not Identified



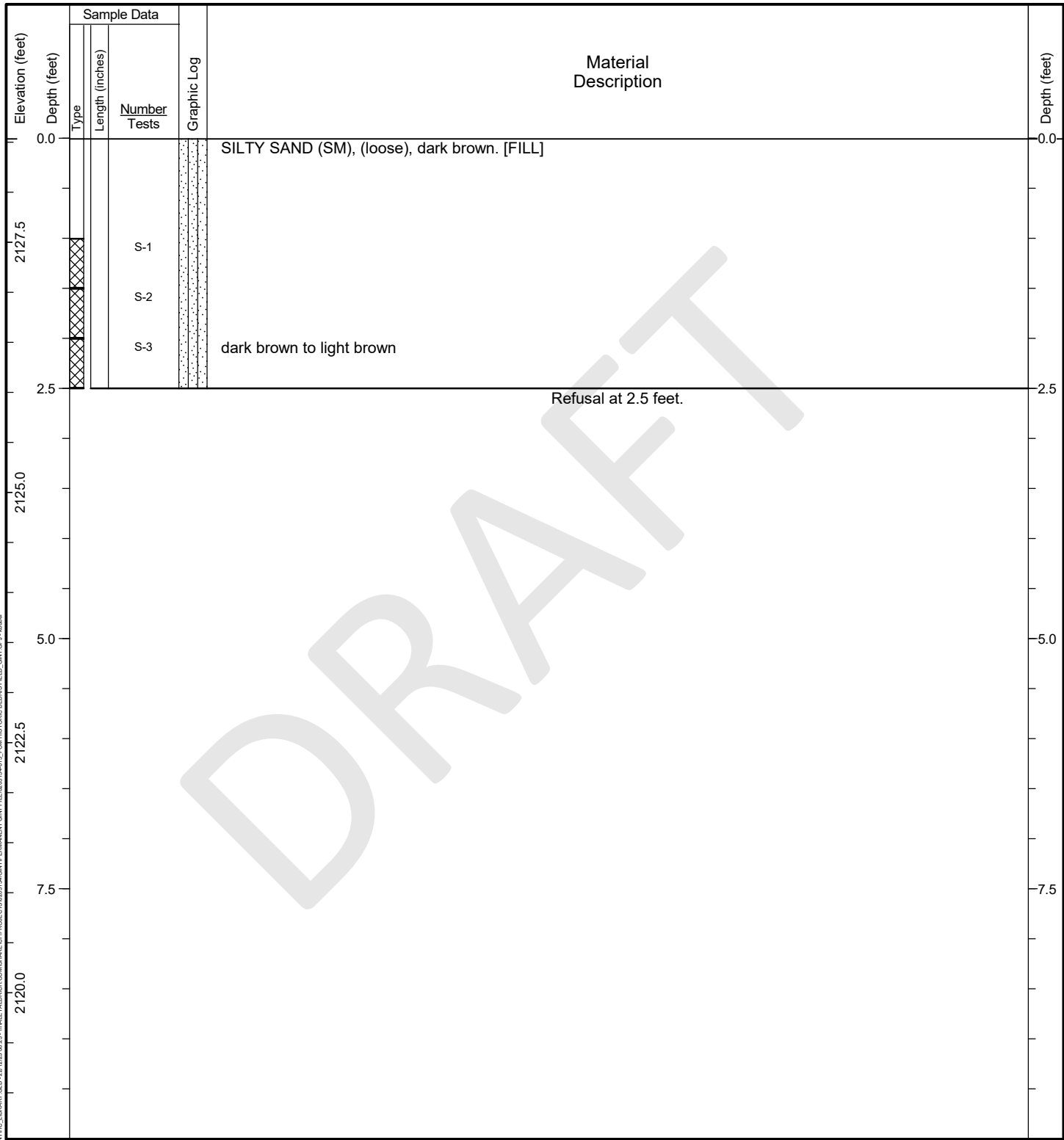
DRAFT

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA PLSH PROBE - \\HALEY\ALDRICH\COMMONSHARES\DATA\GINT\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC\08855.FIELD_GINT.GPJ - 10/30/23

Date Started: 10/30/2023 Date Completed: 10/30/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: K.Huddleston/ W.McDonald Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884142 Long: -117.361028 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,128.54 feet (NAVD 88) Total Depth: 2.5 feet Depth to Groundwater: Not Identified
 Comments: _____



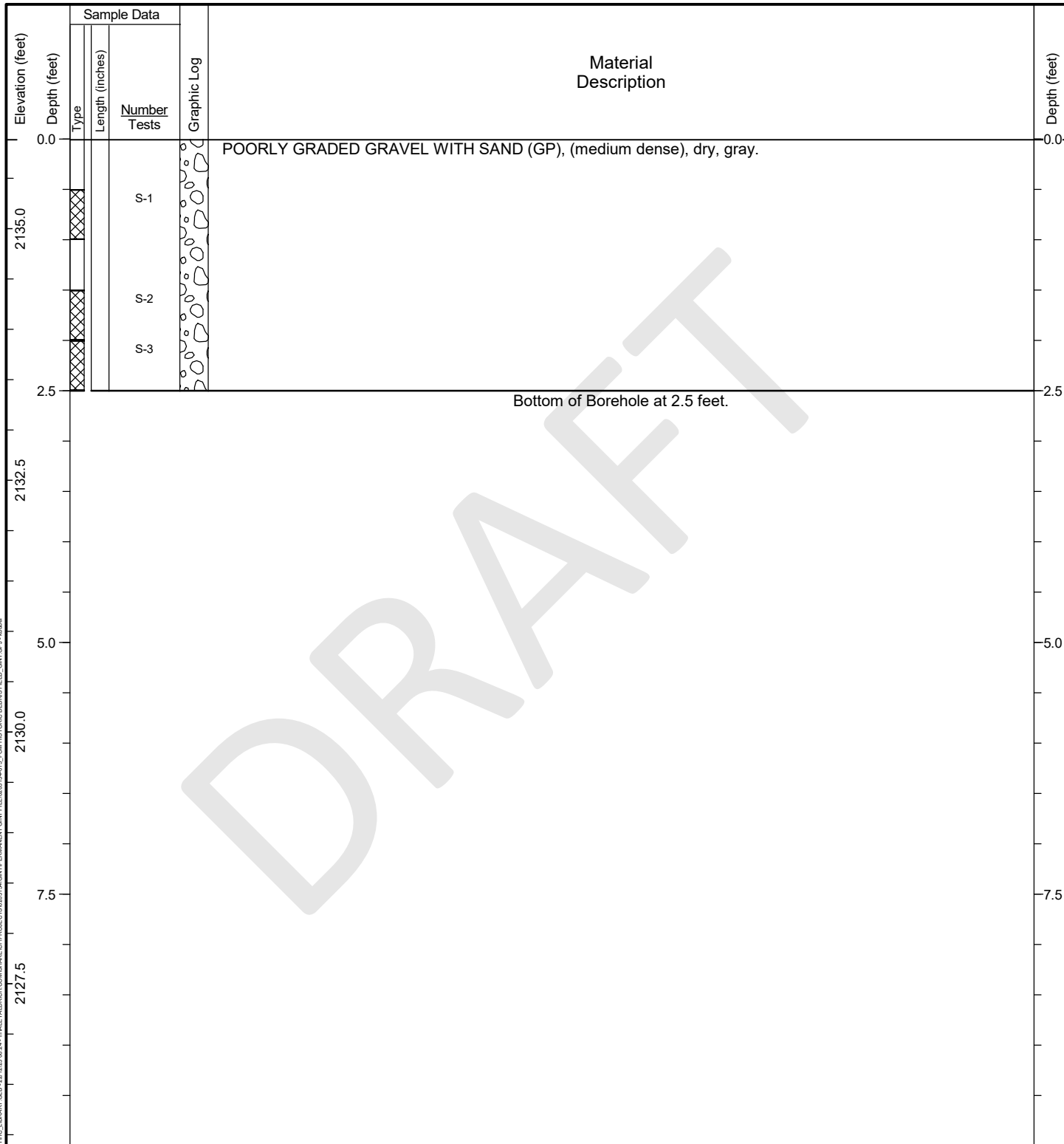
DRAFT

HA-PUSH PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-221222\B-23-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC\08855.FIELD_GINT.GPJ-10604

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 10/30/2023 Date Completed: 10/30/2023
 Logged by: K.Huddleston/ W.McDonald Checked by: M.Clark
 Location: Lat: 48.884102 Long: -117.360843 (WGS 84)
 Ground Surface Elevation: 2,135.89 feet (NAVD 88)
 Comments: _____

Contractor/Crew: Haley & Aldrich, Inc.
 Rig Model/Type: Hand Auger
 Hole Diameter: 4 inches Well Casing Diameter: NA
 Total Depth: 2.5 feet Depth to Groundwater: Not Identified

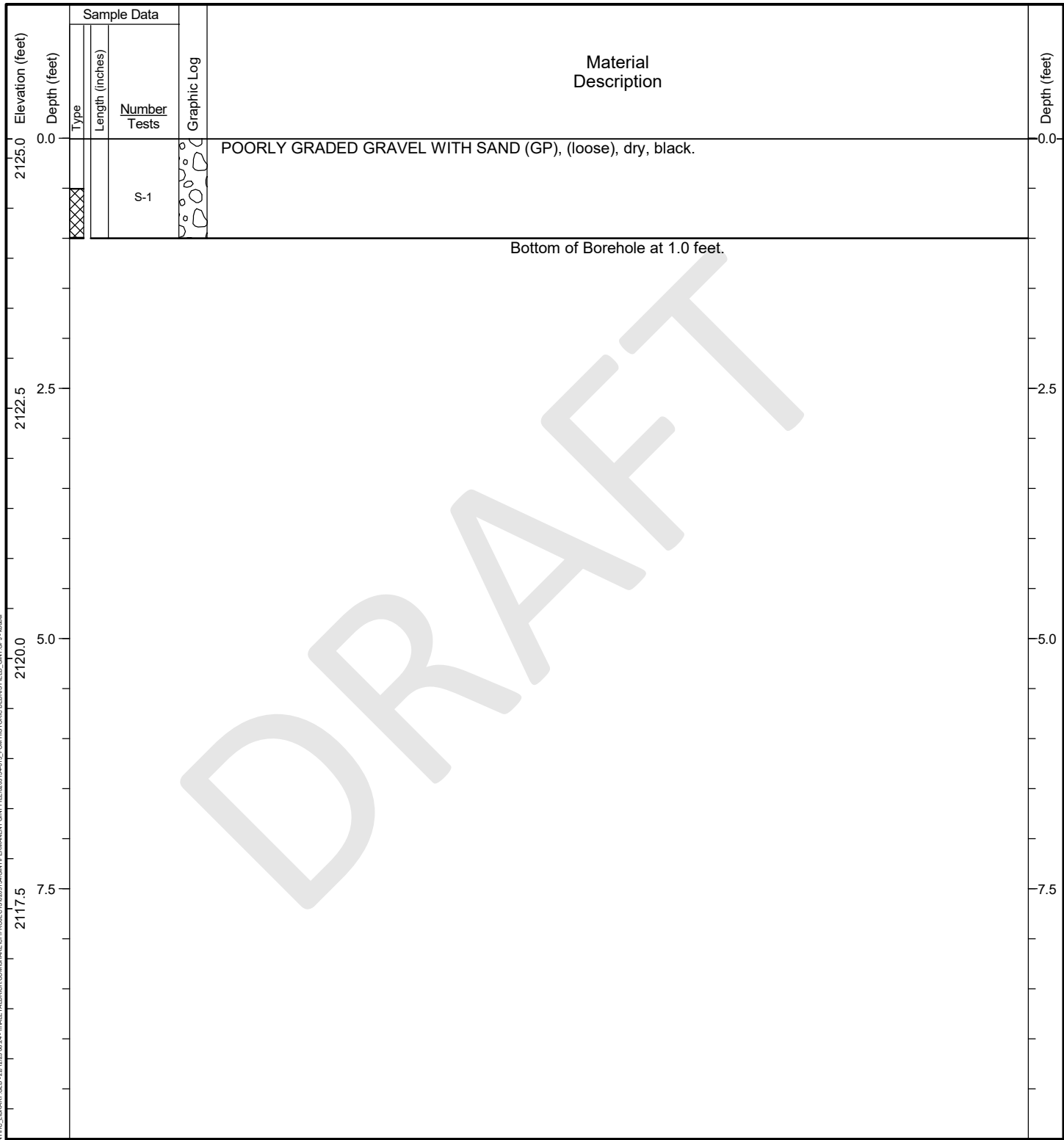


General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA PLSH PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0220\B-24-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC\0203154_GINT_GP_1.mxd

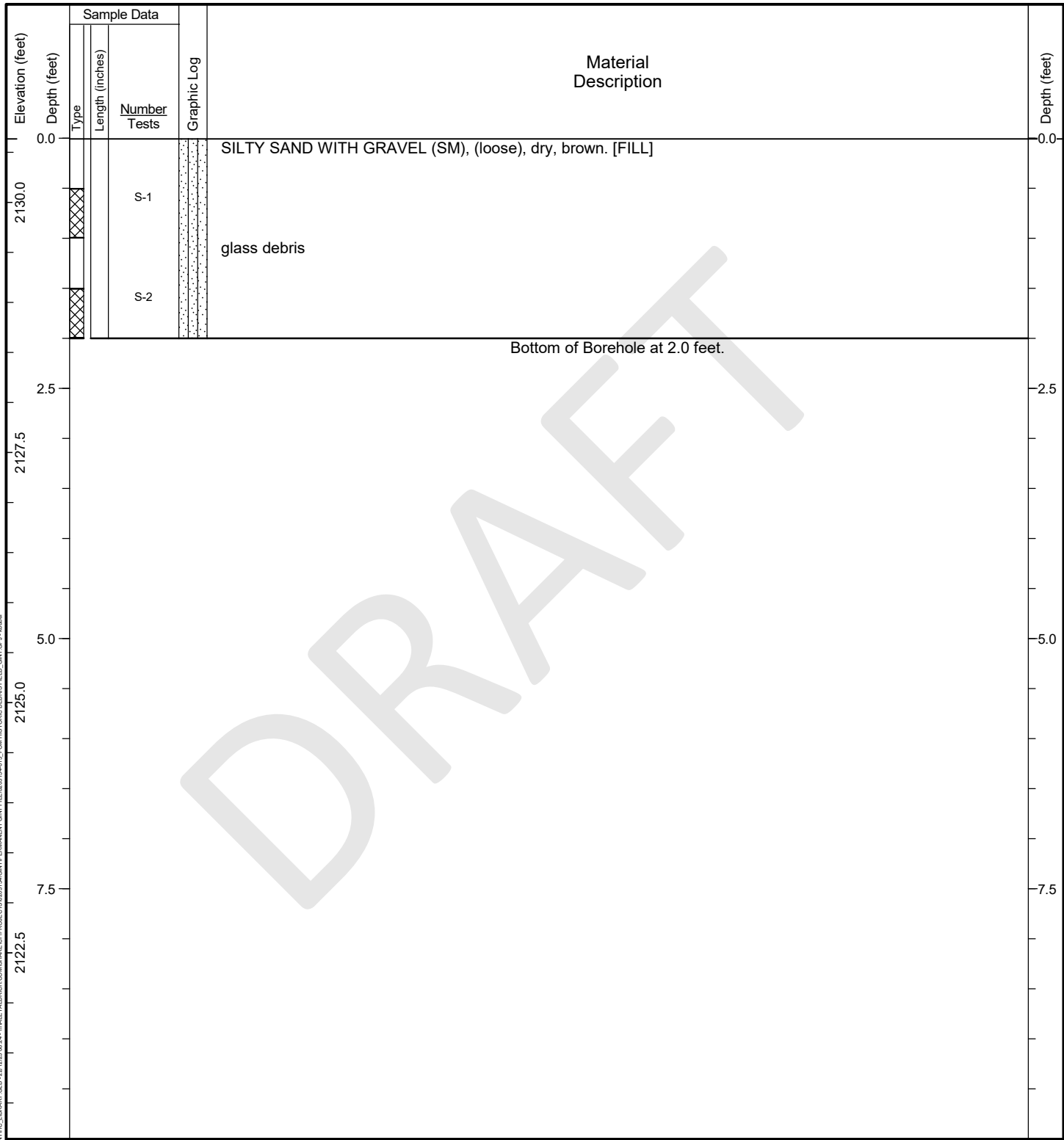
Date Started: 10/30/2023 Date Completed: 10/30/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: K.Huddleston/ W.McDonald Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884185 Long: -117.360992 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,125.20 feet (NAVD 88) Total Depth: 1 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\LIBRARY\GUL-22\0228\24 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC DBRBS FIELD_GINT.GPJ - 10/24/23

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

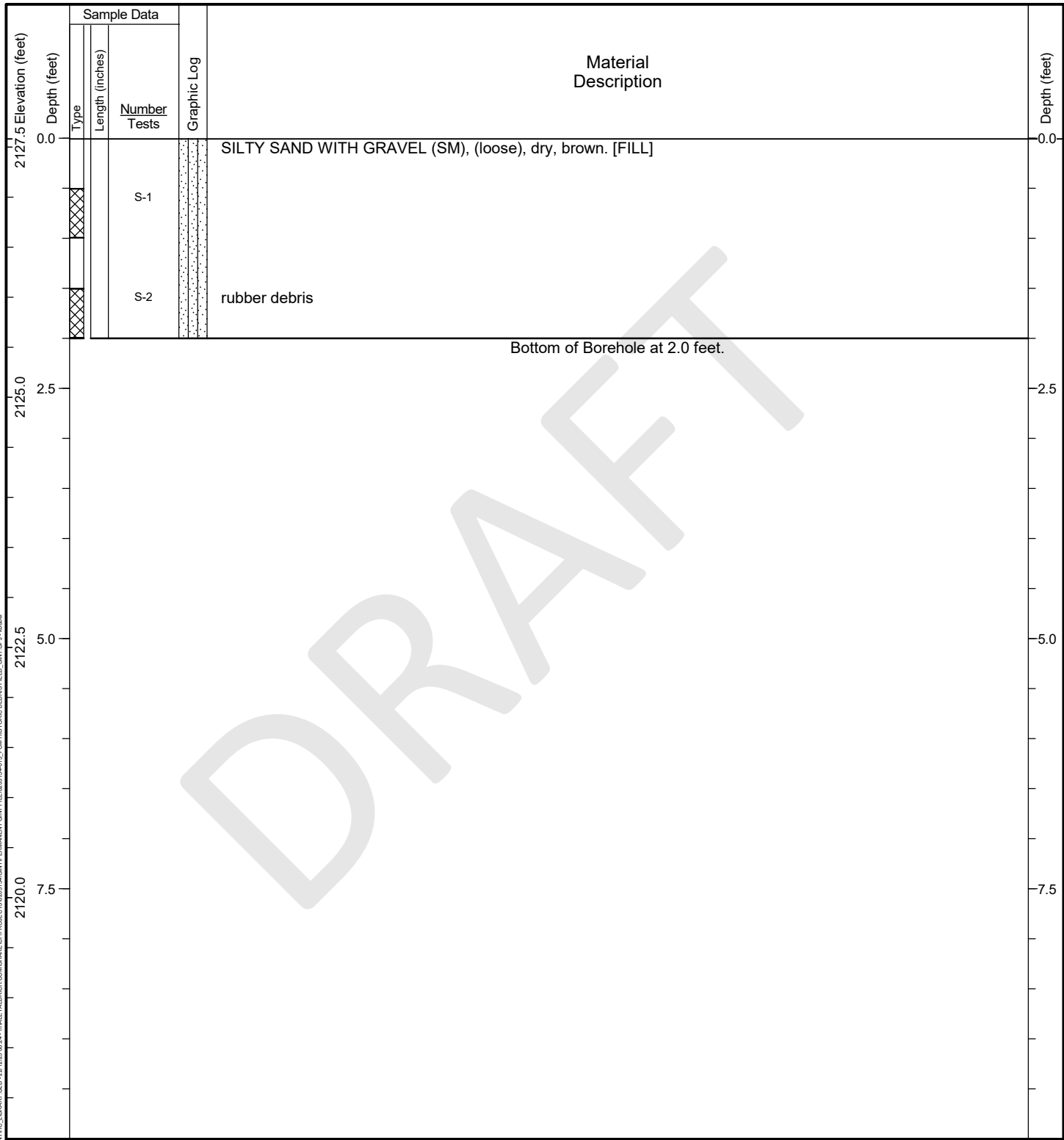
Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884105 Long: -117.361063 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,130.64 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



HA-USH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\LIBRARY\GUL-22\1222\B-24 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC-CBERS-FIELD_GINT.GPJ - 1-16-24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
 3. USCS designations are based on visual-manual identification (ASTM D 2488), unless otherwise supported by laboratory testing (ASTM D 2487).
 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884131 Long: -117.361092 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,127.59 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



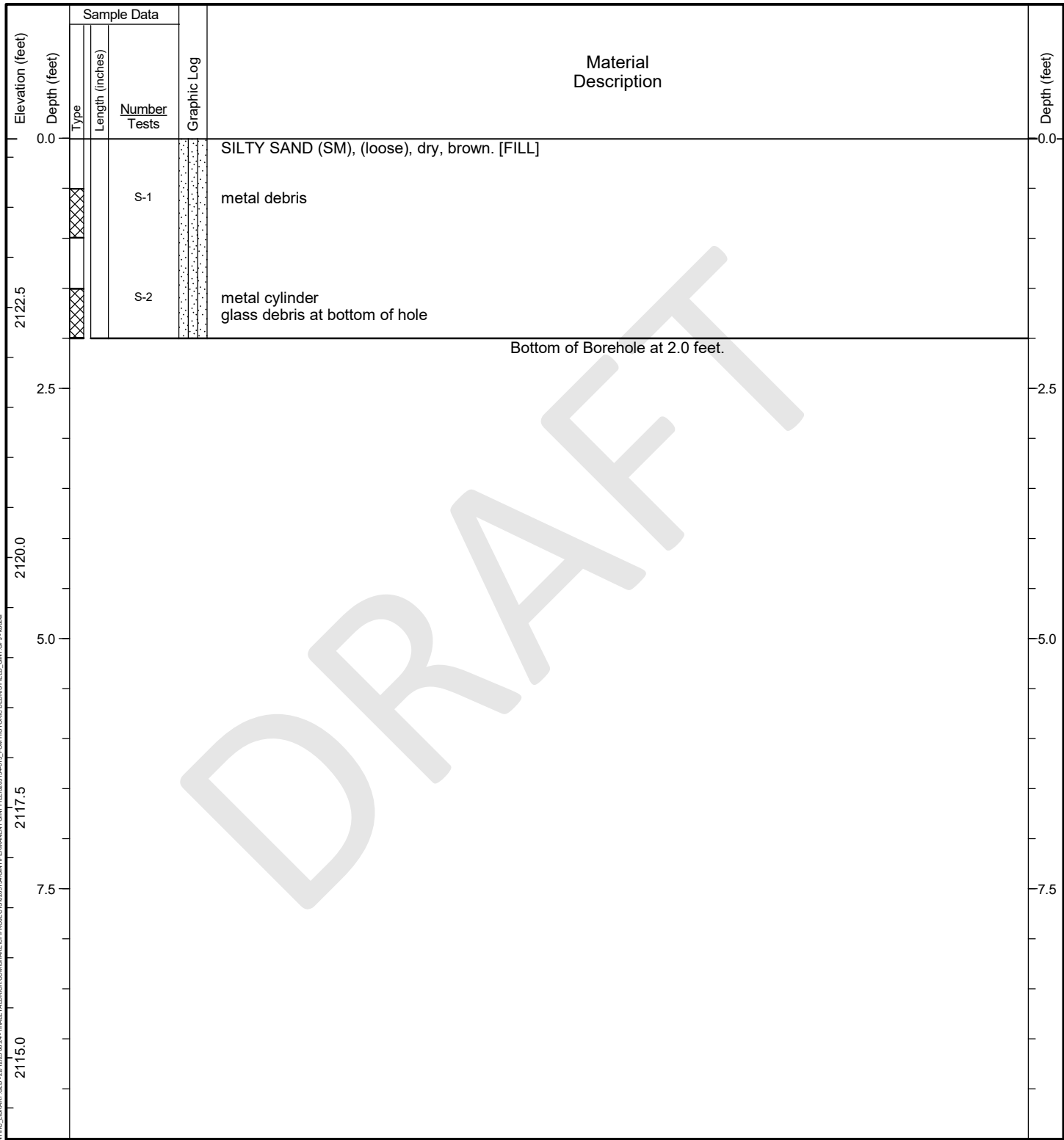
DRAFT

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
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4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
5. Location and ground surface elevations are approximate.

HA-USH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC DBBERS FIELD_GINT.GPJ - 1/26/24

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884163 Long: -117.361096 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,124.19 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____

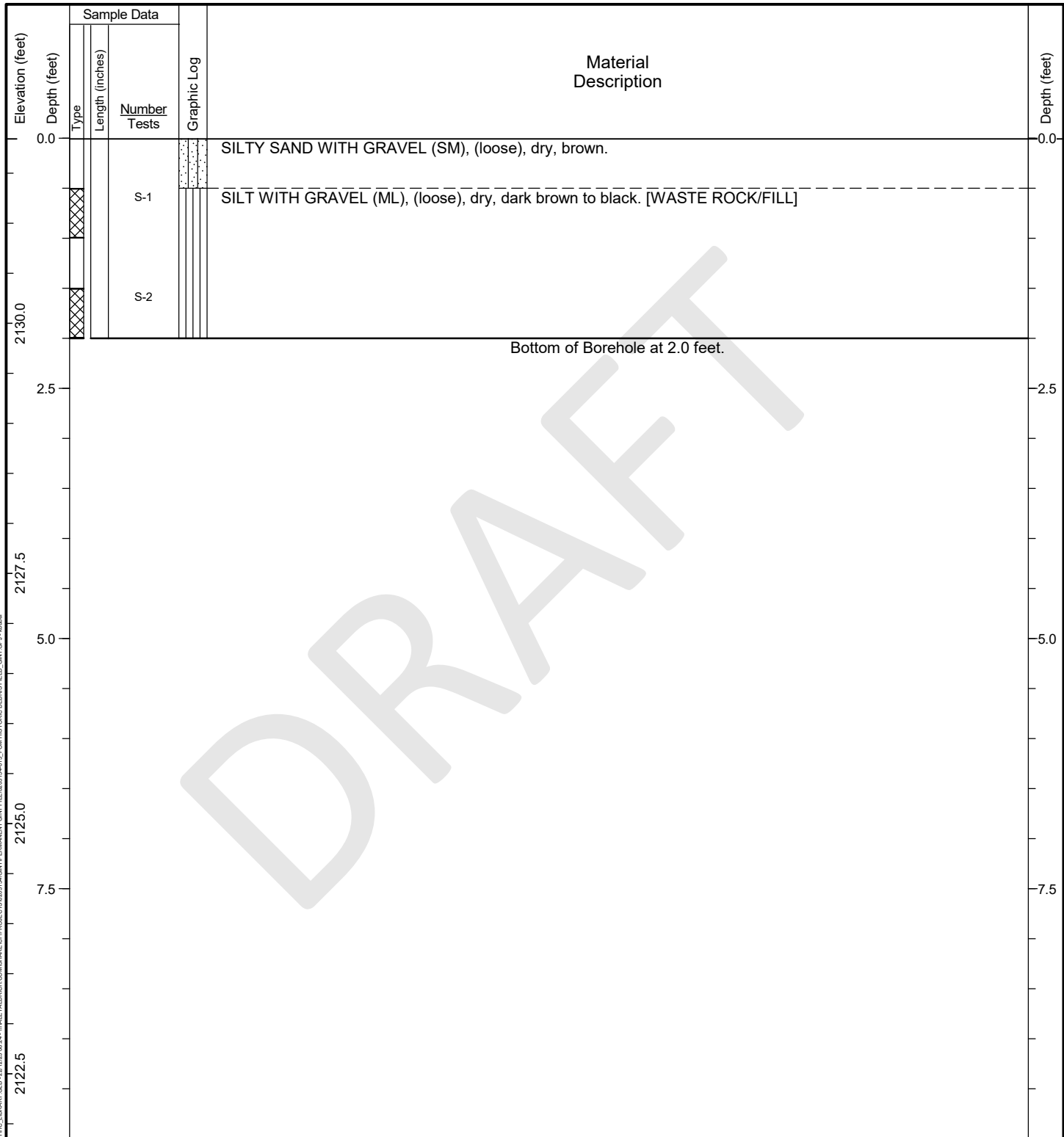


DRAFT

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\NIC_LIBRARY\GUL-22\1222\B-24 - \\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT_GINT_FILE\0203154\013_POM_HISTORIC_DBERS_FIELD_GINT.GPJ - 10/24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
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 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884084 Long: -117.361081 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,131.85 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____



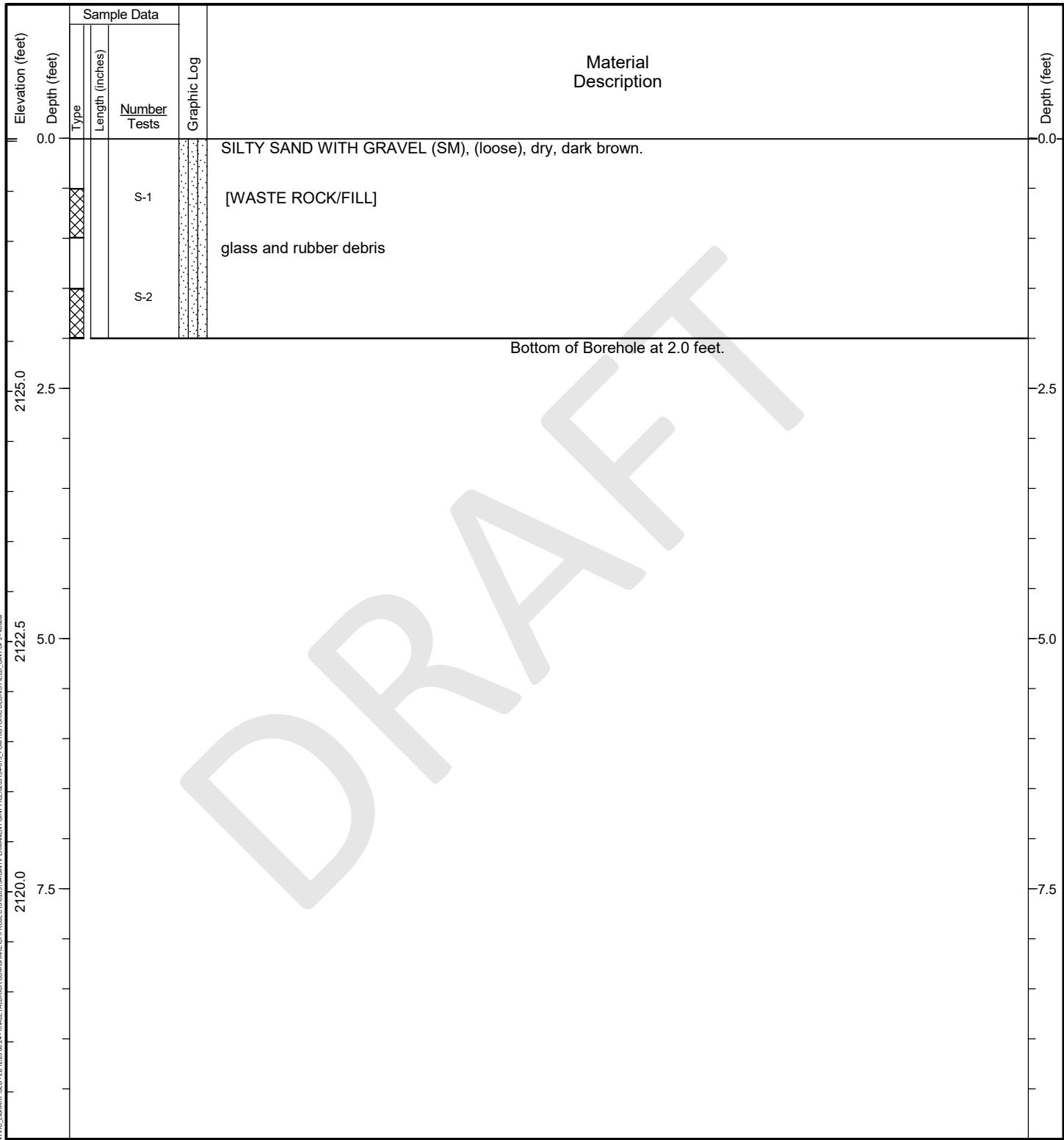
DRAFT

General Notes:

1. Refer to Figure A-1 for explanation of descriptions and symbols.
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5. Location and ground surface elevations are approximate.

HA PLSH PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\NIC LIBRARY\GUL-22\0220\B-24-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\013_POM_HISTORIC DBBERS FIELD_GINT.GPJ-1-10-24

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884120 Long: -117.361129 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,127.53 feet (NAVD 88) Total Depth: 2 feet Depth to Groundwater: Not Identified
 Comments: _____

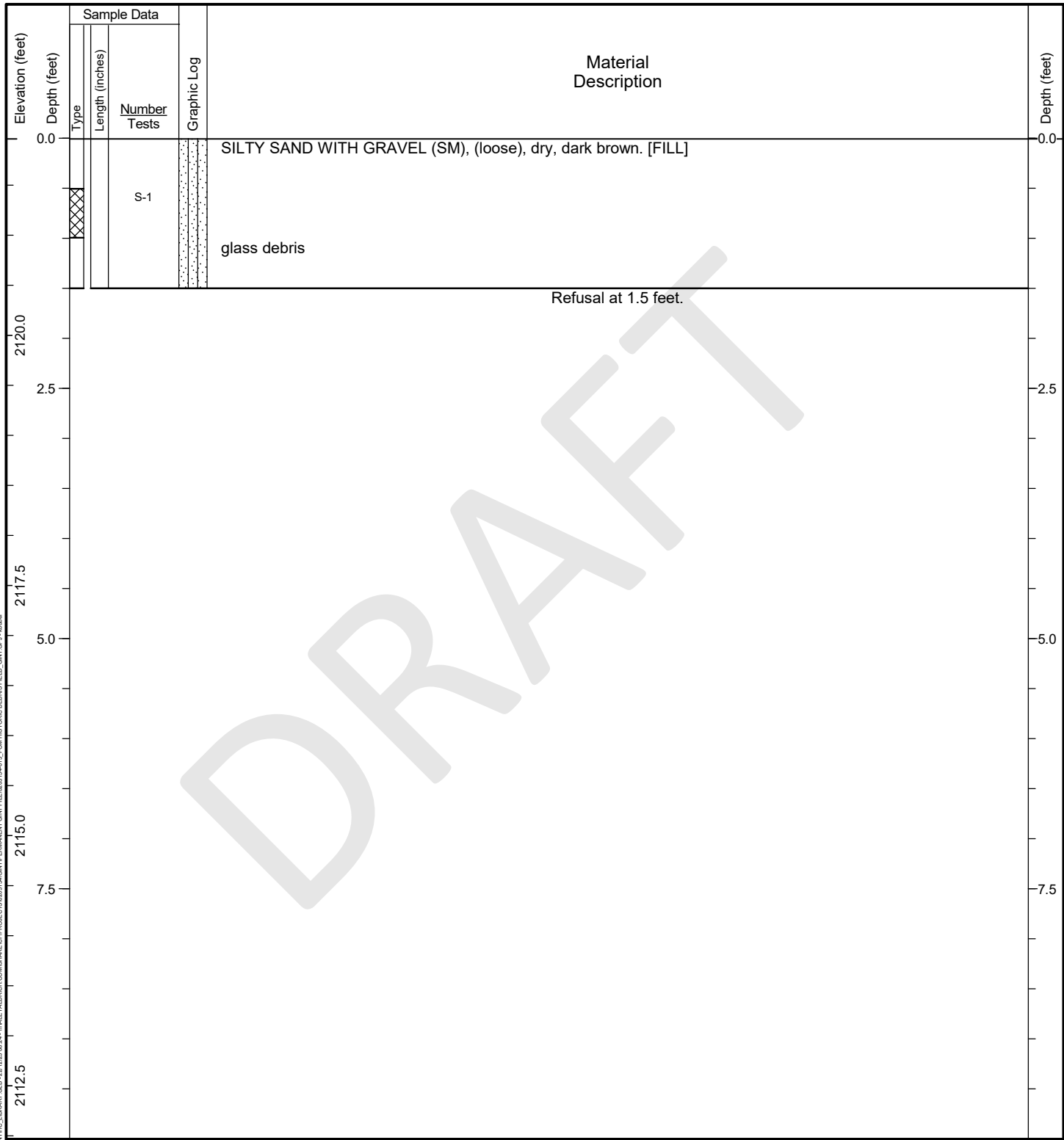


DRAFT

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PERMANENT GINT FILE\0203154\013_POM-HISTORIC-DBRBS-FIELD_GINT.GPJ - 10/24

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
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 4. Groundwater level, if indicated, is at time of drilling/excavation (ATD) or for date specified. Level may vary with time.
 5. Location and ground surface elevations are approximate.

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884155 Long: -117.361150 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,121.97 feet (NAVD 88) Total Depth: 1.5 feet Depth to Groundwater: Not Identified
 Comments: _____

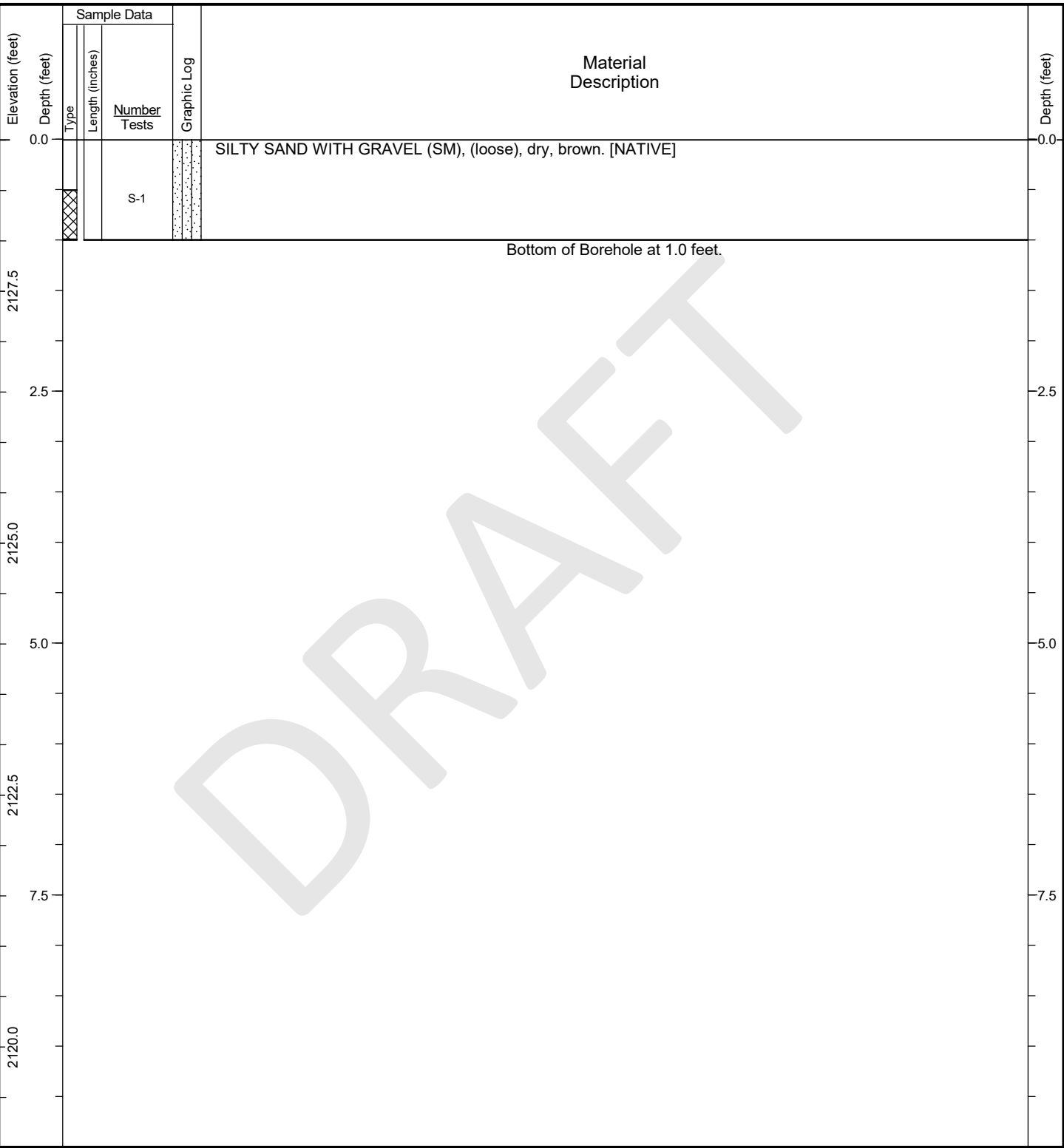


DRAFT

HA P15H PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\IC LIBRARY\GUL-22\0220\24-1\HALEY\ALDRICH\COMSHARE\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\01_POM HIST\ORIG\DBBS\FIELD_GINT\GP1-16064

General Notes:
 1. Refer to Figure A-1 for explanation of descriptions and symbols.
 2. Material stratum lines are interpretive and actual changes may be gradual. Solid lines indicate distinct contacts and dashed lines indicate gradual or approximate contacts.
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 5. Location and ground surface elevations are approximate.

Date Started: 12/01/2023 Date Completed: 12/01/2023 Contractor/Crew: Haley & Aldrich, Inc.
 Logged by: C.Moniz/ K.Huddleston Checked by: M.Clark Rig Model/Type: Hand Auger
 Location: Lat: 48.884087 Long: -117.361169 (WGS 84) Hole Diameter: 4 inches Well Casing Diameter: NA
 Ground Surface Elevation: 2,129.01 feet (NAVD 88) Total Depth: 1 feet Depth to Groundwater: Not Identified
 Comments: _____



DRAFT

General Notes:

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5. Location and ground surface elevations are approximate.

HA-PUSH-PROBE - \\HALEY\ALDRICH\COMSHARE\DATA\GINT\GINT\PROJECTS\0203154\GINT\PERMANENT GINT FILE\0203154\01_POM-HISTORIC DBBERS FIELD_GINT.GPJ - 10/24/2023 10:22:00 AM

DRAFT

APPENDIX B
Laboratory Reports

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201
Generated 7/10/2023 1:00:07 PM Revision 1

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20704-1

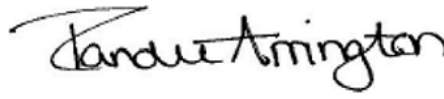
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
7/10/2023 1:00:07 PM
Revision 1

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Client Sample Results	8
QC Sample Results	16
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Method Summary	33
Chain of Custody	34
Receipt Checklists	41

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Job ID: 590-20704-1

Laboratory: Eurofins Spokane

Narrative

Revision

The report being provided is a revision of the original report sent on 6/29/2023. The report (revision 1) is being revised due to: Reanalyzed the following samples for Cadmium at a lesser dilution: DF-HA-2(1) 590-20704-4, DF-HA-6(1) 590-20704-13 & DF-HA-17(1) 590-20704-18.

Receipt

The samples were received on 6/7/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DF-HA-12(3) (590-20704-41). The sample has been placed on hold.

The following samples were listed on the Chain of Custody (COC); however, no samples were received: DF-HA-17(1) (590-20704-31), DF-HA-17(2) (590-20704-33), DF-HA-10(1) (590-20704-35) and DF-HA-10(2) (590-20704-36). The samples appear to be listed in duplicate.

GC Semi VOA

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for trans-Chlordane, Heptachlor epoxide, and Endosulfan sulfate for the following samples: DF-HA-6(1) (590-20704-13). The lower value has been reported and qualified in accordance with the laboratory's SOP.

Method 8081B: The continuing calibration verification (CCV) associated with batch 280-617595 recovered above the upper control limit for 4,4'-DDT. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: DF-HA-6(1) (590-20704-13), (CCV 280-617595/18) and (CCVIS 280-617595/4).

Method 8081B: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: DF-HA-6(1) (590-20704-13). The reagent lot number used was: P14J012.

Method 8081B: The method blank associated with preparation batch 280-617243 and analytical batch 280-617595 contained 4,4'-DDT greater than one-half the reporting limit (RL). Associated samples were ND for the analytes; therefore, the data have been reported.

Method NWTPH-Dx: Detected hydrocarbons appear to be due to individual peaks and may be possible biogenic interference in the following samples: DF-HA-6(1) (590-20704-13), DF-HA-10(1) (590-20704-16) and (590-20704-A-13-B DU).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 7471B: The method blank for preparation batch 590-42091 and 590-42091 and analytical batch 590-42102 contained Mercury above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 3546: The following sample was re-prepared outside of preparation holding time due to DDT contamination in the method blank: DF-HA-6(1) (590-20704-13). Method 8081B.

Method 3546: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-617243, therefore, LCSDs were performed instead. Method

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Job ID: 590-20704-1 (Continued)

Laboratory: Eurofins Spokane (Continued)

8081B/8081B_DOD5/8082_DOD5/8082A/8082A_DOD5.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

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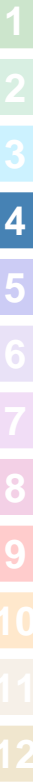
12

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20704-1	DF-HA-1(1)	Solid	06/05/23 11:05	06/07/23 10:25
590-20704-4	DF-HA-2(1)	Solid	06/05/23 12:10	06/07/23 10:25
590-20704-6	DF-HA-3(1)	Solid	06/05/23 14:30	06/07/23 10:25
590-20704-8	DF-HA-4(1)	Solid	06/05/23 15:15	06/07/23 10:25
590-20704-11	DF-HA-5(1)	Solid	06/05/23 14:37	06/07/23 10:25
590-20704-13	DF-HA-6(1)	Solid	06/05/23 15:49	06/07/23 10:25
590-20704-15	DF-SW-1	Water	06/05/23 17:15	06/07/23 10:25
590-20704-16	DF-HA-10(1)	Solid	06/06/23 12:43	06/07/23 10:25
590-20704-18	DF-HA-17(1)	Solid	06/06/23 14:47	06/07/23 10:25
590-20704-21	DF-HA-15(1)	Solid	06/06/23 14:40	06/07/23 10:25
590-20704-23	DF-HA-12(1)	Solid	06/06/23 12:44	06/07/23 10:25
590-20704-25	DF-HA-23(1)	Solid	06/06/23 16:00	06/07/23 10:25
590-20704-28	DF-HA-11(1)	Solid	06/06/23 09:15	06/07/23 10:25
590-20704-34	DF-DRUM-1	Solid	06/06/23 09:45	06/07/23 10:25
590-20704-38	DF-HA-9(1)	Solid	06/06/23 09:30	06/07/23 10:25



Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p1	The %Difference between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-1(1)

Lab Sample ID: 590-20704-1

Date Collected: 06/05/23 11:05

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		12	4.7	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Barium	57		12	3.2	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Cadmium	ND		9.5	0.56	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Chromium	16		12	1.7	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Lead	ND		28	14	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Selenium	ND		47	29	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10
Silver	ND		12	2.7	mg/Kg	☼	06/20/23 20:16	06/21/23 13:30	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	14	J B	46	3.3	ug/Kg	☼	06/20/23 20:19	06/21/23 12:41	1

Client Sample ID: DF-HA-2(1)

Lab Sample ID: 590-20704-4

Date Collected: 06/05/23 12:10

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 75.7

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.0	J	11	4.2	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10
Barium	44		11	2.9	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10
Cadmium	2.7		1.7	0.10	mg/Kg	☼	06/20/23 20:16	07/05/23 18:42	2
Chromium	13		11	1.5	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10
Lead	390		26	13	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10
Selenium	ND		43	26	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10
Silver	ND		11	2.4	mg/Kg	☼	06/20/23 20:16	06/21/23 13:51	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	100	B	49	3.5	ug/Kg	☼	06/20/23 20:19	06/21/23 12:51	1

Client Sample ID: DF-HA-3(1)

Lab Sample ID: 590-20704-6

Date Collected: 06/05/23 14:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		8.7	3.4	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Barium	66		8.7	2.3	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Cadmium	0.83	J	6.9	0.41	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Chromium	13		8.7	1.2	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Lead	41		21	10	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Selenium	ND		35	21	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10
Silver	ND		8.7	2.0	mg/Kg	☼	06/20/23 20:16	06/21/23 13:55	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	61	B	44	3.1	ug/Kg	☼	06/20/23 20:19	06/21/23 12:54	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 87.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.6	J	11	4.3	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Barium	110		11	2.9	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Cadmium	1.3	J	8.7	0.51	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Chromium	23		11	1.5	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Lead	380		26	13	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Selenium	ND		43	26	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10
Silver	ND		11	2.5	mg/Kg	☼	06/20/23 20:16	06/21/23 13:59	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	66	B	48	3.5	ug/Kg	☼	06/20/23 20:19	06/21/23 12:56	1

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 72.9

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.4	J	12	4.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Barium	100		12	3.2	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Cadmium	1.8	J	9.5	0.56	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Chromium	19		12	1.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Lead	1000		28	14	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Selenium	ND		47	28	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10
Silver	ND		12	2.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:03	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	85	B	43	3.1	ug/Kg	☼	06/20/23 20:19	06/21/23 12:59	1

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.5

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		3.7	0.38	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Endosulfan II	ND		3.7	0.62	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Endosulfan sulfate	ND		3.7	0.60	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Endrin	ND		3.7	0.66	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Endrin aldehyde	ND		3.7	1.2	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Endrin ketone	ND		3.7	0.44	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
beta-BHC	ND		3.7	1.4	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
alpha-BHC	ND		3.7	0.46	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
delta-BHC	ND		3.7	0.87	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
gamma-BHC (Lindane)	ND		3.7	0.43	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
trans-Chlordane	ND	p1	3.7	0.58	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
4,4'-DDD	ND		3.7	1.2	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
4,4'-DDE	ND		3.7	0.52	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Heptachlor	ND		3.7	0.46	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Heptachlor epoxide	ND	p1	3.7	0.92	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	ND		3.7	0.45	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Aldrin	ND		3.7	0.54	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
Methoxychlor	ND		7.1	0.97	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1
cis-Chlordane	ND		3.7	0.70	ug/Kg	☼	06/19/23 13:46	06/21/23 23:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	85		42 - 134	06/19/23 13:46	06/21/23 23:12	1
Tetrachloro-m-xylene	100		30 - 133	06/19/23 13:46	06/21/23 23:12	1

Method: SW846 8081B - Organochlorine Pesticides (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT	ND	H	4.0	1.4	ug/Kg	☼	06/23/23 14:56	06/28/23 08:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	98		42 - 134	06/23/23 14:56	06/28/23 08:00	1
Tetrachloro-m-xylene	99		30 - 133	06/23/23 14:56	06/28/23 08:00	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1221	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1232	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1242	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1248	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1254	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1260	19		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1268	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1
PCB-1262	ND		11	2.5	ug/Kg	☼	06/20/23 10:00	06/20/23 21:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	48		37 - 126	06/20/23 10:00	06/20/23 21:36	1
DCB Decachlorobiphenyl (Surr)	127		32 - 150	06/20/23 10:00	06/20/23 21:36	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	18		12	4.8	mg/Kg	☼	06/13/23 09:35	06/13/23 13:12	1
Residual Range Organics (RRO) (C25-C36)	28 J		29	5.8	mg/Kg	☼	06/13/23 09:35	06/13/23 13:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	103		50 - 150	06/13/23 09:35	06/13/23 13:12	1
n-Triacontane-d62	106		50 - 150	06/13/23 09:35	06/13/23 13:12	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		10	4.0	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10
Barium	76		10	2.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10
Cadmium	2.2		1.6	0.094	mg/Kg	☼	06/20/23 20:16	07/05/23 18:49	2
Chromium	23		10	1.4	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10
Lead	370		24	12	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10
Selenium	ND		40	24	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.5

Method: SW846 6010D - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10	2.3	mg/Kg	☼	06/20/23 20:16	06/21/23 14:07	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	77	B	45	3.2	ug/Kg	☼	06/20/23 20:19	06/21/23 13:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		2.3	0.58	mg/Kg	☼	06/19/23 17:50	06/21/23 00:43	1

Client Sample ID: DF-SW-1

Lab Sample ID: 590-20704-15

Date Collected: 06/05/23 17:15

Matrix: Water

Date Received: 06/07/23 10:25

Method: SW846 6010D - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.025	0.010	mg/L		06/13/23 10:36	06/13/23 16:28	1
Barium	0.089	B	0.025	0.0014	mg/L		06/13/23 10:36	06/13/23 16:28	1
Cadmium	ND		0.025	0.0012	mg/L		06/13/23 10:36	06/13/23 16:28	1
Chromium	ND		0.025	0.0017	mg/L		06/13/23 10:36	06/13/23 16:28	1
Lead	ND		0.060	0.0051	mg/L		06/13/23 10:36	06/13/23 16:28	1
Selenium	ND		0.10	0.049	mg/L		06/13/23 10:36	06/13/23 16:28	1
Silver	0.0027	J	0.025	0.0025	mg/L		06/13/23 10:36	06/13/23 16:28	1

Method: SW846 6010D - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.025	0.010	mg/L		06/15/23 10:28	06/15/23 17:30	1
Barium	0.089		0.025	0.0014	mg/L		06/15/23 10:28	06/15/23 17:30	1
Cadmium	ND		0.025	0.0012	mg/L		06/15/23 10:28	06/15/23 17:30	1
Chromium	ND		0.025	0.0017	mg/L		06/15/23 10:28	06/15/23 17:30	1
Lead	ND		0.060	0.0051	mg/L		06/15/23 10:28	06/15/23 17:30	1
Selenium	ND		0.10	0.049	mg/L		06/15/23 10:28	06/15/23 17:30	1
Silver	ND		0.025	0.0025	mg/L		06/15/23 10:28	06/15/23 17:30	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		06/13/23 10:33	06/13/23 17:01	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		06/21/23 09:18	06/21/23 14:39	1

Client Sample ID: DF-HA-10(1)

Lab Sample ID: 590-20704-16

Date Collected: 06/06/23 12:43

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.5

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		3.6	0.38	ug/Kg	☼	06/19/23 13:46	06/21/23 23:29	1
Endosulfan II	ND		3.6	0.62	ug/Kg	☼	06/19/23 13:46	06/21/23 23:29	1
Endosulfan sulfate	ND	p1	3.6	0.59	ug/Kg	☼	06/19/23 13:46	06/21/23 23:29	1
Endrin	ND		3.6	0.66	ug/Kg	☼	06/19/23 13:46	06/21/23 23:29	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-10(1)

Lab Sample ID: 590-20704-16

Date Collected: 06/06/23 12:43

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.5

Method: SW846 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endrin aldehyde	ND		3.6	1.2	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Endrin ketone	ND		3.6	0.43	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
beta-BHC	ND		3.6	1.4	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
alpha-BHC	ND		3.6	0.46	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
delta-BHC	ND		3.6	0.86	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
gamma-BHC (Lindane)	ND		3.6	0.42	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
trans-Chlordane	ND		3.6	0.57	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
4,4'-DDD	ND		3.6	1.2	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
4,4'-DDE	ND		3.6	0.51	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
4,4'-DDT	ND		3.6	1.3	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Heptachlor	ND		3.6	0.46	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Heptachlor epoxide	ND		3.6	0.91	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Dieldrin	ND		3.6	0.45	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Aldrin	ND		3.6	0.54	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
Methoxychlor	ND		7.1	0.97	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1
cis-Chlordane	ND		3.6	0.69	ug/Kg	✳	06/19/23 13:46	06/21/23 23:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	79		42 - 134	06/19/23 13:46	06/21/23 23:29	1
Tetrachloro-m-xylene	88		30 - 133	06/19/23 13:46	06/21/23 23:29	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	31		11	4.7	mg/Kg	✳	06/13/23 09:35	06/13/23 14:13	1
Residual Range Organics (RRO) (C25-C36)	58		28	5.6	mg/Kg	✳	06/13/23 09:35	06/13/23 14:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	121		50 - 150	06/13/23 09:35	06/13/23 14:13	1
n-Triacontane-d62	103		50 - 150	06/13/23 09:35	06/13/23 14:13	1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	34		11	4.2	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Barium	80		11	2.9	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Cadmium	8.8		8.6	0.51	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Chromium	520		11	1.5	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Lead	1200		26	13	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Selenium	ND		43	26	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10
Silver	ND		11	2.4	mg/Kg	✳	06/20/23 20:16	06/21/23 14:11	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	110	B	50	3.5	ug/Kg	✳	06/20/23 20:19	06/21/23 13:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		2.1	0.52	mg/Kg	✳	06/19/23 17:50	06/21/23 00:43	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-17(1)

Date Collected: 06/06/23 14:47

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-18

Matrix: Solid

Percent Solids: 83.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		10	4.2	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10
Barium	120		10	2.8	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10
Cadmium	2.2		1.7	0.099	mg/Kg	☼	06/20/23 20:16	07/05/23 18:57	2
Chromium	25		10	1.5	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10
Lead	270		25	12	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10
Selenium	ND		42	25	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10
Silver	ND		10	2.4	mg/Kg	☼	06/20/23 20:16	06/21/23 14:15	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	96	B	45	3.2	ug/Kg	☼	06/20/23 20:19	06/21/23 13:12	1

Client Sample ID: DF-HA-15(1)

Date Collected: 06/06/23 14:40

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-21

Matrix: Solid

Percent Solids: 92.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	12		10	4.1	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10
Barium	76		10	2.8	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10
Cadmium	14		8.3	0.49	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10
Chromium	20		10	1.5	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10
Lead	4700		50	25	mg/Kg	☼	06/20/23 20:16	06/21/23 14:58	20
Selenium	ND		42	25	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10
Silver	ND		10	2.4	mg/Kg	☼	06/20/23 20:16	06/21/23 14:19	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	120	B	44	3.1	ug/Kg	☼	06/20/23 20:19	06/21/23 13:14	1

Client Sample ID: DF-HA-12(1)

Date Collected: 06/06/23 12:44

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-23

Matrix: Solid

Percent Solids: 84.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	33		10	4.1	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10
Barium	78		10	2.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10
Cadmium	19		8.2	0.48	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10
Chromium	51		10	1.4	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10
Lead	5500		49	24	mg/Kg	☼	06/20/23 20:16	06/21/23 15:02	20
Selenium	ND		41	25	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10
Silver	ND		10	2.3	mg/Kg	☼	06/20/23 20:16	06/21/23 14:23	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	490	B	45	3.2	ug/Kg	☼	06/20/23 20:19	06/21/23 13:17	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-23(1)

Date Collected: 06/06/23 16:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-25

Matrix: Solid

Percent Solids: 91.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	18		8.1	3.2	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Barium	53		8.1	2.2	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Cadmium	8.2		6.5	0.38	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Chromium	9.4		8.1	1.1	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Lead	410		19	9.5	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Selenium	ND		32	19	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10
Silver	ND		8.1	1.9	mg/Kg	☼	06/20/23 20:16	06/21/23 14:26	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	220	B	42	3.0	ug/Kg	☼	06/20/23 20:19	06/21/23 13:21	1

Client Sample ID: DF-HA-11(1)

Date Collected: 06/06/23 09:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-28

Matrix: Solid

Percent Solids: 83.2

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	14		12	4.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Barium	93		12	3.1	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Cadmium	9.8		9.4	0.55	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Chromium	22		12	1.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Lead	4400		28	14	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Selenium	ND		47	28	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10
Silver	ND		12	2.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:42	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	290	B	48	3.4	ug/Kg	☼	06/20/23 20:19	06/21/23 13:23	1

Client Sample ID: DF-DRUM-1

Date Collected: 06/06/23 09:45

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-34

Matrix: Solid

Percent Solids: 86.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		500	200	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Barium	ND		500	130	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Cadmium	370	J	400	23	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Chromium	ND		500	70	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Lead	74000		1200	580	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Selenium	ND		2000	1200	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500
Silver	ND		500	110	mg/Kg	☼	06/20/23 20:16	06/21/23 15:06	500

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	64000		440	130	mg/Kg	☼	06/15/23 11:48	06/20/23 14:01	1000

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	850	B	45	3.2	ug/Kg	☼	06/20/23 20:19	06/21/23 13:26	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 93.6

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9	J	9.2	3.7	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Barium	31		9.2	2.5	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Cadmium	9.2		7.4	0.43	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Chromium	9.8		9.2	1.3	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Lead	1300		22	11	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Selenium	ND		37	22	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10
Silver	ND		9.2	2.1	mg/Kg	☼	06/20/23 20:16	06/21/23 14:50	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	130	B	44	3.1	ug/Kg	☼	06/20/23 20:19	06/21/23 13:30	1



QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-616601/1-A
Matrix: Solid
Analysis Batch: 616829

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616601

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Endosulfan I	ND		3.4	0.35	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Endosulfan II	ND		3.4	0.57	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Endosulfan sulfate	ND		3.4	0.55	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Endrin	ND		3.4	0.61	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Endrin aldehyde	ND		3.4	1.1	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Endrin ketone	ND		3.4	0.40	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
beta-BHC	ND		3.4	1.3	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
alpha-BHC	ND		3.4	0.43	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
delta-BHC	ND		3.4	0.80	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
gamma-BHC (Lindane)	ND		3.4	0.39	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
trans-Chlordane	ND		3.4	0.53	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
4,4'-DDD	ND		3.4	1.1	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
4,4'-DDE	ND		3.4	0.48	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
4,4'-DDT	1.48	J	3.4	1.2	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Heptachlor	ND		3.4	0.43	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Heptachlor epoxide	ND		3.4	0.85	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Dieldrin	ND		3.4	0.42	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Aldrin	ND		3.4	0.50	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
Methoxychlor	ND		6.6	0.90	ug/Kg		06/19/23 13:46	06/20/23 23:22	1
cis-Chlordane	ND		3.4	0.65	ug/Kg		06/19/23 13:46	06/20/23 23:22	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	96		42 - 134	06/19/23 13:46	06/20/23 23:22	1
Tetrachloro-m-xylene	92		30 - 133	06/19/23 13:46	06/20/23 23:22	1

Lab Sample ID: LCS 280-616601/2-A
Matrix: Solid
Analysis Batch: 616829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616601

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
Endosulfan I	33.3	28.4		ug/Kg		85	35 - 136
Endosulfan II	33.3	27.7		ug/Kg		83	30 - 154
Endosulfan sulfate	33.3	28.4		ug/Kg		85	35 - 139
Endrin	33.3	26.7		ug/Kg		80	39 - 137
Endrin aldehyde	33.3	27.3		ug/Kg		82	10 - 139
Endrin ketone	33.3	27.9		ug/Kg		84	33 - 141
beta-BHC	33.3	27.7		ug/Kg		83	29 - 117
alpha-BHC	33.3	25.3		ug/Kg		76	35 - 127
delta-BHC	33.3	27.1		ug/Kg		81	40 - 130
gamma-BHC (Lindane)	33.3	26.3		ug/Kg		79	39 - 130
trans-Chlordane	33.3	27.6		ug/Kg		83	38 - 137
4,4'-DDD	33.3	28.0		ug/Kg		84	32 - 150
4,4'-DDE	33.3	28.3		ug/Kg		85	38 - 137
4,4'-DDT	33.3	27.1		ug/Kg		81	24 - 188
Heptachlor	33.3	26.1		ug/Kg		78	37 - 141
Heptachlor epoxide	33.3	27.8		ug/Kg		84	39 - 136
Dieldrin	33.3	29.3		ug/Kg		88	39 - 137
Aldrin	33.3	26.0		ug/Kg		78	35 - 127

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 280-616601/2-A
Matrix: Solid
Analysis Batch: 616829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methoxychlor	33.3	26.5		ug/Kg		79	17 - 191
cis-Chlordane	33.3	27.5		ug/Kg		83	38 - 136

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	90		42 - 134
Tetrachloro-m-xylene	83		30 - 133

Method: 8081B - Organochlorine Pesticides (GC) - RE

Lab Sample ID: MB 280-617243/1-A
Matrix: Solid
Analysis Batch: 617595

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDT - RE	3.91		3.4	1.2	ug/Kg		06/23/23 14:56	06/28/23 03:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl - RE	98		42 - 134	06/23/23 14:56	06/28/23 03:46	1
Tetrachloro-m-xylene - RE	100		30 - 133	06/23/23 14:56	06/28/23 03:46	1

Lab Sample ID: LCS 280-617243/2-A
Matrix: Solid
Analysis Batch: 617595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617243

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4,4'-DDT - RE	33.3	43.1		ug/Kg		129	24 - 188

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl - RE	88		42 - 134
Tetrachloro-m-xylene - RE	92		30 - 133

Lab Sample ID: LCSD 280-617243/3-A
Matrix: Solid
Analysis Batch: 617595

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 617243

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4,4'-DDT - RE	33.3	45.5		ug/Kg		136	24 - 188	5	64

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl - RE	94		42 - 134
Tetrachloro-m-xylene - RE	96		30 - 133

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 590-42068/1-A
Matrix: Solid
Analysis Batch: 42064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42068

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1221	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1232	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1242	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1248	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1254	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1260	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1268	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1262	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	97		37 - 126	06/20/23 10:00	06/20/23 15:16	1
DCB Decachlorobiphenyl (Surr)	112		32 - 150	06/20/23 10:00	06/20/23 15:16	1

Lab Sample ID: LCS 590-42068/2-A
Matrix: Solid
Analysis Batch: 42064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42068

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
PCB-1016	66.7	60.5		ug/Kg		91	67 - 120
PCB-1260	66.7	71.5		ug/Kg		107	58 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		37 - 126
DCB Decachlorobiphenyl (Surr)	107		32 - 150

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-41945/1-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41945

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (DRO) (C10-C25)	ND		10	4.2	mg/Kg		06/13/23 09:35	06/13/23 12:31	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg		06/13/23 09:35	06/13/23 12:31	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
o-Terphenyl	98		50 - 150	06/13/23 09:35	06/13/23 12:31	1
n-Triacontane-d62	102		50 - 150	06/13/23 09:35	06/13/23 12:31	1

Lab Sample ID: LCS 590-41945/2-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41945

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Diesel Range Organics (DRO) (C10-C25)	66.7	69.6		mg/Kg		104	50 - 150

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-41945/2-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Residual Range Organics (RRO) (C25-C36)	66.7	77.3		mg/Kg		116	50 - 150
Surrogate	%Recovery	LCS Qualifier	Limits				
<i>o</i> -Terphenyl	109		50 - 150				
<i>n</i> -Triacontane-d62	109		50 - 150				

Lab Sample ID: 590-20704-13 DU
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: DF-HA-6(1)
Prep Type: Total/NA
Prep Batch: 41945

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)	18		29.7	F5	mg/Kg	☼	50	40
Residual Range Organics (RRO) (C25-C36)	28	J	38.1		mg/Kg	☼	30	40
Surrogate	%Recovery	DU Qualifier	Limits					
<i>o</i> -Terphenyl	113		50 - 150					
<i>n</i> -Triacontane-d62	115		50 - 150					

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42090/2-A
Matrix: Solid
Analysis Batch: 42104

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Barium	ND		1.3	0.34	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Cadmium	ND		1.0	0.059	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Chromium	ND		1.3	0.18	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Lead	ND		3.0	1.5	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Selenium	ND		5.0	3.0	mg/Kg		06/20/23 20:15	06/21/23 12:59	1
Silver	ND		1.3	0.29	mg/Kg		06/20/23 20:15	06/21/23 12:59	1

Lab Sample ID: LCS 590-42090/1-A
Matrix: Solid
Analysis Batch: 42104

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	100		mg/Kg		100	80 - 120
Barium	100	96.2		mg/Kg		96	80 - 120
Cadmium	50.0	52.1		mg/Kg		104	80 - 120
Chromium	50.0	52.2		mg/Kg		104	80 - 120
Lead	50.0	52.8		mg/Kg		106	80 - 120
Selenium	100	100		mg/Kg		100	80 - 120
Silver	5.00	5.55		mg/Kg		111	80 - 120

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 590-41950/2-A
Matrix: Water
Analysis Batch: 41948

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 41950

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.025	0.010	mg/L		06/13/23 10:36	06/13/23 13:08	1
Barium	0.00150	J	0.025	0.0014	mg/L		06/13/23 10:36	06/13/23 13:08	1
Cadmium	ND		0.025	0.0012	mg/L		06/13/23 10:36	06/13/23 13:08	1
Chromium	ND		0.025	0.0017	mg/L		06/13/23 10:36	06/13/23 13:08	1
Lead	ND		0.060	0.0051	mg/L		06/13/23 10:36	06/13/23 13:08	1
Selenium	ND		0.10	0.049	mg/L		06/13/23 10:36	06/13/23 13:08	1
Silver	ND		0.025	0.0025	mg/L		06/13/23 10:36	06/13/23 13:08	1

Lab Sample ID: LCS 590-41950/1-A
Matrix: Water
Analysis Batch: 41948

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 41950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	2.00	1.81		mg/L		90	80 - 120
Cadmium	1.00	0.945		mg/L		95	80 - 120
Chromium	1.00	0.916		mg/L		92	80 - 120
Lead	1.00	0.973		mg/L		97	80 - 120
Selenium	2.00	1.83		mg/L		91	80 - 120
Silver	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: MB 590-42002/2-A
Matrix: Water
Analysis Batch: 42009

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 42002

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	ND		0.025	0.010	mg/L		06/15/23 10:28	06/15/23 15:40	1
Barium	ND		0.025	0.0014	mg/L		06/15/23 10:28	06/15/23 15:40	1
Cadmium	ND		0.025	0.0012	mg/L		06/15/23 10:28	06/15/23 15:40	1
Chromium	ND		0.025	0.0017	mg/L		06/15/23 10:28	06/15/23 15:40	1
Lead	ND		0.060	0.0051	mg/L		06/15/23 10:28	06/15/23 15:40	1
Selenium	ND		0.10	0.049	mg/L		06/15/23 10:28	06/15/23 15:40	1
Silver	ND		0.025	0.0025	mg/L		06/15/23 10:28	06/15/23 15:40	1

Lab Sample ID: LCS 590-42002/1-A
Matrix: Water
Analysis Batch: 42009

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 42002

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	2.00	1.83		mg/L		92	80 - 120
Cadmium	1.00	0.916		mg/L		92	80 - 120
Chromium	1.00	0.886		mg/L		89	80 - 120
Lead	1.00	0.978		mg/L		98	80 - 120
Selenium	2.00	1.81		mg/L		91	80 - 120
Silver	0.100	0.111		mg/L		111	80 - 120

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-428945/24-A
Matrix: Solid
Analysis Batch: 429353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 428945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		5.5	1.6	mg/Kg		06/15/23 11:48	06/19/23 19:41	10

Lab Sample ID: LCS 580-428945/25-A
Matrix: Solid
Analysis Batch: 429353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 428945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	50.0	57.5		mg/Kg		115	80 - 120

Lab Sample ID: LCSD 580-428945/26-A
Matrix: Solid
Analysis Batch: 429353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 428945

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Zinc	50.0	57.5		mg/Kg		115	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 590-41949/9-A
Matrix: Water
Analysis Batch: 41955

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		06/13/23 10:33	06/13/23 16:16	1

Lab Sample ID: LCS 590-41949/8-A
Matrix: Water
Analysis Batch: 41955

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.63		ug/L		82	80 - 120

Lab Sample ID: MB 590-42098/9-A
Matrix: Water
Analysis Batch: 42106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		06/21/23 09:18	06/21/23 14:36	1

Lab Sample ID: LCS 590-42098/8-A
Matrix: Water
Analysis Batch: 42106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	2.00	1.97		ug/L		99	80 - 120

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 590-20704-15 MS
Matrix: Water
Analysis Batch: 42106

Client Sample ID: DF-SW-1
Prep Type: Dissolved
Prep Batch: 42098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		2.00	2.00		ug/L		100	80 - 120

Lab Sample ID: 590-20704-15 MSD
Matrix: Water
Analysis Batch: 42106

Client Sample ID: DF-SW-1
Prep Type: Dissolved
Prep Batch: 42098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		2.00	2.03		ug/L		102	80 - 120	1	20

Lab Sample ID: 590-20704-15 DU
Matrix: Water
Analysis Batch: 42106

Client Sample ID: DF-SW-1
Prep Type: Dissolved
Prep Batch: 42098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		ug/L		NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-42091/9-A
Matrix: Solid
Analysis Batch: 42102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	5.00	J	50	3.6	ug/Kg		06/20/23 20:18	06/21/23 12:39	1

Lab Sample ID: LCS 590-42091/8-A
Matrix: Solid
Analysis Batch: 42102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	200	208		ug/Kg		104	80 - 120

Lab Sample ID: 590-20704-1 MS
Matrix: Solid
Analysis Batch: 42102

Client Sample ID: DF-HA-1(1)
Prep Type: Total/NA
Prep Batch: 42091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	14	J B	242	266		ug/Kg	⊛	104	80 - 120

Lab Sample ID: 590-20704-1 MSD
Matrix: Solid
Analysis Batch: 42102

Client Sample ID: DF-HA-1(1)
Prep Type: Total/NA
Prep Batch: 42091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	14	J B	237	258		ug/Kg	⊛	103	80 - 120	3	20

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 590-20704-1 DU
 Matrix: Solid
 Analysis Batch: 42102

Client Sample ID: DF-HA-1(1)
 Prep Type: Total/NA
 Prep Batch: 42091

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Mercury	14	J B	13.2	J	ug/Kg	☼	5	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 580-429148/1-B
 Matrix: Solid
 Analysis Batch: 429456

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 429337

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	ND		2.0	0.51	mg/Kg		06/19/23 17:50	06/21/23 00:43	1

Lab Sample ID: LCS 580-429148/2-B
 Matrix: Solid
 Analysis Batch: 429456

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 429337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Lab Sample ID: LCSD 580-429148/3-B
 Matrix: Solid
 Analysis Batch: 429456

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 429337

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-1(1)
Date Collected: 06/05/23 11:05
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-1(1)
Date Collected: 06/05/23 11:05
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-1
Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.35 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 13:30	AMB	EET SPK
Total/NA	Prep	7471B			0.69 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 12:41	AMB	EET SPK

Client Sample ID: DF-HA-2(1)
Date Collected: 06/05/23 12:10
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-2(1)
Date Collected: 06/05/23 12:10
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-4
Matrix: Solid
Percent Solids: 75.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.55 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 13:51	AMB	EET SPK
Total/NA	Prep	3050B			1.55 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		2			42299	07/05/23 18:42	AMB	EET SPK
Total/NA	Prep	7471B			0.68 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 12:51	AMB	EET SPK

Client Sample ID: DF-HA-3(1)
Date Collected: 06/05/23 14:30
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-3(1)
Date Collected: 06/05/23 14:30
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-6
Matrix: Solid
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.85 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 13:55	AMB	EET SPK

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Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

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Client Sample ID: DF-HA-3(1)

Lab Sample ID: 590-20704-6

Date Collected: 06/05/23 14:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.73 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 12:54	AMB	EET SPK

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.32 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 13:59	AMB	EET SPK
Total/NA	Prep	7471B			0.59 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 12:56	AMB	EET SPK

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 72.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:03	AMB	EET SPK
Total/NA	Prep	7471B			0.80 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 12:59	AMB	EET SPK

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-6(1)

Date Collected: 06/05/23 15:49

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-13

Matrix: Solid

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			16.6 g	10 mL	616601	06/19/23 13:46	EDW	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	616975	06/21/23 23:12	SMQ	EET DEN
Total/NA	Prep	3546	RE		15.2 g	10 mL	617243	06/23/23 14:56	GML	EET DEN
Total/NA	Analysis	8081B	RE	1	1 mL	1 mL	617595	06/28/23 08:00	SMQ	EET DEN
Total/NA	Prep	3550C			15.81 g	5 mL	42068	06/20/23 10:00	M1V	EET SPK
Total/NA	Analysis	8082A		1	1 mL	1 mL	42064	06/20/23 21:36	NMI	EET SPK
Total/NA	Prep	3550C			15.55 g	5 mL	41945	06/13/23 09:35	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	41946	06/13/23 13:12	NMI	EET SPK
Total/NA	Prep	3050B			1.50 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:07	AMB	EET SPK
Total/NA	Prep	3050B			1.50 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		2			42299	07/05/23 18:49	AMB	EET SPK
Total/NA	Prep	7471B			0.67 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:07	AMB	EET SPK
Total/NA	Leach	9013			5.3079 g	100 mL	429148	06/16/23 22:39	CSS	EET SEA
Total/NA	Prep	9012B			6 mL	6 mL	429337	06/19/23 17:50	CSS	EET SEA
Total/NA	Analysis	9012B		1			429456	06/21/23 00:43	CSS	EET SEA

Client Sample ID: DF-SW-1

Date Collected: 06/05/23 17:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	42002	06/15/23 10:28	AMB	EET SPK
Dissolved	Analysis	6010D		1			42009	06/15/23 17:30	AMB	EET SPK
Total Recoverable	Prep	3005A			50 mL	50 mL	41950	06/13/23 10:36	AMB	EET SPK
Total Recoverable	Analysis	6010D		1			41948	06/13/23 16:28	AMB	EET SPK
Dissolved	Prep	7470A			50 mL	50 mL	42098	06/21/23 09:18	AMB	EET SPK
Dissolved	Analysis	7470A		1			42106	06/21/23 14:39	AMB	EET SPK
Total/NA	Prep	7470A			50 mL	50 mL	41949	06/13/23 10:33	AMB	EET SPK
Total/NA	Analysis	7470A		1			41955	06/13/23 17:01	AMB	EET SPK

Client Sample ID: DF-HA-10(1)

Date Collected: 06/06/23 12:43

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-16

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-10(1)

Date Collected: 06/06/23 12:43

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-16

Matrix: Solid

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.8 g	10 mL	616601	06/19/23 13:46	EDW	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	616975	06/21/23 23:29	SMQ	EET DEN
Total/NA	Prep	3550C			15.05 g	5 mL	41945	06/13/23 09:35	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	41946	06/13/23 14:13	NMI	EET SPK
Total/NA	Prep	3050B			1.32 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:11	AMB	EET SPK
Total/NA	Prep	7471B			0.57 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:09	AMB	EET SPK
Total/NA	Leach	9013			5.5120 g	100 mL	429148	06/16/23 22:39	CSS	EET SEA
Total/NA	Prep	9012B			6 mL	6 mL	429337	06/19/23 17:50	CSS	EET SEA
Total/NA	Analysis	9012B		1			429456	06/21/23 00:43	CSS	EET SEA

Client Sample ID: DF-HA-17(1)

Date Collected: 06/06/23 14:47

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41986	06/14/23 14:07	M1V	EET SPK

Client Sample ID: DF-HA-17(1)

Date Collected: 06/06/23 14:47

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-18

Matrix: Solid

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.43 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:15	AMB	EET SPK
Total/NA	Prep	3050B			1.43 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		2			42299	07/05/23 18:57	AMB	EET SPK
Total/NA	Prep	7471B			0.66 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:12	AMB	EET SPK

Client Sample ID: DF-HA-15(1)

Date Collected: 06/06/23 14:40

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-21

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-15(1)

Date Collected: 06/06/23 14:40

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-21

Matrix: Solid

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:19	AMB	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-15(1)

Date Collected: 06/06/23 14:40

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-21

Matrix: Solid

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.30 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		20			42104	06/21/23 14:58	AMB	EET SPK
Total/NA	Prep	7471B			0.62 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:14	AMB	EET SPK

Client Sample ID: DF-HA-12(1)

Date Collected: 06/06/23 12:44

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-23

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-12(1)

Date Collected: 06/06/23 12:44

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-23

Matrix: Solid

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:23	AMB	EET SPK
Total/NA	Prep	3050B			1.45 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		20			42104	06/21/23 15:02	AMB	EET SPK
Total/NA	Prep	7471B			0.66 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:17	AMB	EET SPK

Client Sample ID: DF-HA-23(1)

Date Collected: 06/06/23 16:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-23(1)

Date Collected: 06/06/23 16:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-25

Matrix: Solid

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.69 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:26	AMB	EET SPK
Total/NA	Prep	7471B			0.65 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:21	AMB	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-11(1)

Lab Sample ID: 590-20704-28

Date Collected: 06/06/23 09:15

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-11(1)

Lab Sample ID: 590-20704-28

Date Collected: 06/06/23 09:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.28 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:42	AMB	EET SPK
Total/NA	Prep	7471B			0.63 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:23	AMB	EET SPK

Client Sample ID: DF-DRUM-1

Lab Sample ID: 590-20704-34

Date Collected: 06/06/23 09:45

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41986	06/14/23 14:07	M1V	EET SPK

Client Sample ID: DF-DRUM-1

Lab Sample ID: 590-20704-34

Date Collected: 06/06/23 09:45

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.46 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		500			42104	06/21/23 15:06	AMB	EET SPK
Total/NA	Prep	3050B			1.4520 g	50 mL	428945	06/15/23 11:48	TMH	EET SEA
Total/NA	Analysis	6020B		1000	50 mL	50 mL	429467	06/20/23 14:01	FCW	EET SEA
Total/NA	Prep	7471B			0.65 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:26	AMB	EET SPK

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	42090	06/20/23 20:16	AMB	EET SPK
Total/NA	Analysis	6010D		10			42104	06/21/23 14:50	AMB	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.61 g	50 mL	42091	06/20/23 20:19	AMB	EET SPK
Total/NA	Analysis	7471B		1			42102	06/21/23 13:30	AMB	EET SPK

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8082A	3550C	Solid	PCB-1262
8082A	3550C	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-10-24
Arizona	State	AZ0713	12-20-24
Arkansas DEQ	State	19-047-0	05-31-23 *
California	State	2513	01-09-24
Connecticut	State	PH-0686	09-30-24
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-24
Illinois	NELAP	2000172019-1	04-30-24
Iowa	State	IA#370	12-01-24
Kansas	NELAP	E-10166	04-30-24
Kentucky (WW)	State	KY98047	12-31-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-23
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	2053	04-28-24
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	03-31-24
North Carolina (WW/SW)	State	358	12-31-23
North Dakota	State	R-034	01-08-24
Oklahoma	NELAP	8614	08-31-23
Oklahoma	State	2018-006	08-31-23
Oregon	NELAP	4025-011	01-08-24
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-24
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	09-30-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Washington	State	C583-19	08-03-23
West Virginia DEP	State	354	11-30-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Laboratory: Eurofins Denver (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999615430	08-31-23
Wyoming (UST)	A2LA	2907.01	10-31-22 *

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-23
Florida	NELAP	E87575	06-30-23
Louisiana	NELAP	03073	06-30-23
Louisiana (All)	NELAP	03073	06-30-23
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-23
New York	NELAP	11662	03-31-24
Oregon	NELAP	4167	07-07-23
US Fish & Wildlife	US Federal Programs	A20571	06-30-23
USDA	US Federal Programs	525-23-4-22573	01-04-26
Washington	State	C788	07-13-23
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-1

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	EET DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	EET SPK
6010D	Metals (ICP)	SW846	EET SPK
6020B	Metals (ICP/MS)	SW846	EET SEA
7470A	Mercury (CVAA)	SW846	EET SPK
7471B	Mercury (CVAA)	SW846	EET SPK
9012B	Cyanide, Total and/or Amenable	SW846	EET SEA
Moisture	Percent Moisture	EPA	EET SPK
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET SPK
3050B	Preparation, Metals	SW846	EET SEA
3050B	Preparation, Metals	SW846	EET SPK
3546	Microwave Extraction	SW846	EET DEN
3550C	Ultrasonic Extraction	SW846	EET SPK
3665A	Sulfuric Acid/Permanganate Cleanup	SW846	EET SPK
7470A	Preparation, Mercury	SW846	EET SPK
7471B	Preparation, Mercury	SW846	EET SPK
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET SEA
9013	Cyanide Extraction (Solids and Oils)	SW846	EET SEA

Protocol References:

- EPA = US Environmental Protection Agency
- NWTPH = Northwest Total Petroleum Hydrocarbon
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
- EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 1 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTEL-Dx	Organohalobine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-5 (2)	6/5/23	15:13	2	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed. - VOCs 5 DAY TAT - HOLD SAMPLES NOT SELECTED FOR ANALYTICAL RESULTS PENDING ANALYTICAL RESULTS FOR (1) SAMPLE
DF-HA-1 (1)	6/5/23	11:05	1	Soil	X												
DF-HA-2 (2)		11:08	2		X												
DF-HA-1 (2.5)		11:30	2.5														
DF-HA-2 (1)		12:10	1		X												
DF-HA-2 (2)		12:15	2														
DF-HA-3 (1)		14:30	1		X	X											
DF-HA-3 (2)		14:45	2		X	X											
DF-HA-4 (1)		15:15	1		X	X											
DF-HA-4 (2)	15:40	15:40	2		X	X											



Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 6:58	Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 0658	VOA Vial Amber Glass Plastic Bottle Preservative Volume	4.7°C 5.3°C IR006
Relinquished by	Received by	SOLID	
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 1025	Sign: [Signature] Print: JERRY RICE Firm: STAPLE Date: 6/7/23 Time: 1025	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by	Received by	PRESERVATION KEY	
Sign: Print: Firm: Date:	Sign: Print: Firm: Date:	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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Page 2 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082	T. PUA B metals	D. PUA B metals					
DF-HA-4(3)	6/5/2023	16:24	3	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-5(1)		14:57	1		X	X											
DF-HA-5(2)		15:13	2														
DF-HA-6(1)		15:49	1		X	X	X	X	X	X							
DF-HA-6(2)		16:25	2														
DF-SW-1	6/5/23	17:15	—	Water		X					X	X					
DF-HA-10(1)	6/6/23	12:43	1	Soil													
DF-HA-10(2)		13:26	1														
DF-HA-17(1)		14:47	1														
DF-HA-17(2)		15:00	2														

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by		Evidence samples were tampered with? YES NO
Sign	Sign		If YES, please explain in section below.
Print	Print		
Firm	Firm		
Date	Date		
Time	Time		
PRESERVATION KEY			
A	Sample chilled	C	NaOH
E	H ₂ SO ₄	G	Methanol
B	Sample filtered	D	HNO ₃
F	HCL	H	Water/NaHSO ₄ (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)	
<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 3 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-17(3)	6/6/23	1524	3	SOIL														
DF-HA-15(1)	6/6/23	1440	1	SOIL	X												1	
DF-HA-15(2)		1515	2	SOIL													3	
DF-HA-12(1)		1244	1		X	X											3	
DF-HA-12(2)		1300	2														3	
DF-HA-23(1)		1600	1		X												1	
DF-HA-23(2)		1612	2														1	
DF-HA-23(3)		1615	3														1	
DF-HA-11(1)		0915	1		X	X											3	
DF-HA-11(2)		0930	2														3	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
<p>Evidence samples were tampered with? YES NO</p> <p>If YES, please explain in section below.</p>			
		PRESERVATION KEY	
		A Sample chilled	C NaOH
		B Sample filtered	D HNO ₃
		E H ₂ SO ₄	F HCL
		G Methanol	H Water/NaHSO ₄ (circle)

<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
---	--	--

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 4 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-11(3)	6/16/23	1000	3	SOIL															Laboratory to use applicable DEP CAM methods, unless otherwise directed. (HOLD) DF-DRUM-1
DF-HA-12(1)		1447	1	SOIL	X														
DF-HA-9(3)		1058	3																
DF-HA-17(2)		1500	2																
DF-HA-DRUM-1		0945	-																
DF-HA-10(1)		1243	1		X	X	X	X	X								3/2		
DF-HA-10(2)		1326	2														3		
DF-HA-9(2)		1015	2														3		
DF-HA-9(1)		0930	1		X	X											3		
DF-HA-4(5)		1040	5														3		

Sampled and Relinquished by		Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial	
Print	Print		Amber Glass	
Firm	Firm		Plastic Bottle	
Date	Time	Date	Time	Preservative
Relinquished by	Received by		Volume	
Sign	Sign		SOLID	
Print	Print		VOA Vial	
Firm	Firm		Amber Glass	
Date	Time	Date	Time	Clear Glass
Relinquished by	Received by		Preservative	Evidence samples were tampered with? YES NO
Sign	Sign		Volume	If YES, please explain in section below
Print	Print			
Firm	Firm			
Date	Time	Date	Time	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 5 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 9 Metals EPA Method 6010 and 7470	VOC EPA Method 8160 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-11(4)	6/6/23	1023	4	SOIL												3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass	
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		Evidence samples were tampered with? YES NO If YES, please explain in section below
Sign Print Firm Date Time	Sign Print Firm Date Time		

Handwritten notes:
2 vials
DF-HA-12(3)
13:35
6/6/23
3 containers

Presumptive Certain

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) includes does not include samples defined as

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analyzed appropriately. Laboratory should (specify if applicable) analyze

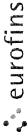
Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Eurofins Spokane
 11922 East 1st Ave
 Spokane, WA 99206
 Phone: 509-924-9200 Fax: 509-924-9290



Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):																																																																																																																																																																																																																																																	
Shipping/Receiving		Arrington, Randelee E		590-7952-1																																																																																																																																																																																																																																																	
Company: TestAmerica Laboratories, Inc.		E-Mail: Randelee.Arrington@eurofins.com		Page: Page 1 of 1																																																																																																																																																																																																																																																	
Address: 4955 Yarrow Street,		Accreditations Required (See note): State Program - Washington		Job #: 590-20704-1																																																																																																																																																																																																																																																	
City: Arvada	State: CO, 80002	Preservation Codes:																																																																																																																																																																																																																																																			
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:	M - Hexane N - None O - As/No2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:																																																																																																																																																																																																																																																			
Project Name: POM Historic Debris Field/0203154-013	Project #: 59002301	Analysis Requested																																																																																																																																																																																																																																																			
Site:	SSOW#:	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>8081B/3546 Standard 8081B list</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>DF-HA-6(1) (590-20704-13)</td> <td>6/5/23</td> <td>15:49 Pacific</td> <td>Solid</td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>1</td> <td></td> </tr> <tr> <td>DF-HA-10(1) (590-20704-16)</td> <td>6/6/23</td> <td>12:43 Pacific</td> <td>Solid</td> <td>Solid</td> <td>X</td> <td>X</td> <td></td> <td>1</td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B/3546 Standard 8081B list	Total Number of Containers	Special Instructions/Note:	DF-HA-6(1) (590-20704-13)	6/5/23	15:49 Pacific	Solid	Solid	X	X		1		DF-HA-10(1) (590-20704-16)	6/6/23	12:43 Pacific	Solid	Solid	X	X		1																																																																																																																																																																																																																			
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8081B/3546 Standard 8081B list	Total Number of Containers	Special Instructions/Note:																																																																																																																																																																																																																																												
DF-HA-6(1) (590-20704-13)	6/5/23	15:49 Pacific	Solid	Solid	X	X		1																																																																																																																																																																																																																																													
DF-HA-10(1) (590-20704-16)	6/6/23	12:43 Pacific	Solid	Solid	X	X		1																																																																																																																																																																																																																																													

Due Date Requested: 6/20/2023
 TAT Requested (days):
 Project Name: POM Historic Debris Field/0203154-013
 Project #: 59002301
 SSOW#:

Sample Identification - Client ID (Lab ID)

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification

Unconfirmed Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

Special Instructions/QC Requirements: _____

Empty Kit Relinquished by: _____ Date: _____ Time: _____

Relinquished by: *M. Vayt* Date/Time: 6/13/23 5:35
 Relinquished by: *EBS SP* Date/Time: 6/14/23 09:50
 Relinquished by: _____ Date/Time: _____

Relinquished by: _____ Date/Time: _____

Custody Seals Intact: _____ Custody Seal No.: _____

Δ Yes Δ No

Relinquished by: *M. Vayt* Date/Time: 6/13/23 5:35
 Relinquished by: *EBS SP* Date/Time: 6/14/23 09:50
 Relinquished by: _____ Date/Time: _____

Cooler Temperature(s) °C and Other Remarks: 0, 4, 9, 7, 11, 0, 0

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Eurofins Spokane

11922 East 1st Ave
 Spokane, WA 99206
 Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



eurofins | Environment Testing

Client Information (Sub Contract Lab)				Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-7954.1			
Client Contact: Shipping/Receiving				Phone:	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1			
Company: Eurofins Environment Testing Northwest				Accreditations Required (See note): State Program - Washington			Job #: 590-20704-1			
Address: 5755 8th Street East, Tacoma State, Zip: WA, 98424		Due Date Requested: 6/20/2023		Analysis Requested				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)		
City: Tacoma		TAT Requested (days):								
Phone: 253-922-2310(Tel)		PO #:								
Email:		WO #:								
Project Name: POM Historic Debris Field/0203154-013		Project #: 59002301		Field Filtered Sample (Yes or No)				Total Number of Containers		
Site:		SSOW#:		Perform MIMS/MSD (Yes or No)						
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	9012B/9013 Total Cyanide	6020B/3050B (MOB) Zinc	Special Instructions/Note:
						Preservation Code				
DF-HA-8(1) (590-20704-13)				6/5/23	15:49 Pacific		Solid	X		1
DF-HA-10(1) (590-20704-16)				6/6/23	12:43 Pacific		Solid	X		1
DF-DRUM-1 (590-20704-34)				6/6/23	09:45 Pacific		Solid		X	1
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.</p>										
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 2					Special Instructions/QC Requirements:
Empty Kit Relinquished by:				Date:	Time:	Method of Shipment:				
Relinquished by: <i>M. V. [Signature]</i>				Date/Time: 6/14/23 14:59	Company: <i>ETS</i>	Received by: <i>R. [Signature]</i>			Date/Time: 6/15/23 09:00	Company: <i>[Signature]</i>
Relinquished by:				Date/Time:	Company:	Received by:			Date/Time:	Company:
Relinquished by:				Date/Time:	Company:	Received by:			Date/Time:	Company:
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: <i>2/19 1.6/1.9</i>					

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-1

Login Number: 20704

List Number: 1

Creator: Vaughan, Madison 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC. and missing samples
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-1

Login Number: 20704

List Number: 2

Creator: Held, Wesley

List Source: Eurofins Denver

List Creation: 06/14/23 12:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-1

Login Number: 20704
List Number: 3
Creator: Presley, Kim A

List Source: Eurofins Seattle
List Creation: 06/15/23 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9-1.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 6/20/2023 4:26:50 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20704-2

Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Job ID: 590-20704-2

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/7/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DF-HA-12(3) (590-20704-41)

The following samples were listed on the Chain of Custody (COC); however, no samples were received: DF-HA-17(1) (590-20704-31), DF-HA-17(2) (590-20704-33), DF-HA-10(1) (590-20704-35) and DF-HA-10(2) (590-20704-36).

The following samples were listed on the COC in duplicate: DF-HA-1(1) (590-20704-1), DF-HA-1(2) (590-20704-2), DF-HA-1(2.5) (590-20704-3), DF-HA-2(1) (590-20704-4), DF-HA-2(2) (590-20704-5), DF-HA-3(1) (590-20704-6), DF-HA-3(2) (590-20704-7), DF-HA-4(1) (590-20704-8), DF-HA-4(2) (590-20704-9), DF-HA-4(3) (590-20704-10), DF-HA-5(1) (590-20704-11), DF-HA-5(2) (590-20704-12), DF-HA-6(1) (590-20704-13), DF-HA-6(2) (590-20704-14), DF-SW-1 (590-20704-15), DF-HA-10(1) (590-20704-16), DF-HA-10(2) (590-20704-17), DF-HA-17(1) (590-20704-18), DF-HA-17(2) (590-20704-19), DF-HA-17(3) (590-20704-20), DF-HA-15(1) (590-20704-21), DF-HA-15(2) (590-20704-22), DF-HA-12(1) (590-20704-23), DF-HA-12(2) (590-20704-24), DF-HA-23(1) (590-20704-25), DF-HA-23(2) (590-20704-26), DF-HA-23(3) (590-20704-27), DF-HA-11(1) (590-20704-28), DF-HA-11(2) (590-20704-29), DF-HA-11(3) (590-20704-30), DF-HA-17(1) (590-20704-31), DF-HA-9(3) (590-20704-32), DF-HA-17(2) (590-20704-33), DF-DRUM-1 (590-20704-34), DF-HA-10(1) (590-20704-35), DF-HA-10(2) (590-20704-36), DF-HA-9(2) (590-20704-37), DF-HA-9(1) (590-20704-38), DF-HA-11(5) (590-20704-39), DF-HA-11(4) (590-20704-40) and DF-HA-12(3) (590-20704-41).

The following sample was activated for 6010D RCRA 8 Metals and 6020B Zinc analysis by the client on 06/12/23: DF-DRUM-1 (590-20704-34). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42042 recovered outside acceptance criteria, low biased, for Hexachlorobutadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42059 recovered above the upper control limit for 1,2,3-Trichloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The method blank for analytical batch 590-42059 contained 1,2,3-Trichlorobenzene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

Method 5035: For the following samples, containers with matching sample IDs could not be located. Many containers in this job had no sample IDs on them at all and the laboratory had to use their best judgment to determine their ID's and thus, there is a possibility they are incorrect.

DF-HA-5(1) (590-20704-11) and DF-HA-6(1) (590-20704-13)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20704-6	DF-HA-3(1)	Solid	06/05/23 14:30	06/07/23 10:25
590-20704-8	DF-HA-4(1)	Solid	06/05/23 15:15	06/07/23 10:25
590-20704-11	DF-HA-5(1)	Solid	06/05/23 14:37	06/07/23 10:25
590-20704-13	DF-HA-6(1)	Solid	06/05/23 15:49	06/07/23 10:25
590-20704-15	DF-SW-1	Water	06/05/23 17:15	06/07/23 10:25
590-20704-16	DF-HA-10(1)	Solid	06/06/23 12:43	06/07/23 10:25
590-20704-23	DF-HA-12(1)	Solid	06/06/23 12:44	06/07/23 10:25
590-20704-28	DF-HA-11(1)	Solid	06/06/23 09:15	06/07/23 10:25
590-20704-38	DF-HA-9(1)	Solid	06/06/23 09:30	06/07/23 10:25

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-3(1)

Lab Sample ID: 590-20704-6

Date Collected: 06/05/23 14:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.29	0.082	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Chloromethane	ND		1.5	0.12	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Vinyl chloride	ND		0.17	0.059	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Bromomethane	ND		1.5	0.096	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Chloroethane	ND		0.58	0.16	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Trichlorofluoromethane	ND		0.58	0.096	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1-Dichloroethene	ND		0.29	0.099	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Methylene Chloride	ND		1.0	0.58	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
trans-1,2-Dichloroethene	ND		0.29	0.067	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1-Dichloroethane	ND		0.29	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
2,2-Dichloropropane	ND		0.29	0.071	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
cis-1,2-Dichloroethene	ND		0.29	0.061	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Bromochloromethane	ND		0.29	0.12	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Chloroform	ND		0.29	0.068	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1,1-Trichloroethane	ND		0.29	0.050	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Carbon tetrachloride	ND		0.29	0.032	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1-Dichloropropene	ND		0.29	0.051	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Benzene	ND		0.058	0.029	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,2-Dichloroethane	ND		0.29	0.020	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Trichloroethene	ND		0.073	0.022	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,2-Dichloropropane	ND		0.35	0.088	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Dibromomethane	ND		0.29	0.065	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Bromodichloromethane	ND		0.29	0.18	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
cis-1,3-Dichloropropene	ND		0.29	0.059	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Toluene	ND		0.29	0.039	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
trans-1,3-Dichloropropene	ND		0.29	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1,2-Trichloroethane	ND		0.29	0.10	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Tetrachloroethene	ND		0.12	0.051	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,3-Dichloropropane	ND		0.29	0.087	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Dibromochloromethane	ND		0.58	0.047	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,2-Dibromoethane (EDB)	ND		0.29	0.098	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Chlorobenzene	ND		0.29	0.060	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Ethylbenzene	ND		0.29	0.047	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1,1,2-Tetrachloroethane	ND		0.29	0.056	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,1,2,2-Tetrachloroethane	ND		0.29	0.085	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
m,p-Xylene	ND		1.2	0.084	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
o-Xylene	ND		0.58	0.067	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Styrene	ND		0.29	0.069	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Bromoform	ND		0.58	0.056	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Isopropylbenzene	ND		0.29	0.090	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
Bromobenzene	ND		0.29	0.065	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
N-Propylbenzene	ND		0.29	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,2,3-Trichloropropane	ND		0.58	0.11	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
2-Chlorotoluene	ND		0.29	0.048	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,3,5-Trimethylbenzene	ND		0.29	0.093	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
4-Chlorotoluene	ND		0.29	0.025	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
tert-Butylbenzene	ND		0.29	0.057	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
1,2,4-Trimethylbenzene	ND		0.29	0.068	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1
sec-Butylbenzene	ND		0.29	0.054	mg/Kg	✱	06/17/23 11:58	06/17/23 15:06	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-3(1)

Lab Sample ID: 590-20704-6

Date Collected: 06/05/23 14:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.29	0.037	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
p-Isopropyltoluene	ND		0.29	0.059	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
1,4-Dichlorobenzene	ND		0.29	0.060	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
n-Butylbenzene	ND		0.29	0.080	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
1,2-Dichlorobenzene	ND		0.29	0.068	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
1,2-Dibromo-3-Chloropropane	ND		1.5	0.17	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
1,2,4-Trichlorobenzene	ND		0.29	0.054	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
1,2,3-Trichlorobenzene	ND		0.29	0.097	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
Hexachlorobutadiene	ND		0.29	0.048	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
Naphthalene	ND		0.58	0.082	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
Methyl tert-butyl ether	ND		0.15	0.087	mg/Kg	✧	06/17/23 11:58	06/17/23 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120				06/17/23 11:58	06/17/23 15:06	1
4-Bromofluorobenzene (Surr)	104		66 - 129				06/17/23 11:58	06/17/23 15:06	1
Dibromofluoromethane (Surr)	100		80 - 120				06/17/23 11:58	06/17/23 15:06	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124				06/17/23 11:58	06/17/23 15:06	1

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 87.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.26	0.072	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Chloromethane	ND		1.3	0.11	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Vinyl chloride	ND		0.15	0.052	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Bromomethane	ND		1.3	0.085	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Chloroethane	ND		0.52	0.15	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Trichlorofluoromethane	ND		0.52	0.085	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,1-Dichloroethene	ND		0.26	0.088	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Methylene Chloride	ND		0.90	0.52	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
trans-1,2-Dichloroethene	ND		0.26	0.059	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,1-Dichloroethane	ND		0.26	0.068	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
2,2-Dichloropropane	ND		0.26	0.063	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
cis-1,2-Dichloroethene	ND		0.26	0.054	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Bromochloromethane	ND		0.26	0.10	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Chloroform	ND		0.26	0.061	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,1,1-Trichloroethane	ND		0.26	0.045	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Carbon tetrachloride	ND		0.26	0.028	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,1-Dichloropropene	ND		0.26	0.045	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Benzene	ND		0.052	0.026	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,2-Dichloroethane	ND		0.26	0.018	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Trichloroethene	ND		0.064	0.020	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
1,2-Dichloropropane	ND		0.31	0.078	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Dibromomethane	ND		0.26	0.058	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Bromodichloromethane	ND		0.26	0.16	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
cis-1,3-Dichloropropene	ND		0.26	0.053	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
Toluene	ND		0.26	0.034	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1
trans-1,3-Dichloropropene	ND		0.26	0.068	mg/Kg	✧	06/17/23 11:58	06/17/23 15:27	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 87.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.26	0.091	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Tetrachloroethene	ND		0.10	0.045	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,3-Dichloropropane	ND		0.26	0.077	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Dibromochloromethane	ND		0.52	0.042	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2-Dibromoethane (EDB)	ND		0.26	0.086	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Chlorobenzene	ND		0.26	0.053	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Ethylbenzene	ND		0.26	0.042	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,1,1,2-Tetrachloroethane	ND		0.26	0.050	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,1,2,2-Tetrachloroethane	ND		0.26	0.075	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
m,p-Xylene	ND		1.0	0.074	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
o-Xylene	ND		0.52	0.059	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Styrene	ND		0.26	0.061	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Bromoform	ND		0.52	0.049	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Isopropylbenzene	ND		0.26	0.080	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Bromobenzene	ND		0.26	0.058	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
N-Propylbenzene	ND		0.26	0.068	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2,3-Trichloropropane	ND		0.52	0.094	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
2-Chlorotoluene	ND		0.26	0.042	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,3,5-Trimethylbenzene	ND		0.26	0.083	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
4-Chlorotoluene	ND		0.26	0.022	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
tert-Butylbenzene	ND		0.26	0.050	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2,4-Trimethylbenzene	ND		0.26	0.060	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
sec-Butylbenzene	ND		0.26	0.048	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,3-Dichlorobenzene	ND		0.26	0.032	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
p-Isopropyltoluene	ND		0.26	0.053	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,4-Dichlorobenzene	ND		0.26	0.053	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
n-Butylbenzene	ND		0.26	0.071	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2-Dichlorobenzene	ND		0.26	0.060	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.15	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2,4-Trichlorobenzene	ND		0.26	0.048	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
1,2,3-Trichlorobenzene	ND		0.26	0.086	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Hexachlorobutadiene	ND		0.26	0.042	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Naphthalene	ND		0.52	0.072	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1
Methyl tert-butyl ether	ND		0.13	0.077	mg/Kg	✳	06/17/23 11:58	06/17/23 15:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120	06/17/23 11:58	06/17/23 15:27	1
4-Bromofluorobenzene (Surr)	106		66 - 129	06/17/23 11:58	06/17/23 15:27	1
Dibromofluoromethane (Surr)	98		80 - 120	06/17/23 11:58	06/17/23 15:27	1
1,2-Dichloroethane-d4 (Surr)	98		79 - 124	06/17/23 11:58	06/17/23 15:27	1

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 72.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.32	0.091	mg/Kg	✳	06/17/23 11:58	06/17/23 15:48	1
Chloromethane	ND		1.6	0.13	mg/Kg	✳	06/17/23 11:58	06/17/23 15:48	1
Vinyl chloride	ND		0.19	0.065	mg/Kg	✳	06/17/23 11:58	06/17/23 15:48	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 72.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.6	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Chloroethane	ND		0.64	0.18	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Trichlorofluoromethane	ND		0.64	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1-Dichloroethene	ND		0.32	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Methylene Chloride	ND		1.1	0.64	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
trans-1,2-Dichloroethene	ND		0.32	0.074	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1-Dichloroethane	ND		0.32	0.085	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
2,2-Dichloropropane	ND		0.32	0.078	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
cis-1,2-Dichloroethene	ND		0.32	0.067	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Bromochloromethane	ND		0.32	0.13	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Chloroform	ND		0.32	0.076	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1,1-Trichloroethane	ND		0.32	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Carbon tetrachloride	ND		0.32	0.035	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1-Dichloropropene	ND		0.32	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Benzene	ND		0.064	0.032	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,2-Dichloroethane	ND		0.32	0.023	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Trichloroethene	ND		0.081	0.025	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,2-Dichloropropane	ND		0.39	0.098	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Dibromomethane	ND		0.32	0.072	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Bromodichloromethane	ND		0.32	0.20	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
cis-1,3-Dichloropropene	ND		0.32	0.066	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Toluene	0.043	J	0.32	0.043	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
trans-1,3-Dichloropropene	ND		0.32	0.085	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1,2-Trichloroethane	ND		0.32	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Tetrachloroethene	ND		0.13	0.057	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,3-Dichloropropane	ND		0.32	0.096	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Dibromochloromethane	ND		0.64	0.052	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,2-Dibromoethane (EDB)	ND		0.32	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Chlorobenzene	ND		0.32	0.067	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Ethylbenzene	ND		0.32	0.052	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1,1,2-Tetrachloroethane	ND		0.32	0.062	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,1,2,2-Tetrachloroethane	ND		0.32	0.094	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
m,p-Xylene	ND		1.3	0.093	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
o-Xylene	ND		0.64	0.074	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Styrene	ND		0.32	0.076	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Bromoform	ND		0.64	0.062	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Isopropylbenzene	ND		0.32	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
Bromobenzene	ND		0.32	0.072	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
N-Propylbenzene	ND		0.32	0.085	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,2,3-Trichloropropane	ND		0.64	0.12	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
2-Chlorotoluene	ND		0.32	0.053	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,3,5-Trimethylbenzene	ND		0.32	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
4-Chlorotoluene	ND		0.32	0.028	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
tert-Butylbenzene	ND		0.32	0.063	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,2,4-Trimethylbenzene	ND		0.32	0.075	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
sec-Butylbenzene	ND		0.32	0.060	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,3-Dichlorobenzene	ND		0.32	0.041	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
p-Isopropyltoluene	0.083	J	0.32	0.066	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1
1,4-Dichlorobenzene	ND		0.32	0.066	mg/Kg	☼	06/17/23 11:58	06/17/23 15:48	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.53	0.043	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2-Dibromoethane (EDB)	ND		0.26	0.089	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Chlorobenzene	ND		0.26	0.055	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Ethylbenzene	ND		0.26	0.043	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,1,1,2-Tetrachloroethane	ND		0.26	0.051	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,1,2,2-Tetrachloroethane	ND		0.26	0.077	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
m,p-Xylene	ND		1.1	0.076	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
o-Xylene	ND		0.53	0.061	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Styrene	ND		0.26	0.062	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Bromoform	ND		0.53	0.051	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Isopropylbenzene	ND		0.26	0.082	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Bromobenzene	ND		0.26	0.059	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
N-Propylbenzene	ND		0.26	0.070	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2,3-Trichloropropane	ND		0.53	0.097	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
2-Chlorotoluene	ND		0.26	0.043	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,3,5-Trimethylbenzene	ND		0.26	0.085	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
4-Chlorotoluene	ND		0.26	0.023	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
tert-Butylbenzene	ND		0.26	0.052	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2,4-Trimethylbenzene	ND		0.26	0.062	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
sec-Butylbenzene	ND		0.26	0.049	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,3-Dichlorobenzene	ND		0.26	0.033	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
p-Isopropyltoluene	0.073	J	0.26	0.054	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,4-Dichlorobenzene	ND		0.26	0.055	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
n-Butylbenzene	ND		0.26	0.073	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2-Dichlorobenzene	ND		0.26	0.062	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.16	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2,4-Trichlorobenzene	ND		0.26	0.049	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
1,2,3-Trichlorobenzene	ND		0.26	0.088	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Hexachlorobutadiene	ND		0.26	0.043	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Naphthalene	ND		0.53	0.074	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1
Methyl tert-butyl ether	ND		0.13	0.079	mg/Kg	✳	06/17/23 11:58	06/17/23 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120	06/17/23 11:58	06/17/23 16:09	1
4-Bromofluorobenzene (Surr)	99		66 - 129	06/17/23 11:58	06/17/23 16:09	1
Dibromofluoromethane (Surr)	101		80 - 120	06/17/23 11:58	06/17/23 16:09	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	06/17/23 11:58	06/17/23 16:09	1

Client Sample ID: DF-SW-1

Lab Sample ID: 590-20704-15

Date Collected: 06/05/23 17:15

Matrix: Water

Date Received: 06/07/23 10:25

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0	0.64	ug/L			06/19/23 21:38	1
Chloromethane	ND		3.0	0.50	ug/L			06/19/23 21:38	1
Vinyl chloride	ND		0.40	0.13	ug/L			06/19/23 21:38	1
Bromomethane	ND		5.0	0.76	ug/L			06/19/23 21:38	1
Chloroethane	ND		2.0	0.40	ug/L			06/19/23 21:38	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			06/19/23 21:38	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-SW-1

Lab Sample ID: 590-20704-15

Date Collected: 06/05/23 17:15

Matrix: Water

Date Received: 06/07/23 10:25

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.20	ug/L			06/19/23 21:38	1
Methylene Chloride	ND		5.0	2.2	ug/L			06/19/23 21:38	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			06/19/23 21:38	1
1,1-Dichloroethane	ND		1.0	0.29	ug/L			06/19/23 21:38	1
2,2-Dichloropropane	ND		2.0	0.66	ug/L			06/19/23 21:38	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/23 21:38	1
Bromochloromethane	ND		2.0	0.44	ug/L			06/19/23 21:38	1
Chloroform	ND		1.0	0.24	ug/L			06/19/23 21:38	1
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			06/19/23 21:38	1
Carbon tetrachloride	ND		1.0	0.40	ug/L			06/19/23 21:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			06/19/23 21:38	1
Benzene	ND		0.40	0.093	ug/L			06/19/23 21:38	1
1,2-Dichloroethane	ND		1.0	0.31	ug/L			06/19/23 21:38	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/23 21:38	1
1,2-Dichloropropane	ND		1.0	0.23	ug/L			06/19/23 21:38	1
Dibromomethane	ND		2.0	0.50	ug/L			06/19/23 21:38	1
Bromodichloromethane	ND		1.0	0.29	ug/L			06/19/23 21:38	1
cis-1,3-Dichloropropene	ND		1.0	0.25	ug/L			06/19/23 21:38	1
Toluene	ND		1.0	0.31	ug/L			06/19/23 21:38	1
trans-1,3-Dichloropropene	ND		1.0	0.45	ug/L			06/19/23 21:38	1
1,1,2-Trichloroethane	ND		2.0	0.43	ug/L			06/19/23 21:38	1
Tetrachloroethene	ND		1.0	0.22	ug/L			06/19/23 21:38	1
1,3-Dichloropropane	ND		2.0	0.21	ug/L			06/19/23 21:38	1
Dibromochloromethane	ND		2.0	0.33	ug/L			06/19/23 21:38	1
1,2-Dibromoethane (EDB)	ND		1.0	0.20	ug/L			06/19/23 21:38	1
Chlorobenzene	ND		1.0	0.32	ug/L			06/19/23 21:38	1
Ethylbenzene	ND		1.0	0.20	ug/L			06/19/23 21:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.48	ug/L			06/19/23 21:38	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.32	ug/L			06/19/23 21:38	1
m,p-Xylene	ND		2.0	0.28	ug/L			06/19/23 21:38	1
o-Xylene	ND		1.0	0.16	ug/L			06/19/23 21:38	1
Styrene	ND		1.0	0.24	ug/L			06/19/23 21:38	1
Bromoform	ND		5.0	0.66	ug/L			06/19/23 21:38	1
Isopropylbenzene	ND		1.0	0.24	ug/L			06/19/23 21:38	1
Bromobenzene	ND		1.0	0.28	ug/L			06/19/23 21:38	1
N-Propylbenzene	ND		1.0	0.25	ug/L			06/19/23 21:38	1
1,2,3-Trichloropropane	ND		2.0	0.50	ug/L			06/19/23 21:38	1
2-Chlorotoluene	ND		1.0	0.36	ug/L			06/19/23 21:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.32	ug/L			06/19/23 21:38	1
4-Chlorotoluene	ND		1.0	0.26	ug/L			06/19/23 21:38	1
tert-Butylbenzene	ND		1.0	0.12	ug/L			06/19/23 21:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.31	ug/L			06/19/23 21:38	1
sec-Butylbenzene	ND		1.0	0.22	ug/L			06/19/23 21:38	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			06/19/23 21:38	1
p-Isopropyltoluene	ND		1.0	0.27	ug/L			06/19/23 21:38	1
1,4-Dichlorobenzene	ND		1.0	0.28	ug/L			06/19/23 21:38	1
n-Butylbenzene	ND		1.0	0.20	ug/L			06/19/23 21:38	1
1,2-Dichlorobenzene	ND		1.0	0.23	ug/L			06/19/23 21:38	1
1,2-Dibromo-3-Chloropropane	ND		10	1.5	ug/L			06/19/23 21:38	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-SW-1

Date Collected: 06/05/23 17:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-15

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	0.16	ug/L			06/19/23 21:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.33	ug/L			06/19/23 21:38	1
Hexachlorobutadiene	ND		2.0	0.21	ug/L			06/19/23 21:38	1
Naphthalene	ND		2.0	0.63	ug/L			06/19/23 21:38	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/23 21:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120					06/19/23 21:38	1
4-Bromofluorobenzene (Surr)	106		76 - 120					06/19/23 21:38	1
Dibromofluoromethane (Surr)	108		80 - 123					06/19/23 21:38	1
1,2-Dichloroethane-d4 (Surr)	110		80 - 120					06/19/23 21:38	1

Client Sample ID: DF-HA-10(1)

Date Collected: 06/06/23 12:43

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-16

Matrix: Solid

Percent Solids: 88.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.23	0.064	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Chloromethane	ND		1.1	0.095	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Vinyl chloride	ND		0.14	0.046	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Bromomethane	ND		1.1	0.076	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Chloroethane	ND		0.46	0.13	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Trichlorofluoromethane	ND		0.46	0.075	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,1-Dichloroethene	ND		0.23	0.078	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Methylene Chloride	ND		0.80	0.46	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
trans-1,2-Dichloroethene	ND		0.23	0.052	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,1-Dichloroethane	ND		0.23	0.060	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
2,2-Dichloropropane	ND		0.23	0.056	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
cis-1,2-Dichloroethene	ND		0.23	0.048	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Bromochloromethane	ND		0.23	0.091	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Chloroform	ND		0.23	0.054	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,1,1-Trichloroethane	ND		0.23	0.040	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Carbon tetrachloride	ND		0.23	0.025	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,1-Dichloropropene	ND		0.23	0.040	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Benzene	ND		0.046	0.023	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,2-Dichloroethane	ND		0.23	0.016	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Trichloroethene	ND		0.057	0.017	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,2-Dichloropropane	ND		0.27	0.069	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Dibromomethane	ND		0.23	0.051	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Bromodichloromethane	ND		0.23	0.14	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
cis-1,3-Dichloropropene	ND		0.23	0.047	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Toluene	ND		0.23	0.030	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
trans-1,3-Dichloropropene	ND		0.23	0.060	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,1,2-Trichloroethane	ND		0.23	0.081	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Tetrachloroethene	ND		0.091	0.040	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,3-Dichloropropane	ND		0.23	0.068	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Dibromochloromethane	ND		0.46	0.037	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
1,2-Dibromoethane (EDB)	ND		0.23	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1
Chlorobenzene	ND		0.23	0.047	mg/Kg	✱	06/17/23 11:58	06/17/23 16:30	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-10(1)

Lab Sample ID: 590-20704-16

Date Collected: 06/06/23 12:43

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.23	0.037	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,1,1,2-Tetrachloroethane	ND		0.23	0.044	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,1,2,2-Tetrachloroethane	ND		0.23	0.066	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
m,p-Xylene	ND		0.91	0.066	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
o-Xylene	ND		0.46	0.053	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Styrene	ND		0.23	0.054	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Bromoform	ND		0.46	0.044	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Isopropylbenzene	ND		0.23	0.071	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Bromobenzene	ND		0.23	0.051	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
N-Propylbenzene	ND		0.23	0.060	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2,3-Trichloropropane	ND		0.46	0.084	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
2-Chlorotoluene	ND		0.23	0.037	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,3,5-Trimethylbenzene	ND		0.23	0.073	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
4-Chlorotoluene	ND		0.23	0.020	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
tert-Butylbenzene	ND		0.23	0.045	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2,4-Trimethylbenzene	ND		0.23	0.053	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
sec-Butylbenzene	ND		0.23	0.042	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,3-Dichlorobenzene	ND		0.23	0.029	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
p-Isopropyltoluene	ND		0.23	0.047	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,4-Dichlorobenzene	ND		0.23	0.047	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
n-Butylbenzene	ND		0.23	0.063	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2-Dichlorobenzene	ND		0.23	0.053	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2-Dibromo-3-Chloropropane	ND		1.1	0.14	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2,4-Trichlorobenzene	ND		0.23	0.042	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
1,2,3-Trichlorobenzene	ND		0.23	0.076	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Hexachlorobutadiene	ND		0.23	0.037	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Naphthalene	ND		0.46	0.064	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1
Methyl tert-butyl ether	ND		0.11	0.069	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Toluene-d8 (Surr)</i>	102		80 - 120	06/17/23 11:58	06/17/23 16:30	1
<i>4-Bromofluorobenzene (Surr)</i>	100		66 - 129	06/17/23 11:58	06/17/23 16:30	1
<i>Dibromofluoromethane (Surr)</i>	99		80 - 120	06/17/23 11:58	06/17/23 16:30	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	100		79 - 124	06/17/23 11:58	06/17/23 16:30	1

Client Sample ID: DF-HA-12(1)

Lab Sample ID: 590-20704-23

Date Collected: 06/06/23 12:44

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 84.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.24	0.067	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Chloromethane	ND		1.2	0.099	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Vinyl chloride	ND		0.14	0.048	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Bromomethane	ND		1.2	0.079	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Chloroethane	ND		0.48	0.13	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Trichlorofluoromethane	ND		0.48	0.078	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
1,1-Dichloroethene	ND		0.24	0.081	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
Methylene Chloride	ND		0.83	0.48	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1
trans-1,2-Dichloroethene	ND		0.24	0.055	mg/Kg	⊛	06/17/23 11:58	06/17/23 16:51	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-12(1)

Lab Sample ID: 590-20704-23

Date Collected: 06/06/23 12:44

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 84.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.24	0.063	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
2,2-Dichloropropane	ND		0.24	0.058	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
cis-1,2-Dichloroethene	ND		0.24	0.050	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Bromochloromethane	ND		0.24	0.095	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Chloroform	ND		0.24	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,1,1-Trichloroethane	ND		0.24	0.041	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Carbon tetrachloride	ND		0.24	0.026	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,1-Dichloropropene	ND		0.24	0.041	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Benzene	ND		0.048	0.024	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2-Dichloroethane	ND		0.24	0.017	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Trichloroethene	ND		0.060	0.018	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2-Dichloropropane	ND		0.29	0.072	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Dibromomethane	ND		0.24	0.053	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Bromodichloromethane	ND		0.24	0.15	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
cis-1,3-Dichloropropene	ND		0.24	0.049	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Toluene	ND		0.24	0.032	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
trans-1,3-Dichloropropene	ND		0.24	0.063	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,1,2-Trichloroethane	ND		0.24	0.084	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Tetrachloroethene	ND		0.095	0.042	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,3-Dichloropropane	ND		0.24	0.071	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Dibromochloromethane	ND		0.48	0.039	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2-Dibromoethane (EDB)	ND		0.24	0.080	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Chlorobenzene	ND		0.24	0.049	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Ethylbenzene	ND		0.24	0.039	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,1,1,2-Tetrachloroethane	ND		0.24	0.046	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,1,2,2-Tetrachloroethane	ND		0.24	0.069	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
m,p-Xylene	ND		0.95	0.068	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
o-Xylene	ND		0.48	0.055	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Styrene	ND		0.24	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Bromoform	ND		0.48	0.045	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Isopropylbenzene	ND		0.24	0.074	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Bromobenzene	ND		0.24	0.053	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
N-Propylbenzene	ND		0.24	0.063	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2,3-Trichloropropane	ND		0.48	0.087	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
2-Chlorotoluene	ND		0.24	0.039	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,3,5-Trimethylbenzene	ND		0.24	0.076	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
4-Chlorotoluene	ND		0.24	0.021	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
tert-Butylbenzene	ND		0.24	0.046	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2,4-Trimethylbenzene	ND		0.24	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
sec-Butylbenzene	ND		0.24	0.044	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,3-Dichlorobenzene	ND		0.24	0.030	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
p-Isopropyltoluene	ND		0.24	0.049	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,4-Dichlorobenzene	ND		0.24	0.049	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
n-Butylbenzene	ND		0.24	0.065	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2-Dichlorobenzene	ND		0.24	0.055	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2-Dibromo-3-Chloropropane	ND		1.2	0.14	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2,4-Trichlorobenzene	ND		0.24	0.044	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
1,2,3-Trichlorobenzene	ND		0.24	0.080	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1
Hexachlorobutadiene	ND		0.24	0.039	mg/Kg	☼	06/17/23 11:58	06/17/23 16:51	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-12(1)

Date Collected: 06/06/23 12:44

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-23

Matrix: Solid

Percent Solids: 84.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.48	0.067	mg/Kg	*	06/17/23 11:58	06/17/23 16:51	1
Methyl tert-butyl ether	ND		0.12	0.071	mg/Kg	*	06/17/23 11:58	06/17/23 16:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120				06/17/23 11:58	06/17/23 16:51	1
4-Bromofluorobenzene (Surr)	101		66 - 129				06/17/23 11:58	06/17/23 16:51	1
Dibromofluoromethane (Surr)	101		80 - 120				06/17/23 11:58	06/17/23 16:51	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124				06/17/23 11:58	06/17/23 16:51	1

Client Sample ID: DF-HA-11(1)

Date Collected: 06/06/23 09:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-28

Matrix: Solid

Percent Solids: 83.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.30	0.083	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Chloromethane	ND		1.5	0.12	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Vinyl chloride	ND		0.18	0.060	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Bromomethane	ND		1.5	0.098	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Chloroethane	ND		0.59	0.17	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Trichlorofluoromethane	ND		0.59	0.097	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1-Dichloroethene	ND		0.30	0.10	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Methylene Chloride	ND		1.0	0.59	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
trans-1,2-Dichloroethene	ND		0.30	0.068	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1-Dichloroethane	ND		0.30	0.078	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
2,2-Dichloropropane	ND		0.30	0.072	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
cis-1,2-Dichloroethene	ND		0.30	0.062	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Bromochloromethane	ND		0.30	0.12	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Chloroform	ND		0.30	0.070	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1,1-Trichloroethane	ND		0.30	0.051	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Carbon tetrachloride	ND		0.30	0.033	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1-Dichloropropene	ND		0.30	0.051	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Benzene	ND		0.059	0.030	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,2-Dichloroethane	ND		0.30	0.021	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Trichloroethene	ND		0.074	0.022	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,2-Dichloropropane	ND		0.36	0.090	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Dibromomethane	ND		0.30	0.066	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Bromodichloromethane	ND		0.30	0.18	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
cis-1,3-Dichloropropene	ND		0.30	0.060	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Toluene	ND		0.30	0.039	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
trans-1,3-Dichloropropene	ND		0.30	0.078	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1,2-Trichloroethane	ND		0.30	0.10	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Tetrachloroethene	ND		0.12	0.052	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,3-Dichloropropane	ND		0.30	0.088	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Dibromochloromethane	ND		0.59	0.048	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,2-Dibromoethane (EDB)	ND		0.30	0.099	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Chlorobenzene	ND		0.30	0.061	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
Ethylbenzene	ND		0.30	0.048	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1,1,2-Tetrachloroethane	ND		0.30	0.057	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1
1,1,2,2-Tetrachloroethane	ND		0.30	0.086	mg/Kg	*	06/17/23 11:58	06/17/23 17:33	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-9(1)

Date Collected: 06/06/23 09:30

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-38

Matrix: Solid

Percent Solids: 93.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Table with 10 columns: Analyte, Result, Qualifier, RL, MDL, Unit, D, Prepared, Analyzed, Dil Fac. Rows include various chemical compounds like Bromochloromethane, Chloroform, etc., with their respective results and MDL values.

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 93.6

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	103		80 - 120	06/17/23 11:58	06/17/23 17:54	1
4-Bromofluorobenzene (Surr)	103		66 - 129	06/17/23 11:58	06/17/23 17:54	1
Dibromofluoromethane (Surr)	99		80 - 120	06/17/23 11:58	06/17/23 17:54	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	06/17/23 11:58	06/17/23 17:54	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42037/1-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42037

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Naphthalene	ND		0.20	0.028	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		06/17/23 11:58	06/17/23 14:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120	06/17/23 11:58	06/17/23 14:02	1
4-Bromofluorobenzene (Surr)	102		66 - 129	06/17/23 11:58	06/17/23 14:02	1
Dibromofluoromethane (Surr)	101		80 - 120	06/17/23 11:58	06/17/23 14:02	1
1,2-Dichloroethane-d4 (Surr)	100		79 - 124	06/17/23 11:58	06/17/23 14:02	1

Lab Sample ID: LCS 590-42037/2-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	0.500	0.332		mg/Kg		66	14 - 120
Chloromethane	0.500	0.367	J	mg/Kg		73	29 - 150
Vinyl chloride	0.500	0.441		mg/Kg		88	38 - 150
Bromomethane	0.500	0.396	J	mg/Kg		79	39 - 150
Chloroethane	0.500	0.408		mg/Kg		82	38 - 150
Trichlorofluoromethane	0.500	0.449		mg/Kg		90	45 - 150
1,1-Dichloroethene	0.500	0.478		mg/Kg		96	50 - 150
Methylene Chloride	0.500	0.497		mg/Kg		99	42 - 150
trans-1,2-Dichloroethene	0.500	0.505		mg/Kg		101	75 - 140
1,1-Dichloroethane	0.500	0.474		mg/Kg		95	79 - 133
2,2-Dichloropropane	0.500	0.489		mg/Kg		98	50 - 150
cis-1,2-Dichloroethene	0.500	0.502		mg/Kg		100	78 - 132
Bromochloromethane	0.500	0.455		mg/Kg		91	67 - 138
Chloroform	0.500	0.477		mg/Kg		95	80 - 131
1,1,1-Trichloroethane	0.500	0.500		mg/Kg		100	59 - 150
Carbon tetrachloride	0.500	0.433		mg/Kg		87	61 - 150
1,1-Dichloropropene	0.500	0.502		mg/Kg		100	80 - 131
Benzene	0.500	0.472		mg/Kg		94	80 - 128
1,2-Dichloroethane	0.500	0.445		mg/Kg		89	77 - 126
Trichloroethene	0.500	0.456		mg/Kg		91	80 - 129
1,2-Dichloropropane	0.500	0.458		mg/Kg		92	71 - 136
Dibromomethane	0.500	0.420		mg/Kg		84	76 - 121
Bromodichloromethane	0.500	0.443		mg/Kg		89	79 - 122
cis-1,3-Dichloropropene	0.500	0.452		mg/Kg		90	71 - 123

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42037/2-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.506		mg/Kg		101	79 - 130
trans-1,3-Dichloropropene	0.500	0.468		mg/Kg		94	68 - 133
1,1,2-Trichloroethane	0.500	0.438		mg/Kg		88	74 - 131
Tetrachloroethene	0.500	0.469		mg/Kg		94	76 - 142
1,3-Dichloropropane	0.500	0.454		mg/Kg		91	73 - 125
Dibromochloromethane	0.500	0.406		mg/Kg		81	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.444		mg/Kg		89	76 - 126
Chlorobenzene	0.500	0.457		mg/Kg		91	80 - 124
Ethylbenzene	0.500	0.472		mg/Kg		94	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.455		mg/Kg		91	76 - 139
1,1,1,2-Tetrachloroethane	0.500	0.478		mg/Kg		96	66 - 130
m,p-Xylene	0.500	0.510		mg/Kg		102	80 - 131
o-Xylene	0.500	0.492		mg/Kg		98	78 - 128
Styrene	0.500	0.493		mg/Kg		99	76 - 128
Bromoform	0.500	0.434		mg/Kg		87	49 - 150
Isopropylbenzene	0.500	0.491		mg/Kg		98	79 - 134
Bromobenzene	0.500	0.466		mg/Kg		93	70 - 129
N-Propylbenzene	0.500	0.519		mg/Kg		104	71 - 136
1,2,3-Trichloropropane	0.500	0.496		mg/Kg		99	61 - 138
2-Chlorotoluene	0.500	0.501		mg/Kg		100	73 - 131
1,3,5-Trimethylbenzene	0.500	0.525		mg/Kg		105	76 - 130
4-Chlorotoluene	0.500	0.483		mg/Kg		97	76 - 128
tert-Butylbenzene	0.500	0.500		mg/Kg		100	74 - 129
1,2,4-Trimethylbenzene	0.500	0.510		mg/Kg		102	78 - 128
sec-Butylbenzene	0.500	0.519		mg/Kg		104	78 - 132
1,3-Dichlorobenzene	0.500	0.461		mg/Kg		92	80 - 121
p-Isopropyltoluene	0.500	0.523		mg/Kg		105	79 - 128
1,4-Dichlorobenzene	0.500	0.464		mg/Kg		93	80 - 122
n-Butylbenzene	0.500	0.492		mg/Kg		98	75 - 128
1,2-Dichlorobenzene	0.500	0.451		mg/Kg		90	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.445	J	mg/Kg		89	49 - 143
1,2,4-Trichlorobenzene	0.500	0.437		mg/Kg		87	73 - 129
1,2,3-Trichlorobenzene	0.500	0.413		mg/Kg		83	72 - 130
Hexachlorobutadiene	0.500	0.420		mg/Kg		84	75 - 136
Naphthalene	0.500	0.443		mg/Kg		89	57 - 131
Methyl tert-butyl ether	0.500	0.453		mg/Kg		91	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	99		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		79 - 124

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42059/8
Matrix: Water
Analysis Batch: 42059

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		2.0	0.64	ug/L			06/19/23 14:12	1
Chloromethane	ND		3.0	0.50	ug/L			06/19/23 14:12	1
Vinyl chloride	ND		0.40	0.13	ug/L			06/19/23 14:12	1
Bromomethane	ND		5.0	0.76	ug/L			06/19/23 14:12	1
Chloroethane	ND		2.0	0.40	ug/L			06/19/23 14:12	1
Trichlorofluoromethane	ND		1.0	0.20	ug/L			06/19/23 14:12	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			06/19/23 14:12	1
Methylene Chloride	ND		5.0	2.2	ug/L			06/19/23 14:12	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			06/19/23 14:12	1
1,1-Dichloroethane	ND		1.0	0.29	ug/L			06/19/23 14:12	1
2,2-Dichloropropane	ND		2.0	0.66	ug/L			06/19/23 14:12	1
cis-1,2-Dichloroethene	ND		1.0	0.23	ug/L			06/19/23 14:12	1
Bromochloromethane	ND		2.0	0.44	ug/L			06/19/23 14:12	1
Chloroform	ND		1.0	0.24	ug/L			06/19/23 14:12	1
1,1,1-Trichloroethane	ND		1.0	0.17	ug/L			06/19/23 14:12	1
Carbon tetrachloride	ND		1.0	0.40	ug/L			06/19/23 14:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			06/19/23 14:12	1
Benzene	ND		0.40	0.093	ug/L			06/19/23 14:12	1
1,2-Dichloroethane	ND		1.0	0.31	ug/L			06/19/23 14:12	1
Trichloroethene	ND		1.0	0.20	ug/L			06/19/23 14:12	1
1,2-Dichloropropane	ND		1.0	0.23	ug/L			06/19/23 14:12	1
Dibromomethane	ND		2.0	0.50	ug/L			06/19/23 14:12	1
Bromodichloromethane	ND		1.0	0.29	ug/L			06/19/23 14:12	1
cis-1,3-Dichloropropene	ND		1.0	0.25	ug/L			06/19/23 14:12	1
Toluene	ND		1.0	0.31	ug/L			06/19/23 14:12	1
trans-1,3-Dichloropropene	ND		1.0	0.45	ug/L			06/19/23 14:12	1
1,1,2-Trichloroethane	ND		2.0	0.43	ug/L			06/19/23 14:12	1
Tetrachloroethene	ND		1.0	0.22	ug/L			06/19/23 14:12	1
1,3-Dichloropropane	ND		2.0	0.21	ug/L			06/19/23 14:12	1
Dibromochloromethane	ND		2.0	0.33	ug/L			06/19/23 14:12	1
1,2-Dibromoethane (EDB)	ND		1.0	0.20	ug/L			06/19/23 14:12	1
Chlorobenzene	ND		1.0	0.32	ug/L			06/19/23 14:12	1
Ethylbenzene	ND		1.0	0.20	ug/L			06/19/23 14:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.48	ug/L			06/19/23 14:12	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.32	ug/L			06/19/23 14:12	1
m,p-Xylene	ND		2.0	0.28	ug/L			06/19/23 14:12	1
o-Xylene	ND		1.0	0.16	ug/L			06/19/23 14:12	1
Styrene	ND		1.0	0.24	ug/L			06/19/23 14:12	1
Bromoform	ND		5.0	0.66	ug/L			06/19/23 14:12	1
Isopropylbenzene	ND		1.0	0.24	ug/L			06/19/23 14:12	1
Bromobenzene	ND		1.0	0.28	ug/L			06/19/23 14:12	1
N-Propylbenzene	ND		1.0	0.25	ug/L			06/19/23 14:12	1
1,2,3-Trichloropropane	ND		2.0	0.50	ug/L			06/19/23 14:12	1
2-Chlorotoluene	ND		1.0	0.36	ug/L			06/19/23 14:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.32	ug/L			06/19/23 14:12	1
4-Chlorotoluene	ND		1.0	0.26	ug/L			06/19/23 14:12	1
tert-Butylbenzene	ND		1.0	0.12	ug/L			06/19/23 14:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.31	ug/L			06/19/23 14:12	1

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42059/8
Matrix: Water
Analysis Batch: 42059

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.22	ug/L			06/19/23 14:12	1
1,3-Dichlorobenzene	ND		1.0	0.14	ug/L			06/19/23 14:12	1
p-Isopropyltoluene	ND		1.0	0.27	ug/L			06/19/23 14:12	1
1,4-Dichlorobenzene	ND		1.0	0.28	ug/L			06/19/23 14:12	1
n-Butylbenzene	ND		1.0	0.20	ug/L			06/19/23 14:12	1
1,2-Dichlorobenzene	ND		1.0	0.23	ug/L			06/19/23 14:12	1
1,2-Dibromo-3-Chloropropane	ND		10	1.5	ug/L			06/19/23 14:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.16	ug/L			06/19/23 14:12	1
1,2,3-Trichlorobenzene	0.680	J	1.0	0.33	ug/L			06/19/23 14:12	1
Hexachlorobutadiene	ND		2.0	0.21	ug/L			06/19/23 14:12	1
Naphthalene	0.695	J	2.0	0.63	ug/L			06/19/23 14:12	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			06/19/23 14:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120		06/19/23 14:12	1
4-Bromofluorobenzene (Surr)	105		76 - 120		06/19/23 14:12	1
Dibromofluoromethane (Surr)	104		80 - 123		06/19/23 14:12	1
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		06/19/23 14:12	1

Lab Sample ID: LCS 590-42059/1005
Matrix: Water
Analysis Batch: 42059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	10.0	8.68		ug/L		87	30 - 150
Chloromethane	10.0	8.97		ug/L		90	19 - 150
Vinyl chloride	10.0	10.1		ug/L		101	50 - 150
Bromomethane	10.0	9.78		ug/L		98	66 - 149
Chloroethane	10.0	10.3		ug/L		103	64 - 134
Trichlorofluoromethane	10.0	9.15		ug/L		92	71 - 147
1,1-Dichloroethene	10.0	10.4		ug/L		104	65 - 141
Methylene Chloride	10.0	9.58		ug/L		96	30 - 150
trans-1,2-Dichloroethene	10.0	11.9		ug/L		119	73 - 137
1,1-Dichloroethane	10.0	10.7		ug/L		107	80 - 125
2,2-Dichloropropane	10.0	10.6		ug/L		106	73 - 140
cis-1,2-Dichloroethene	10.0	11.1		ug/L		111	80 - 122
Bromochloromethane	10.0	11.1		ug/L		111	71 - 136
Chloroform	10.0	10.1		ug/L		101	80 - 123
1,1,1-Trichloroethane	10.0	9.80		ug/L		98	71 - 138
Carbon tetrachloride	10.0	10.2		ug/L		102	72 - 138
1,1-Dichloropropene	10.0	9.94		ug/L		99	82 - 123
Benzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	10.7		ug/L		107	80 - 120
Trichloroethene	10.0	9.46		ug/L		95	80 - 123
1,2-Dichloropropane	10.0	10.6		ug/L		106	79 - 122
Dibromomethane	10.0	10.1		ug/L		101	80 - 122
Bromodichloromethane	10.0	10.3		ug/L		103	80 - 120
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 121

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42059/1005
Matrix: Water
Analysis Batch: 42059

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	10.0	9.53		ug/L		95	80 - 129
trans-1,3-Dichloropropene	10.0	9.94		ug/L		99	73 - 138
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 128
Tetrachloroethene	10.0	9.36		ug/L		94	80 - 139
1,3-Dichloropropane	10.0	10.3		ug/L		103	78 - 129
Dibromochloromethane	10.0	9.50		ug/L		95	80 - 130
1,2-Dibromoethane (EDB)	10.0	9.90		ug/L		99	80 - 124
Chlorobenzene	10.0	9.47		ug/L		95	80 - 124
Ethylbenzene	10.0	9.50		ug/L		95	80 - 122
1,1,1,2-Tetrachloroethane	10.0	9.63		ug/L		96	80 - 131
1,1,2,2-Tetrachloroethane	10.0	11.5		ug/L		115	60 - 150
m,p-Xylene	10.0	9.37		ug/L		94	80 - 125
o-Xylene	10.0	10.4		ug/L		104	80 - 130
Styrene	10.0	10.3		ug/L		103	79 - 134
Bromoform	10.0	10.2		ug/L		102	73 - 139
Isopropylbenzene	10.0	10.4		ug/L		104	80 - 122
Bromobenzene	10.0	9.72		ug/L		97	73 - 125
N-Propylbenzene	10.0	10.3		ug/L		103	73 - 136
1,2,3-Trichloropropane	10.0	12.1		ug/L		121	65 - 142
2-Chlorotoluene	10.0	9.74		ug/L		97	74 - 129
1,3,5-Trimethylbenzene	10.0	10.6		ug/L		106	76 - 129
4-Chlorotoluene	10.0	10.1		ug/L		101	79 - 125
tert-Butylbenzene	10.0	10.1		ug/L		101	76 - 131
1,2,4-Trimethylbenzene	10.0	10.8		ug/L		108	78 - 131
sec-Butylbenzene	10.0	9.96		ug/L		100	73 - 138
1,3-Dichlorobenzene	10.0	10.0		ug/L		100	80 - 122
p-Isopropyltoluene	10.0	10.7		ug/L		107	78 - 128
1,4-Dichlorobenzene	10.0	9.58		ug/L		96	80 - 120
n-Butylbenzene	10.0	11.0		ug/L		110	75 - 121
1,2-Dichlorobenzene	10.0	10.1		ug/L		101	80 - 120
1,2-Dibromo-3-Chloropropane	10.0	9.84	J	ug/L		98	53 - 142
1,2,4-Trichlorobenzene	10.0	8.80		ug/L		88	76 - 131
1,2,3-Trichlorobenzene	10.0	8.56		ug/L		86	70 - 137
Hexachlorobutadiene	10.0	8.62		ug/L		86	77 - 132
Naphthalene	10.0	9.09		ug/L		91	61 - 140
Methyl tert-butyl ether	10.0	11.0		ug/L		110	68 - 134

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	98		76 - 120
Dibromofluoromethane (Surr)	99		80 - 123
1,2-Dichloroethane-d4 (Surr)	103		80 - 120

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 590-42059/6

Matrix: Water

Analysis Batch: 42059

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dichlorodifluoromethane	10.0	8.69		ug/L		87	30 - 150	0	22
Chloromethane	10.0	8.36		ug/L		84	19 - 150	7	35
Vinyl chloride	10.0	9.76		ug/L		98	50 - 150	3	26
Bromomethane	10.0	9.66		ug/L		97	66 - 149	1	24
Chloroethane	10.0	10.2		ug/L		102	64 - 134	1	24
Trichlorofluoromethane	10.0	9.41		ug/L		94	71 - 147	3	24
1,1-Dichloroethene	10.0	10.5		ug/L		105	65 - 141	1	19
Methylene Chloride	10.0	9.65		ug/L		97	30 - 150	1	25
trans-1,2-Dichloroethene	10.0	11.6		ug/L		116	73 - 137	3	18
1,1-Dichloroethane	10.0	10.7		ug/L		107	80 - 125	0	20
2,2-Dichloropropane	10.0	10.6		ug/L		106	73 - 140	0	18
cis-1,2-Dichloroethene	10.0	11.0		ug/L		110	80 - 122	0	17
Bromochloromethane	10.0	12.5		ug/L		125	71 - 136	12	21
Chloroform	10.0	10.2		ug/L		102	80 - 123	0	18
1,1,1-Trichloroethane	10.0	9.85		ug/L		99	71 - 138	1	17
Carbon tetrachloride	10.0	9.89		ug/L		99	72 - 138	3	28
1,1-Dichloropropene	10.0	10.2		ug/L		102	82 - 123	3	20
Benzene	10.0	10.1		ug/L		101	80 - 120	1	15
1,2-Dichloroethane	10.0	10.7		ug/L		107	80 - 120	1	14
Trichloroethene	10.0	9.19		ug/L		92	80 - 123	3	14
1,2-Dichloropropane	10.0	10.0		ug/L		100	79 - 122	6	15
Dibromomethane	10.0	10.1		ug/L		101	80 - 122	1	16
Bromodichloromethane	10.0	10.2		ug/L		102	80 - 120	1	16
cis-1,3-Dichloropropene	10.0	9.85		ug/L		98	80 - 121	3	16
Toluene	10.0	9.26		ug/L		93	80 - 129	3	35
trans-1,3-Dichloropropene	10.0	10.4		ug/L		104	73 - 138	5	17
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 128	2	15
Tetrachloroethene	10.0	8.83		ug/L		88	80 - 139	6	20
1,3-Dichloropropane	10.0	10.6		ug/L		106	78 - 129	2	17
Dibromochloromethane	10.0	9.66		ug/L		97	80 - 130	2	15
1,2-Dibromoethane (EDB)	10.0	10.5		ug/L		105	80 - 124	5	14
Chlorobenzene	10.0	9.25		ug/L		93	80 - 124	2	14
Ethylbenzene	10.0	9.23		ug/L		92	80 - 122	3	35
1,1,1,2-Tetrachloroethane	10.0	9.66		ug/L		97	80 - 131	0	17
1,1,2,2-Tetrachloroethane	10.0	11.3		ug/L		113	60 - 150	1	17
m,p-Xylene	10.0	9.24		ug/L		92	80 - 125	1	35
o-Xylene	10.0	10.0		ug/L		100	80 - 130	3	35
Styrene	10.0	10.2		ug/L		102	79 - 134	1	17
Bromoform	10.0	10.8		ug/L		108	73 - 139	6	17
Isopropylbenzene	10.0	10.1		ug/L		101	80 - 122	3	16
Bromobenzene	10.0	9.32		ug/L		93	73 - 125	4	16
N-Propylbenzene	10.0	9.40		ug/L		94	73 - 136	9	18
1,2,3-Trichloropropane	10.0	12.2		ug/L		122	65 - 142	1	34
2-Chlorotoluene	10.0	9.07		ug/L		91	74 - 129	7	19
1,3,5-Trimethylbenzene	10.0	10.0		ug/L		100	76 - 129	6	17
4-Chlorotoluene	10.0	9.37		ug/L		94	79 - 125	7	16
tert-Butylbenzene	10.0	9.45		ug/L		94	76 - 131	6	18
1,2,4-Trimethylbenzene	10.0	10.1		ug/L		101	78 - 131	7	16

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 590-42059/6
Matrix: Water
Analysis Batch: 42059

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
sec-Butylbenzene	10.0	9.16		ug/L		92	73 - 138	8	17
1,3-Dichlorobenzene	10.0	9.68		ug/L		97	80 - 122	4	15
p-Isopropyltoluene	10.0	10.0		ug/L		100	78 - 128	6	17
1,4-Dichlorobenzene	10.0	9.48		ug/L		95	80 - 120	1	14
n-Butylbenzene	10.0	10.5		ug/L		105	75 - 121	4	16
1,2-Dichlorobenzene	10.0	9.79		ug/L		98	80 - 120	3	14
1,2-Dibromo-3-Chloropropane	10.0	10.5		ug/L		105	53 - 142	7	29
1,2,4-Trichlorobenzene	10.0	9.04		ug/L		90	76 - 131	3	24
1,2,3-Trichlorobenzene	10.0	8.91		ug/L		89	70 - 137	4	30
Hexachlorobutadiene	10.0	8.94		ug/L		89	77 - 132	4	25
Naphthalene	10.0	9.53		ug/L		95	61 - 140	5	25
Methyl tert-butyl ether	10.0	12.0		ug/L		120	68 - 134	9	18

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	95		76 - 120
Dibromofluoromethane (Surr)	105		80 - 123
1,2-Dichloroethane-d4 (Surr)	107		80 - 120

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-3(1)

Lab Sample ID: 590-20704-6

Date Collected: 06/05/23 14:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.867 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 15:06	JSP	EET SPK

Client Sample ID: DF-HA-4(1)

Lab Sample ID: 590-20704-8

Date Collected: 06/05/23 15:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.692 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 15:27	JSP	EET SPK

Client Sample ID: DF-HA-5(1)

Lab Sample ID: 590-20704-11

Date Collected: 06/05/23 14:37

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 72.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.809 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 15:48	JSP	EET SPK

Client Sample ID: DF-HA-6(1)

Lab Sample ID: 590-20704-13

Date Collected: 06/05/23 15:49

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.889 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 16:09	JSP	EET SPK

Client Sample ID: DF-SW-1

Lab Sample ID: 590-20704-15

Date Collected: 06/05/23 17:15

Matrix: Water

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	43 mL	43 mL	42059	06/19/23 21:38	JSP	EET SPK

Client Sample ID: DF-HA-10(1)

Lab Sample ID: 590-20704-16

Date Collected: 06/06/23 12:43

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.245 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 16:30	JSP	EET SPK

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Client Sample ID: DF-HA-12(1)

Lab Sample ID: 590-20704-23

Date Collected: 06/06/23 12:44

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.407 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 16:51	JSP	EET SPK

Client Sample ID: DF-HA-11(1)

Lab Sample ID: 590-20704-28

Date Collected: 06/06/23 09:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.362 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 17:33	JSP	EET SPK

Client Sample ID: DF-HA-9(1)

Lab Sample ID: 590-20704-38

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.282 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 17:54	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

1

2

3

4

5

6

7

8

9

10

11

12

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-2

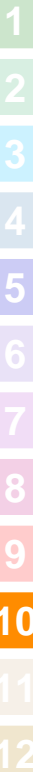
Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
5030C	Purge and Trap	SW846	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 1 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTEL-Dx	Organohalobine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-5 (2)	6/5/23	15:13	2	Soil														Laboratory to use applicable DEP CAM methods, unless otherwise directed. - VOCs 5 DAY TAT - HOLD SAMPLES NOT SELECTED FOR ANALYTICAL RESULTS PENDING ANALYTICAL RESULTS FOR (1) SAMPLE
DF-HA-1 (1)	6/5/23	11:05	1	Soil	X													
DF-HA-1 (2)		11:08	2		X													
DF-HA-1 (2.5)		11:30	2.5															
DF-HA-2 (1)		12:10	1		X													
DF-HA-2 (2)		12:15	2															
DF-HA-3 (1)		14:30	1		X	X												
DF-HA-3 (2)		14:45	2															
DF-HA-4 (1)		15:15	1		X	X												
DF-HA-4 (2)	15:40	15:40	2		X	X												



Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: [Signature] Print: WARD McDONALD Firm: H&A Date: 6/7/23 Time: 6:58	Sign: [Signature] Print: WARD McDONALD Firm: H&A Date: 6/7/23 Time: 0658	VOA Vial Amber Glass Plastic Bottle Preservative Volume	4.7°C 5.3°C IR006
Relinquished by	Received by	SOLID	
Sign: [Signature] Print: WARD McDONALD Firm: H&A Date: 6/7/23 Time: 1025	Sign: [Signature] Print: Jerry R. C. Firm: STAPL Date: 6/7/23 Time: 1025	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by	Received by	PRESERVATION KEY	
Sign: Print: Firm: Date: Time:	Sign: Print: Firm: Date: Time:	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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Spokane, Washington

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Page 2 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082	T. PPA B. metals	D. PPA B. metals					
DF-HA-4(3)	6/5/2023	16:24	3	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-5(1)		14:57	1		X	X											
DF-HA-5(2)		15:13	2														
DF-HA-6(1)		15:49	1		X	X	X	X	X	X							
DF-HA-6(2)		16:25	2														
DF-SW-1	6/5/23	17:15	-	Water		X					X	X					
DF-HA-10(1)	6/6/23	12:43	1	Soil													
DF-HA-10(2)		13:26	1														
DF-HA-17(1)		14:47	1														
DF-HA-17(2)		15:00	2														

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Relinquished by	Received by	SOLID	Evidence samples were tampered with? YES NO
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	If YES, please explain in section below.
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-17(3)	6/6/23	1524	3	SOIL														
DF-HA-15(1)	6/6/23	1440	1	SOIL	X													1
DF-HA-15(2)		1515	2	SOIL														3
DF-HA-12(1)		1244	1		X	X												3
DF-HA-12(2)		1300	2															3
DF-HA-23(1)		1600	1		X													1
DF-HA-23(2)		1612	2															1
DF-HA-23(3)		1615	3															1
DF-HA-11(1)		0915	1		X	X												3
DF-HA-11(2)		0930	2															3

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by		Evidence samples were tampered with? YES NO
Sign	Sign		If YES, please explain in section below.
Print	Print		
Firm	Firm		
Date	Date		
Time	Time		

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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CHAIN OF CUSTODY RECORD

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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-11(3)	6/16/23	1000	3	SOIL															Laboratory to use applicable DEP CAM methods, unless otherwise directed. (HOLD) DF- DRUM-1
DF-HA-12(1)		1447	1	SOIL	X														
DF-HA-9(3)		1058	3																
DF-HA-17(2)		1500	2																
DF- DRUM-1		0945	-																
DF-HA-10(1)		1243	1		X	X	X	X	X								3/2		
DF-HA-10(2)		1326	2														3		
DF-HA-9(2)		1015	2														3		
DF-HA-9(1)		0930	1		X	X											3		
DF-HA-4(5)		1040	5														3		

Sampled and Relinquished by		Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial	
Print	Print		Amber Glass	
Firm	Firm		Plastic Bottle	
Date	Time	Date	Time	Preservative
Relinquished by		Received by	VOLUME	
Sign	Sign		SOLID	
Print	Print		VOA Vial	
Firm	Firm		Amber Glass	
Date	Time	Date	Time	Clear Glass
Relinquished by		Received by	Preservative	Evidence samples were tampered with? YES NO
Sign	Sign		Volume	If YES, please explain in section below
Print	Print			
Firm	Firm			
Date	Time	Date	Time	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



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CHAIN OF CUSTODY RECORD

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Page 5 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 9 Metals EPA Method 6010 and 7470	VOC EPA Method 8160 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-11(4)	6/6/23	1023	4	SOIL												3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass	
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		Evidence samples were tampered with? YES NO If YES, please explain in section below

2 vials
DF-HA-12(3)
13:35
6/6/23
3 containers

Presumptive Certain

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) includes does not include samples defined as
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analyzed appropriate. Laboratory should (specify if applicable) analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-2

Login Number: 20704

List Source: Eurofins Spokane

List Number: 1

Creator: Vaughan, Madison 1

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC. and missing samples
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20704-4

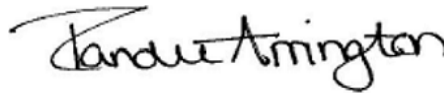
Eurofins Spokane

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Client Sample Results	7
QC Sample Results	9
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Certification Summary	14
Method Summary	15
Chain of Custody	16
Receipt Checklists	21

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Job ID: 590-20704-4

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/7/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The following samples were activated for 6010D Lead analysis by the client on 07/05/23: DF-HA-2(2) (590-20704-5), DF-HA-4(2) (590-20704-9), DF-HA-5(2) (590-20704-12), DF-HA-6(2) (590-20704-14) and DF-HA-17(2) (590-20704-19). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D Cd & Pb analysis by the client on 07/05/23: DF-HA-15(2) (590-20704-22), DF-HA-23(2) (590-20704-26), DF-HA-11(2) (590-20704-29) and DF-HA-9(2) (590-20704-37). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D As, Cd & Pb analysis by the client on 07/05/23: DF-HA-10(2) (590-20704-17) and DF-HA-12(2) (590-20704-24). This analysis was not originally requested on the chain-of-custody (COC).

Metals

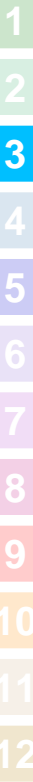
Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-42434 and analytical batch 590-42461 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-42434 and analytical batch 590-42461 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

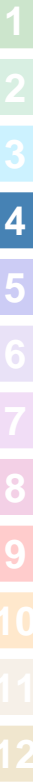


Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20704-5	DF-HA-2(2)	Solid	06/05/23 12:15	06/07/23 10:25
590-20704-9	DF-HA-4(2)	Solid	06/05/23 15:40	06/07/23 10:25
590-20704-12	DF-HA-5(2)	Solid	06/05/23 15:13	06/07/23 10:25
590-20704-14	DF-HA-6(2)	Solid	06/05/23 16:25	06/07/23 10:25
590-20704-17	DF-HA-10(2)	Solid	06/06/23 13:26	06/07/23 10:25
590-20704-19	DF-HA-17(2)	Solid	06/06/23 15:00	06/07/23 10:25
590-20704-22	DF-HA-15(2)	Solid	06/06/23 15:15	06/07/23 10:25
590-20704-24	DF-HA-12(2)	Solid	06/06/23 13:00	06/07/23 10:25
590-20704-26	DF-HA-23(2)	Solid	06/06/23 16:12	06/07/23 10:25
590-20704-29	DF-HA-11(2)	Solid	06/06/23 09:30	06/07/23 10:25
590-20704-37	DF-HA-9(2)	Solid	06/06/23 10:15	06/07/23 10:25



Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
♠	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-2(2)

Date Collected: 06/05/23 12:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-5

Matrix: Solid

Percent Solids: 92.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.5		1.5	0.087	mg/Kg	☼	07/18/23 09:58	07/19/23 13:57	2
Lead	140	F1	4.4	2.2	mg/Kg	☼	07/18/23 09:58	07/19/23 13:57	2

Client Sample ID: DF-HA-4(2)

Date Collected: 06/05/23 15:40

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-9

Matrix: Solid

Percent Solids: 93.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	130		10	5.1	mg/Kg	☼	07/18/23 09:58	07/19/23 14:19	5

Client Sample ID: DF-HA-5(2)

Date Collected: 06/05/23 15:13

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-12

Matrix: Solid

Percent Solids: 86.9

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	450		13	6.4	mg/Kg	☼	07/18/23 09:58	07/19/23 14:23	5

Client Sample ID: DF-HA-6(2)

Date Collected: 06/05/23 16:25

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-14

Matrix: Solid

Percent Solids: 82.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.8		1.8	0.11	mg/Kg	☼	07/18/23 09:58	07/19/23 15:44	2
Lead	170		14	6.7	mg/Kg	☼	07/18/23 09:58	07/19/23 14:39	5

Client Sample ID: DF-HA-10(2)

Date Collected: 06/06/23 13:26

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-17

Matrix: Solid

Percent Solids: 86.7

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		4.9	2.0	mg/Kg	☼	07/18/23 09:58	07/19/23 14:43	5
Cadmium	2.3		1.6	0.093	mg/Kg	☼	07/18/23 09:58	07/19/23 15:48	2
Lead	270		12	5.8	mg/Kg	☼	07/18/23 09:58	07/19/23 14:43	5

Client Sample ID: DF-HA-17(2)

Date Collected: 06/06/23 15:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-19

Matrix: Solid

Percent Solids: 91.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	5.5		4.0	0.23	mg/Kg	☼	07/18/23 09:58	07/19/23 14:46	5
Lead	970		12	5.8	mg/Kg	☼	07/18/23 09:58	07/19/23 14:46	5

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-15(2)

Date Collected: 06/06/23 15:15
 Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-22

Matrix: Solid
 Percent Solids: 89.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	7.4		3.8	0.22	mg/Kg	☼	07/18/23 09:58	07/19/23 14:50	5
Lead	3400		23	11	mg/Kg	☼	07/18/23 09:58	07/19/23 15:10	10

Client Sample ID: DF-HA-12(2)

Date Collected: 06/06/23 13:00
 Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-24

Matrix: Solid
 Percent Solids: 88.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		4.9	2.0	mg/Kg	☼	07/18/23 09:58	07/19/23 14:54	5
Cadmium	4.3		4.0	0.23	mg/Kg	☼	07/18/23 09:58	07/19/23 14:54	5
Lead	1300		12	5.8	mg/Kg	☼	07/18/23 09:58	07/19/23 14:54	5

Client Sample ID: DF-HA-23(2)

Date Collected: 06/06/23 16:12
 Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-26

Matrix: Solid
 Percent Solids: 93.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	3.2		1.6	0.095	mg/Kg	☼	07/18/23 09:58	07/19/23 15:52	2
Lead	580		12	5.9	mg/Kg	☼	07/18/23 09:58	07/19/23 14:58	5

Client Sample ID: DF-HA-11(2)

Date Collected: 06/06/23 09:30
 Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-29

Matrix: Solid
 Percent Solids: 88.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	18		4.3	0.26	mg/Kg	☼	07/18/23 09:58	07/19/23 15:02	5
Lead	4400		52	25	mg/Kg	☼	07/18/23 09:58	07/19/23 15:19	20

Client Sample ID: DF-HA-9(2)

Date Collected: 06/06/23 10:15
 Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-37

Matrix: Solid
 Percent Solids: 96.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	2.2		1.4	0.081	mg/Kg	☼	07/18/23 09:58	07/19/23 15:56	2
Lead	140		10	5.0	mg/Kg	☼	07/18/23 09:58	07/19/23 15:06	5

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42434/2-A
Matrix: Solid
Analysis Batch: 42461

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42434

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		07/18/23 09:57	07/19/23 13:53	1
Cadmium	ND		1.0	0.059	mg/Kg		07/18/23 09:57	07/19/23 13:53	1
Lead	ND		3.0	1.5	mg/Kg		07/18/23 09:57	07/19/23 13:53	1

Lab Sample ID: LCS 590-42434/1-A
Matrix: Solid
Analysis Batch: 42461

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	88.5		mg/Kg		89	80 - 120
Cadmium	50.0	45.6		mg/Kg		91	80 - 120
Lead	50.0	48.0		mg/Kg		96	80 - 120

Lab Sample ID: 590-20704-5 MS
Matrix: Solid
Analysis Batch: 42461

Client Sample ID: DF-HA-2(2)
Prep Type: Total/NA
Prep Batch: 42434

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	7.3		100	97.6		mg/Kg	⊛	90	75 - 125
Cadmium	2.5		50.0	49.2		mg/Kg	⊛	93	75 - 125
Lead	140	F1	50.0	165	F1	mg/Kg	⊛	52	75 - 125

Lab Sample ID: 590-20704-5 MSD
Matrix: Solid
Analysis Batch: 42461

Client Sample ID: DF-HA-2(2)
Prep Type: Total/NA
Prep Batch: 42434

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	7.3		95.6	94.1		mg/Kg	⊛	91	75 - 125	4	20
Cadmium	2.5		47.8	46.8		mg/Kg	⊛	93	75 - 125	5	20
Lead	140	F1	47.8	180		mg/Kg	⊛	85	75 - 125	8	20

Lab Sample ID: 590-20704-5 DU
Matrix: Solid
Analysis Batch: 42461

Client Sample ID: DF-HA-2(2)
Prep Type: Total/NA
Prep Batch: 42434

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	7.3		13.7	F3	mg/Kg	⊛	61	20
Cadmium	2.5		3.81	F5	mg/Kg	⊛	42	20
Lead	140	F1	147		mg/Kg	⊛	5	20

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-2(2)
Date Collected: 06/05/23 12:15
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-2(2)
Date Collected: 06/05/23 12:15
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-5
Matrix: Solid
Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.47 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		2			42461	07/19/23 13:57	AMB	EET SPK

Client Sample ID: DF-HA-4(2)
Date Collected: 06/05/23 15:40
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-4(2)
Date Collected: 06/05/23 15:40
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-9
Matrix: Solid
Percent Solids: 93.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.56 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:19	AMB	EET SPK

Client Sample ID: DF-HA-5(2)
Date Collected: 06/05/23 15:13
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-5(2)
Date Collected: 06/05/23 15:13
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-12
Matrix: Solid
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.32 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:23	AMB	EET SPK

Client Sample ID: DF-HA-6(2)
Date Collected: 06/05/23 16:25
Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

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Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-6(2)

Date Collected: 06/05/23 16:25

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-14

Matrix: Solid

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.33 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:39	AMB	EET SPK
Total/NA	Prep	3050B			1.33 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		2			42461	07/19/23 15:44	AMB	EET SPK

Client Sample ID: DF-HA-10(2)

Date Collected: 06/06/23 13:26

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-17

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-10(2)

Date Collected: 06/06/23 13:26

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-17

Matrix: Solid

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.46 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:43	AMB	EET SPK
Total/NA	Prep	3050B			1.46 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		2			42461	07/19/23 15:48	AMB	EET SPK

Client Sample ID: DF-HA-17(2)

Date Collected: 06/06/23 15:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-17(2)

Date Collected: 06/06/23 15:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-19

Matrix: Solid

Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.39 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:46	AMB	EET SPK

Client Sample ID: DF-HA-15(2)

Date Collected: 06/06/23 15:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-22

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-15(2)

Date Collected: 06/06/23 15:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-22

Matrix: Solid

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.48 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:50	AMB	EET SPK
Total/NA	Prep	3050B			1.48 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		10			42461	07/19/23 15:10	AMB	EET SPK

Client Sample ID: DF-HA-12(2)

Date Collected: 06/06/23 13:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-24

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-12(2)

Date Collected: 06/06/23 13:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-24

Matrix: Solid

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.43 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:54	AMB	EET SPK

Client Sample ID: DF-HA-23(2)

Date Collected: 06/06/23 16:12

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-26

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-23(2)

Date Collected: 06/06/23 16:12

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-26

Matrix: Solid

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.34 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 14:58	AMB	EET SPK
Total/NA	Prep	3050B			1.34 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		2			42461	07/19/23 15:52	AMB	EET SPK

Client Sample ID: DF-HA-11(2)

Date Collected: 06/06/23 09:30

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-29

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

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Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Client Sample ID: DF-HA-11(2)

Lab Sample ID: 590-20704-29

Date Collected: 06/06/23 09:30

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.31 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 15:02	AMB	EET SPK
Total/NA	Prep	3050B			1.31 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		20			42461	07/19/23 15:19	AMB	EET SPK

Client Sample ID: DF-HA-9(2)

Lab Sample ID: 590-20704-37

Date Collected: 06/06/23 10:15

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-9(2)

Lab Sample ID: 590-20704-37

Date Collected: 06/06/23 10:15

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 96.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.51 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		5			42461	07/19/23 15:06	AMB	EET SPK
Total/NA	Prep	3050B			1.51 g	50 mL	42434	07/18/23 09:58	AMB	EET SPK
Total/NA	Analysis	6010D		2			42461	07/19/23 15:56	AMB	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-4

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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CHAIN OF CUSTODY RECORD

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTEL-Dx	Organohalobine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-5 (2)	6/5/23	15:13	2	Soil														Laboratory to use applicable DEP CAM methods, unless otherwise directed. - VOCs 5 DAY TAT - HOLD SAMPLES NOT SELECTED FOR ANALYTICAL RESULTS PENDING ANALYTICAL RESULTS FOR (1) SAMPLE
DF-HA-1 (1)	6/5/23	11:05	1	Soil	X													
DF-HA-2 (2)		11:08	2		X													
DF-HA-1 (2.5)		11:30	2.5															
DF-HA-2 (1)		12:10	1		X													
DF-HA-2 (2)		12:15	2															
DF-HA-3 (1)		14:30	1		X	X												
DF-HA-3 (2)		14:45	2															
DF-HA-4 (1)		15:15	1		X	X												
DF-HA-4 (2)	15:40	15:40	2		X	X												



Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 6:58	Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 0658		4.7°C 5.3°C IR006
Relinquished by	Received by	SOLID	
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 1025	Sign: [Signature] Print: Jerry P... Firm: ST... Date: 6/7/23 Time: 1025		
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 2 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082	T. PRA B. metals	D. PRA B. metals					
DF-HA-4(3)	6/5/2023	16:24	3	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-5(1)		14:57	1		X	X											
DF-HA-5(2)		15:13	2														
DF-HA-6(1)		15:49	1		X	X	X	X	X	X							
DF-HA-6(2)		16:25	2														
DF-SW-1	6/5/23	17:15	-	Water		X					X	X					
DF-HA-10(1)	6/6/23	12:43	1	Soil													
DF-HA-10(2)		13:26	1														
DF-HA-17(1)		14:47	1														
DF-HA-17(2)		15:00	2														

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Relinquished by	Received by	SOLID	Evidence samples were tampered with? YES NO
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	If YES, please explain in section below.
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1 <input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2 <input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3 <input type="checkbox"/> RC-GW2</p>
---	--	--

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



Haley & Aldrich, Inc.
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Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082										
DF-HA-17(3)	6/6/23	1524	3	SOIL																Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-15(1)	6/6/23	1440	1	SOIL	X													1		
DF-HA-15(2)		1515	2	SOIL														3		
DF-HA-12(1)		1244	1		X	X												3		
DF-HA-12(2)		1300	2															3		
DF-HA-23(1)		1600	1		X													1		
DF-HA-23(2)		1612	2															1		
DF-HA-23(3)		1615	3															1		
DF-HA-11(1)		0915	1		X	X												3		
DF-HA-11(2)		0930	2															3		

Sampled and Relinquished by	Received by	LIQUID												Sampling Comments
Sign	Sign													VOA Vial
Print	Print													Amber Glass
Firm	Firm													Plastic Bottle
Date	Date													Preservative
Time	Time													Volume
Relinquished by	Received by	SOLID												
Sign	Sign													VOA Vial
Print	Print													Amber Glass
Firm	Firm													Clear Glass
Date	Date													Preservative
Time	Time													Volume
Relinquished by	Received by													Evidence samples were tampered with? YES NO
Sign	Sign													If YES, please explain in section below.
Print	Print													
Firm	Firm													
Date	Date													
Time	Time													

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
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CHAIN OF CUSTODY RECORD

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Page 4 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-11(3)	6/16/23	1000	3	SOIL															Laboratory to use applicable DEP CAM methods, unless otherwise directed. (HOLD) DF- DRUM-1
DF-HA-12(1)		1447	1	SOIL	X														
DF-HA-9(3)		1058	3																
DF-HA-17(2)		1500	2																
DF- DRUM-1		0945	-																
DF-HA-10(1)		1243	1		X	X	X	X	X								3		
DF-HA-10(2)		1326	2														3		
DF-HA-9(2)		1015	2														3		
DF-HA-9(1)		0930	1		X	X											3		
DF-HA-4(5)		1040	5														3		

Sampled and Relinquished by		Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial	
Print	Print		Amber Glass	
Firm	Firm		Plastic Bottle	
Date	Time	Date	Time	Preservative
Relinquished by	Received by		Volume	
Sign	Sign		SOLID	
Print	Print		VOA Vial	
Firm	Firm		Amber Glass	
Date	Time	Date	Time	Clear Glass
Relinquished by	Received by		Preservative	Evidence samples were tampered with? YES NO
Sign	Sign		Volume	If YES, please explain in section below
Print	Print			
Firm	Firm			
Date	Time	Date	Time	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Fax
Page 5 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 9 Metals EPA Method 6010 and 7470	VOC EPA Method 8160 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-11(4)	6/6/23	1023	4	SOIL												3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass	
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		Evidence samples were tampered with? YES NO If YES, please explain in section below

2 vials
DF-HA-12(3)
13:35
6/6/23
3 containers

Presumptive Certain

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected _____

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein. _____

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as _____

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analyzed appropriately. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-4

Login Number: 20704

List Source: Eurofins Spokane

List Number: 1

Creator: Vaughan, Madison R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC. and missing samples
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 8/7/2023 4:24:30 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20704-5

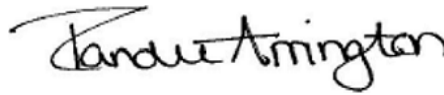
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
8/7/2023 4:24:30 PM

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Certification Summary	11
Method Summary	12
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Receipt Checklists	19

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Job ID: 590-20704-5

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/7/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The following sample was activated for 6010D Cadmium analysis by the client on 07/21/23: DF-HA-9(3) (590-20704-32). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D Cd & Pb analysis by the client on 07/21/23: DF-HA-17(3) (590-20704-20), DF-HA-23(3) (590-20704-27), DF-HA-11(3) (590-20704-30) and DF-HA-12(3) (590-20704-41). This analysis was not originally requested on the chain-of-custody (COC).

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20704-20	DF-HA-17(3)	Solid	06/06/23 15:32	06/07/23 10:25
590-20704-27	DF-HA-23(3)	Solid	06/06/23 16:15	06/07/23 10:25
590-20704-30	DF-HA-11(3)	Solid	06/06/23 10:00	06/07/23 10:25
590-20704-32	DF-HA-9(3)	Solid	06/06/23 10:58	06/07/23 10:25
590-20704-41	DF-HA-12(3)	Solid	06/06/23 13:35	06/07/23 10:25

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Client Sample ID: DF-HA-17(3)

Date Collected: 06/06/23 15:32

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-20

Matrix: Solid

Percent Solids: 89.8

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	6.5		0.76	0.037	mg/Kg	☼	08/02/23 12:55	08/04/23 21:43	1
Lead	1000		1.1	0.17	mg/Kg	☼	08/02/23 12:55	08/04/23 21:43	1

Client Sample ID: DF-HA-23(3)

Date Collected: 06/06/23 16:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-27

Matrix: Solid

Percent Solids: 92.9

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	5.3		0.72	0.035	mg/Kg	☼	08/02/23 12:55	08/04/23 21:47	1
Lead	920		1.1	0.16	mg/Kg	☼	08/02/23 12:55	08/04/23 21:47	1

Client Sample ID: DF-HA-11(3)

Date Collected: 06/06/23 10:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-30

Matrix: Solid

Percent Solids: 89.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	3.5		0.79	0.039	mg/Kg	☼	08/02/23 12:55	08/04/23 21:51	1
Lead	550		1.2	0.18	mg/Kg	☼	08/02/23 12:55	08/04/23 21:51	1

Client Sample ID: DF-HA-9(3)

Date Collected: 06/06/23 10:58

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-32

Matrix: Solid

Percent Solids: 93.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	4.2		0.71	0.035	mg/Kg	☼	08/02/23 12:55	08/04/23 21:56	1

Client Sample ID: DF-HA-12(3)

Date Collected: 06/06/23 13:35

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-41

Matrix: Solid

Percent Solids: 91.2

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.80	J	0.84	0.041	mg/Kg	☼	08/02/23 12:55	08/04/23 22:00	1
Lead	13		1.3	0.19	mg/Kg	☼	08/02/23 12:55	08/04/23 22:00	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 580-433514/24-A
Matrix: Solid
Analysis Batch: 433928

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433514

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.049	mg/Kg		08/02/23 12:55	08/04/23 20:26	1
Lead	ND		1.5	0.22	mg/Kg		08/02/23 12:55	08/04/23 20:26	1

Lab Sample ID: LCS 580-433514/25-A
Matrix: Solid
Analysis Batch: 433928

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433514

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	57.3		mg/Kg		115	80 - 120
Lead	50.0	56.7		mg/Kg		113	80 - 120

Lab Sample ID: LCSD 580-433514/26-A
Matrix: Solid
Analysis Batch: 433928

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 433514

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	50.0	56.8		mg/Kg		114	80 - 120	1	20
Lead	50.0	56.4		mg/Kg		113	80 - 120	1	20

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Client Sample ID: DF-HA-17(3)

Date Collected: 06/06/23 15:32

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-20

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42557	07/24/23 15:35	J1S	EET SPK

Client Sample ID: DF-HA-17(3)

Date Collected: 06/06/23 15:32

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-20

Matrix: Solid

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.4577 g	50 mL	433514	08/02/23 12:55	DLV	EET SEA
Total/NA	Analysis	6010D		1			433928	08/04/23 21:43	JLS	EET SEA

Client Sample ID: DF-HA-23(3)

Date Collected: 06/06/23 16:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-27

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42557	07/24/23 15:35	J1S	EET SPK

Client Sample ID: DF-HA-23(3)

Date Collected: 06/06/23 16:15

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-27

Matrix: Solid

Percent Solids: 92.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.5006 g	50 mL	433514	08/02/23 12:55	DLV	EET SEA
Total/NA	Analysis	6010D		1			433928	08/04/23 21:47	JLS	EET SEA

Client Sample ID: DF-HA-11(3)

Date Collected: 06/06/23 10:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-30

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42557	07/24/23 15:35	J1S	EET SPK

Client Sample ID: DF-HA-11(3)

Date Collected: 06/06/23 10:00

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-30

Matrix: Solid

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.4212 g	50 mL	433514	08/02/23 12:55	DLV	EET SEA
Total/NA	Analysis	6010D		1			433928	08/04/23 21:51	JLS	EET SEA

Client Sample ID: DF-HA-9(3)

Date Collected: 06/06/23 10:58

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-32

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42557	07/24/23 15:35	J1S	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Client Sample ID: DF-HA-9(3)

Date Collected: 06/06/23 10:58

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-32

Matrix: Solid

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.5041 g	50 mL	433514	08/02/23 12:55	DLV	EET SEA
Total/NA	Analysis	6010D		1			433928	08/04/23 21:56	JLS	EET SEA

Client Sample ID: DF-HA-12(3)

Date Collected: 06/06/23 13:35

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-41

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42557	07/24/23 15:35	J1S	EET SPK

Client Sample ID: DF-HA-12(3)

Date Collected: 06/06/23 13:35

Date Received: 06/07/23 10:25

Lab Sample ID: 590-20704-41

Matrix: Solid

Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.3095 g	50 mL	433514	08/02/23 12:55	DLV	EET SEA
Total/NA	Analysis	6010D		1			433928	08/04/23 22:00	JLS	EET SEA

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-23 *
Florida	NELAP	E87575	06-30-23 *
Louisiana (All)	NELAP	03073	07-01-24
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-24
New York	NELAP	11662	03-31-24
Oregon	NELAP	4167	07-07-23 *
US Fish & Wildlife	US Federal Programs	A20571	06-30-23 *
USDA	US Federal Programs	525-23-4-22573	01-04-26
Washington	State	C788	07-13-23 *
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-5

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SEA
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SEA

Protocol References:

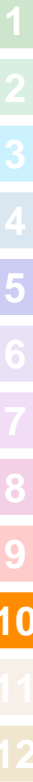
EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





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CHAIN OF CUSTODY RECORD

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Page 1 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTEL-Dx	Organohalobine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-5 (2)	6/5/23	15:13	2	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed. - VOCs 5 DAY TAT - HOLD SAMPLES NOT SELECTED FOR ANALYTICAL RESULTS PENDING ANALYTICAL RESULTS FOR (1) SAMPLE
DF-HA-1 (1)	6/5/23	11:05	1	Soil	X												
DF-HA-1 (2)		11:08	2		X												
DF-HA-1 (2.5)		11:30	2.5														
DF-HA-2 (1)		12:10	1		X												
DF-HA-2 (2)		12:15	2														
DF-HA-3 (1)		14:30	1		X	X											
DF-HA-3 (2)		14:45	2														
DF-HA-4 (1)		15:15	1		X	X											
DF-HA-4 (2)	15:40	15:40	2		X	X											



Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 6:58	Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 0658		4.7°C 5.3°C IR006
Relinquished by	Received by	SOLID	
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 1025	Sign: [Signature] Print: JERRY RICE Firm: STAPLE Date: 6/7/23 Time: 625		
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



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CHAIN OF CUSTODY RECORD

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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082	T. PPA B. metals	D. PPA B. metals					
DF-HA-4(3)	6/5/2023	16:24	3	Soil													
DF-HA-5(1)		14:57	1		X	X											
DF-HA-5(2)		15:13	2														
DF-HA-6(1)		15:49	1		X	X	X	X	X	X							
DF-HA-6(2)		16:25	2														
DF-SW-1	6/5/23	17:15	-	Water		X						X	X				
DF-HA-10(1)	6/6/23	12:43	1/2	Soil													
DF-HA-10(2)		13:26	1/2														
DF-HA-17(1)		14:47	1														
DF-HA-17(2)		15:00	2														

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO
Sign	Sign	A Sample chilled	If YES, please explain in section below.
Print	Print	C NaOH	
Firm	Firm	E H ₂ SO ₄	
Date	Date	G Methanol	
Time	Time	B Sample filtered	
		D HNO ₃	
		F HCL	
		H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
---	---

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-17(3)	6/6/23	1524	3	SOIL														
DF-HA-15(1)	6/6/23	1440	1	SOIL	X													1
DF-HA-15(2)		1515	2	SOIL														3
DF-HA-12(1)		1244	1		X	X												3
DF-HA-12(2)		1300	2															3
DF-HA-23(1)		1600	1		X													1
DF-HA-23(2)		1612	2															1
DF-HA-23(3)		1615	3															1
DF-HA-11(1)		0915	1		X	X												3
DF-HA-11(2)		0930	2															3

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
<p>Evidence samples were tampered with? YES NO</p> <p>If YES, please explain in section below.</p>			
PRESERVATION KEY			
A	Sample chilled	C	NaOH
E	H ₂ SO ₄	G	Methanol
B	Sample filtered	D	HNO ₃
F	HCL	H	Water/NaHSO ₄ (circle)

<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
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WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-11(3)	6/16/23	1000	3	SOIL															Laboratory to use applicable DEP CAM methods, unless otherwise directed. (HOLD) DF- DRUM-1
DF-HA-13(1)		1447	1	SOIL	X														
DF-HA-9(3)		1058	3																
DF-HA-17(2)		1500	2																
DF- DRUM-1		0945	-																
DF-HA-10(1)		1243	1		X	X	X	X	X								3/2		
DF-HA-10(2)		1326	2														3		
DF-HA-9(2)		1015	2														3		
DF-HA-9(1)		0930	1		X	X											3		
DF-HA-4(5)		1040	5														3		

Sampled and Relinquished by		Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial	
Print	Print		Amber Glass	
Firm	Firm		Plastic Bottle	
Date	Time	Date	Time	Preservative
Relinquished by		Received by	VOLUME	
Sign	Sign		SOLID	
Print	Print		VOA Vial	
Firm	Firm		Amber Glass	
Date	Time	Date	Time	Clear Glass
Relinquished by		Received by	Preservative	Evidence samples were tampered with? YES NO
Sign	Sign		Volume	If YES, please explain in section below
Print	Print			
Firm	Firm			
Date	Time	Date	Time	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 5 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 9 Metals EPA Method 6010 and 7470	VOC EPA Method 8160 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-11(4)	6/6/23	1023	4	SOIL												3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass	
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		Evidence samples were tampered with? YES NO If YES, please explain in section below

2 vials
DF-HA-12(3)
13:35
6/6/23
3 containers

Presumptive Certain

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) includes does not include samples defined as
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analyzed appropriate. Laboratory should (specify if applicable) analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Eurofins Spokane

11922 East 1st Ave
 Spokane, WA 99206
 Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Phone:		E-Mail:		State of Origin:		Page:	
Company: Eurofins Environment Testing Northwest,		Due Date Requested: 8/1/2023		Accreditations Required (See note): State Program - Washington		Analysis Requested		Job #: 590-20704-5	
Address: 5755 8th Street East,		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6010D/3050B Template for building analyze list	
City: Tacoma		PO #:		6010D/3050B (MOD) Template for building analyze list		Total Number of Containers		Preservation Codes:	
State, Zip: WA, 98424		WO #:						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA	
Project Name: POM Historic Debris Field/0203154-013		Project #: 59002301						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Site:		SSOW#:						Other:	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=air)	
								Special Instructions/Note:	
DF-HA-17(3) (590-20704-20)		6/6/23		15:32 Pacific		Solid		X	
DF-HA-23(3) (590-20704-27)		6/6/23		16:15 Pacific		Solid		X	
DF-HA-11(3) (590-20704-30)		6/6/23		10:00 Pacific		Solid		X	
DF-HA-9(3) (590-20704-32)		6/6/23		10:58 Pacific		Solid		X	
DF-HA-12(3) (590-20704-41)		6/6/23		13:35 Pacific		Solid		X	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.</p>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)			Primary Deliverable Rank: 2		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:		
Relinquished by:		Date/Time: 8/1/23 16:09		Company: EETSPO		Received by:		Date/Time: 8/2/23 09:55	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:			Cooler Temperature(s) °C and Other Remarks: 809 = 18.6				

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-5

Login Number: 20704

List Source: Eurofins Spokane

List Number: 1

Creator: Vaughan, Madison R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC. and missing samples
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-5

Login Number: 20704
List Number: 3
Creator: Presley, Kim A

List Source: Eurofins Seattle
List Creation: 06/15/23 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9-1.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-5

Login Number: 20704
List Number: 4
Creator: Presley, Kim A

List Source: Eurofins Seattle
List Creation: 08/02/23 11:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9=18.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20704-6

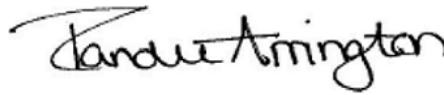
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Job ID: 590-20704-6

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/7/2023 10:25 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The following sample was activated for 6010D Cd & Pb analysis by the client on 8/8/2023: DF-HA-11(5) (590-20704-39). This analysis was not originally requested on the chain-of-custody (COC).

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-20704-39	DF-HA-11(5)	Solid	06/06/23 10:40	06/07/23 10:25

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Client Sample ID: DF-HA-11(5)

Lab Sample ID: 590-20704-39

Date Collected: 06/06/23 10:40

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.2

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.2	F1	0.77	0.038	mg/Kg	✱	08/21/23 13:43	08/23/23 13:57	1
Lead	240		1.2	0.17	mg/Kg	✱	08/21/23 13:43	08/23/23 13:57	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 580-435292/21-A
Matrix: Solid
Analysis Batch: 435587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435292

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.049	mg/Kg		08/21/23 13:43	08/23/23 13:33	1
Lead	ND		1.5	0.22	mg/Kg		08/21/23 13:43	08/23/23 13:33	1

Lab Sample ID: LCS 580-435292/22-A
Matrix: Solid
Analysis Batch: 435587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435292

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	55.8		mg/Kg		112	80 - 120
Lead	50.0	56.0		mg/Kg		112	80 - 120

Lab Sample ID: 590-20704-39 MS
Matrix: Solid
Analysis Batch: 435587

Client Sample ID: DF-HA-11(5)
Prep Type: Total/NA
Prep Batch: 435292

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	1.2	F1	37.8	16.8	F1	mg/Kg	⊛	41	80 - 120
Lead	240		37.8	150	4	mg/Kg	⊛	-234	80 - 120

Lab Sample ID: 590-20704-39 MSD
Matrix: Solid
Analysis Batch: 435587

Client Sample ID: DF-HA-11(5)
Prep Type: Total/NA
Prep Batch: 435292

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	1.2	F1	36.7	18.9	F1	mg/Kg	⊛	48	80 - 120	12	20
Lead	240		36.7	176	4	mg/Kg	⊛	-170	80 - 120	16	20

Lab Sample ID: 590-20704-39 DU
Matrix: Solid
Analysis Batch: 435587

Client Sample ID: DF-HA-11(5)
Prep Type: Total/NA
Prep Batch: 435292

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cadmium	1.2	F1	0.771	F5	mg/Kg	⊛	43	20
Lead	240		164	F3	mg/Kg	⊛	37	20

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Client Sample ID: DF-HA-11(5)

Lab Sample ID: 590-20704-39

Date Collected: 06/06/23 10:40

Matrix: Solid

Date Received: 06/07/23 10:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42881	08/10/23 11:56	MRV	EET SPK

Client Sample ID: DF-HA-11(5)

Lab Sample ID: 590-20704-39

Date Collected: 06/06/23 10:40

Matrix: Solid

Date Received: 06/07/23 10:25

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.4703 g	50 mL	435292	08/21/23 13:43	DLV	EET SEA
Total/NA	Analysis	6010D		1			435587	08/23/23 13:57	JLS	EET SEA

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-23 *
Florida	NELAP	E87575	06-30-23 *
Louisiana (All)	NELAP	03073	07-01-24
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-24
New York	NELAP	11662	03-31-24
Oregon	NELAP	4167	07-07-24
US Fish & Wildlife	US Federal Programs	A20571	06-30-23 *
USDA	US Federal Programs	525-23-4-22573	01-04-26
Washington	State	C788	07-13-23 *
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20704-6

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SEA
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SEA

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



CHAIN OF CUSTODY RECORD

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTEL-Dx	Organohalobine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-5 (2)	6/5/23	15:13	2	Soil														Laboratory to use applicable DEP CAM methods, unless otherwise directed. - VOCs 5 DAY TAT - HOLD SAMPLES NOT SELECTED FOR ANALYTICAL RESULTS PENDING ANALYTICAL RESULTS FOR (1) SAMPLE
DF-HA-1 (1)	6/5/23	11:05	1	Soil	X													
DF-HA-2 (2)		11:08	2		X													
DF-HA-1 (2.5)		11:30	2.5															
DF-HA-2 (1)		12:10	1		X													
DF-HA-2 (2)		12:15	2															
DF-HA-3 (1)		14:30	1		X	X												
DF-HA-3 (2)		14:45	2															
DF-HA-4 (1)		15:15	1		X	X												
DF-HA-4 (2)	15:40	15:40	2		X	X												



Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 6:58	Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 0658		4.7°C 5.3°C IR006
Relinquished by	Received by	SOLID	
Sign: [Signature] Print: WARD MCDONALD Firm: H&A Date: 6/7/23 Time: 1025	Sign: [Signature] Print: JERRY RICE Firm: STAPLE Date: 6/7/23 Time: 625		
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.
505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521

Fax

Page 2 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082	T. PPA B. metals	D. PPA B. metals					
DF-HA-4(3)	6/5/2023	16:24	3	Soil													Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-5(1)		14:57	1		X	X											
DF-HA-5(2)		15:13	2														
DF-HA-6(1)		15:49	1		X	X	X	X	X	X							
DF-HA-6(2)		16:25	2														
DF-SW-1	6/5/23	17:15	-	Water		X					X	X					
DF-HA-10(1)	6/6/23	12:43	1	Soil													
DF-HA-10(2)		13:26	1														
DF-HA-17(1)		14:47	1														
DF-HA-17(2)		15:00	2														

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Plastic Bottle
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	SOLID	
Sign	Sign		VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO
Sign	Sign	A Sample chilled	If YES, please explain in section below.
Print	Print	C NaOH	
Firm	Firm	E H ₂ SO ₄	
Date	Date	G Methanol	
Time	Time	B Sample filtered	
		D HNO ₃	
		F HCL	
		H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
---	--

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



Haley & Aldrich, Inc.
505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521

Fax

Page 3 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-17(3)	6/6/23	1524	3	SOIL														
DF-HA-15(1)	6/6/23	1440	1	SOIL	X												1	
DF-HA-15(2)		1515	2	SOIL													3	
DF-HA-12(1)		1244	1		X	X											3	
DF-HA-12(2)		1300	2														3	
DF-HA-23(1)		1600	1		X												1	
DF-HA-23(2)		1612	2														1	
DF-HA-23(3)		1615	3														1	
DF-HA-11(1)		0915	1		X	X											3	
DF-HA-11(2)		0930	2														3	

Sampled and Relinquished by	Received by	LIQUID											Sampling Comments
Sign	Sign												VOA Vial
Print	Print												Amber Glass
Firm	Firm												Plastic Bottle
Date	Time	Date	Time									Preservative	
Relinquished by	Received by	SOLID											Volume
Sign	Sign												VOA Vial
Print	Print												Amber Glass
Firm	Firm												Clear Glass
Date	Time	Date	Time									Preservative	
Relinquished by	Received by												Volume
Sign	Sign												
Print	Print												
Firm	Firm												
Date	Time	Date	Time										

Evidence samples were tampered with? YES NO
If YES, please explain in section below.

<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
---	--	--

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Fax

Page 4 of 5

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-11(3)	6/16/23	1000	3	SOIL															Laboratory to use applicable DEP CAM methods, unless otherwise directed. (HOLD) DF- DRUM-1
DF-HA-12(1)		1447	1	SOIL	X														
DF-HA-9(3)		1058	3																
DF-HA-17(2)		1500	2																
DF- DRUM-1		0945	-																
DF-HA-10(1)		1243	1		X	X	X	X	X								3/2		
DF-HA-10(2)		1326	2														3		
DF-HA-9(2)		1015	2														3		
DF-HA-9(1)		0930	1		X	X											3		
DF-HA-4(5)		1040	5														3		

Sampled and Relinquished by		Received by	LIQUID	Sampling Comments
Sign	Sign		VOA Vial	
Print	Print		Amber Glass	
Firm	Firm		Plastic Bottle	
Date	Time	Date	Time	Preservative
Relinquished by		Received by	VOLUME	
Sign	Sign		SOLID	
Print	Print		VOA Vial	
Firm	Firm		Amber Glass	
Date	Time	Date	Time	Clear Glass
Relinquished by		Received by	Preservative	Evidence samples were tampered with? YES NO
Sign	Sign		Volume	If YES, please explain in section below
Print	Print			
Firm	Firm			
Date	Time	Date	Time	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



Haley & Aldrich, Inc.
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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Fax
Page 5 of 5

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 9 Metals EPA Method 6010 and 7470	VOC EPA Method 8160 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRF-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-11(4)	6/6/23	1023	4	SOIL												3	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign Print Firm Date Time	Sign Print Firm Date Time	VOA Vial Amber Glass	
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		
Relinquished by	Received by		
Sign Print Firm Date Time	Sign Print Firm Date Time		Evidence samples were tampered with? YES NO If YES, please explain in section below

2 vials
DF-HA-12(3)
13:35
6/6/23
3 containers

Presumptive Certain

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) includes does not include samples defined as

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analyzed appropriately. Laboratory should (specify if applicable) analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Eurofins Spokane

11922 East 1st Ave
 Spokane, WA 99206
 Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)				Sampler:	Lab PM: Arrington, Randee E	Carrier Tracking No(s):	COC No: 590-8165.1
Client Contact: Shipping/Receiving				Phone:	E-Mail: Randee.Arrington@et.eurofinsus.com	State of Origin: Washington	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,				Accreditations Required (See note): State Program - Washington			Job #: 590-20704-6
Address: 5755 8th Street East,		Due Date Requested: 8/21/2023		Analysis Requested			Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)
City: Tacoma		TAT Requested (days):					
State, Zip: WA, 98424		PO #:					
Phone: 253-922-2310(Tel)		WO #:					
Email:		Project Name: POM Historic Debris Field/0203154-013		Project #: 59002301		Total Number of containers	
Site:		SSOW#:					
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3050B (MOD) Template for building analyze list
DF-HA-11(5) (590-20704-39)	6/6/23	10:40 Pacific		Solid		X	
				Special Instructions/Note:			

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date:	Time:

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
	8/17/23 15:52	EET SPA		8/18/23 09:35	EETN
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 119g 53/5.6
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Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-6

Login Number: 20704

List Number: 1

Creator: Vaughan, Madison R

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC. and missing samples
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-6

Login Number: 20704
List Number: 3
Creator: Presley, Kim A

List Source: Eurofins Seattle
List Creation: 06/15/23 11:42 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9-1.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-6

Login Number: 20704
List Number: 4
Creator: Presley, Kim A

List Source: Eurofins Seattle
List Creation: 08/02/23 11:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9=18.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20704-6

Login Number: 20704

List Number: 5

Creator: Groves, Elizabeth

List Source: Eurofins Seattle

List Creation: 08/18/23 12:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9 5.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 6/23/2023 2:03:12 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-1

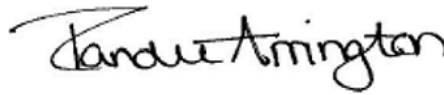
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
6/23/2023 2:03:12 PM

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Job ID: 590-20747-1

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DF-HA-18(3) (590-20747-38).

GC Semi VOA

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for Heptachlor for the following sample: DF-HA-20(1) (590-20747-11). The lower value has been reported and qualified in accordance with the laboratory's SOP.

Method NWTPH-Dx: Detected hydrocarbons appear to be due to individual peaks and may be possible biogenic interference in the following samples: DF-HA-20(1) (590-20747-11), (590-20704-A-13-A) and (590-20704-A-13-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-42122 and analytical batch 590-42143 was outside control limits. Sample matrix interference is suspected.

Method 7471B: The sample duplicate (DUP) precision for preparation batch 590-42123 and analytical batch 590-42144 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20747-1	DF-HA-13(1)	Solid	06/07/23 09:25	06/09/23 09:27
590-20747-4	DF-HA-14(1)	Solid	06/07/23 14:03	06/09/23 09:27
590-20747-10	DF-HA-7(1)	Solid	06/07/23 10:28	06/09/23 09:27
590-20747-11	DF-HA-20(1)	Solid	06/07/23 15:55	06/09/23 09:27
590-20747-18	DF-HA-19(1)	Solid	06/07/23 15:48	06/09/23 09:27
590-20747-20	DF-HA-8(1)	Solid	06/07/23 11:45	06/09/23 09:27
590-20747-27	DF-HA-16(1)	Solid	06/08/23 10:00	06/09/23 09:27
590-20747-28	DF-HA-21(1)	Solid	06/08/23 08:30	06/09/23 09:27
590-20747-32	DF-HA-22(1)	Solid	06/08/23 10:45	06/09/23 09:27
590-20747-36	DF-HA-18(1)	Solid	06/08/23 09:02	06/09/23 09:27

1

2

3

4

5

6

7

8

9

10

11

12

Definitions/Glossary

Client: Haley & Aldrich, Inc.

Job ID: 590-20747-1

Project/Site: POM Historic Debris Field/0203154-013

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
p1	The %Difference between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-13(1)

Lab Sample ID: 590-20747-1

Date Collected: 06/07/23 09:25

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		5.0	2.0	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Barium	160		5.0	1.4	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Cadmium	1.3	J	4.0	0.24	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Chromium	17		5.0	0.71	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Lead	35		12	5.9	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Selenium	ND		20	12	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5
Silver	ND		5.0	1.2	mg/Kg	☼	06/22/23 11:04	06/22/23 16:33	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	26	J	49	3.5	ug/Kg	☼	06/22/23 11:06	06/22/23 17:00	1

Client Sample ID: DF-HA-14(1)

Lab Sample ID: 590-20747-4

Date Collected: 06/07/23 14:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	70		29	12	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10
Barium	400		29	7.9	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10
Cadmium	58		24	1.4	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10
Chromium	200		29	4.2	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10
Lead	13000		350	170	mg/Kg	☼	06/22/23 11:04	06/22/23 18:34	50
Selenium	ND		120	71	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10
Silver	ND		29	6.7	mg/Kg	☼	06/22/23 11:04	06/22/23 16:56	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	450		47	3.4	ug/Kg	☼	06/22/23 11:06	06/22/23 17:11	1

Client Sample ID: DF-HA-7(1)

Lab Sample ID: 590-20747-10

Date Collected: 06/07/23 10:28

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 79.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.4		5.1	2.0	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Barium	140		5.1	1.4	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Cadmium	0.41	J	4.1	0.24	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Chromium	25		5.1	0.73	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Lead	48		12	6.0	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Selenium	ND		21	12	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5
Silver	ND		5.1	1.2	mg/Kg	☼	06/22/23 11:04	06/22/23 17:00	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	8.5	J	43	3.0	ug/Kg	☼	06/22/23 11:06	06/22/23 17:14	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.1

Method: SW846 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		3.5	0.36	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Endosulfan II	ND		3.5	0.59	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Endosulfan sulfate	ND		3.5	0.57	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Endrin	ND		3.5	0.63	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Endrin aldehyde	ND		3.5	1.1	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Endrin ketone	ND		3.5	0.42	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
beta-BHC	ND		3.5	1.4	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
alpha-BHC	ND		3.5	0.44	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
delta-BHC	ND		3.5	0.83	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
gamma-BHC (Lindane)	ND		3.5	0.41	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
trans-Chlordane	ND		3.5	0.55	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
4,4'-DDD	ND		3.5	1.1	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
4,4'-DDE	ND		3.5	0.49	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
4,4'-DDT	ND		3.5	1.2	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Heptachlor	ND	p1	3.5	0.44	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Heptachlor epoxide	ND		3.5	0.88	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Dieldrin	ND		3.5	0.43	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Aldrin	ND		3.5	0.52	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Methoxychlor	ND		6.8	0.93	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
cis-Chlordane	ND		3.5	0.67	ug/Kg	✳	06/19/23 13:46	06/21/23 23:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	73		42 - 134				06/19/23 13:46	06/21/23 23:46	1
Tetrachloro-m-xylene	70		30 - 133				06/19/23 13:46	06/21/23 23:46	1

Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1221	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1232	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1242	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1248	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1254	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1260	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1268	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
PCB-1262	ND		11	2.3	ug/Kg	✳	06/20/23 10:00	06/20/23 21:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		37 - 126				06/20/23 10:00	06/20/23 21:57	1
DCB Decachlorobiphenyl (Surr)	107		32 - 150				06/20/23 10:00	06/20/23 21:57	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	21		10	4.3	mg/Kg	✳	06/13/23 09:35	06/13/23 16:36	1
Residual Range Organics (RRO) (C25-C36)	74		26	5.2	mg/Kg	✳	06/13/23 09:35	06/13/23 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	100		50 - 150				06/13/23 09:35	06/13/23 16:36	1
<i>n</i> -Triacontane-d62	98		50 - 150				06/13/23 09:35	06/13/23 16:36	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		10	4.1	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Barium	110		10	2.8	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Cadmium	2.1	J	8.2	0.49	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Chromium	5.1	J	10	1.5	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Lead	44		25	12	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Selenium	ND		41	25	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10
Silver	ND		10	2.4	mg/Kg	✳	06/22/23 11:04	06/22/23 17:16	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	59		41	2.9	ug/Kg	✳	06/22/23 11:06	06/22/23 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total (SW846 9012B)	ND		2.2	0.55	mg/Kg	✳	06/13/23 23:15	06/13/23 23:45	1

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.8

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	18		10	4.0	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10
Barium	320		10	2.7	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10
Cadmium	29		8.0	0.47	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10
Chromium	18		10	1.4	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10
Lead	20000		240	120	mg/Kg	✳	06/22/23 11:04	06/22/23 18:38	100
Selenium	ND		40	24	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10
Silver	2.4	J	10	2.3	mg/Kg	✳	06/22/23 11:04	06/22/23 17:19	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	840		44	3.1	ug/Kg	✳	06/22/23 11:06	06/22/23 17:28	1

Client Sample ID: DF-HA-8(1)

Lab Sample ID: 590-20747-20

Date Collected: 06/07/23 11:45

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 91.1

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.9		4.6	1.8	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Barium	95		4.6	1.2	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Cadmium	1.9	J	3.7	0.22	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Chromium	17		4.6	0.66	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Lead	380		11	5.5	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Selenium	ND		19	11	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5
Silver	ND		4.6	1.1	mg/Kg	✳	06/22/23 11:04	06/22/23 17:23	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	95		44	3.1	ug/Kg	✳	06/22/23 11:06	06/22/23 17:33	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-16(1)

Lab Sample ID: 590-20747-27

Date Collected: 06/08/23 10:00

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.2

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.6		5.5	2.2	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Barium	160		5.5	1.5	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Cadmium	2.0	J	4.4	0.26	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Chromium	12		5.5	0.77	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Lead	470		13	6.4	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Selenium	ND		22	13	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5
Silver	ND		5.5	1.3	mg/Kg	☼	06/22/23 11:04	06/22/23 17:27	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	70		45	3.2	ug/Kg	☼	06/22/23 11:06	06/22/23 17:35	1

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.7		5.2	2.1	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Barium	73		5.2	1.4	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Cadmium	2.5	J	4.2	0.25	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Chromium	19		5.2	0.74	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Lead	380		13	6.1	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Selenium	ND		21	13	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5
Silver	ND		5.2	1.2	mg/Kg	☼	06/22/23 11:04	06/22/23 17:31	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	98		45	3.2	ug/Kg	☼	06/22/23 11:06	06/22/23 17:38	1

Client Sample ID: DF-HA-22(1)

Lab Sample ID: 590-20747-32

Date Collected: 06/08/23 10:45

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 91.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.3	J	8.7	3.5	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Barium	67		8.7	2.3	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Cadmium	1.2	J	7.0	0.41	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Chromium	17		8.7	1.2	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Lead	82		21	10	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Selenium	ND		35	21	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10
Silver	ND		8.7	2.0	mg/Kg	☼	06/22/23 11:04	06/22/23 17:35	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	36	J	49	3.5	ug/Kg	☼	06/22/23 11:06	06/22/23 17:40	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-18(1)

Lab Sample ID: 590-20747-36

Date Collected: 06/08/23 09:02

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 93.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		4.6	1.8	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Barium	120		4.6	1.2	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Cadmium	2.0	J	3.7	0.22	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Chromium	20		4.6	0.65	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Lead	32		11	5.4	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Selenium	ND		18	11	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5
Silver	ND		4.6	1.1	mg/Kg	☼	06/22/23 11:04	06/22/23 17:39	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	48		38	2.7	ug/Kg	☼	06/22/23 11:06	06/22/23 17:43	1



QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 590-42068/1-A
Matrix: Solid
Analysis Batch: 42064

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42068

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1221	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1232	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1242	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1248	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1254	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1260	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1268	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
PCB-1262	ND		10	2.2	ug/Kg		06/20/23 10:00	06/20/23 15:16	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
Tetrachloro-m-xylene	97		37 - 126				06/20/23 10:00	06/20/23 15:16	1
DCB Decachlorobiphenyl (Surr)	112		32 - 150				06/20/23 10:00	06/20/23 15:16	1

Lab Sample ID: LCS 590-42068/2-A
Matrix: Solid
Analysis Batch: 42064

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42068

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
PCB-1016	66.7	60.5		ug/Kg		91	67 - 120
PCB-1260	66.7	71.5		ug/Kg		107	58 - 133
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
Tetrachloro-m-xylene	83		37 - 126				
DCB Decachlorobiphenyl (Surr)	107		32 - 150				

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-41945/1-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 41945

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (DRO) (C10-C25)	ND		10	4.2	mg/Kg		06/13/23 09:35	06/13/23 12:31	1
Residual Range Organics (RRO) (C25-C36)	ND		25	5.0	mg/Kg		06/13/23 09:35	06/13/23 12:31	1
Surrogate	MB MB		Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
o-Terphenyl	98		50 - 150				06/13/23 09:35	06/13/23 12:31	1
n-Triacontane-d62	102		50 - 150				06/13/23 09:35	06/13/23 12:31	1

Lab Sample ID: LCS 590-41945/2-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41945

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Diesel Range Organics (DRO) (C10-C25)	66.7	69.6		mg/Kg		104	50 - 150

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-41945/2-A
Matrix: Solid
Analysis Batch: 41946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 41945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Residual Range Organics (RRO) (C25-C36)	66.7	77.3		mg/Kg		116	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>o</i> -Terphenyl	109		50 - 150
<i>n</i> -Triacontane-d62	109		50 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42122/2-A
Matrix: Solid
Analysis Batch: 42143

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42122

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Barium	ND		1.3	0.34	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Cadmium	ND		1.0	0.059	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Chromium	ND		1.3	0.18	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Lead	ND		3.0	1.5	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Selenium	ND		5.0	3.0	mg/Kg		06/22/23 11:04	06/22/23 16:29	1
Silver	ND		1.3	0.29	mg/Kg		06/22/23 11:04	06/22/23 16:29	1

Lab Sample ID: LCS 590-42122/1-A
Matrix: Solid
Analysis Batch: 42143

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42122

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	93.3		mg/Kg		93	80 - 120
Barium	100	98.1		mg/Kg		98	80 - 120
Cadmium	50.0	48.3		mg/Kg		97	80 - 120
Chromium	50.0	47.4		mg/Kg		95	80 - 120
Lead	50.0	52.4		mg/Kg		105	80 - 120
Selenium	100	94.6		mg/Kg		95	80 - 120
Silver	5.00	4.99		mg/Kg		100	80 - 120

Lab Sample ID: 590-20747-1 MS
Matrix: Solid
Analysis Batch: 42143

Client Sample ID: DF-HA-13(1)
Prep Type: Total/NA
Prep Batch: 42122

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	7.9		111	110		mg/Kg	⊛	92	75 - 125
Barium	160		111	287		mg/Kg	⊛	111	75 - 125
Cadmium	1.3	J	55.6	55.3		mg/Kg	⊛	97	75 - 125
Chromium	17		55.6	72.1		mg/Kg	⊛	99	75 - 125
Lead	35		55.6	94.1		mg/Kg	⊛	106	75 - 125
Selenium	ND		111	106		mg/Kg	⊛	95	75 - 125
Silver	ND		5.56	5.81	J	mg/Kg	⊛	105	75 - 125

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: 590-20747-1 MSD
 Matrix: Solid
 Analysis Batch: 42143

Client Sample ID: DF-HA-13(1)
 Prep Type: Total/NA
 Prep Batch: 42122

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Arsenic	7.9		113	115		mg/Kg	⊛	94	75 - 125	4	20
Barium	160		113	285		mg/Kg	⊛	107	75 - 125	1	20
Cadmium	1.3	J	56.7	57.3		mg/Kg	⊛	99	75 - 125	4	20
Chromium	17		56.7	78.3		mg/Kg	⊛	108	75 - 125	8	20
Lead	35		56.7	97.0		mg/Kg	⊛	109	75 - 125	3	20
Selenium	ND		113	110		mg/Kg	⊛	97	75 - 125	4	20
Silver	ND		5.67	5.44	J	mg/Kg	⊛	96	75 - 125	7	20

Lab Sample ID: 590-20747-1 DU
 Matrix: Solid
 Analysis Batch: 42143

Client Sample ID: DF-HA-13(1)
 Prep Type: Total/NA
 Prep Batch: 42122

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD
	Result	Qualifier	Result	Qualifier				Limit
Arsenic	7.9		5.77	F5	mg/Kg	⊛	31	20
Barium	160		128	F3	mg/Kg	⊛	24	20
Cadmium	1.3	J	0.974	J F5	mg/Kg	⊛	29	20
Chromium	17		13.2	F5	mg/Kg	⊛	24	20
Lead	35		25.1	F5	mg/Kg	⊛	34	20
Selenium	ND		ND		mg/Kg	⊛	NC	20
Silver	ND		ND		mg/Kg	⊛	NC	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-42123/9-A
 Matrix: Solid
 Analysis Batch: 42144

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 42123

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hg	ND		50	3.6	ug/Kg		06/22/23 11:06	06/22/23 16:58	1

Lab Sample ID: LCS 590-42123/8-A
 Matrix: Solid
 Analysis Batch: 42144

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 42123

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Hg	200	197		ug/Kg		99	80 - 120

Lab Sample ID: 590-20747-1 MS
 Matrix: Solid
 Analysis Batch: 42144

Client Sample ID: DF-HA-13(1)
 Prep Type: Total/NA
 Prep Batch: 42123

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Hg	26	J	229	233		ug/Kg	⊛	90	80 - 120

Lab Sample ID: 590-20747-1 MSD
 Matrix: Solid
 Analysis Batch: 42144

Client Sample ID: DF-HA-13(1)
 Prep Type: Total/NA
 Prep Batch: 42123

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Hg	26	J	220	230		ug/Kg	⊛	93	80 - 120	1	20

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: 590-20747-1 DU
 Matrix: Solid
 Analysis Batch: 42144

Client Sample ID: DF-HA-13(1)
 Prep Type: Total/NA
 Prep Batch: 42123

Analyte	Sample	Sample	DU		Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Hg	26	J	18.8	J F5	ug/Kg	✱	33	20

Method: 9012B - Cyanide, Total and/or Amenable

Lab Sample ID: MB 580-428715/1-B
 Matrix: Solid
 Analysis Batch: 428741

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 428740

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cyanide, Total	ND		2.0	0.51	mg/Kg		06/13/23 23:15	06/13/23 23:45	1

Lab Sample ID: LCS 580-428715/2-B
 Matrix: Solid
 Analysis Batch: 428741

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 428740

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits

Lab Sample ID: LCSD 580-428715/3-B
 Matrix: Solid
 Analysis Batch: 428741

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 428740

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-13(1)

Lab Sample ID: 590-20747-1

Date Collected: 06/07/23 09:25

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-13(1)

Lab Sample ID: 590-20747-1

Date Collected: 06/07/23 09:25

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.42 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 16:33	AMB	EET SPK
Total/NA	Prep	7471B			0.59 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:00	AMB	EET SPK

Client Sample ID: DF-HA-14(1)

Lab Sample ID: 590-20747-4

Date Collected: 06/07/23 14:03

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-14(1)

Lab Sample ID: 590-20747-4

Date Collected: 06/07/23 14:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			0.50 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		10			42143	06/22/23 16:56	AMB	EET SPK
Total/NA	Prep	3050B			0.50 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		50			42143	06/22/23 18:34	AMB	EET SPK
Total/NA	Prep	7471B			0.62 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:11	AMB	EET SPK

Client Sample ID: DF-HA-7(1)

Lab Sample ID: 590-20747-10

Date Collected: 06/07/23 10:28

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-7(1)

Lab Sample ID: 590-20747-10

Date Collected: 06/07/23 10:28

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.53 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 17:00	AMB	EET SPK

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Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-7(1)

Lab Sample ID: 590-20747-10

Date Collected: 06/07/23 10:28

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.74 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:14	AMB	EET SPK

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41986	06/14/23 14:07	M1V	EET SPK

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.8 g	10 mL	616601	06/19/23 13:46	EDW	EET DEN
Total/NA	Analysis	8081B		1	1 mL	1 mL	616975	06/21/23 23:46	SMQ	EET DEN
Total/NA	Prep	3550C			15.28 g	5 mL	42068	06/20/23 10:00	M1V	EET SPK
Total/NA	Analysis	8082A		1	1 mL	1 mL	42064	06/20/23 21:57	NMI	EET SPK
Total/NA	Prep	3550C			15.71 g	5 mL	41945	06/13/23 09:35	M1V	EET SPK
Total/NA	Analysis	NWTPH-Dx		1	1 mL	1 mL	41946	06/13/23 16:36	NMI	EET SPK
Total/NA	Prep	3050B			1.32 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		10			42143	06/22/23 17:16	AMB	EET SPK
Total/NA	Prep	7471B			0.67 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:17	AMB	EET SPK
Total/NA	Leach	9013			5.0169 g	100 mL	428715	06/13/23 07:00	CSS	EET SEA
Total/NA	Prep	9012B			6 mL	6 mL	428740	06/13/23 23:15	CSS	EET SEA
Total/NA	Analysis	9012B		1			428741	06/13/23 23:45	CSS	EET SEA

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.47 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		10			42143	06/22/23 17:19	AMB	EET SPK
Total/NA	Prep	3050B			1.47 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		100			42143	06/22/23 18:38	AMB	EET SPK

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			0.67 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:28	AMB	EET SPK

Client Sample ID: DF-HA-8(1)

Lab Sample ID: 590-20747-20

Date Collected: 06/07/23 11:45

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-8(1)

Lab Sample ID: 590-20747-20

Date Collected: 06/07/23 11:45

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.48 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 17:23	AMB	EET SPK
Total/NA	Prep	7471B			0.63 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:33	AMB	EET SPK

Client Sample ID: DF-HA-16(1)

Lab Sample ID: 590-20747-27

Date Collected: 06/08/23 10:00

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-16(1)

Lab Sample ID: 590-20747-27

Date Collected: 06/08/23 10:00

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.31 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 17:27	AMB	EET SPK
Total/NA	Prep	7471B			0.64 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:35	AMB	EET SPK

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.32 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 17:31	AMB	EET SPK
Total/NA	Prep	7471B			0.61 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:38	AMB	EET SPK

Client Sample ID: DF-HA-22(1)

Lab Sample ID: 590-20747-32

Date Collected: 06/08/23 10:45

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-22(1)

Lab Sample ID: 590-20747-32

Date Collected: 06/08/23 10:45

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.57 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		10			42143	06/22/23 17:35	AMB	EET SPK
Total/NA	Prep	7471B			0.56 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:40	AMB	EET SPK

Client Sample ID: DF-HA-18(1)

Lab Sample ID: 590-20747-36

Date Collected: 06/08/23 09:02

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			41942	06/12/23 15:53	NMI	EET SPK

Client Sample ID: DF-HA-18(1)

Lab Sample ID: 590-20747-36

Date Collected: 06/08/23 09:02

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.45 g	50 mL	42122	06/22/23 11:04	AMB	EET SPK
Total/NA	Analysis	6010D		5			42143	06/22/23 17:39	AMB	EET SPK
Total/NA	Prep	7471B			0.70 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:43	AMB	EET SPK

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
 EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
 EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8082A	3550C	Solid	PCB-1262
8082A	3550C	Solid	PCB-1268
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-10-24
Arizona	State	AZ0713	12-20-24
Arkansas DEQ	State	19-047-0	05-31-23 *
California	State	2513	01-09-24
Connecticut	State	PH-0686	09-30-24
Florida	NELAP	E87667-57	06-30-23
Georgia	State	4025-011	01-08-24
Illinois	NELAP	2000172019-1	04-30-24
Iowa	State	IA#370	12-01-24
Kansas	NELAP	E-10166	04-30-24
Kentucky (WW)	State	KY98047	12-31-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23
Louisiana (All)	NELAP	30785	06-30-23
Minnesota	NELAP	1788752	12-31-23
Nevada	State	CO000262020-1	07-31-23
New Hampshire	NELAP	2053	04-28-24
New Jersey	NELAP	190002	06-30-23
New York	NELAP	59923	03-31-24
North Carolina (WW/SW)	State	358	12-31-23
North Dakota	State	R-034	01-08-24
Oklahoma	NELAP	8614	08-31-23
Oklahoma	State	2018-006	08-31-23
Oregon	NELAP	4025-011	01-10-24
Pennsylvania	NELAP	013	07-31-23
South Carolina	State	72002001	01-08-24
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	09-30-23
US Fish & Wildlife	US Federal Programs	058448	07-31-23
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23
Washington	State	C583-19	08-03-23
West Virginia DEP	State	354	11-30-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Laboratory: Eurofins Denver (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999615430	08-31-23
Wyoming (UST)	A2LA	2907.01	10-31-22 *

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-23
Florida	NELAP	E87575	06-30-23
Louisiana	NELAP	03073	06-30-23
Louisiana (All)	NELAP	03073	06-30-23
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-23
New York	NELAP	11662	03-31-24
Oregon	NELAP	4167	07-07-23
US Fish & Wildlife	US Federal Programs	A20571	06-30-23
USDA	US Federal Programs	525-23-4-22573	01-04-26
Washington	State	C788	07-13-23
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.



Method Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-1

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	EET DEN
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET SPK
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	EET SPK
6010D	Metals (ICP)	SW846	EET SPK
7471B	Mercury (CVAA)	SW846	EET SPK
9012B	Cyanide, Total and/or Amenable	SW846	EET SEA
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SPK
3546	Microwave Extraction	SW846	EET DEN
3550C	Ultrasonic Extraction	SW846	EET SPK
3665A	Sulfuric Acid/Permanganate Cleanup	SW846	EET SPK
7471B	Preparation, Mercury	SW846	EET SPK
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	EET SEA
9013	Cyanide Extraction (Solids and Oils)	SW846	EET SEA

Protocol References:

- EPA = US Environmental Protection Agency
- NWTPH = Northwest Total Petroleum Hydrocarbon
- SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

- EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100
- EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
- EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. Invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by	Received by	LIQUID										Sampling Comments
Sign <i>Ward McDonald</i>	Sign <i>Randee Arrington</i>											VOA Vial
Print <i>Ward McDonald</i>	Print <i>Randee Arrington</i>											Amber Glass
Firm <i>HA</i>	Firm <i>EETMW</i>											Plastic Bottle
Date <i>6/12/23</i> Time <i>9:27</i>	Date <i>6/12/23</i> Time <i>09:07</i>											
Relinquished by	Received by	SOLID										
Sign	Sign											
Print	Print											
Firm	Firm											
Date	Time	Date	Time									
Relinquished by	Received by											Preservative
Sign	Sign											Volume
Print	Print											Evidence samples were tampered with? YES NO
Firm	Firm											IF YES, please explain in section below.
Date	Time	Date	Time									



<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
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Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X						4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft													4	
DF-HA-20 (2)		16:05	2 ft													4	
DF-HA-20 (4)		16:55	4 ft													4	
DF-HA-19 (4)		16:55	4 ft													3	
DF-HA-19 (3)		16:30	3 ft													3	
DF-HA-19 (2)		16:05	2 ft													3	
DF-HA-12 (1)		15:48	1 ft		X	X										3	
DF-HA-8 (2)		12:00	2 ft													1	
DF-HA-8 (1)		11:45	1 ft		X											1	

Sampled and Relinquished by	Received by	LIQUID											Sampling Comments				
Sign <i>Marynne Clark</i> Print Marynne Clark Firm H&A Date 6/17/23 Time 7:27	Sign Print Firm Date Time																VOA Vial Amber Glass Plastic Bottle Preservative Volume
Relinquished by	Received by	SOLID															
Sign <i>Rande Arrington</i> Print Rande Arrington Firm EETNW Date 6/19/23 Time 09:27	Sign Print Firm Date Time																VOA Vial Amber Glass Clear Glass Preservative Volume
Relinquished by	Received by	PRESERVATION KEY											Evidence samples were tampered with? YES NO				
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol											If YES, please explain in section below	
		B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)												

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 3 of 4

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082									
DF-HA-13 (2)	6/7/23	09:35	2	Soil														2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil													2		
DF-HA-24 (1)	6/8/23	13:37	1														2		
DF-HA-26 (35)		15:20	3.5														2		
DF-HA-22 (3)		11:22	3														1		
DF-HA-26 (1)		15:25	1														2		
DF-HA-16 (1)		10:00	1														1		
DF-HA-21 (1)		8:30	1														3		
DF-HA-18 (2)		9:22	2														1		
DF-HA-16 (3)		10:08	3														1		

Sampled and Relinquished by	Received by	LIQUID											Sampling Comments					
Sign <i>[Signature]</i>	Sign																	Evidence samples were tampered with? YES NO If YES, please explain in section below
Print <i>[Name]</i>	Print																	
Firm <i>[Firm]</i>	Firm																	PRESERVATION KEY A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)
Date <i>[Date]</i> Time <i>[Time]</i>	Date Time																	
Relinquished by	Received by	SOLID																
Sign <i>[Signature]</i>	Sign																	
Print <i>[Name]</i>	Print																	
Firm <i>[Firm]</i>	Firm																	
Date <i>[Date]</i> Time <i>[Time]</i>	Date Time																	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016



Haley & Aldrich, Inc.
505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521

Fax

Page 4 of 4

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)			
					ACRA & Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Nitrate Method SW799-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082												
DF-HA-22(2)	6/8/23	10:52	2	Soil																	2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X																1	
DF-HA-25(1)		15:00	1																		2	
DF-HA-25(2)		15:10	3																		2	
DF-HA-21(2)		9:25	2																		3	
DF-HA-18(1)		9:02	1		X																1	
DF-HA-16(2)		10:05	2																		1	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <i>[Signature]</i> Print <i>McCurrie Cleve</i> Firm <i>H&A</i> Date <i>6/9/23</i> Time <i>9:27</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Relinquished by	Received by	SOLID	
Sign <i>[Signature]</i> Print <i>Randee Arrington</i> Firm <i>ESTNW</i> Date <i>6/9/23</i> Time <i>0927</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

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If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016

Eurofins Spokane

11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Arrington, Randee E			Carrier Tracking No(s):			COC No: 590-7943.1			
Client Contact: Shipping/Receiving		Phone:		E-Mail: Randee.Arrington@et.eurofinsus.com			State of Origin: Washington			Page: Page 1 of 1			
Company: Eurofins Environment Testing Northwest,				Accreditations Required (See note): State Program - Washington						Job #: 590-20747-1			
Address: 5755 8th Street East, City: Tacoma State, Zip: WA, 98424		Due Date Requested: 6/22/2023		Analysis Requested						Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)			
City: Tacoma		TAT Requested (days):											
State, Zip: WA, 98424		PO #:											
Phone: 253-922-2310(Tel)		WO #:											
Email:													
Project Name: POM Historic Debris Field/0203154-013		Project #: 59002301											
Site:		SSOW#:											
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:		Special Instructions/Note:	
DF-HA-20(10 (590-20747-11))		6/7/23		15:55 Pacific		Solid				X			

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:	

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [Signature]	Date/Time: 6/9/23 15:50	Company: [Signature]	Received by: [Signature] Date/Time: 6/15/23 0940 Company: [Signature]
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 829 4.3/4.6
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Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-1

Login Number: 20747

List Source: Eurofins Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-1

Login Number: 20747

List Number: 3

Creator: Martinez, Anthony

List Source: Eurofins Denver

List Creation: 06/10/23 02:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-1

Login Number: 20747

List Number: 2

Creator: Groves, Elizabeth

List Source: Eurofins Seattle

List Creation: 06/10/23 11:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9 4.3/4.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205

Spokane, Washington 99201

Generated 6/20/2023 11:38:55 AM Revision 1

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-2

Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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6/20/2023 11:38:55 AM
Revision 1

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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Job ID: 590-20747-2

Laboratory: Eurofins Spokane

Narrative

Revision

The report being provided is a revision of the original report sent on 6/19/2023. The report (revision 1) is being revised due to: An extra 0 added to a sample ID, and needs to be removed.

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): DF-HA-18(3) (590-20747-38). Sample has been placed on hold.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42042 recovered outside acceptance criteria, low biased, for Hexachlorobutadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20747-11	DF-HA-20(1)	Solid	06/07/23 15:55	06/09/23 09:27
590-20747-18	DF-HA-19(1)	Solid	06/07/23 15:48	06/09/23 09:27
590-20747-28	DF-HA-21(1)	Solid	06/08/23 08:30	06/09/23 09:27

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.29	0.080	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Chloromethane	ND		1.4	0.12	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Vinyl chloride	ND		0.17	0.058	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Bromomethane	ND		1.4	0.095	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Chloroethane	ND		0.57	0.16	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Trichlorofluoromethane	ND		0.57	0.094	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1-Dichloroethene	ND		0.29	0.098	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Methylene Chloride	ND		1.0	0.57	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
trans-1,2-Dichloroethene	ND		0.29	0.066	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1-Dichloroethane	ND		0.29	0.076	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
2,2-Dichloropropane	ND		0.29	0.070	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
cis-1,2-Dichloroethene	ND		0.29	0.060	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Bromochloromethane	ND		0.29	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Chloroform	ND		0.29	0.067	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1,1-Trichloroethane	ND		0.29	0.050	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Carbon tetrachloride	ND		0.29	0.032	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1-Dichloropropene	ND		0.29	0.050	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Benzene	ND		0.057	0.029	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,2-Dichloroethane	ND		0.29	0.020	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Trichloroethene	ND		0.072	0.022	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,2-Dichloropropane	ND		0.34	0.087	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Dibromomethane	ND		0.29	0.064	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Bromodichloromethane	ND		0.29	0.18	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
cis-1,3-Dichloropropene	ND		0.29	0.058	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Toluene	ND		0.29	0.038	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
trans-1,3-Dichloropropene	ND		0.29	0.075	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1,2-Trichloroethane	ND		0.29	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Tetrachloroethene	ND		0.11	0.050	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,3-Dichloropropane	ND		0.29	0.085	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Dibromochloromethane	ND		0.57	0.046	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,2-Dibromoethane (EDB)	ND		0.29	0.096	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Chlorobenzene	ND		0.29	0.059	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Ethylbenzene	ND		0.29	0.046	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1,1,2-Tetrachloroethane	ND		0.29	0.055	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,1,2,2-Tetrachloroethane	ND		0.29	0.083	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
m,p-Xylene	ND		1.1	0.082	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
o-Xylene	ND		0.57	0.066	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Styrene	ND		0.29	0.068	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Bromoform	ND		0.57	0.055	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Isopropylbenzene	ND		0.29	0.088	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
Bromobenzene	ND		0.29	0.064	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
N-Propylbenzene	ND		0.29	0.076	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,2,3-Trichloropropane	ND		0.57	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
2-Chlorotoluene	ND		0.29	0.047	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,3,5-Trimethylbenzene	ND		0.29	0.092	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
4-Chlorotoluene	ND		0.29	0.025	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
tert-Butylbenzene	ND		0.29	0.056	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
1,2,4-Trimethylbenzene	ND		0.29	0.067	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1
sec-Butylbenzene	ND		0.29	0.053	mg/Kg	☼	06/17/23 11:58	06/17/23 18:15	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-20(1)

Lab Sample ID: 590-20747-11

Date Collected: 06/07/23 15:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.29	0.036	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
p-Isopropyltoluene	ND		0.29	0.058	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
1,4-Dichlorobenzene	ND		0.29	0.059	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
n-Butylbenzene	ND		0.29	0.079	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
1,2-Dichlorobenzene	ND		0.29	0.067	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
1,2-Dibromo-3-Chloropropane	ND		1.4	0.17	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
1,2,4-Trichlorobenzene	ND		0.29	0.053	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
1,2,3-Trichlorobenzene	ND		0.29	0.096	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
Hexachlorobutadiene	ND		0.29	0.047	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
Naphthalene	ND		0.57	0.080	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
Methyl tert-butyl ether	ND		0.14	0.086	mg/Kg	✱	06/17/23 11:58	06/17/23 18:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120				06/17/23 11:58	06/17/23 18:15	1
4-Bromofluorobenzene (Surr)	102		66 - 129				06/17/23 11:58	06/17/23 18:15	1
Dibromofluoromethane (Surr)	100		80 - 120				06/17/23 11:58	06/17/23 18:15	1
1,2-Dichloroethane-d4 (Surr)	98		79 - 124				06/17/23 11:58	06/17/23 18:15	1

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.38	0.11	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Chloromethane	ND		1.9	0.16	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Vinyl chloride	ND		0.23	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Bromomethane	ND		1.9	0.13	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Chloroethane	ND		0.76	0.21	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Trichlorofluoromethane	ND		0.76	0.12	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,1-Dichloroethene	ND		0.38	0.13	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Methylene Chloride	ND		1.3	0.76	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
trans-1,2-Dichloroethene	ND		0.38	0.087	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,1-Dichloroethane	ND		0.38	0.10	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
2,2-Dichloropropane	ND		0.38	0.092	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
cis-1,2-Dichloroethene	ND		0.38	0.079	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Bromochloromethane	ND		0.38	0.15	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Chloroform	ND		0.38	0.089	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,1,1-Trichloroethane	ND		0.38	0.066	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Carbon tetrachloride	ND		0.38	0.042	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,1-Dichloropropene	ND		0.38	0.066	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Benzene	ND		0.076	0.038	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,2-Dichloroethane	ND		0.38	0.027	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Trichloroethene	0.48		0.095	0.029	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
1,2-Dichloropropane	ND		0.45	0.11	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Dibromomethane	ND		0.38	0.085	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Bromodichloromethane	ND		0.38	0.24	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
cis-1,3-Dichloropropene	ND		0.38	0.077	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
Toluene	ND		0.38	0.050	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1
trans-1,3-Dichloropropene	ND		0.38	0.10	mg/Kg	✱	06/17/23 11:58	06/17/23 18:36	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-19(1)

Lab Sample ID: 590-20747-18

Date Collected: 06/07/23 15:48

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.38	0.13	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Tetrachloroethene	ND		0.15	0.067	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,3-Dichloropropane	ND		0.38	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Dibromochloromethane	ND		0.76	0.061	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2-Dibromoethane (EDB)	ND		0.38	0.13	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Chlorobenzene	ND		0.38	0.078	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Ethylbenzene	ND		0.38	0.061	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,1,1,2-Tetrachloroethane	ND		0.38	0.073	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,1,2,2-Tetrachloroethane	ND		0.38	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
m,p-Xylene	ND		1.5	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
o-Xylene	ND		0.76	0.087	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Styrene	ND		0.38	0.089	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Bromoform	ND		0.76	0.072	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Isopropylbenzene	ND		0.38	0.12	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Bromobenzene	ND		0.38	0.085	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
N-Propylbenzene	ND		0.38	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2,3-Trichloropropane	ND		0.76	0.14	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
2-Chlorotoluene	ND		0.38	0.062	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,3,5-Trimethylbenzene	ND		0.38	0.12	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
4-Chlorotoluene	ND		0.38	0.033	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
tert-Butylbenzene	ND		0.38	0.074	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2,4-Trimethylbenzene	ND		0.38	0.089	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
sec-Butylbenzene	ND		0.38	0.070	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,3-Dichlorobenzene	ND		0.38	0.048	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
p-Isopropyltoluene	ND		0.38	0.077	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,4-Dichlorobenzene	ND		0.38	0.078	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
n-Butylbenzene	ND		0.38	0.10	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2-Dichlorobenzene	ND		0.38	0.088	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2-Dibromo-3-Chloropropane	ND		1.9	0.23	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2,4-Trichlorobenzene	ND		0.38	0.070	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
1,2,3-Trichlorobenzene	ND		0.38	0.13	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Hexachlorobutadiene	ND		0.38	0.062	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Naphthalene	ND		0.76	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1
Methyl tert-butyl ether	ND		0.19	0.11	mg/Kg	☼	06/17/23 11:58	06/17/23 18:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120	06/17/23 11:58	06/17/23 18:36	1
4-Bromofluorobenzene (Surr)	104		66 - 129	06/17/23 11:58	06/17/23 18:36	1
Dibromofluoromethane (Surr)	99		80 - 120	06/17/23 11:58	06/17/23 18:36	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	06/17/23 11:58	06/17/23 18:36	1

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.22	0.061	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Chloromethane	ND		1.1	0.090	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Vinyl chloride	ND		0.13	0.044	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.1	0.071	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Chloroethane	ND		0.43	0.12	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Trichlorofluoromethane	ND		0.43	0.071	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1-Dichloroethene	ND		0.22	0.074	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Methylene Chloride	ND		0.76	0.43	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
trans-1,2-Dichloroethene	ND		0.22	0.049	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1-Dichloroethane	ND		0.22	0.057	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
2,2-Dichloropropane	ND		0.22	0.052	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
cis-1,2-Dichloroethene	ND		0.22	0.045	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Bromochloromethane	ND		0.22	0.086	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Chloroform	ND		0.22	0.051	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1,1-Trichloroethane	ND		0.22	0.037	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Carbon tetrachloride	ND		0.22	0.024	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1-Dichloropropene	ND		0.22	0.038	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Benzene	ND		0.043	0.022	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,2-Dichloroethane	ND		0.22	0.015	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Trichloroethene	ND		0.054	0.016	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,2-Dichloropropane	ND		0.26	0.065	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Dibromomethane	ND		0.22	0.048	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Bromodichloromethane	ND		0.22	0.13	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
cis-1,3-Dichloropropene	ND		0.22	0.044	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Toluene	ND		0.22	0.029	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
trans-1,3-Dichloropropene	ND		0.22	0.057	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1,2-Trichloroethane	ND		0.22	0.076	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Tetrachloroethene	ND		0.086	0.038	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,3-Dichloropropane	ND		0.22	0.064	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Dibromochloromethane	ND		0.43	0.035	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,2-Dibromoethane (EDB)	ND		0.22	0.072	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Chlorobenzene	ND		0.22	0.045	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Ethylbenzene	ND		0.22	0.035	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1,1,2-Tetrachloroethane	ND		0.22	0.041	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,1,2,2-Tetrachloroethane	ND		0.22	0.063	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
m,p-Xylene	ND		0.86	0.062	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
o-Xylene	ND		0.43	0.050	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Styrene	ND		0.22	0.051	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Bromoform	ND		0.43	0.041	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Isopropylbenzene	ND		0.22	0.067	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
Bromobenzene	ND		0.22	0.048	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
N-Propylbenzene	ND		0.22	0.057	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,2,3-Trichloropropane	ND		0.43	0.079	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
2-Chlorotoluene	ND		0.22	0.035	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,3,5-Trimethylbenzene	ND		0.22	0.069	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
4-Chlorotoluene	ND		0.22	0.019	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
tert-Butylbenzene	ND		0.22	0.042	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,2,4-Trimethylbenzene	ND		0.22	0.050	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
sec-Butylbenzene	ND		0.22	0.040	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,3-Dichlorobenzene	ND		0.22	0.027	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
p-Isopropyltoluene	0.12	J	0.22	0.044	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1
1,4-Dichlorobenzene	ND		0.22	0.044	mg/Kg	✳	06/17/23 11:58	06/17/23 18:57	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-21(1)

Lab Sample ID: 590-20747-28

Date Collected: 06/08/23 08:30

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	0.14	J	0.22	0.059	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
1,2-Dichlorobenzene	ND		0.22	0.050	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
1,2-Dibromo-3-Chloropropane	ND		1.1	0.13	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
1,2,4-Trichlorobenzene	ND		0.22	0.040	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
1,2,3-Trichlorobenzene	ND		0.22	0.072	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Hexachlorobutadiene	ND		0.22	0.035	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Naphthalene	ND		0.43	0.060	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Methyl tert-butyl ether	ND		0.11	0.065	mg/Kg	☼	06/17/23 11:58	06/17/23 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120				06/17/23 11:58	06/17/23 18:57	1
4-Bromofluorobenzene (Surr)	101		66 - 129				06/17/23 11:58	06/17/23 18:57	1
Dibromofluoromethane (Surr)	100		80 - 120				06/17/23 11:58	06/17/23 18:57	1
1,2-Dichloroethane-d4 (Surr)	103		79 - 124				06/17/23 11:58	06/17/23 18:57	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-42037/1-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42037

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Chloromethane	ND		0.50	0.042	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Bromomethane	ND		0.50	0.033	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Chloroethane	ND		0.20	0.056	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Chloroform	ND		0.10	0.024	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Benzene	ND		0.020	0.010	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Dibromomethane	ND		0.10	0.022	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Toluene	ND		0.10	0.013	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
o-Xylene	ND		0.20	0.023	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Styrene	ND		0.10	0.024	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Bromoform	ND		0.20	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Bromobenzene	ND		0.10	0.022	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		06/17/23 11:58	06/17/23 14:02	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42037/1-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42037

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Naphthalene	ND		0.20	0.028	mg/Kg		06/17/23 11:58	06/17/23 14:02	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		06/17/23 11:58	06/17/23 14:02	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	99		80 - 120	06/17/23 11:58	06/17/23 14:02	1
4-Bromofluorobenzene (Surr)	102		66 - 129	06/17/23 11:58	06/17/23 14:02	1
Dibromofluoromethane (Surr)	101		80 - 120	06/17/23 11:58	06/17/23 14:02	1
1,2-Dichloroethane-d4 (Surr)	100		79 - 124	06/17/23 11:58	06/17/23 14:02	1

Lab Sample ID: LCS 590-42037/2-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloromethane	0.500	0.367	J	mg/Kg		73	29 - 150
Vinyl chloride	0.500	0.441		mg/Kg		88	38 - 150
Bromomethane	0.500	0.396	J	mg/Kg		79	39 - 150
Chloroethane	0.500	0.408		mg/Kg		82	38 - 150
Trichlorofluoromethane	0.500	0.449		mg/Kg		90	45 - 150
1,1-Dichloroethene	0.500	0.478		mg/Kg		96	50 - 150
Methylene Chloride	0.500	0.497		mg/Kg		99	42 - 150
trans-1,2-Dichloroethene	0.500	0.505		mg/Kg		101	75 - 140
1,1-Dichloroethane	0.500	0.474		mg/Kg		95	79 - 133
2,2-Dichloropropane	0.500	0.489		mg/Kg		98	50 - 150
cis-1,2-Dichloroethene	0.500	0.502		mg/Kg		100	78 - 132
Bromochloromethane	0.500	0.455		mg/Kg		91	67 - 138
Chloroform	0.500	0.477		mg/Kg		95	80 - 131
1,1,1-Trichloroethane	0.500	0.500		mg/Kg		100	59 - 150
Carbon tetrachloride	0.500	0.433		mg/Kg		87	61 - 150
1,1-Dichloropropene	0.500	0.502		mg/Kg		100	80 - 131
Benzene	0.500	0.472		mg/Kg		94	80 - 128
1,2-Dichloroethane	0.500	0.445		mg/Kg		89	77 - 126
Trichloroethene	0.500	0.456		mg/Kg		91	80 - 129
1,2-Dichloropropane	0.500	0.458		mg/Kg		92	71 - 136
Dibromomethane	0.500	0.420		mg/Kg		84	76 - 121
Bromodichloromethane	0.500	0.443		mg/Kg		89	79 - 122
cis-1,3-Dichloropropene	0.500	0.452		mg/Kg		90	71 - 123

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42037/2-A
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.506		mg/Kg		101	79 - 130
trans-1,3-Dichloropropene	0.500	0.468		mg/Kg		94	68 - 133
1,1,2-Trichloroethane	0.500	0.438		mg/Kg		88	74 - 131
Tetrachloroethene	0.500	0.469		mg/Kg		94	76 - 142
1,3-Dichloropropane	0.500	0.454		mg/Kg		91	73 - 125
Dibromochloromethane	0.500	0.406		mg/Kg		81	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.444		mg/Kg		89	76 - 126
Chlorobenzene	0.500	0.457		mg/Kg		91	80 - 124
Ethylbenzene	0.500	0.472		mg/Kg		94	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.455		mg/Kg		91	76 - 139
1,1,1,2-Tetrachloroethane	0.500	0.478		mg/Kg		96	66 - 130
m,p-Xylene	0.500	0.510		mg/Kg		102	80 - 131
o-Xylene	0.500	0.492		mg/Kg		98	78 - 128
Styrene	0.500	0.493		mg/Kg		99	76 - 128
Bromoform	0.500	0.434		mg/Kg		87	49 - 150
Isopropylbenzene	0.500	0.491		mg/Kg		98	79 - 134
Bromobenzene	0.500	0.466		mg/Kg		93	70 - 129
N-Propylbenzene	0.500	0.519		mg/Kg		104	71 - 136
1,2,3-Trichloropropane	0.500	0.496		mg/Kg		99	61 - 138
2-Chlorotoluene	0.500	0.501		mg/Kg		100	73 - 131
1,3,5-Trimethylbenzene	0.500	0.525		mg/Kg		105	76 - 130
4-Chlorotoluene	0.500	0.483		mg/Kg		97	76 - 128
tert-Butylbenzene	0.500	0.500		mg/Kg		100	74 - 129
1,2,4-Trimethylbenzene	0.500	0.510		mg/Kg		102	78 - 128
sec-Butylbenzene	0.500	0.519		mg/Kg		104	78 - 132
1,3-Dichlorobenzene	0.500	0.461		mg/Kg		92	80 - 121
p-Isopropyltoluene	0.500	0.523		mg/Kg		105	79 - 128
1,4-Dichlorobenzene	0.500	0.464		mg/Kg		93	80 - 122
n-Butylbenzene	0.500	0.492		mg/Kg		98	75 - 128
1,2-Dichlorobenzene	0.500	0.451		mg/Kg		90	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.445	J	mg/Kg		89	49 - 143
1,2,4-Trichlorobenzene	0.500	0.437		mg/Kg		87	73 - 129
1,2,3-Trichlorobenzene	0.500	0.413		mg/Kg		83	72 - 130
Hexachlorobutadiene	0.500	0.420		mg/Kg		84	75 - 136
Naphthalene	0.500	0.443		mg/Kg		89	57 - 131
Methyl tert-butyl ether	0.500	0.453		mg/Kg		91	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	99		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		79 - 124

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-20747-28 MS
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: DF-HA-21(1)
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	ND		1.08	1.17		mg/Kg	*	108	14 - 120
Chloromethane	ND		1.08	0.942	J	mg/Kg	*	87	29 - 150
Vinyl chloride	ND		1.08	1.22		mg/Kg	*	113	38 - 150
Bromomethane	ND		1.08	1.01	J	mg/Kg	*	94	39 - 150
Chloroethane	ND		1.08	1.26		mg/Kg	*	117	38 - 150
Trichlorofluoromethane	ND		1.08	1.22		mg/Kg	*	113	45 - 150
1,1-Dichloroethene	ND		1.08	1.15		mg/Kg	*	107	50 - 150
Methylene Chloride	ND		1.08	1.09		mg/Kg	*	101	42 - 150
trans-1,2-Dichloroethene	ND		1.08	1.20		mg/Kg	*	111	75 - 140
1,1-Dichloroethane	ND		1.08	1.13		mg/Kg	*	105	79 - 133
2,2-Dichloropropane	ND		1.08	0.955		mg/Kg	*	89	50 - 150
cis-1,2-Dichloroethene	ND		1.08	1.18		mg/Kg	*	109	78 - 132
Bromochloromethane	ND		1.08	1.13		mg/Kg	*	104	67 - 138
Chloroform	ND		1.08	1.13		mg/Kg	*	105	80 - 131
1,1,1-Trichloroethane	ND		1.08	1.13		mg/Kg	*	105	59 - 150
Carbon tetrachloride	ND		1.08	0.974		mg/Kg	*	90	61 - 150
1,1-Dichloropropene	ND		1.08	1.21		mg/Kg	*	112	80 - 131
Benzene	ND		1.08	1.14		mg/Kg	*	106	80 - 128
1,2-Dichloroethane	ND		1.08	1.09		mg/Kg	*	101	77 - 126
Trichloroethene	ND		1.08	1.07		mg/Kg	*	99	80 - 129
1,2-Dichloropropane	ND		1.08	1.13		mg/Kg	*	105	71 - 136
Dibromomethane	ND		1.08	1.06		mg/Kg	*	99	76 - 121
Bromodichloromethane	ND		1.08	1.04		mg/Kg	*	96	79 - 122
cis-1,3-Dichloropropene	ND		1.08	1.05		mg/Kg	*	98	71 - 123
Toluene	ND		1.08	1.13		mg/Kg	*	105	79 - 130
trans-1,3-Dichloropropene	ND		1.08	1.15		mg/Kg	*	106	68 - 133
1,1,2-Trichloroethane	ND		1.08	1.06		mg/Kg	*	98	74 - 131
Tetrachloroethene	ND		1.08	1.07		mg/Kg	*	99	76 - 142
1,3-Dichloropropane	ND		1.08	1.09		mg/Kg	*	101	73 - 125
Dibromochloromethane	ND		1.08	0.988		mg/Kg	*	92	70 - 132
1,2-Dibromoethane (EDB)	ND		1.08	1.04		mg/Kg	*	96	76 - 126
Chlorobenzene	ND		1.08	1.06		mg/Kg	*	99	80 - 124
Ethylbenzene	ND		1.08	1.10		mg/Kg	*	102	80 - 127
1,1,1,2-Tetrachloroethane	ND		1.08	1.05		mg/Kg	*	97	76 - 139
1,1,2,2-Tetrachloroethane	ND		1.08	1.12		mg/Kg	*	104	66 - 130
m,p-Xylene	ND		1.08	1.18		mg/Kg	*	109	80 - 131
o-Xylene	ND		1.08	1.21		mg/Kg	*	112	78 - 128
Styrene	ND		1.08	1.14		mg/Kg	*	106	76 - 128
Bromoform	ND		1.08	1.01		mg/Kg	*	93	49 - 150
Isopropylbenzene	ND		1.08	1.20		mg/Kg	*	111	79 - 134
Bromobenzene	ND		1.08	1.09		mg/Kg	*	101	70 - 129
N-Propylbenzene	ND		1.08	1.22		mg/Kg	*	113	71 - 136
1,2,3-Trichloropropane	ND		1.08	1.18		mg/Kg	*	110	61 - 138
2-Chlorotoluene	ND		1.08	0.968		mg/Kg	*	90	73 - 131
1,3,5-Trimethylbenzene	ND		1.08	1.26		mg/Kg	*	117	76 - 130
4-Chlorotoluene	ND		1.08	1.16		mg/Kg	*	107	76 - 128
tert-Butylbenzene	ND		1.08	1.20		mg/Kg	*	111	74 - 129
1,2,4-Trimethylbenzene	ND		1.08	1.23		mg/Kg	*	114	78 - 128

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-20747-28 MS
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: DF-HA-21(1)
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
sec-Butylbenzene	ND		1.08	1.29		mg/Kg	☼	120	78 - 132		
1,3-Dichlorobenzene	ND		1.08	1.10		mg/Kg	☼	102	80 - 121		
p-Isopropyltoluene	0.12	J	1.08	1.47		mg/Kg	☼	125	79 - 128		
1,4-Dichlorobenzene	ND		1.08	1.10		mg/Kg	☼	102	80 - 122		
n-Butylbenzene	0.14	J	1.08	1.30		mg/Kg	☼	107	75 - 128		
1,2-Dichlorobenzene	ND		1.08	1.09		mg/Kg	☼	101	80 - 121		
1,2-Dibromo-3-Chloropropane	ND		1.08	0.965	J	mg/Kg	☼	89	49 - 143		
1,2,4-Trichlorobenzene	ND		1.08	0.995		mg/Kg	☼	92	73 - 129		
1,2,3-Trichlorobenzene	ND		1.08	0.948		mg/Kg	☼	88	72 - 130		
Hexachlorobutadiene	ND		1.08	1.03		mg/Kg	☼	95	75 - 136		
Naphthalene	ND		1.08	1.05		mg/Kg	☼	98	57 - 131		
Methyl tert-butyl ether	ND		1.08	1.06		mg/Kg	☼	98	69 - 132		
MS MS											
Surrogate	%Recovery	Qualifier	Limits								
Toluene-d8 (Surr)	101		80 - 120								
4-Bromofluorobenzene (Surr)	99		66 - 129								
Dibromofluoromethane (Surr)	100		80 - 120								
1,2-Dichloroethane-d4 (Surr)	101		79 - 124								

Lab Sample ID: 590-20747-28 MSD
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: DF-HA-21(1)
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit	
Dichlorodifluoromethane	ND		1.08	1.09		mg/Kg	☼	101	14 - 120		7	40
Chloromethane	ND		1.08	0.854	J	mg/Kg	☼	79	29 - 150		10	40
Vinyl chloride	ND		1.08	1.16		mg/Kg	☼	108	38 - 150		5	40
Bromomethane	ND		1.08	0.927	J	mg/Kg	☼	86	39 - 150		8	40
Chloroethane	ND		1.08	0.995		mg/Kg	☼	92	38 - 150		24	40
Trichlorofluoromethane	ND		1.08	1.14		mg/Kg	☼	106	45 - 150		7	37
1,1-Dichloroethene	ND		1.08	1.12		mg/Kg	☼	104	50 - 150		3	37
Methylene Chloride	ND		1.08	1.02		mg/Kg	☼	95	42 - 150		6	39
trans-1,2-Dichloroethene	ND		1.08	1.11		mg/Kg	☼	103	75 - 140		8	23
1,1-Dichloroethane	ND		1.08	1.01		mg/Kg	☼	93	79 - 133		12	17
2,2-Dichloropropane	ND		1.08	0.974		mg/Kg	☼	90	50 - 150		2	31
cis-1,2-Dichloroethene	ND		1.08	1.08		mg/Kg	☼	100	78 - 132		9	19
Bromochloromethane	ND		1.08	1.01		mg/Kg	☼	94	67 - 138		11	29
Chloroform	ND		1.08	1.02		mg/Kg	☼	94	80 - 131		11	20
1,1,1-Trichloroethane	ND		1.08	1.07		mg/Kg	☼	99	59 - 150		6	31
Carbon tetrachloride	ND		1.08	0.921		mg/Kg	☼	85	61 - 150		6	36
1,1-Dichloropropene	ND		1.08	1.10		mg/Kg	☼	102	80 - 131		9	20
Benzene	ND		1.08	1.05		mg/Kg	☼	97	80 - 128		9	17
1,2-Dichloroethane	ND		1.08	1.05		mg/Kg	☼	97	77 - 126		4	18
Trichloroethene	ND		1.08	1.03		mg/Kg	☼	95	80 - 129		5	17
1,2-Dichloropropane	ND		1.08	1.06		mg/Kg	☼	98	71 - 136		7	22
Dibromomethane	ND		1.08	1.02		mg/Kg	☼	95	76 - 121		4	20
Bromodichloromethane	ND		1.08	0.994		mg/Kg	☼	92	79 - 122		4	20
cis-1,3-Dichloropropene	ND		1.08	1.00		mg/Kg	☼	93	71 - 123		5	20

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-20747-28 MSD
Matrix: Solid
Analysis Batch: 42042

Client Sample ID: DF-HA-21(1)
Prep Type: Total/NA
Prep Batch: 42037

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Toluene	ND		1.08	1.07		mg/Kg	*	99	79 - 130	5	21
trans-1,3-Dichloropropene	ND		1.08	1.10		mg/Kg	*	102	68 - 133	5	22
1,1,2-Trichloroethane	ND		1.08	1.05		mg/Kg	*	97	74 - 131	1	20
Tetrachloroethene	ND		1.08	1.04		mg/Kg	*	96	76 - 142	3	19
1,3-Dichloropropane	ND		1.08	1.07		mg/Kg	*	100	73 - 125	2	18
Dibromochloromethane	ND		1.08	0.987		mg/Kg	*	92	70 - 132	0	20
1,2-Dibromoethane (EDB)	ND		1.08	1.11		mg/Kg	*	103	76 - 126	6	20
Chlorobenzene	ND		1.08	1.02		mg/Kg	*	95	80 - 124	4	18
Ethylbenzene	ND		1.08	1.06		mg/Kg	*	98	80 - 127	4	19
1,1,1,2-Tetrachloroethane	ND		1.08	1.02		mg/Kg	*	95	76 - 139	2	23
1,1,1,2,2-Tetrachloroethane	ND		1.08	1.15		mg/Kg	*	107	66 - 130	3	23
m,p-Xylene	ND		1.08	1.11		mg/Kg	*	103	80 - 131	5	19
o-Xylene	ND		1.08	1.17		mg/Kg	*	109	78 - 128	3	19
Styrene	ND		1.08	1.16		mg/Kg	*	107	76 - 128	1	19
Bromoform	ND		1.08	1.05		mg/Kg	*	97	49 - 150	4	23
Isopropylbenzene	ND		1.08	1.16		mg/Kg	*	108	79 - 134	3	19
Bromobenzene	ND		1.08	1.03		mg/Kg	*	95	70 - 129	6	23
N-Propylbenzene	ND		1.08	1.12		mg/Kg	*	103	71 - 136	9	20
1,2,3-Trichloropropane	ND		1.08	1.20		mg/Kg	*	111	61 - 138	1	28
2-Chlorotoluene	ND		1.08	1.14		mg/Kg	*	106	73 - 131	17	21
1,3,5-Trimethylbenzene	ND		1.08	1.20		mg/Kg	*	111	76 - 130	5	18
4-Chlorotoluene	ND		1.08	1.08		mg/Kg	*	100	76 - 128	7	20
tert-Butylbenzene	ND		1.08	1.15		mg/Kg	*	106	74 - 129	4	21
1,2,4-Trimethylbenzene	ND		1.08	1.17		mg/Kg	*	109	78 - 128	4	19
sec-Butylbenzene	ND		1.08	1.23		mg/Kg	*	114	78 - 132	5	20
1,3-Dichlorobenzene	ND		1.08	1.02		mg/Kg	*	95	80 - 121	7	19
p-Isopropyltoluene	0.12	J	1.08	1.37		mg/Kg	*	116	79 - 128	7	20
1,4-Dichlorobenzene	ND		1.08	1.05		mg/Kg	*	98	80 - 122	4	18
n-Butylbenzene	0.14	J	1.08	1.23		mg/Kg	*	101	75 - 128	5	21
1,2-Dichlorobenzene	ND		1.08	1.03		mg/Kg	*	95	80 - 121	6	21
1,2-Dibromo-3-Chloropropane	ND		1.08	0.938	J	mg/Kg	*	87	49 - 143	3	33
1,2,4-Trichlorobenzene	ND		1.08	0.938		mg/Kg	*	87	73 - 129	6	29
1,2,3-Trichlorobenzene	ND		1.08	0.960		mg/Kg	*	89	72 - 130	1	31
Hexachlorobutadiene	ND		1.08	0.948		mg/Kg	*	88	75 - 136	8	29
Naphthalene	ND		1.08	1.09		mg/Kg	*	101	57 - 131	3	34
Methyl tert-butyl ether	ND		1.08	1.09		mg/Kg	*	101	69 - 132	3	32

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	100		80 - 120
4-Bromofluorobenzene (Surr)	97		66 - 129
Dibromofluoromethane (Surr)	96		80 - 120
1,2-Dichloroethane-d4 (Surr)	99		79 - 124

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Client Sample ID: DF-HA-20(1)

Date Collected: 06/07/23 15:55

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-11

Matrix: Solid

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.91 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 18:15	JSP	EET SPK

Client Sample ID: DF-HA-19(1)

Date Collected: 06/07/23 15:48

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-18

Matrix: Solid

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.265 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 18:36	JSP	EET SPK

Client Sample ID: DF-HA-21(1)

Date Collected: 06/08/23 08:30

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-28

Matrix: Solid

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.372 g	10 mL	42037	06/17/23 11:58	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42042	06/17/23 18:57	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Laboratory: Eurofins Spokane

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-2

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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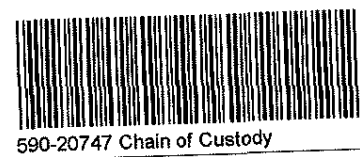
12

CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA & Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: <i>Ward McDonald</i> Print: <i>Ward McDonald</i> Firm: <i>HA A</i> Date: <i>6/12/23</i> Time: <i>9:27</i>	Sign: <i>Randee Arrington</i> Print: <i>Randee Arrington</i> Firm: <i>EETMW</i> Date: <i>6/12/23</i> Time: <i>09:27</i>		
Relinquished by	Received by	SOLID	
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____		
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	



<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1 <input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2 <input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3 <input type="checkbox"/> RC-GW2</p>
--	--



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRP-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X							4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft														4	
DF-HA-20 (2)		16:05	2 ft														4	
DF-HA-20 (4)		16:55	4 ft														4	
DF-HA-19 (4)		16:55	4 ft														3	
DF-HA-19 (3)		16:30	3 ft														3	
DF-HA-19 (2)		16:05	2 ft														3	
DF-HA-12 (1)		15:48	1 ft		X	X											3	
DF-HA-8 (2)		12:00	2 ft														1	
DF-HA-8 (1)		11:45	1 ft		X												1	

Sampled and Relinquished by		Received by		LIQUID											Sampling Comments			
Sign <i>Maryn Clark</i>	Print Maryn Clark	Sign	Print															VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm H&A	Date 6/17/23	Firm	Date															
Time 7:27		Time																
Relinquished by		Received by		SOLID														
Sign <i>Rande Arrington</i>	Print Rande Arrington	Sign	Print															VOA Vial Amber Glass Clear Glass Preservative Volume
Firm EETNW	Date 6/19/23	Firm	Date															
Time 09:27		Time																
Relinquished by		Received by		PRESERVATION KEY											Evidence samples were tampered with? YES NO			
Sign	Print	Sign	Print												If YES, please explain in section below			
Firm	Date	Firm	Date															
Time		Time																

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil												2		
DF-HA-24 (1)	6/8/23	13:37	1													2		
DF-HA-26 (35)		15:20	3.5													2		
DF-HA-22 (3)		11:22	3													1		
DF-HA-26 (1)		15:25	1													2		
DF-HA-16 (1)		10:00	1													1		
DF-HA-21 (1)		8:30	1													3		
DF-HA-18 (2)		9:22	2													1		
DF-HA-16 (3)		10:08	3													1		

Sampled and Relinquished by		Received by		LIQUID										Sampling Comments			
Sign <i>[Signature]</i>	Print <i>Mercedes Cleve</i>	Sign	Print													VOA Vial	Evidence samples were tampered with? YES NO If YES, please explain in section below
Firm <i>HA</i>	Date <i>6/9/23</i> Time <i>9:27</i>	Firm	Date													Amber Glass	
																Plastic Bottle	
Relinquished by		Received by		SOLID													
Sign <i>[Signature]</i>	Print <i>Rande Arrington</i>	Sign	Print													Preservative	
Firm <i>ETAKE</i>	Date <i>6/9/23</i> Time <i>027</i>	Firm	Date													Volume	
																VOA Vial	
Relinquished by		Received by		PRESERVATION KEY													
Sign	Print	Sign	Print	A	B	C	D	E	F	G	H						
Firm	Date	Firm	Date	Sample chilled	Sample filtered	NaOH	HNO ₃	H ₂ SO ₄	HCL	Methanol	Water/NaHSO ₄ (circle)						

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.
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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 4 of 4

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Nitrotest Method NITPH-Dx	Organohalogen Pesticides EPA Method 808	PCB EPA Method 8082									
DF-HA-22(2)	6/8/23	10:52	2	Soil														2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X													1	
DF-HA-25(1)		15:00	1															1	
DF-HA-25(2)		15:10	3															2	
DF-HA-21(2)		9:25	2															3	
DF-HA-18(1)		9:02	1		X													1	
DF-HA-16(2)		10:05	2															1	

Sampled and Relinquished by <i>Ward McDonald</i>	Received by <i>Ward McDonald</i>	LIQUID	Sampling Comments
Sign Print Firm Date 6/19/23 Time 9:27	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Sampled and Relinquished by <i>Randee Arrington</i>	Received by <i>Randee Arrington</i>	SOLID	
Sign Print Firm Date 6/19/23 Time 09:27	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date	Sign Print Firm Date	A Sample chilled B Sample filtered C NaOH D HNO3 E H2SO4 F HCL G Methanol H Water/NaHSO4 (circle)	

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
--	---

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-2

Login Number: 20747

List Number: 1

Creator: Arrington, Randee E

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 6/23/2023 3:32:21 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-4

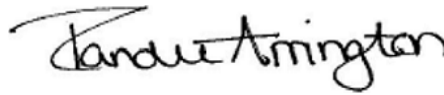
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
6/23/2023 3:32:21 PM

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Job ID: 590-20747-4

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42075 recovered outside acceptance criteria, low biased, for Bromomethane, Carbon tetrachloride and Hexachlorobutadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D: Reanalysis of the following sample was performed outside of the analytical holding time due to QC failure: DF-HA-19(2) (590-20747-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 7471B: The sample duplicate (DUP) precision for preparation batch 590-42123 and analytical batch 590-42144 was outside control limits. Sample matrix interference is suspected.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-20747-17	DF-HA-19(2)	Solid	06/07/23 16:03	06/09/23 09:27

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Client Sample ID: DF-HA-19(2)

Lab Sample ID: 590-20747-17

Date Collected: 06/07/23 16:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 88.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.25	0.069	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Chloromethane	ND		1.2	0.10	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Vinyl chloride	ND		0.15	0.050	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Bromomethane	ND		1.2	0.081	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Chloroethane	ND		0.49	0.14	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Trichlorofluoromethane	ND		0.49	0.081	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1-Dichloroethene	ND		0.25	0.084	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Methylene Chloride	ND	H	0.86	0.49	mg/Kg	✧	06/20/23 10:56	06/22/23 16:47	1
trans-1,2-Dichloroethene	ND		0.25	0.056	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1-Dichloroethane	ND		0.25	0.065	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
2,2-Dichloropropane	ND		0.25	0.060	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
cis-1,2-Dichloroethene	ND		0.25	0.051	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Bromochloromethane	ND		0.25	0.098	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Chloroform	ND		0.25	0.058	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1,1-Trichloroethane	ND		0.25	0.043	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Carbon tetrachloride	ND		0.25	0.027	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1-Dichloropropene	ND		0.25	0.043	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Benzene	ND		0.049	0.025	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,2-Dichloroethane	ND		0.25	0.017	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Trichloroethene	1.0		0.061	0.019	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,2-Dichloropropane	ND		0.30	0.075	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Dibromomethane	ND		0.25	0.055	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Bromodichloromethane	ND		0.25	0.15	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
cis-1,3-Dichloropropene	ND		0.25	0.050	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Toluene	0.035	J	0.25	0.033	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
trans-1,3-Dichloropropene	ND		0.25	0.065	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1,2-Trichloroethane	ND		0.25	0.087	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Tetrachloroethene	ND		0.098	0.043	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,3-Dichloropropane	ND		0.25	0.073	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Dibromochloromethane	ND		0.49	0.040	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,2-Dibromoethane (EDB)	ND		0.25	0.082	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Chlorobenzene	ND		0.25	0.051	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Ethylbenzene	ND		0.25	0.040	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1,1,2-Tetrachloroethane	ND		0.25	0.047	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,1,2,2-Tetrachloroethane	ND		0.25	0.072	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
m,p-Xylene	ND		0.98	0.071	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
o-Xylene	ND		0.49	0.057	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Styrene	ND		0.25	0.058	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Bromoform	ND		0.49	0.047	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Isopropylbenzene	ND		0.25	0.076	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
Bromobenzene	ND		0.25	0.055	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
N-Propylbenzene	ND		0.25	0.065	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,2,3-Trichloropropane	ND		0.49	0.090	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
2-Chlorotoluene	ND		0.25	0.040	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,3,5-Trimethylbenzene	ND		0.25	0.079	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
4-Chlorotoluene	ND		0.25	0.021	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
tert-Butylbenzene	ND		0.25	0.048	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
1,2,4-Trimethylbenzene	ND		0.25	0.058	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1
sec-Butylbenzene	ND		0.25	0.046	mg/Kg	✧	06/20/23 10:56	06/20/23 20:50	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Client Sample ID: DF-HA-19(2)

Lab Sample ID: 590-20747-17

Date Collected: 06/07/23 16:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 88.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.25	0.031	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
p-Isopropyltoluene	ND		0.25	0.050	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
1,4-Dichlorobenzene	ND		0.25	0.051	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
n-Butylbenzene	ND		0.25	0.068	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
1,2-Dichlorobenzene	ND		0.25	0.057	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
1,2-Dibromo-3-Chloropropane	ND		1.2	0.15	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
1,2,4-Trichlorobenzene	ND		0.25	0.045	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
1,2,3-Trichlorobenzene	ND		0.25	0.082	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
Hexachlorobutadiene	ND		0.25	0.040	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
Naphthalene	ND		0.49	0.069	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1
Methyl tert-butyl ether	ND		0.12	0.074	mg/Kg	☼	06/20/23 10:56	06/20/23 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120	06/20/23 10:56	06/20/23 20:50	1
Toluene-d8 (Surr)	102		80 - 120	06/20/23 10:56	06/22/23 16:47	1
4-Bromofluorobenzene (Surr)	92		66 - 129	06/20/23 10:56	06/20/23 20:50	1
4-Bromofluorobenzene (Surr)	105		66 - 129	06/20/23 10:56	06/22/23 16:47	1
Dibromofluoromethane (Surr)	103		80 - 120	06/20/23 10:56	06/20/23 20:50	1
Dibromofluoromethane (Surr)	100		80 - 120	06/20/23 10:56	06/22/23 16:47	1
1,2-Dichloroethane-d4 (Surr)	100		79 - 124	06/20/23 10:56	06/20/23 20:50	1
1,2-Dichloroethane-d4 (Surr)	104		79 - 124	06/20/23 10:56	06/22/23 16:47	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hg	360		39	2.8	ug/Kg	☼	06/22/23 11:06	06/22/23 17:19	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-42073/1-A
Matrix: Solid
Analysis Batch: 42075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42073

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Chloromethane	ND		0.50	0.042	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Bromomethane	ND		0.50	0.033	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Chloroethane	ND		0.20	0.056	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Chloroform	ND		0.10	0.024	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Benzene	ND		0.020	0.010	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Dibromomethane	ND		0.10	0.022	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Toluene	ND		0.10	0.013	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
o-Xylene	ND		0.20	0.023	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Styrene	ND		0.10	0.024	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Bromoform	ND		0.20	0.019	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Bromobenzene	ND		0.10	0.022	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		06/20/23 10:55	06/20/23 12:12	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42073/1-A
Matrix: Solid
Analysis Batch: 42075

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42073

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Naphthalene	ND		0.20	0.028	mg/Kg		06/20/23 10:55	06/20/23 12:12	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		06/20/23 10:55	06/20/23 12:12	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		80 - 120	06/20/23 10:55	06/20/23 12:12	1
4-Bromofluorobenzene (Surr)	93		66 - 129	06/20/23 10:55	06/20/23 12:12	1
Dibromofluoromethane (Surr)	103		80 - 120	06/20/23 10:55	06/20/23 12:12	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	06/20/23 10:55	06/20/23 12:12	1

Lab Sample ID: MB 590-42073/1-A
Matrix: Solid
Analysis Batch: 42134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42073

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methylene Chloride	ND		0.35	0.20	mg/Kg		06/20/23 10:55	06/22/23 14:16	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	100		80 - 120	06/20/23 10:55	06/22/23 14:16	1
4-Bromofluorobenzene (Surr)	104		66 - 129	06/20/23 10:55	06/22/23 14:16	1
Dibromofluoromethane (Surr)	100		80 - 120	06/20/23 10:55	06/22/23 14:16	1
1,2-Dichloroethane-d4 (Surr)	104		79 - 124	06/20/23 10:55	06/22/23 14:16	1

Lab Sample ID: LCS 590-42073/2-A
Matrix: Solid
Analysis Batch: 42075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	0.500	0.432	J	mg/Kg		86	29 - 150
Vinyl chloride	0.500	0.427		mg/Kg		85	38 - 150
Bromomethane	0.500	0.345	J	mg/Kg		69	39 - 150
Chloroethane	0.500	0.432		mg/Kg		86	38 - 150
Trichlorofluoromethane	0.500	0.557		mg/Kg		111	45 - 150
1,1-Dichloroethene	0.500	0.503		mg/Kg		101	50 - 150
trans-1,2-Dichloroethene	0.500	0.491		mg/Kg		98	75 - 140
1,1-Dichloroethane	0.500	0.442		mg/Kg		88	79 - 133
2,2-Dichloropropane	0.500	0.494		mg/Kg		99	50 - 150
cis-1,2-Dichloroethene	0.500	0.477		mg/Kg		95	78 - 132
Bromochloromethane	0.500	0.448		mg/Kg		90	67 - 138

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42073/2-A
Matrix: Solid
Analysis Batch: 42075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	0.500	0.483		mg/Kg		97	80 - 131
1,1,1-Trichloroethane	0.500	0.511		mg/Kg		102	59 - 150
Carbon tetrachloride	0.500	0.427		mg/Kg		85	61 - 150
1,1-Dichloropropene	0.500	0.482		mg/Kg		96	80 - 131
Benzene	0.500	0.463		mg/Kg		93	80 - 128
1,2-Dichloroethane	0.500	0.461		mg/Kg		92	77 - 126
Trichloroethene	0.500	0.477		mg/Kg		95	80 - 129
1,2-Dichloropropane	0.500	0.488		mg/Kg		98	71 - 136
Dibromomethane	0.500	0.466		mg/Kg		93	76 - 121
Bromodichloromethane	0.500	0.431		mg/Kg		86	79 - 122
cis-1,3-Dichloropropene	0.500	0.403		mg/Kg		81	71 - 123
Toluene	0.500	0.539		mg/Kg		108	79 - 130
trans-1,3-Dichloropropene	0.500	0.474		mg/Kg		95	68 - 133
1,1,2-Trichloroethane	0.500	0.487		mg/Kg		97	74 - 131
Tetrachloroethene	0.500	0.528		mg/Kg		106	76 - 142
1,3-Dichloropropane	0.500	0.477		mg/Kg		95	73 - 125
Dibromochloromethane	0.500	0.469		mg/Kg		94	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.507		mg/Kg		101	76 - 126
Chlorobenzene	0.500	0.481		mg/Kg		96	80 - 124
Ethylbenzene	0.500	0.488		mg/Kg		98	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.487		mg/Kg		97	76 - 139
1,1,2,2-Tetrachloroethane	0.500	0.454		mg/Kg		91	66 - 130
m,p-Xylene	0.500	0.543		mg/Kg		109	80 - 131
o-Xylene	0.500	0.531		mg/Kg		106	78 - 128
Styrene	0.500	0.531		mg/Kg		106	76 - 128
Bromoform	0.500	0.490		mg/Kg		98	49 - 150
Isopropylbenzene	0.500	0.533		mg/Kg		107	79 - 134
Bromobenzene	0.500	0.423		mg/Kg		85	70 - 129
N-Propylbenzene	0.500	0.465		mg/Kg		93	71 - 136
1,2,3-Trichloropropane	0.500	0.466		mg/Kg		93	61 - 138
2-Chlorotoluene	0.500	0.455		mg/Kg		91	73 - 131
1,3,5-Trimethylbenzene	0.500	0.500		mg/Kg		100	76 - 130
4-Chlorotoluene	0.500	0.451		mg/Kg		90	76 - 128
tert-Butylbenzene	0.500	0.479		mg/Kg		96	74 - 129
1,2,4-Trimethylbenzene	0.500	0.508		mg/Kg		102	78 - 128
sec-Butylbenzene	0.500	0.498		mg/Kg		100	78 - 132
1,3-Dichlorobenzene	0.500	0.478		mg/Kg		96	80 - 121
p-Isopropyltoluene	0.500	0.530		mg/Kg		106	79 - 128
1,4-Dichlorobenzene	0.500	0.488		mg/Kg		98	80 - 122
n-Butylbenzene	0.500	0.515		mg/Kg		103	75 - 128
1,2-Dichlorobenzene	0.500	0.482		mg/Kg		96	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.438	J	mg/Kg		88	49 - 143
1,2,4-Trichlorobenzene	0.500	0.472		mg/Kg		94	73 - 129
1,2,3-Trichlorobenzene	0.500	0.417		mg/Kg		83	72 - 130
Hexachlorobutadiene	0.500	0.435		mg/Kg		87	75 - 136
Naphthalene	0.500	0.476		mg/Kg		95	57 - 131
Methyl tert-butyl ether	0.500	0.499		mg/Kg		100	69 - 132

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42073/2-A
Matrix: Solid
Analysis Batch: 42075

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42073

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	103		80 - 120
4-Bromofluorobenzene (Surr)	91		66 - 129
Dibromofluoromethane (Surr)	101		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		79 - 124

Lab Sample ID: LCS 590-42073/2-A
Matrix: Solid
Analysis Batch: 42134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42073

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Methylene Chloride	0.500	0.379		mg/Kg		76	42 - 150

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	99		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		79 - 124

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 590-42123/9-A
Matrix: Solid
Analysis Batch: 42144

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42123

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hg	ND		50	3.6	ug/Kg		06/22/23 11:06	06/22/23 16:58	1

Lab Sample ID: LCS 590-42123/8-A
Matrix: Solid
Analysis Batch: 42144

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42123

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hg	200	197		ug/Kg		99	80 - 120

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Client Sample ID: DF-HA-19(2)

Lab Sample ID: 590-20747-17

Date Collected: 06/07/23 16:03

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42062	06/20/23 08:46	M1V	EET SPK

Client Sample ID: DF-HA-19(2)

Lab Sample ID: 590-20747-17

Date Collected: 06/07/23 16:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.847 g	10 mL	42073	06/20/23 10:56	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42075	06/20/23 20:50	JSP	EET SPK
Total/NA	Prep	5035			4.847 g	10 mL	42073	06/20/23 10:56	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42134	06/22/23 16:47	JSP	EET SPK
Total/NA	Prep	7471B			0.72 g	50 mL	42123	06/22/23 11:06	AMB	EET SPK
Total/NA	Analysis	7471B		1			42144	06/22/23 17:19	AMB	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-4

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
7471B	Mercury (CVAA)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK
7471B	Preparation, Mercury	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

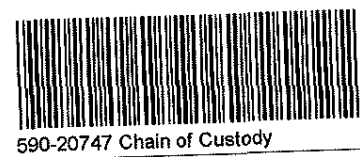


CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. Invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by Sign: <i>[Signature]</i> Print: <i>McGivern, Clau</i> Firm: <i>HA A</i> Date: <i>6/12/23</i> Time: <i>9:27</i>	Received by Sign: <i>[Signature]</i> Print: <i>Randee Arrington</i> Firm: <i>EETMW</i> Date: <i>6/12/23</i> Time: <i>09:27</i>	LIQUID VOA Vial Amber Glass Plastic Bottle	Sampling Comments
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	SOLID	Evidence samples were tampered with? YES NO IF YES, please explain in section below.
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	PRESERVATION KEY A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	Preservative Volume



If Presumptive Certainty Data Package is needed, initial all sections: The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty. Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein. This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples. If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze	Required Reporting Limits and Data Quality Objectives <input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1 <input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2 <input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3 <input type="checkbox"/> RC-GW2
---	--



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X							4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft														4	
DF-HA-20 (2)		16:05	2 ft														4	
DF-HA-20 (4)		16:55	4 ft														4	
DF-HA-19 (4)		16:55	4 ft														3	
DF-HA-19 (3)		16:30	3 ft														3	
DF-HA-19 (2)		16:05	2 ft														3	
DF-HA-12 (1)		15:48	1 ft		X	X											3	
DF-HA-8 (2)		12:00	2 ft														1	
DF-HA-8 (1)		11:45	1 ft		X												1	

Sampled and Relinquished by	Received by	LIQUID										Sampling Comments							
Sign <i>Maryanne Clark</i> Print Maryanne Clark Firm H&A Date 6/17/23 Time 7:27	Sign Print Firm Date Time																		
Relinquished by	Received by	SOLID																	
Sign <i>Randee Arrington</i> Print Randee Arrington Firm EETNW Date 6/19/23 Time 0927	Sign Print Firm Date Time																		
Relinquished by	Received by	PRESERVATION KEY										Evidence samples were tampered with? YES NO							
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)										If YES, please explain in section below							

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods) If Presumptive Certainty Data Package is needed, initial all sections: _____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty. _____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein. _____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples. _____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze		Required Reporting Limits and Data Quality Objectives <input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1 <input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2 <input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3 <input type="checkbox"/> RC-GW2
--	--	---



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Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

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Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCMA Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil												2		
DF-HA-24 (1)	6/8/23	13:37	1													2		
DF-HA-26 (35)		15:20	3.5													2		
DF-HA-22 (3)		11:22	3													1		
DF-HA-26 (1)		15:25	1													2		
DF-HA-16 (1)		10:00	1		XX											1		
DF-HA-21 (1)		8:30	1													3		
DF-HA-18 (2)		9:22	2													1		
DF-HA-16 (3)		10:08	3													1		

Sampled and Relinquished by		Received by		LIQUID											Sampling Comments		
Sign <i>[Signature]</i>	Print <i>[Name]</i>	Sign	Print														VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm <i>[Firm]</i>	Date <i>[Date]</i> Time <i>[Time]</i>	Firm	Date	SOLID													
Sign <i>[Signature]</i>	Print <i>[Name]</i>	Sign	Print														VOA Vial Amber Glass Clear Glass Preservative Volume
Firm <i>[Firm]</i>	Date <i>[Date]</i> Time <i>[Time]</i>	Firm	Date	PRESERVATION KEY													
				A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol									Evidence samples were tampered with? YES NO	
				B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)									If YES, please explain in section below	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521

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Page 4 of 4

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					ACRA Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Sorbent Method SWTTPH-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082								
DF-HA-22(2)	6/8/23	10:52	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X												1	
DF-HA-25(1)		15:00	1														1	
DF-HA-25(2)		15:10	3														2	
DF-HA-21(2)		9:25	2														3	
DF-HA-18(1)		9:02	1		X												1	
DF-HA-16(2)		10:05	2														1	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <i>[Signature]</i> Print <i>McCurrie Cleve</i> Firm <i>H&A</i> Date <i>6/9/23</i> Time <i>9:27</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Relinquished by	Received by	SOLID	
Sign <i>[Signature]</i> Print <i>Randee Arrington</i> Firm <i>ESTNW</i> Date <i>6/9/23</i> Time <i>0927</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled B Sample filtered C NaOH D HNO ₃ E H ₂ SO ₄ F HCL G Methanol H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-4

Login Number: 20747

List Source: Eurofins Spokane

List Number: 1

Creator: Arrington, Randee E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 7/6/2023 4:24:23 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-5

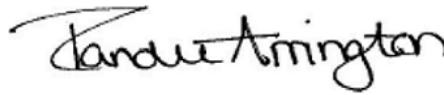
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Job ID: 590-20747-5

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

The following sample was activated for 6010D As, Cd & Pb analysis by the client on 06/23/23: DF-HA-14(2) (590-20747-7). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D Cd & Pb analysis by the client on 06/23/23: DF-HA-19(2) (590-20747-17) and DF-HA-21(2) (590-20747-35). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D Pb analysis by the client on 06/23/23: DF-HA-8(2) (590-20747-19) and DF-HA-16(2) (590-20747-37). This analysis was not originally requested on the chain-of-custody (COC).

Metals

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-42272 and analytical batch 590-42294 was outside control limits. Sample matrix interference is suspected.

Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-42272 and analytical batch 590-42294 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6010D: The sample duplicate (DUP) precision for preparation batch 590-42272 and analytical batch 590-42299 was outside control limits. Sample matrix interference is suspected.

Method 6010D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-42272 and analytical batch 590-42299 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-20747-7	DF-HA-14(2)	Solid	06/07/23 14:06	06/09/23 09:27
590-20747-17	DF-HA-19(2)	Solid	06/07/23 16:03	06/09/23 09:27
590-20747-19	DF-HA-8(2)	Solid	06/07/23 12:00	06/09/23 09:27
590-20747-35	DF-HA-21(2)	Solid	06/08/23 09:25	06/09/23 09:27
590-20747-37	DF-HA-16(2)	Solid	06/08/23 10:05	06/09/23 09:27

1

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12

Definitions/Glossary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Client Sample ID: DF-HA-14(2)

Lab Sample ID: 590-20747-7

Date Collected: 06/07/23 14:06

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		26	10	mg/Kg	☼	07/03/23 08:52	07/05/23 19:28	25
Cadmium	18	J	20	1.2	mg/Kg	☼	07/03/23 08:52	07/05/23 19:28	25
Lead	5800		61	30	mg/Kg	☼	07/03/23 08:52	07/05/23 19:28	25

Client Sample ID: DF-HA-19(2)

Lab Sample ID: 590-20747-17

Date Collected: 06/07/23 16:03

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 88.5

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	10		3.8	0.23	mg/Kg	☼	07/03/23 08:52	07/05/23 20:07	5
Lead	4900		58	28	mg/Kg	☼	07/03/23 08:52	07/05/23 21:05	25

Client Sample ID: DF-HA-8(2)

Lab Sample ID: 590-20747-19

Date Collected: 06/07/23 12:00

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 92.7

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		10	5.1	mg/Kg	☼	07/03/23 08:52	07/05/23 20:11	5

Client Sample ID: DF-HA-21(2)

Lab Sample ID: 590-20747-35

Date Collected: 06/08/23 09:25

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.74	J	3.9	0.23	mg/Kg	☼	07/03/23 08:52	07/05/23 20:15	5
Lead	28		12	5.8	mg/Kg	☼	07/03/23 08:52	07/05/23 20:15	5

Client Sample ID: DF-HA-16(2)

Lab Sample ID: 590-20747-37

Date Collected: 06/08/23 10:05

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.6

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	180		13	6.2	mg/Kg	☼	07/03/23 08:52	07/05/23 20:19	5

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42272/2-A
Matrix: Solid
Analysis Batch: 42299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.3	0.50	mg/Kg		07/03/23 08:51	07/05/23 19:20	1
Cadmium	ND		1.0	0.059	mg/Kg		07/03/23 08:51	07/05/23 19:20	1
Lead	ND		3.0	1.5	mg/Kg		07/03/23 08:51	07/05/23 19:20	1

Lab Sample ID: LCS 590-42272/1-A
Matrix: Solid
Analysis Batch: 42299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	100	95.1		mg/Kg		95	80 - 120
Cadmium	50.0	49.7		mg/Kg		99	80 - 120
Lead	50.0	52.4		mg/Kg		105	80 - 120

Lab Sample ID: 590-20747-7 MS
Matrix: Solid
Analysis Batch: 42299

Client Sample ID: DF-HA-14(2)
Prep Type: Total/NA
Prep Batch: 42272

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		115	123		mg/Kg	⊛	107	75 - 125
Cadmium	18	J	57.4	70.4		mg/Kg	⊛	91	75 - 125
Lead	5800		57.4	4370	E 4	mg/Kg	⊛	-2525	75 - 125

Lab Sample ID: 590-20747-7 MSD
Matrix: Solid
Analysis Batch: 42299

Client Sample ID: DF-HA-14(2)
Prep Type: Total/NA
Prep Batch: 42272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		115	127		mg/Kg	⊛	111	75 - 125	4	20
Cadmium	18	J	57.4	71.2		mg/Kg	⊛	92	75 - 125	1	20
Lead	5800		57.4	4320	E 4	mg/Kg	⊛	-2615	75 - 125	1	20

Lab Sample ID: 590-20747-7 DU
Matrix: Solid
Analysis Batch: 42299

Client Sample ID: DF-HA-14(2)
Prep Type: Total/NA
Prep Batch: 42272

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND		18.5		mg/Kg	⊛	NC	20
Cadmium	18	J	18.5		mg/Kg	⊛	0.8	20
Lead	5800		3860	E F3	mg/Kg	⊛	40	20

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Client Sample ID: DF-HA-14(2)

Date Collected: 06/07/23 14:06

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Client Sample ID: DF-HA-14(2)

Date Collected: 06/07/23 14:06

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-7

Matrix: Solid

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.43 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		25	10 mL	10 mL	42299	07/05/23 19:28	AMB	EET SPK

Client Sample ID: DF-HA-19(2)

Date Collected: 06/07/23 16:03

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-17

Matrix: Solid

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.47 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		5			42299	07/05/23 20:07	AMB	EET SPK
Total/NA	Prep	3050B			1.47 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		25			42299	07/05/23 21:05	AMB	EET SPK

Client Sample ID: DF-HA-8(2)

Date Collected: 06/07/23 12:00

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-19

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Client Sample ID: DF-HA-8(2)

Date Collected: 06/07/23 12:00

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-19

Matrix: Solid

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.56 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		5			42299	07/05/23 20:11	AMB	EET SPK

Client Sample ID: DF-HA-21(2)

Date Collected: 06/08/23 09:25

Date Received: 06/09/23 09:27

Lab Sample ID: 590-20747-35

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Client Sample ID: DF-HA-21(2)

Lab Sample ID: 590-20747-35

Date Collected: 06/08/23 09:25

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.41 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		5			42299	07/05/23 20:15	AMB	EET SPK

Client Sample ID: DF-HA-16(2)

Lab Sample ID: 590-20747-37

Date Collected: 06/08/23 10:05

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Client Sample ID: DF-HA-16(2)

Lab Sample ID: 590-20747-37

Date Collected: 06/08/23 10:05

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.39 g	50 mL	42272	07/03/23 08:52	AMB	EET SPK
Total/NA	Analysis	6010D		5			42299	07/05/23 20:19	AMB	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-5

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SPK

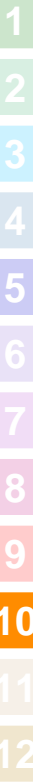
Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

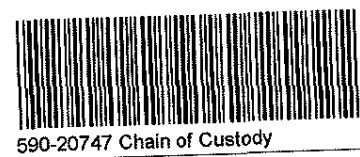


CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTF6-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by	Received by	LIQUID										Sampling Comments
Sign <i>Ward McDonald</i>	Sign <i>Randee Arrington</i>											VOA Vial
Print <i>Ward McDonald</i>	Print <i>Randee Arrington</i>											Amber Glass
Firm <i>HA</i>	Firm <i>EETMW</i>											Plastic Bottle
Date <i>6/12/23</i> Time <i>9:27</i>	Date <i>6/12/23</i> Time <i>09:07</i>											
Relinquished by	Received by	SOLID										
Sign	Sign											
Print	Print											
Firm	Firm											
Date	Time	Date	Time									
Relinquished by	Received by											Preservative
Sign	Sign											Volume
Print	Print											Evidence samples were tampered with? YES NO
Firm	Firm											IF YES, please explain in section below.
Date	Time	Date	Time									



Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWS CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.
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Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRP-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X						4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft													4	
DF-HA-20 (2)		16:05	2 ft													4	
DF-HA-20 (4)		16:55	4 ft													4	
DF-HA-19 (4)		16:55	4 ft													3	
DF-HA-19 (3)		16:30	3 ft													3	
DF-HA-19 (2)		16:05	2 ft													3	
DF-HA-12 (1)		15:48	1 ft		X	X										3	
DF-HA-8 (2)		12:00	2 ft													1	
DF-HA-8 (1)		11:45	1 ft		X											1	

Sampled and Relinquished by		Received by		LIQUID											Sampling Comments				
Sign <i>Marynne Clark</i>	Print Marynne Clark	Sign <i>H&A</i>	Print H&A															VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Date 6/17/23 Time 7:27	Date	Date	Time																
Relinquished by		Received by		SOLID															
Sign <i>Randee Arrington</i>	Print Randee Arrington	Sign <i>EETNW</i>	Print EETNW															VOA Vial Amber Glass Clear Glass Preservative Volume	
Date 6/19/23 Time 0927	Date	Date	Time																
Relinquished by		Received by		PRESERVATION KEY											Evidence samples were tampered with? YES NO				
Sign	Print	Sign	Print												If YES, please explain in section below				
Firm	Firm	Firm	Firm																
Date	Time	Date	Time																
				A	Sample chilled	C	NaOH	E	H ₂ SO ₄	G	Methanol								
				B	Sample filtered	D	HNO ₃	F	HCL	H	Water/NaHSO ₄ (circle)								

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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505 W Riverside Ave.,
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Spokane, Washington

CHAIN OF CUSTODY RECORD

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Fax
Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil													2	
DF-HA-24 (1)	6/8/23	13:37	1														2	
DF-HA-26 (35)		15:20	3.5														2	
DF-HA-22 (3)		11:22	3														1	
DF-HA-26 (1)		15:25	1														2	
DF-HA-16 (1)		10:00	1		XX												1	
DF-HA-21 (1)		8:30	1														3	
DF-HA-18 (2)		9:22	2														1	
DF-HA-16 (3)		10:08	3														1	

Sampled and Relinquished by		Received by		LIQUID										Sampling Comments			
Sign <i>M...</i>	Print <i>M...</i>	Sign <i>M...</i>	Print <i>M...</i>														VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm <i>H&A</i>	Date <i>6/9/23</i> Time <i>9:27</i>	Firm	Date	SOLID													
Sign <i>Rande Arrington</i>	Print <i>Rande Arrington</i>	Sign	Print														VOA Vial Amber Glass Clear Glass Preservative Volume
Firm <i>ETAKE</i>	Date <i>6/9/23</i> Time <i>027</i>	Firm	Date	PRESERVATION KEY										Evidence samples were tampered with? YES NO			
Sign	Print	Sign	Print	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol										If YES, please explain in section below			
Firm	Date	Firm	Date	B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)													

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
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CHAIN OF CUSTODY RECORD

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Fax
Page 4 of 4

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					ACRA Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Nitrotest Method NWTTH-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082									
DF-HA-22(2)	6/8/23	10:52	2	Soil														2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X													1	
DF-HA-25(1)		15:00	1															1	
DF-HA-25(3)		15:10	3															3	
DF-HA-21(2)		9:25	2															2	
DF-HA-18(1)		9:02	1		X													1	
DF-HA-16(2)		10:05	2															2	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign: <i>[Signature]</i> Print: <i>McDonnell Cleave</i> Firm: <i>H&A</i> Date: <i>6/9/23</i> Time: <i>9:27</i>	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Sampled and Relinquished by	Received by	SOLID	
Sign: <i>[Signature]</i> Print: <i>Randee Arrington</i> Firm: <i>ESTNW</i> Date: <i>6/9/23</i> Time: <i>0927</i>	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Relinquished by	Received by	PRESERVATION KEY	
Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	Sign: _____ Print: _____ Firm: _____ Date: _____ Time: _____	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	

<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty</p> <p>_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
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Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-5

Login Number: 20747

List Number: 1

Creator: Arrington, Randee E

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-6

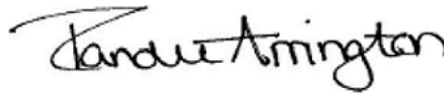
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Job ID: 590-20747-6

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

The following sample was activated for 8260D Volatiles analysis by the client on 06/26/23: DF-HA-19(3) (590-20747-16). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-20747-16	DF-HA-19(3)	Solid	06/07/23 16:32	06/09/23 09:27

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	H	0.31	0.088	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Chloromethane	ND	H	1.6	0.13	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Vinyl chloride	ND	H	0.19	0.063	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Bromomethane	ND	H	1.6	0.10	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Chloroethane	ND	H	0.62	0.18	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Trichlorofluoromethane	ND	H	0.62	0.10	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1-Dichloroethene	ND	H	0.31	0.11	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Methylene Chloride	ND	H	1.1	0.62	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
trans-1,2-Dichloroethene	ND	H	0.31	0.071	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1-Dichloroethane	ND	H	0.31	0.082	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
2,2-Dichloropropane	ND	H	0.31	0.076	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
cis-1,2-Dichloroethene	ND	H	0.31	0.065	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Bromochloromethane	ND	H	0.31	0.12	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Chloroform	ND	H	0.31	0.073	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1,1-Trichloroethane	ND	H	0.31	0.054	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Carbon tetrachloride	ND	H	0.31	0.034	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1-Dichloropropene	ND	H	0.31	0.054	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Benzene	ND	H	0.062	0.031	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,2-Dichloroethane	ND	H	0.31	0.022	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Trichloroethene	4.3	H	0.078	0.024	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,2-Dichloropropane	ND	H	0.37	0.094	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Dibromomethane	ND	H	0.31	0.069	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Bromodichloromethane	ND	H	0.31	0.19	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
cis-1,3-Dichloropropene	ND	H	0.31	0.064	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Toluene	ND	H	0.31	0.041	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
trans-1,3-Dichloropropene	ND	H	0.31	0.082	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1,2-Trichloroethane	ND	H	0.31	0.11	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Tetrachloroethene	ND	H	0.12	0.055	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,3-Dichloropropane	ND	H	0.31	0.093	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Dibromochloromethane	ND	H	0.62	0.050	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,2-Dibromoethane (EDB)	ND	H	0.31	0.10	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Chlorobenzene	ND	H	0.31	0.064	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Ethylbenzene	ND	H	0.31	0.050	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1,1,2-Tetrachloroethane	ND	H	0.31	0.060	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,1,2,2-Tetrachloroethane	ND	H	0.31	0.091	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
m,p-Xylene	ND	H	1.2	0.089	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
o-Xylene	ND	H	0.62	0.072	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Styrene	ND	H	0.31	0.074	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Bromoform	ND	H	0.62	0.060	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Isopropylbenzene	ND	H	0.31	0.096	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
Bromobenzene	ND	H	0.31	0.069	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
N-Propylbenzene	ND	H	0.31	0.082	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,2,3-Trichloropropane	ND	H	0.62	0.11	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
2-Chlorotoluene	ND	H	0.31	0.051	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,3,5-Trimethylbenzene	ND	H	0.31	0.10	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
4-Chlorotoluene	ND	H	0.31	0.027	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
tert-Butylbenzene	ND	H	0.31	0.061	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
1,2,4-Trimethylbenzene	ND	H	0.31	0.073	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1
sec-Butylbenzene	ND	H	0.31	0.058	mg/Kg	✱	06/28/23 13:20	06/28/23 20:19	1

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND	H	0.31	0.039	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
p-Isopropyltoluene	ND	H	0.31	0.064	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
1,4-Dichlorobenzene	ND	H	0.31	0.064	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
n-Butylbenzene	ND	H	0.31	0.086	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
1,2-Dichlorobenzene	ND	H	0.31	0.073	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
1,2-Dibromo-3-Chloropropane	ND	H	1.6	0.19	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
1,2,4-Trichlorobenzene	ND	H	0.31	0.058	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
1,2,3-Trichlorobenzene	ND	H	0.31	0.10	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
Hexachlorobutadiene	ND	H	0.31	0.051	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
Naphthalene	0.10	J H	0.62	0.087	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1
Methyl tert-butyl ether	ND	H	0.16	0.093	mg/Kg	☼	06/28/23 13:20	06/28/23 20:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	06/28/23 13:20	06/28/23 20:19	1
4-Bromofluorobenzene (Surr)	101		66 - 129	06/28/23 13:20	06/28/23 20:19	1
Dibromofluoromethane (Surr)	102		80 - 120	06/28/23 13:20	06/28/23 20:19	1
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	06/28/23 13:20	06/28/23 20:19	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-42218/1-A
Matrix: Solid
Analysis Batch: 42222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42218

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Chloromethane	ND		0.50	0.042	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Bromomethane	ND		0.50	0.033	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Chloroethane	ND		0.20	0.056	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Chloroform	ND		0.10	0.024	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Benzene	ND		0.020	0.010	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Dibromomethane	ND		0.10	0.022	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Toluene	0.0189	J	0.10	0.013	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
o-Xylene	ND		0.20	0.023	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Styrene	ND		0.10	0.024	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Bromoform	ND		0.20	0.019	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Bromobenzene	ND		0.10	0.022	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		06/28/23 13:20	06/28/23 19:13	1

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42218/1-A
Matrix: Solid
Analysis Batch: 42222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42218

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Naphthalene	ND		0.20	0.028	mg/Kg		06/28/23 13:20	06/28/23 19:13	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		06/28/23 13:20	06/28/23 19:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120	06/28/23 13:20	06/28/23 19:13	1
4-Bromofluorobenzene (Surr)	100		66 - 129	06/28/23 13:20	06/28/23 19:13	1
Dibromofluoromethane (Surr)	99		80 - 120	06/28/23 13:20	06/28/23 19:13	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	06/28/23 13:20	06/28/23 19:13	1

Lab Sample ID: LCS 590-42218/2-A
Matrix: Solid
Analysis Batch: 42222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Dichlorodifluoromethane	0.500	0.321		mg/Kg		64	14 - 120
Chloromethane	0.500	0.388	J	mg/Kg		78	29 - 150
Vinyl chloride	0.500	0.398		mg/Kg		80	38 - 150
Bromomethane	0.500	0.384	J	mg/Kg		77	39 - 150
Chloroethane	0.500	0.444		mg/Kg		89	38 - 150
Trichlorofluoromethane	0.500	0.514		mg/Kg		103	45 - 150
1,1-Dichloroethene	0.500	0.479		mg/Kg		96	50 - 150
Methylene Chloride	0.500	0.420		mg/Kg		84	42 - 150
trans-1,2-Dichloroethene	0.500	0.516		mg/Kg		103	75 - 140
1,1-Dichloroethane	0.500	0.481		mg/Kg		96	79 - 133
2,2-Dichloropropane	0.500	0.437		mg/Kg		87	50 - 150
cis-1,2-Dichloroethene	0.500	0.521		mg/Kg		104	78 - 132
Bromochloromethane	0.500	0.482		mg/Kg		96	67 - 138
Chloroform	0.500	0.500		mg/Kg		100	80 - 131
1,1,1-Trichloroethane	0.500	0.531		mg/Kg		106	59 - 150
Carbon tetrachloride	0.500	0.455		mg/Kg		91	61 - 150
1,1-Dichloropropene	0.500	0.539		mg/Kg		108	80 - 131
Benzene	0.500	0.523		mg/Kg		105	80 - 128
1,2-Dichloroethane	0.500	0.523		mg/Kg		105	77 - 126
Trichloroethene	0.500	0.539		mg/Kg		108	80 - 129
1,2-Dichloropropane	0.500	0.543		mg/Kg		109	71 - 136
Dibromomethane	0.500	0.491		mg/Kg		98	76 - 121
Bromodichloromethane	0.500	0.500		mg/Kg		100	79 - 122
cis-1,3-Dichloropropene	0.500	0.511		mg/Kg		102	71 - 123

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42218/2-A
Matrix: Solid
Analysis Batch: 42222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42218

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.582		mg/Kg		116	79 - 130
trans-1,3-Dichloropropene	0.500	0.581		mg/Kg		116	68 - 133
1,1,2-Trichloroethane	0.500	0.555		mg/Kg		111	74 - 131
Tetrachloroethene	0.500	0.596		mg/Kg		119	76 - 142
1,3-Dichloropropane	0.500	0.555		mg/Kg		111	73 - 125
Dibromochloromethane	0.500	0.537		mg/Kg		107	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.567		mg/Kg		113	76 - 126
Chlorobenzene	0.500	0.551		mg/Kg		110	80 - 124
Ethylbenzene	0.500	0.560		mg/Kg		112	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.533		mg/Kg		107	76 - 139
1,1,1,2-Tetrachloroethane	0.500	0.568		mg/Kg		114	66 - 130
m,p-Xylene	0.500	0.592		mg/Kg		118	80 - 131
o-Xylene	0.500	0.585		mg/Kg		117	78 - 128
Styrene	0.500	0.580		mg/Kg		116	76 - 128
Bromoform	0.500	0.540		mg/Kg		108	49 - 150
Isopropylbenzene	0.500	0.605		mg/Kg		121	79 - 134
Bromobenzene	0.500	0.536		mg/Kg		107	70 - 129
N-Propylbenzene	0.500	0.606		mg/Kg		121	71 - 136
1,2,3-Trichloropropane	0.500	0.587		mg/Kg		117	61 - 138
2-Chlorotoluene	0.500	0.619		mg/Kg		124	73 - 131
1,3,5-Trimethylbenzene	0.500	0.623		mg/Kg		125	76 - 130
4-Chlorotoluene	0.500	0.558		mg/Kg		112	76 - 128
tert-Butylbenzene	0.500	0.609		mg/Kg		122	74 - 129
1,2,4-Trimethylbenzene	0.500	0.606		mg/Kg		121	78 - 128
sec-Butylbenzene	0.500	0.622		mg/Kg		124	78 - 132
1,3-Dichlorobenzene	0.500	0.547		mg/Kg		109	80 - 121
p-Isopropyltoluene	0.500	0.627		mg/Kg		125	79 - 128
1,4-Dichlorobenzene	0.500	0.552		mg/Kg		110	80 - 122
n-Butylbenzene	0.500	0.585		mg/Kg		117	75 - 128
1,2-Dichlorobenzene	0.500	0.527		mg/Kg		105	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.512		mg/Kg		102	49 - 143
1,2,4-Trichlorobenzene	0.500	0.536		mg/Kg		107	73 - 129
1,2,3-Trichlorobenzene	0.500	0.535		mg/Kg		107	72 - 130
Hexachlorobutadiene	0.500	0.464		mg/Kg		93	75 - 136
Naphthalene	0.500	0.614		mg/Kg		123	57 - 131
Methyl tert-butyl ether	0.500	0.500		mg/Kg		100	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	97		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		79 - 124

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42174	06/26/23 15:30	M1V	EET SPK

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.848 g	10 mL	42218	06/28/23 13:20	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42222	06/28/23 20:19	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

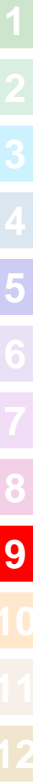
Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-6

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

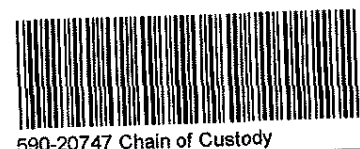


CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTF6-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by	Received by	LIQUID										Sampling Comments	
Sign <i>Ward McDonald</i>	Sign <i>Randee Arrington</i>												VOA Vial Amber Glass Plastic Bottle
Print <i>Ward McDonald</i>	Print <i>Randee Arrington</i>												
Firm <i>HA</i>	Firm <i>EETMW</i>												
Date <i>6/12/23</i> Time <i>9:27</i>	Date <i>6/12/23</i> Time <i>09:07</i>												
Relinquished by	Received by	SOLID											
Sign	Sign												
Print	Print												
Firm	Firm												
Date	Time	Date	Time										
Relinquished by	Received by	PRESERVATION KEY										Preservative Volume	
Sign	Sign	A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol								Evidence samples were tampered with? YES NO
Print	Print	B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)								IF YES, please explain in section below.
Firm	Firm												
Date	Time	Date	Time										



<p>Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)</p> <p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.</p> <p>If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>		<p>Required Reporting Limits and Data Quality Objectives</p> <p><input type="checkbox"/> RC-S1 <input type="checkbox"/> S1 <input type="checkbox"/> GW1</p> <p><input type="checkbox"/> RC-S2 <input type="checkbox"/> S2 <input type="checkbox"/> GW2</p> <p><input type="checkbox"/> RC-GW1 <input type="checkbox"/> S3 <input type="checkbox"/> GW3</p> <p><input type="checkbox"/> RC-GW2</p>
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Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521

Fax

Page 2 of 4

H&A FILE NO.	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTPH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X						4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	
DF-HA-20 (3)		16:25	3 ft													4		
DF-HA-20 (2)		16:05	2 ft													4		
DF-HA-20 (4)		16:55	4 ft													4		
DF-HA-19 (4)		16:35	4 ft													3		
DF-HA-19 (3)		16:30	3 ft													3		
DF-HA-19 (2)		16:05	2 ft													3		
DF-HA-12 (1)		15:48	1 ft		X	X										3		
DF-HA-8 (2)		12:00	2 ft													1		
DF-HA-8 (1)		11:45	1 ft		X											1		

Sampled and Relinquished by		Received by		LIQUID												Sampling Comments	
Sign <i>Maryn Clark</i>	Sign	Sign															VOA Vial
Print <i>Maryn Clark</i>	Print	Print															Amber Glass
Firm <i>H&A</i>	Firm	Firm															Plastic Bottle
Date <i>6/17/23</i> Time <i>7:27</i>	Date	Time															Preservative
Relinquished by		Received by		SOLID													
Sign <i>Randee Arrington</i>	Sign	Sign															VOA Vial
Print <i>Randee Arrington</i>	Print	Print															Amber Glass
Firm <i>EETNW</i>	Firm	Firm															Clear Glass
Date <i>6/19/23</i> Time <i>09:27</i>	Date	Time															Preservative
Relinquished by		Received by		PRESERVATION KEY												Evidence samples were tampered with? YES NO	
Sign	Sign	Sign		A Sample chilled C NaOH E H ₂ SO ₄ G Methanol												If YES, please explain in section below	
Print	Print	Print		B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)													

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)		Required Reporting Limits and Data Quality Objectives	
If Presumptive Certainty Data Package is needed, initial all sections:			
The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.			
Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.			
This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.			
If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze			
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1	
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2	
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3	
<input type="checkbox"/> RC-GW2			



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Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil													2	
DF-HA-24 (1)	6/8/23	13:37	1														2	
DF-HA-26 (35)		15:20	3.5														2	
DF-HA-22 (3)		11:22	3														1	
DF-HA-26 (1)		15:25	1														2	
DF-HA-16 (1)		10:00	1		XX												1	
DF-HA-21 (1)		8:30	1														3	
DF-HA-18 (2)		9:22	2														1	
DF-HA-16 (3)		10:08	3														1	

Sampled and Relinquished by		Received by		LIQUID										Sampling Comments			
Sign <i>[Signature]</i>	Print <i>Mercedes Cleve</i>	Sign	Print														VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm <i>H&A</i>	Date <i>6/9/23</i> Time <i>9:27</i>	Firm	Date	SOLID													
Sign <i>[Signature]</i>	Print <i>Rande Arrington</i>	Sign	Print														VOA Vial Amber Glass Clear Glass Preservative Volume
Firm <i>ETAKE</i>	Date <i>6/9/23</i> Time <i>027</i>	Firm	Date	PRESERVATION KEY													
Sign	Print	Sign	Print	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol										Evidence samples were tampered with? YES NO If YES, please explain in section below			
Firm	Date	Firm	Date	B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)													

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 _____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 _____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 _____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 _____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

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Fax

Page 4 of 4

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					ACRA & Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Nitrotest Method NITPH-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082								
DF-HA-22(2)	6/8/23	10:52	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X												1	
DF-HA-25(1)		15:00	1														1	
DF-HA-25(2)		15:10	3														2	
DF-HA-21(2)		9:25	2														3	
DF-HA-18(1)		9:02	1		X												1	
DF-HA-16(2)		10:05	2														1	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <i>[Signature]</i> Print <i>McCurrie Cleve</i> Firm <i>H&A</i> Date <i>6/9/23</i> Time <i>9:27</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Sampled and Relinquished by	Received by	SOLID	
Sign <i>[Signature]</i> Print <i>Randee Arrington</i> Firm <i>ESTNW</i> Date <i>6/9/23</i> Time <i>0927</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Relinquished by	Received by	PRESERVATION KEY	
Sign Print Firm Date Time	Sign Print Firm Date Time	A Sample chilled B Sample filtered C NaOH D HNO ₃ E H ₂ SO ₄ F HCL G Methanol H Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-6

Login Number: 20747

List Number: 1

Creator: Arrington, Randee E

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-7

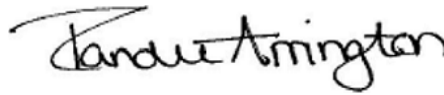
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Job ID: 590-20747-7

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

The following sample was activated for 8260D Volatiles analysis by the client on 07/05/23: DF-HA-19(4) (590-20747-15). This analysis was not originally requested on the chain-of-custody (COC).

The following samples were activated for 6010D Cd & Pb analysis by the client on 07/10/23: DF-HA-14(3) (590-20747-5) and DF-HA-19(3) (590-20747-16). This analysis was not originally requested on the chain-of-custody (COC).

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42414 recovered outside acceptance criteria, low biased, for Bromomethane and Methylene Chloride. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-42414 recovered above the upper control limit for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloropropene, 1,2,3-Trichloropropene, 1,2,4-Trimethylbenzene, 1,2-Dibromo-3-Chloropropane, 1,2-Dichloropropane, 1,3,5-Trimethylbenzene, 1,3-Dichloropropane, 2-Chlorotoluene, 4-Chlorotoluene, Bromobenzene, Hexachlorobutadiene, m,p-Xylene, Naphthalene, N-Propylbenzene, tert-Butylbenzene, Tetrachloroethene, Toluene and trans-1,3-Dichloropropene. The samples associated with this CCV were either detected below the reporting limit or non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 590-42416 and 590-42416 and analytical batch 590-42414 recovered outside control limits for the following analytes: 1,2,3-Trichloropropane, 1,3,5-Trimethylbenzene, N-Propylbenzene and tert-Butylbenzene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The method blank for preparation batch 590-42416 and 590-42416 and analytical batch 590-42414 contained Toluene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8260D: Surrogate recovery for the following sample was outside the upper control limit: (LCS 590-42416/2-A).

Method 8260D: The following sample was analyzed outside of analytical holding time due to activation out of hold: DF-HA-19(4) (590-20747-15).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-20747-5	DF-HA-14(3)	Solid	06/07/23 14:40	06/09/23 09:27
590-20747-15	DF-HA-19(4)	Solid	06/07/23 16:55	06/09/23 09:27
590-20747-16	DF-HA-19(3)	Solid	06/07/23 16:32	06/09/23 09:27

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Client Sample ID: DF-HA-14(3)

Lab Sample ID: 590-20747-5

Date Collected: 06/07/23 14:40

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.3

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	12		4.2	0.25	mg/Kg	☼	07/11/23 09:49	07/11/23 16:17	5
Lead	17000		250	120	mg/Kg	☼	07/11/23 09:49	07/11/23 17:11	100

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND	H	0.31	0.059	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1,1-Trichloroethane	ND	H	0.31	0.053	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1,2,2-Tetrachloroethane	ND	H	0.31	0.089	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1,2-Trichloroethane	ND	H	0.31	0.11	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1-Dichloroethane	ND	H	0.31	0.081	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1-Dichloroethene	ND	H	0.31	0.10	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,1-Dichloropropene	ND	H	0.31	0.053	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2,3-Trichlorobenzene	ND	H	0.31	0.10	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2,3-Trichloropropane	ND	H **	0.61	0.11	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2,4-Trichlorobenzene	ND	H	0.31	0.057	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2,4-Trimethylbenzene	ND	H	0.31	0.072	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2-Dibromo-3-Chloropropane	ND	H	1.5	0.18	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2-Dibromoethane (EDB)	ND	H	0.31	0.10	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2-Dichlorobenzene	ND	H	0.31	0.071	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2-Dichloroethane	ND	H	0.31	0.021	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,2-Dichloropropane	ND	H	0.37	0.093	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,3,5-Trimethylbenzene	ND	H **	0.31	0.098	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,3-Dichlorobenzene	ND	H	0.31	0.039	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,3-Dichloropropane	ND	H	0.31	0.091	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
1,4-Dichlorobenzene	ND	H	0.31	0.063	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
2,2-Dichloropropane	ND	H	0.31	0.075	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
2-Chlorotoluene	ND	H	0.31	0.050	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
4-Chlorotoluene	ND	H	0.31	0.027	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Benzene	ND	H	0.061	0.031	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Bromobenzene	ND	H	0.31	0.068	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Bromochloromethane	ND	H	0.31	0.12	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Bromodichloromethane	ND	H	0.31	0.19	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Bromoform	ND	H	0.61	0.059	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Bromomethane	ND	H	1.5	0.10	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Carbon tetrachloride	ND	H	0.31	0.034	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Chlorobenzene	ND	H	0.31	0.063	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Chloroethane	ND	H	0.61	0.17	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Chloroform	ND	H	0.31	0.072	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Chloromethane	ND	H	1.5	0.13	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
cis-1,2-Dichloroethene	ND	H	0.31	0.064	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
cis-1,3-Dichloropropene	ND	H	0.31	0.063	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Dibromochloromethane	ND	H	0.61	0.050	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Dibromomethane	ND	H	0.31	0.068	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Dichlorodifluoromethane	ND	H	0.31	0.086	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Ethylbenzene	ND	H	0.31	0.050	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1
Hexachlorobutadiene	ND	H	0.31	0.050	mg/Kg	☼	07/17/23 11:01	07/17/23 16:31	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	ND	H	0.31	0.095	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
m,p-Xylene	ND	H	1.2	0.088	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Methyl tert-butyl ether	ND	H	0.15	0.092	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Methylene Chloride	ND	H	1.1	0.61	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Naphthalene	0.12	J H	0.61	0.086	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
n-Butylbenzene	ND	H	0.31	0.084	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
N-Propylbenzene	ND	H *	0.31	0.081	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
o-Xylene	ND	H	0.61	0.071	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
p-Isopropyltoluene	ND	H	0.31	0.063	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
sec-Butylbenzene	ND	H	0.31	0.057	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Styrene	ND	H	0.31	0.072	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
tert-Butylbenzene	ND	H *	0.31	0.060	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Tetrachloroethene	ND	H	0.12	0.054	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Toluene	0.093	J H B	0.31	0.041	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
trans-1,2-Dichloroethene	ND	H	0.31	0.070	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
trans-1,3-Dichloropropene	ND	H	0.31	0.081	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Trichloroethene	5.7	H	0.077	0.023	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Trichlorofluoromethane	ND	H	0.61	0.10	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1
Vinyl chloride	ND	H	0.18	0.062	mg/Kg	☆	07/17/23 11:01	07/17/23 16:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	115		80 - 120	07/17/23 11:01	07/17/23 16:31	1
4-Bromofluorobenzene (Surr)	124		66 - 129	07/17/23 11:01	07/17/23 16:31	1
Dibromofluoromethane (Surr)	103		80 - 120	07/17/23 11:01	07/17/23 16:31	1
1,2-Dichloroethane-d4 (Surr)	93		79 - 124	07/17/23 11:01	07/17/23 16:31	1

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.4

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	29		4.0	0.23	mg/Kg	☆	07/11/23 09:49	07/11/23 16:21	5
Lead	5900		240	120	mg/Kg	☆	07/11/23 09:49	07/11/23 17:15	100

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-42416/1-A
Matrix: Solid
Analysis Batch: 42414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42416

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Benzene	ND		0.020	0.010	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Bromobenzene	ND		0.10	0.022	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Bromoform	ND		0.20	0.019	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Bromomethane	ND		0.50	0.033	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Chloroethane	ND		0.20	0.056	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Chloroform	ND		0.10	0.024	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Chloromethane	ND		0.50	0.042	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Dibromomethane	ND		0.10	0.022	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Naphthalene	ND		0.20	0.028	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		07/17/23 11:01	07/17/23 14:43	1

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-42416/1-A
Matrix: Solid
Analysis Batch: 42414

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.20	0.023	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Styrene	ND		0.10	0.024	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Toluene	0.0225	J	0.10	0.013	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		07/17/23 11:01	07/17/23 14:43	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		07/17/23 11:01	07/17/23 14:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	115		80 - 120	07/17/23 11:01	07/17/23 14:43	1
4-Bromofluorobenzene (Surr)	123		66 - 129	07/17/23 11:01	07/17/23 14:43	1
Dibromofluoromethane (Surr)	105		80 - 120	07/17/23 11:01	07/17/23 14:43	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	07/17/23 11:01	07/17/23 14:43	1

Lab Sample ID: LCS 590-42416/2-A
Matrix: Solid
Analysis Batch: 42414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	0.473		mg/Kg		95	76 - 139
1,1,1-Trichloroethane	0.500	0.476		mg/Kg		95	59 - 150
1,1,1,2,2-Tetrachloroethane	0.500	0.627		mg/Kg		125	66 - 130
1,1,2-Trichloroethane	0.500	0.581		mg/Kg		116	74 - 131
1,1-Dichloroethane	0.500	0.554		mg/Kg		111	79 - 133
1,1-Dichloroethene	0.500	0.400		mg/Kg		80	50 - 150
1,1-Dichloropropene	0.500	0.595		mg/Kg		119	80 - 131
1,2,3-Trichlorobenzene	0.500	0.533		mg/Kg		107	72 - 130
1,2,3-Trichloropropane	0.500	0.753	*+	mg/Kg		151	61 - 138
1,2,4-Trichlorobenzene	0.500	0.592		mg/Kg		118	73 - 129
1,2,4-Trimethylbenzene	0.500	0.589		mg/Kg		118	78 - 128
1,2-Dibromo-3-Chloropropane	0.500	0.621		mg/Kg		124	49 - 143
1,2-Dibromoethane (EDB)	0.500	0.557		mg/Kg		111	76 - 126
1,2-Dichlorobenzene	0.500	0.502		mg/Kg		100	80 - 121
1,2-Dichloroethane	0.500	0.493		mg/Kg		99	77 - 126
1,2-Dichloropropane	0.500	0.592		mg/Kg		118	71 - 136
1,3,5-Trimethylbenzene	0.500	0.657	*+	mg/Kg		131	76 - 130
1,3-Dichlorobenzene	0.500	0.516		mg/Kg		103	80 - 121
1,3-Dichloropropane	0.500	0.604		mg/Kg		121	73 - 125
1,4-Dichlorobenzene	0.500	0.525		mg/Kg		105	80 - 122
2,2-Dichloropropane	0.500	0.479		mg/Kg		96	50 - 150
2-Chlorotoluene	0.500	0.643		mg/Kg		129	73 - 131
4-Chlorotoluene	0.500	0.632		mg/Kg		126	76 - 128
Benzene	0.500	0.507		mg/Kg		101	80 - 128

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-42416/2-A
Matrix: Solid
Analysis Batch: 42414

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromobenzene	0.500	0.642		mg/Kg		128	70 - 129
Bromochloromethane	0.500	0.491		mg/Kg		98	67 - 138
Bromodichloromethane	0.500	0.474		mg/Kg		95	79 - 122
Bromoform	0.500	0.488		mg/Kg		98	49 - 150
Bromomethane	0.500	0.310	J	mg/Kg		62	39 - 150
Carbon tetrachloride	0.500	0.433		mg/Kg		87	61 - 150
Chlorobenzene	0.500	0.510		mg/Kg		102	80 - 124
Chloroethane	0.500	0.602		mg/Kg		120	38 - 150
Chloroform	0.500	0.543		mg/Kg		109	80 - 131
Chloromethane	0.500	0.288	J	mg/Kg		58	29 - 150
cis-1,2-Dichloroethene	0.500	0.551		mg/Kg		110	78 - 132
cis-1,3-Dichloropropene	0.500	0.524		mg/Kg		105	71 - 123
Dibromochloromethane	0.500	0.522		mg/Kg		104	70 - 132
Dibromomethane	0.500	0.431		mg/Kg		86	76 - 121
Dichlorodifluoromethane	0.500	0.324		mg/Kg		65	14 - 120
Ethylbenzene	0.500	0.526		mg/Kg		105	80 - 127
Hexachlorobutadiene	0.500	0.626		mg/Kg		125	75 - 136
Isopropylbenzene	0.500	0.506		mg/Kg		101	79 - 134
m,p-Xylene	0.500	0.556		mg/Kg		111	80 - 131
Methyl tert-butyl ether	0.500	0.436		mg/Kg		87	69 - 132
Methylene Chloride	0.500	0.319	J	mg/Kg		64	42 - 150
Naphthalene	0.500	0.598		mg/Kg		120	57 - 131
n-Butylbenzene	0.500	0.506		mg/Kg		101	75 - 128
N-Propylbenzene	0.500	0.702	*+	mg/Kg		140	71 - 136
o-Xylene	0.500	0.512		mg/Kg		102	78 - 128
p-Isopropyltoluene	0.500	0.572		mg/Kg		114	79 - 128
sec-Butylbenzene	0.500	0.622		mg/Kg		124	78 - 132
Styrene	0.500	0.521		mg/Kg		104	76 - 128
tert-Butylbenzene	0.500	0.665	*+	mg/Kg		133	74 - 129
Tetrachloroethene	0.500	0.602		mg/Kg		120	76 - 142
Toluene	0.500	0.599		mg/Kg		120	79 - 130
trans-1,2-Dichloroethene	0.500	0.502		mg/Kg		100	75 - 140
trans-1,3-Dichloropropene	0.500	0.618		mg/Kg		124	68 - 133
Trichloroethene	0.500	0.527		mg/Kg		105	80 - 129
Trichlorofluoromethane	0.500	0.454		mg/Kg		91	45 - 150
Vinyl chloride	0.500	0.351		mg/Kg		70	38 - 150

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	112		80 - 120
4-Bromofluorobenzene (Surr)	131	S1+	66 - 129
Dibromofluoromethane (Surr)	101		80 - 120
1,2-Dichloroethane-d4 (Surr)	97		79 - 124

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 590-42346/2-A
Matrix: Solid
Analysis Batch: 42363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 42346

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.059	mg/Kg		07/11/23 09:49	07/11/23 15:19	1
Lead	ND		3.0	1.5	mg/Kg		07/11/23 09:49	07/11/23 15:19	1

Lab Sample ID: LCS 590-42346/1-A
Matrix: Solid
Analysis Batch: 42363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 42346

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	44.7		mg/Kg		89	80 - 120
Lead	50.0	46.2		mg/Kg		92	80 - 120

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Client Sample ID: DF-HA-14(3)

Lab Sample ID: 590-20747-5

Date Collected: 06/07/23 14:40

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 16:31	MRV	EET SPK

Client Sample ID: DF-HA-14(3)

Lab Sample ID: 590-20747-5

Date Collected: 06/07/23 14:40

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.35 g	50 mL	42346	07/11/23 09:49	AMB	EET SPK
Total/NA	Analysis	6010D		5			42363	07/11/23 16:17	AMB	EET SPK
Total/NA	Prep	3050B			1.35 g	50 mL	42346	07/11/23 09:49	AMB	EET SPK
Total/NA	Analysis	6010D		100			42363	07/11/23 17:11	AMB	EET SPK

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42343	07/10/23 15:59	MRV	EET SPK

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.071 g	10 mL	42416	07/17/23 11:01	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	42414	07/17/23 16:31	JSP	EET SPK

Client Sample ID: DF-HA-19(3)

Lab Sample ID: 590-20747-16

Date Collected: 06/07/23 16:32

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.44 g	50 mL	42346	07/11/23 09:49	AMB	EET SPK
Total/NA	Analysis	6010D		5			42363	07/11/23 16:21	AMB	EET SPK
Total/NA	Prep	3050B			1.44 g	50 mL	42346	07/11/23 09:49	AMB	EET SPK
Total/NA	Analysis	6010D		100			42363	07/11/23 17:15	AMB	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-7

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
6010D	Metals (ICP)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTF6-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by Sign: <i>[Signature]</i> Print: <i>McLynnie Clark</i> Firm: <i>HA A</i> Date: <i>6/12/23</i> Time: <i>9:27</i>	Received by Sign: <i>[Signature]</i> Print: <i>Randee Arrington</i> Firm: <i>EETMW</i> Date: <i>6/12/23</i> Time: <i>09:07</i>	LIQUID VOA Vial Amber Glass Plastic Bottle	Sampling Comments
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	SOLID	Evidence samples were tampered with? YES NO IF YES, please explain in section below.
Relinquished by Sign: Print: Firm: Date: Time:		Received by Sign: Print: Firm: Date: Time:	
PRESERVATION KEY A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)			



Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Randee Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRP-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X						4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft													4	
DF-HA-20 (2)		16:05	2 ft													4	
DF-HA-20 (4)		16:55	4 ft													4	
DF-HA-19 (4)		16:55	4 ft													3	
DF-HA-19 (3)		16:30	3 ft													3	
DF-HA-19 (2)		16:05	2 ft													3	
DF-HA-12 (1)		15:48	1 ft		X	X										3	
DF-HA-8 (2)		12:00	2 ft													1	
DF-HA-8 (1)		11:45	1 ft		X											1	

Sampled and Relinquished by		Received by		LIQUID											Sampling Comments			
Sign M... Print M... Firm H&A Date 9/6/12 Time 7:27	Sign M... Print M... Firm H&A Date 9/6/12 Time 7:27																VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Relinquished by		Received by		SOLID														
Sign Randee Arrington Print Randee Arrington Firm EETNW Date 6/19/23 Time 09:27	Sign Randee Arrington Print Randee Arrington Firm EETNW Date 6/19/23 Time 09:27																VOA Vial Amber Glass Clear Glass Preservative Volume	
Relinquished by		Received by		PRESERVATION KEY											Evidence samples were tampered with? YES NO			
Sign Print Firm Date	Sign Print Firm Date			A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol											
				B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)											

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCMA Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil													2	
DF-HA-24 (1)	6/8/23	13:37	1														2	
DF-HA-26 (35)		15:20	3.5														2	
DF-HA-22 (3)		11:22	3														1	
DF-HA-26 (1)		15:25	1														2	
DF-HA-16 (1)		10:00	1		XX												1	
DF-HA-21 (1)		8:30	1														3	
DF-HA-18 (2)		9:22	2														1	
DF-HA-16 (3)		10:08	3														1	

Sampled and Relinquished by		Received by		LIQUID										Sampling Comments			
Sign <i>[Signature]</i>	Print <i>Marybeth Clark</i>	Sign	Print														VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm <i>H&A</i>	Date <i>6/9/23</i> Time <i>9:27</i>	Firm	Date														
Relinquished by		Received by		SOLID													
Sign <i>[Signature]</i>	Print <i>Rande Arrington</i>	Sign	Print														VOA Vial Amber Glass Clear Glass Preservative Volume
Firm <i>ETAKE</i>	Date <i>6/9/23</i> Time <i>027</i>	Firm	Date														
Relinquished by		Received by		PRESERVATION KEY										Evidence samples were tampered with? YES NO			
Sign	Print	Sign	Print											If YES, please explain in section below			
Firm	Date	Firm	Date														

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



Haley & Aldrich, Inc.
505 W Riverside Ave.
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 4 of 4

H&A FILE NO 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					ACRA Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Nitrotest Method NITPH-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082								
DF-HA-22(2)	6/8/23	10:52	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X												1	
DF-HA-25(1)		15:00	1														1	
DF-HA-25(2)		15:10	3														2	
DF-HA-21(2)		9:25	2														3	
DF-HA-18(1)		9:02	1		X												1	
DF-HA-16(2)		10:05	2														1	

Sampled and Relinquished by	Received by	LIQUID	Sampling Comments
Sign <i>[Signature]</i> Print <i>McCarthy Cleveland</i> Firm <i>H&A</i> Date <i>6/9/23</i> Time <i>9:27</i>	Sign Print Firm Date Time	VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Sign <i>[Signature]</i> Print <i>Rande Arrington</i> Firm <i>ESTNW</i> Date <i>6/9/23</i> Time <i>0927</i>	Sign Print Firm Date Time	SOLID VOA Vial Amber Glass Clear Glass Preservative Volume	Evidence samples were tampered with? YES NO If YES, please explain in section below
Sign Print Firm Date Time	Sign Print Firm Date Time	PRESERVATION KEY A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL II Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
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 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-7

Login Number: 20747

List Number: 1

Creator: Arrington, Randee E

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-20747-8

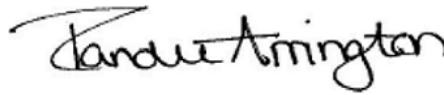
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Job ID: 590-20747-8

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 6/9/2023 9:27 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1° C and 2.9° C.

Receipt Exceptions

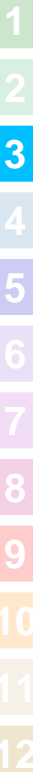
The following samples were activated for 6010D Cadmium and Lead analysis by the client on 07/21/23: DF-HA-14(4) (590-20747-6) and DF-HA-19(4) (590-20747-15). This analysis was not originally requested on the chain-of-custody (COC).

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-20747-6	DF-HA-14(4)	Solid	06/07/23 14:55	06/09/23 09:27
590-20747-15	DF-HA-19(4)	Solid	06/07/23 16:55	06/09/23 09:27

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F3	Duplicate RPD exceeds the control limit

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Client Sample ID: DF-HA-14(4)

Lab Sample ID: 590-20747-6

Date Collected: 06/07/23 14:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 86.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	12		0.88	0.043	mg/Kg	☼	08/04/23 12:59	08/07/23 15:45	1
Lead	2400		1.3	0.20	mg/Kg	☼	08/04/23 12:59	08/07/23 15:45	1

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.0

Method: SW846 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	24		4.9	0.24	mg/Kg	☼	08/04/23 12:59	08/08/23 14:20	5
Lead	5000		15	2.2	mg/Kg	☼	08/04/23 12:59	08/08/23 14:23	10

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 580-433755/22-A
Matrix: Solid
Analysis Batch: 434036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433755

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.049	mg/Kg		08/04/23 12:59	08/07/23 15:02	1
Lead	ND		1.5	0.22	mg/Kg		08/04/23 12:59	08/07/23 15:02	1

Lab Sample ID: LCS 580-433755/23-A
Matrix: Solid
Analysis Batch: 434036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433755

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	50.0	53.5		mg/Kg		107	80 - 120
Lead	50.0	52.3		mg/Kg		105	80 - 120

Lab Sample ID: 590-20747-6 MS
Matrix: Solid
Analysis Batch: 434036

Client Sample ID: DF-HA-14(4)
Prep Type: Total/NA
Prep Batch: 433755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	12		44.6	57.3		mg/Kg	⊛	102	80 - 120
Lead	2400		44.6	2430	4	mg/Kg	⊛	139	80 - 120

Lab Sample ID: 590-20747-6 MSD
Matrix: Solid
Analysis Batch: 434036

Client Sample ID: DF-HA-14(4)
Prep Type: Total/NA
Prep Batch: 433755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	12		41.8	49.8		mg/Kg	⊛	90	80 - 120	14	20
Lead	2400		41.8	2340	4	mg/Kg	⊛	-79	80 - 120	4	20

Lab Sample ID: 590-20747-6 DU
Matrix: Solid
Analysis Batch: 434036

Client Sample ID: DF-HA-14(4)
Prep Type: Total/NA
Prep Batch: 433755

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cadmium	12		9.42	F3	mg/Kg	⊛	24	20
Lead	2400		2620		mg/Kg	⊛	10	20

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Client Sample ID: DF-HA-14(4)

Lab Sample ID: 590-20747-6

Date Collected: 06/07/23 14:55

Matrix: Solid

Date Received: 06/09/23 09:27

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			42545	07/24/23 08:47	J1S	EET SPK

Client Sample ID: DF-HA-14(4)

Lab Sample ID: 590-20747-6

Date Collected: 06/07/23 14:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.3185 g	50 mL	433755	08/04/23 12:59	DLV	EET SEA
Total/NA	Analysis	6010D		1			434036	08/07/23 15:45	JLS	EET SEA

Client Sample ID: DF-HA-19(4)

Lab Sample ID: 590-20747-15

Date Collected: 06/07/23 16:55

Matrix: Solid

Date Received: 06/09/23 09:27

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			1.2077 g	50 mL	433755	08/04/23 12:59	DLV	EET SEA
Total/NA	Analysis	6010D		5			434174	08/08/23 14:20	JLS	EET SEA
Total/NA	Prep	3050B			1.2077 g	50 mL	433755	08/04/23 12:59	DLV	EET SEA
Total/NA	Analysis	6010D		10			434174	08/08/23 14:23	JLS	EET SEA

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310
 EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-004	02-19-25
ANAB	Dept. of Defense ELAP	L2236	01-19-25
ANAB	Dept. of Energy	L2236	01-19-25
ANAB	ISO/IEC 17025	L2236	01-19-25
California	State	2954	07-07-23 *
Florida	NELAP	E87575	06-30-23 *
Louisiana (All)	NELAP	03073	07-01-24
Maine	State	WA01273	05-02-24
Montana (UST)	State	NA	04-14-27
New Jersey	NELAP	WA014	06-30-24
New York	NELAP	11662	03-31-24
Oregon	NELAP	4167	07-07-24
US Fish & Wildlife	US Federal Programs	A20571	06-30-23 *
USDA	US Federal Programs	525-23-4-22573	01-04-26
Washington	State	C788	07-13-23 *
Wisconsin	State	399133460	08-31-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-20747-8

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET SEA
Moisture	Percent Moisture	EPA	EET SPK
3050B	Preparation, Metals	SW846	EET SEA

Protocol References:

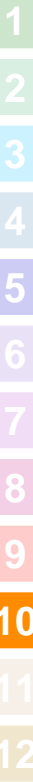
EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

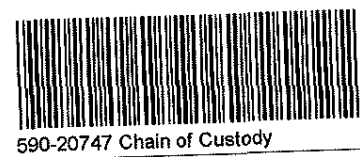


CHAIN OF CUSTODY RECORD

H&A FILE NO	0203154-013	LABORATORY	Eurofins	DELIVERY DATE	
PROJECT NAME	POM Historic Debris Field	ADDRESS	11922 E 1st Ave, Spokane Valley, WA 99206	TURNAROUND TIME	Standard
H&A CONTACT	Ward McDonald	CONTACT	Randee Arrington	PROJECT MANAGER	Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTFH-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-13 (1)	6/7/23	9:25	1ft	Soil	X												Laboratory to use applicable DEP CAM methods, unless otherwise directed. Invoice to accounts payable @ haleyaldrich.com *Samples with no analysis selected with be held.
DF-HA-14 (5)		14:58	5ft														
DF-HA-7 (3)		10:56	3ft														
DF-HA-14 (1)		14:03	1ft		X												
DF-HA-14 (3)		14:40	3ft														
DF-HA-14 (4)		14:55	4ft														
DF-HA-14 (6)		14:06	2ft														
DF-HA-8 (3)		12:35	3ft														
DF-HA-13 (2)		9:45	3ft														
DF-HA-7 (1)		10:28	1ft		X												

Sampled and Relinquished by Sign: <i>[Signature]</i> Print: <i>McGivern, Clau</i> Firm: <i>HA A</i> Date: <i>6/12/23</i> Time: <i>9:27</i>	Received by Sign: <i>[Signature]</i> Print: <i>Randee Arrington</i> Firm: <i>EETMW</i> Date: <i>6/12/23</i> Time: <i>09:27</i>	LIQUID VOA Vial Amber Glass Plastic Bottle	Sampling Comments
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	SOLID	Evidence samples were tampered with? YES NO IF YES, please explain in section below.
Relinquished by Sign: Print: Firm: Date: Time:	Received by Sign: Print: Firm: Date: Time:	PRESERVATION KEY A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)	Preservative Volume



Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.
505 W Riverside Ave.,
Suite 205,
Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 2 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested											Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					RCRA 8 Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPH Northwest Method NWTRP-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082							
DF-HA-20 (1)	6/17/23	15:55	1 ft	Soil	X	X	X	X	X	X						4	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-20 (3)		16:25	3 ft													4	
DF-HA-20 (2)		16:05	2 ft													4	
DF-HA-20 (4)		16:55	4 ft													4	
DF-HA-19 (4)		16:55	4 ft													3	
DF-HA-19 (3)		16:30	3 ft													3	
DF-HA-19 (2)		16:05	2 ft													3	
DF-HA-12 (1)		15:48	1 ft		X	X										3	
DF-HA-8 (2)		12:00	2 ft													1	
DF-HA-8 (1)		11:45	1 ft		X											1	

Sampled and Relinquished by		Received by		LIQUID											Sampling Comments				
Sign <i>Marynne Clark</i>	Print Marynne Clark	Sign	Print															VOA Vial Amber Glass Plastic Bottle Preservative Volume	
Firm H&A	Date 6/17/23	Firm	Date																
Time 7:27		Time																	
Relinquished by		Received by		SOLID															
Sign <i>Rande Arrington</i>	Print Rande Arrington	Sign	Print															VOA Vial Amber Glass Clear Glass Preservative Volume	
Firm EETNW	Date 6/19/23	Firm	Date																
Time 0927		Time																	
Relinquished by		Received by		PRESERVATION KEY											Evidence samples were tampered with? YES NO				
Sign	Print	Sign	Print												If YES, please explain in section below				
Firm	Date	Firm	Date																
Time		Time																	
				A	Sample chilled	C	NaOH	E	H ₂ SO ₄	G	Methanol								
				B	Sample filtered	D	HNO ₃	F	HCL	H	Water/NaHSO ₄ (circle)								

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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CHAIN OF CUSTODY RECORD

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Page 3 of 4

H&A FILE NO. 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth feet	Type	Analysis Requested										Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)		
					RCMA Metals EPA Method 6010 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 9012 B	ORPE Northwest Method NWTPE-Dx	Organochlorine Pesticides EPA Method 8081	PCB EPA Method 8082								
DF-HA-13 (2)	6/7/23	09:35	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-7C (2)	L	10:34	2	Soil													2	
DF-HA-24 (1)	6/8/23	13:37	1														2	
DF-HA-26 (35)		15:20	3.5														2	
DF-HA-22 (3)		11:22	3														1	
DF-HA-26 (1)		15:25	1														2	
DF-HA-16 (1)		10:00	1		XX												1	
DF-HA-21 (1)		8:30	1														3	
DF-HA-18 (2)		9:22	2														1	
DF-HA-16 (3)		10:08	3														1	

Sampled and Relinquished by		Received by	LIQUID										Sampling Comments				
Sign <i>[Signature]</i>	Print <i>Mercedes Cleve</i>	Sign															VOA Vial Amber Glass Plastic Bottle Preservative Volume
Firm <i>HA</i>	Date <i>6/9/23</i> Time <i>9:27</i>	Date															
Relinquished by		Received by	SOLID										VOA Vial Amber Glass Clear Glass Preservative Volume				
Sign <i>[Signature]</i>	Print <i>Randee Arrington</i>	Sign															
Firm <i>ETAKE</i>	Date <i>6/9/23</i> Time <i>027</i>	Date															
Relinquished by		Received by	PRESERVATION KEY										Evidence samples were tampered with? YES NO If YES, please explain in section below				
Sign	Print	Sign	A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol											
Firm	Date	Firm	B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)											

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2



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Spokane, Washington

CHAIN OF CUSTODY RECORD

Phone (206) 972 6521
Fax
Page 4 of 4

H&A FILE NO 0203154-013 LABORATORY Eurofins DELIVERY DATE
PROJECT NAME POM Historic Debris Field ADDRESS 11922 E 1st Ave, Spokane Valley, WA 99206 TURNAROUND TIME Standard
H&A CONTACT Ward McDonald CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					ACRA Metals EPA Method 60.0 and 7470	VOC EPA Method 8260 B	Cyanide EPA Method 90 B	ORPH Spectrophotometric Method SW799-Dx	Organochlorine Pesticides EPA Method 808	PCB EPA Method 8082								
DF-HA-22(2)	6/8/23	10:52	2	Soil													2	Laboratory to use applicable DEP CAM methods, unless otherwise directed.
DF-HA-22(1)		10:45	1		X												1	
DF-HA-25(1)		15:00	1														1	
DF-HA-25(2)		15:10	3														2	
DF-HA-21(2)		9:25	2														3	
DF-HA-18(1)		9:02	1		X												1	
DF-HA-16(2)		10:05	2														1	

Sampled and Relinquished by <i>[Signature]</i> Print Firm Date 6/17/23 Time 9:27	Received by <i>[Signature]</i> Print Firm Date Time	LIQUID	Sampling Comments
Relinquished by <i>[Signature]</i> Print Firm Date 6/19/23 Time 09:27	Received by <i>[Signature]</i> Print Firm Date Time	SOLID	
Relinquished by	Received by	PRESERVATION KEY	Evidence samples were tampered with? YES NO If YES, please explain in section below
		A Sample chilled C NaOH E H ₂ SO ₄ G Methanol B Sample filtered D HNO ₃ F HCL II Water/NaHSO ₄ (circle)	

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty
 Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

WHITE Laboratory

CANARY Project Manager

PINK Haley & Aldrich Laboratory

FEBRUARY 2016

Eurofins Spokane

11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



eurofins | Environment Testing

Client Information (Sub Contract Lab)				Sampler:		Lab PM: Arrington, Randee E		Carrier Tracking No(s):		COC No: 590-8100.1			
Client Contact: Shipping/Receiving				Phone:		E-Mail: Randee.Arrington@et.eurofinsus.com		State of Origin: Washington		Page: Page 1 of 1			
Company: Eurofins Environment Testing Northwest						Accreditations Required (See note): State Program - Washington				Job #: 590-20747-8			
Address: 5755 8th Street East, Tacoma WA, 98424				Due Date Requested: 7/28/2023		Analysis Requested						Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
City: Tacoma				TAT Requested (days):									
State, Zip: WA, 98424				PO #:									
Phone: 253-922-2310(Tel)				WC #:									
Email:				Project Name: POM Historic Debris Field/0203154-013		Project #: 59002301		Site:		SSOW#:			
Sample Identification - Client ID (Lab ID)			Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Special Instructions/Note:		
DF-HA-14(4) (590-20747-6)			6/7/23		14:55 Pacific		Solid		X		1		
DF-HA-19(4) (590-20747-15)			6/7/23		16:55 Pacific		Solid		X		1		
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northwest, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northwest, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northwest, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northwest, LLC.													
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Primary Deliverable Rank: 2							
Special Instructions/QC Requirements:													
Empty Kit Relinquished by:			Date:			Time:			Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: 8/2/23 15:54			Company: BEI SPO			Received by: <i>[Signature]</i>				
Relinquished by:			Date/Time:			Company:			Received by:				
Relinquished by:			Date/Time:			Company:			Received by:				
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: IR9 21.1/21.4 IR9 5.0/5.3									

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-8

Login Number: 20747

List Number: 1

Creator: Arrington, Randee E

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-8

Login Number: 20747
List Number: 2
Creator: Groves, Elizabeth

List Source: Eurofins Seattle
List Creation: 06/10/23 11:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9 4.3/4.6c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-20747-8

Login Number: 20747

List Number: 4

Creator: Groves, Elizabeth

List Source: Eurofins Seattle

List Creation: 08/03/23 12:02 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	IR9 - 21.1c/21.4c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 11/3/2023 2:43:19 PM

JOB DESCRIPTION

Pend Oreille Mine

JOB NUMBER

590-22134-1

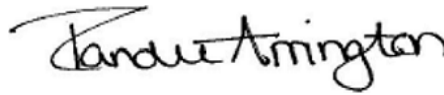
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



Generated
11/3/2023 2:43:19 PM

Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Job ID: 590-22134-1

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22134-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/31/2023 10:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-22134-1	DF-HA-19(5)	Solid	10/30/23 11:25	10/31/23 10:55
590-22134-4	DF-HA-28(1)	Solid	10/30/23 14:05	10/31/23 10:55
590-22134-7	DF-HA-29(1)	Solid	10/30/23 15:20	10/31/23 10:55

1

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11

12

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-19(5)

Lab Sample ID: 590-22134-1

Date Collected: 10/30/23 11:25

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 85.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	2.3		0.081	0.025	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		79 - 124				11/01/23 17:44	11/02/23 04:01	1
4-Bromofluorobenzene (Surr)	99		66 - 129				11/01/23 17:44	11/02/23 04:01	1
Dibromofluoromethane (Surr)	104		80 - 120				11/01/23 17:44	11/02/23 04:01	1
Toluene-d8 (Surr)	105		80 - 120				11/01/23 17:44	11/02/23 04:01	1

Client Sample ID: DF-HA-28(1)

Lab Sample ID: 590-22134-4

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.12		0.077	0.024	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		79 - 124				11/01/23 17:44	11/02/23 04:22	1
4-Bromofluorobenzene (Surr)	101		66 - 129				11/01/23 17:44	11/02/23 04:22	1
Dibromofluoromethane (Surr)	104		80 - 120				11/01/23 17:44	11/02/23 04:22	1
Toluene-d8 (Surr)	102		80 - 120				11/01/23 17:44	11/02/23 04:22	1

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.068	0.021	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		79 - 124				11/01/23 17:44	11/02/23 04:44	1
4-Bromofluorobenzene (Surr)	99		66 - 129				11/01/23 17:44	11/02/23 04:44	1
Dibromofluoromethane (Surr)	104		80 - 120				11/01/23 17:44	11/02/23 04:44	1
Toluene-d8 (Surr)	106		80 - 120				11/01/23 17:44	11/02/23 04:44	1

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44406/1-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.025	0.0076	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		79 - 124				11/01/23 17:44	11/01/23 18:37	1
4-Bromofluorobenzene (Surr)	100		66 - 129				11/01/23 17:44	11/01/23 18:37	1
Dibromofluoromethane (Surr)	102		80 - 120				11/01/23 17:44	11/01/23 18:37	1
Toluene-d8 (Surr)	103		80 - 120				11/01/23 17:44	11/01/23 18:37	1

Lab Sample ID: LCS 590-44406/2-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.500	0.525		mg/Kg		105	80 - 129
Surrogate	%Recovery	Qualifier	Limits				
1,2-Dichloroethane-d4 (Surr)	99		79 - 124				
4-Bromofluorobenzene (Surr)	102		66 - 129				
Dibromofluoromethane (Surr)	101		80 - 120				
Toluene-d8 (Surr)	103		80 - 120				

Lab Sample ID: LCSD 590-44406/3-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Trichloroethene	0.500	0.528		mg/Kg		106	80 - 129	1	17
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	104		79 - 124						
4-Bromofluorobenzene (Surr)	100		66 - 129						
Dibromofluoromethane (Surr)	102		80 - 120						
Toluene-d8 (Surr)	103		80 - 120						

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-19(5)

Lab Sample ID: 590-22134-1

Date Collected: 10/30/23 11:25

Matrix: Solid

Date Received: 10/31/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-19(5)

Lab Sample ID: 590-22134-1

Date Collected: 10/30/23 11:25

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.776 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:01	JSP	EET SPK

Client Sample ID: DF-HA-28(1)

Lab Sample ID: 590-22134-4

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 10/31/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-28(1)

Lab Sample ID: 590-22134-4

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.596 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:22	JSP	EET SPK

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.038 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:44	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





Haley & Aldrich, Inc.
505 West Riverside
Suite 450,
Spokane, WA 99216

CHAIN OF CUSTODY RECORD


Phone 509-960-7447

Fax

Page 1 of 1

H&A FILE NO. 0203154-013 LABORATORY Eurofins Environment Testing DELIVERY DATE 10/31/2023
 PROJECT NAME POM Historic Debris Field-October 2023 ADDRESS 11922 East 1st Avenue Spokane, WA TURNAROUND TIME 48-hours/Select samples hold until further notice
 H&A CONTACT McKynzie Clark CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth (feet)	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					TC	CE	EA	PA	NO	3	6	9	10	15	16	17			18
DF-HA-19(5)	10/30/2023	1125	5.0	Soil	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 48-HR TAT MEM 10/31/23
DF-HA-19(6)	10/30/2023	1130	6.0	Soil														3	
DF-HA-19(7)	10/30/2023	1135	7.0	Soil														3	
DF-HA-28(1)	10/30/2023	1405	1.0	Soil	X													3	
DF-HA-28(2)	10/30/2023	1410	2.0	Soil														3	
DF-HA-28(2.5)	10/30/2023	1445	2.5	Soil														3	
DF-HA-29(1)	10/30/2023	1520	1.0	Soil	X													3	
DF-HA-29(2)	10/30/2023	1540	2.0	Soil														3	
DF-HA-29(2.5)	10/30/2023	1615	2.5	Soil														3	
DF-HA-28(4)	10/30/2023	1700	1.0	Soil	X													3	

Sampled and Relinquished by		Received by		LIQUID				Sampling Comments	
Sign <i>[Signature]</i>	Sign <i>[Signature]</i>					VOA Vial		43,44 con 19005  590-22134 Chain of Custody	
Print Ward McDonald	Print <i>Maclay Harris</i>					Amber Glass			
Firm Haley & Aldrich, Inc.	Firm <i>EET SFO</i>					Plastic Bottle			
Date 10/31/23 Time 1054	Date 10/31/23 Time 1055					Preservative			
Relinquished by		Received by		SOLID				Volume	
Sign	Sign					VOA Vial		Evidence samples were tampered with? YES NO If YES, please explain in section below	
Print	Print	X				Amber Glass			
Firm	Firm					Clear Glass			
Date	Date	X				Preservative			
Relinquished by		Received by		PRESERVATION KEY				Volume	
Sign	Sign	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol							
Print	Print	B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)							
Firm	Firm								
Date	Date								

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22134-1

Login Number: 22134

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201
Generated 11/6/2023 4:37:13 PM Revision 1

JOB DESCRIPTION

Pend Oreille Mine

JOB NUMBER

590-22134-1

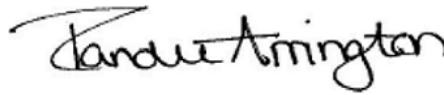
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
Randee Arrington, Business Unit Manager
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(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Job ID: 590-22134-1

Laboratory: Eurofins Spokane

Narrative

**Job Narrative
590-22134-1**

REVISION

The report being provided is a revision of the original report sent on 11/3/2023. The report (revision 1) is being revised due to Added 8260D full list analytes to the final report.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/31/2023 10:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-44383 recovered above the upper control limit for Chloroethane and Methylene Chloride. The samples associated with this CCV were either detected below the reporting limit, or non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The initial calibration verification (ICV) result for batch 590-44383 was above the upper control limit for Methylene Chloride. Sample results were non-detects, and have been reported as qualified data.

Method 8260D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 590-44406 and analytical batch 590-44383 recovered outside control limits for the following analytes: <AffectedAnalytes>.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-44406 and analytical batch 590-44383 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-22134-1	DF-HA-19(5)	Solid	10/30/23 11:25	10/31/23 10:55
590-22134-4	DF-HA-28(1)	Solid	10/30/23 14:05	10/31/23 10:55
590-22134-7	DF-HA-29(1)	Solid	10/30/23 15:20	10/31/23 10:55

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-19(5)

Lab Sample ID: 590-22134-1

Date Collected: 10/30/23 11:25

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 85.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.32	0.062	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,1,1-Trichloroethane	ND		0.32	0.056	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,1,2,2-Tetrachloroethane	ND		0.32	0.095	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,1-Dichloroethane	ND		0.32	0.086	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,1-Dichloroethene	ND		0.32	0.11	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,1-Dichloropropene	ND		0.32	0.057	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2,3-Trichlorobenzene	ND		0.32	0.11	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2,3-Trichloropropane	ND		0.65	0.12	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2,4-Trichlorobenzene	ND		0.32	0.060	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2,4-Trimethylbenzene	ND		0.32	0.076	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2-Dibromo-3-Chloropropane	ND		1.6	0.19	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2-Dichlorobenzene	ND		0.32	0.076	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2-Dichloroethane	ND		0.32	0.023	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,2-Dichloropropane	ND		0.39	0.098	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,3,5-Trimethylbenzene	ND		0.32	0.10	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,3-Dichlorobenzene	ND		0.32	0.041	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
1,4-Dichlorobenzene	ND		0.32	0.067	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
2,2-Dichloropropane	ND		0.32	0.079	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
2-Chlorotoluene	ND		0.32	0.053	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
4-Chlorotoluene	ND		0.32	0.028	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Benzene	0.032	J	0.065	0.032	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Bromobenzene	ND		0.32	0.072	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Bromoform	ND		0.65	0.062	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Bromomethane	ND		1.6	0.11	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Carbon tetrachloride	ND		0.32	0.036	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chlorobenzene	ND		0.32	0.067	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chlorobromomethane	ND		0.32	0.13	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chlorodibromomethane	ND		0.65	0.053	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chloroethane	ND		0.65	0.18	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chloroform	ND		0.32	0.076	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Chloromethane	ND		1.6	0.14	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
cis-1,2-Dichloroethene	ND		0.32	0.068	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
cis-1,3-Dichloropropene	ND		0.32	0.066	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Dibromomethane	ND		0.32	0.072	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Dichlorobromomethane	ND		0.32	0.20	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Dichlorodifluoromethane	ND		0.32	0.091	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Ethylbenzene	ND		0.32	0.053	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Ethylene Dibromide	ND		0.32	0.11	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Hexachlorobutadiene	ND		0.32	0.053	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Isopropylbenzene	ND		0.32	0.10	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
m,p-Xylene	ND		1.3	0.093	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Methyl tert-butyl ether	ND		0.16	0.097	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Methylene Chloride	ND		1.1	0.65	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Naphthalene	0.12	J	0.65	0.091	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
n-Butylbenzene	ND		0.32	0.089	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
N-Propylbenzene	ND		0.32	0.086	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
o-Xylene	ND		0.65	0.075	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
sec-Butylbenzene	ND		0.32	0.060	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1
Styrene	ND		0.32	0.077	mg/Kg	✳	11/01/23 17:44	11/02/23 04:01	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-19(5)

Lab Sample ID: 590-22134-1

Date Collected: 10/30/23 11:25

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 85.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		0.32	0.063	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Tetrachloroethene	ND		0.13	0.057	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Toluene	0.12	J	0.32	0.043	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
trans-1,2-Dichloroethene	ND		0.32	0.074	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
trans-1,3-Dichloropropene	ND		0.32	0.085	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Trichloroethene	2.3		0.081	0.025	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Trichlorofluoromethane	ND		0.65	0.11	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Vinyl chloride	ND		0.19	0.066	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Xylenes, Total	ND		1.9	0.17	mg/Kg	☼	11/01/23 17:44	11/02/23 04:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		79 - 124				11/01/23 17:44	11/02/23 04:01	1
4-Bromofluorobenzene (Surr)	99		66 - 129				11/01/23 17:44	11/02/23 04:01	1
Dibromofluoromethane (Surr)	104		80 - 120				11/01/23 17:44	11/02/23 04:01	1
Toluene-d8 (Surr)	104		80 - 120				11/01/23 17:44	11/02/23 04:01	1

Client Sample ID: DF-HA-28(1)

Lab Sample ID: 590-22134-4

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.31	0.059	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,1,1-Trichloroethane	ND		0.31	0.054	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,1,1,2,2-Tetrachloroethane	ND		0.31	0.090	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,1-Dichloroethane	ND		0.31	0.082	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,1-Dichloroethene	ND		0.31	0.11	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,1-Dichloropropene	ND		0.31	0.054	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2,3-Trichlorobenzene	ND		0.31	0.10	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2,3-Trichloropropane	ND		0.62	0.11	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2,4-Trichlorobenzene	ND		0.31	0.057	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2,4-Trimethylbenzene	ND		0.31	0.072	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2-Dibromo-3-Chloropropane	ND		1.5	0.19	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2-Dichlorobenzene	ND		0.31	0.072	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2-Dichloroethane	ND		0.31	0.022	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,2-Dichloropropane	ND		0.37	0.094	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,3,5-Trimethylbenzene	ND		0.31	0.099	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,3-Dichlorobenzene	ND		0.31	0.039	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
1,4-Dichlorobenzene	ND		0.31	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
2,2-Dichloropropane	ND		0.31	0.075	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
2-Chlorotoluene	ND		0.31	0.050	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
4-Chlorotoluene	ND		0.31	0.027	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Benzene	ND		0.062	0.031	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Bromobenzene	ND		0.31	0.069	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Bromoform	ND		0.62	0.059	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Bromomethane	ND		1.5	0.10	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Carbon tetrachloride	ND		0.31	0.034	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Chlorobenzene	ND		0.31	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Chlorobromomethane	ND		0.31	0.12	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Chlorodibromomethane	ND		0.62	0.050	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-28(1)

Lab Sample ID: 590-22134-4

Date Collected: 10/30/23 14:05

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		0.62	0.17	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Chloroform	ND		0.31	0.073	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Chloromethane	ND		1.5	0.13	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
cis-1,2-Dichloroethene	ND		0.31	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
cis-1,3-Dichloropropene	ND		0.31	0.063	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Dibromomethane	ND		0.31	0.069	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Dichlorobromomethane	ND		0.31	0.19	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Dichlorodifluoromethane	ND		0.31	0.087	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Ethylbenzene	ND		0.31	0.050	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Ethylene Dibromide	ND		0.31	0.10	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Hexachlorobutadiene	ND		0.31	0.051	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Isopropylbenzene	ND		0.31	0.096	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
m,p-Xylene	ND		1.2	0.089	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Methyl tert-butyl ether	ND		0.15	0.093	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Methylene Chloride	ND		1.1	0.62	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Naphthalene	0.088	J	0.62	0.087	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
n-Butylbenzene	ND		0.31	0.085	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
N-Propylbenzene	ND		0.31	0.082	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
o-Xylene	ND		0.62	0.071	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
sec-Butylbenzene	ND		0.31	0.058	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Styrene	ND		0.31	0.073	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
tert-Butylbenzene	ND		0.31	0.060	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Tetrachloroethene	ND		0.12	0.054	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Toluene	ND		0.31	0.041	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
trans-1,2-Dichloroethene	ND		0.31	0.071	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
trans-1,3-Dichloropropene	ND		0.31	0.081	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Trichloroethene	0.12		0.077	0.024	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Trichlorofluoromethane	ND		0.62	0.10	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Vinyl chloride	ND		0.19	0.062	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1
Xylenes, Total	ND		1.9	0.16	mg/Kg	☼	11/01/23 17:44	11/02/23 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		79 - 124	11/01/23 17:44	11/02/23 04:22	1
4-Bromofluorobenzene (Surr)	101		66 - 129	11/01/23 17:44	11/02/23 04:22	1
Dibromofluoromethane (Surr)	104		80 - 120	11/01/23 17:44	11/02/23 04:22	1
Toluene-d8 (Surr)	102		80 - 120	11/01/23 17:44	11/02/23 04:22	1

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.27	0.052	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,1,1-Trichloroethane	ND		0.27	0.047	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,1,2,2-Tetrachloroethane	ND		0.27	0.079	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,1-Dichloroethane	ND		0.27	0.072	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,1-Dichloroethene	ND		0.27	0.093	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,1-Dichloropropene	ND		0.27	0.047	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2,3-Trichlorobenzene	ND		0.27	0.091	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		0.55	0.10	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2,4-Trichlorobenzene	ND		0.27	0.050	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2,4-Trimethylbenzene	ND		0.27	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2-Dibromo-3-Chloropropane	ND		1.4	0.16	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2-Dichlorobenzene	ND		0.27	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2-Dichloroethane	ND		0.27	0.019	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,2-Dichloropropane	ND		0.33	0.083	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,3,5-Trimethylbenzene	ND		0.27	0.087	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,3-Dichlorobenzene	ND		0.27	0.034	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
1,4-Dichlorobenzene	ND		0.27	0.056	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
2,2-Dichloropropane	ND		0.27	0.066	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
2-Chlorotoluene	ND		0.27	0.044	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
4-Chlorotoluene	ND		0.27	0.024	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Benzene	ND		0.055	0.027	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Bromobenzene	ND		0.27	0.061	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Bromoform	ND		0.55	0.052	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Bromomethane	ND		1.4	0.090	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Carbon tetrachloride	ND		0.27	0.030	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chlorobenzene	ND		0.27	0.056	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chlorobromomethane	ND		0.27	0.11	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chlorodibromomethane	ND		0.55	0.044	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chloroethane	ND		0.55	0.15	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chloroform	ND		0.27	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Chloromethane	ND		1.4	0.11	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
cis-1,2-Dichloroethene	ND		0.27	0.057	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
cis-1,3-Dichloropropene	ND		0.27	0.056	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Dibromomethane	ND		0.27	0.061	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Dichlorobromomethane	ND		0.27	0.17	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Dichlorodifluoromethane	ND		0.27	0.077	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Ethylbenzene	ND		0.27	0.044	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Ethylene Dibromide	ND		0.27	0.091	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Hexachlorobutadiene	ND		0.27	0.045	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Isopropylbenzene	ND		0.27	0.084	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
m,p-Xylene	ND		1.1	0.078	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Methyl tert-butyl ether	ND		0.14	0.082	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Methylene Chloride	ND		0.95	0.55	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Naphthalene	ND		0.55	0.076	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
n-Butylbenzene	ND		0.27	0.075	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
N-Propylbenzene	ND		0.27	0.072	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
o-Xylene	0.068	J	0.55	0.063	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
sec-Butylbenzene	ND		0.27	0.051	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Styrene	ND		0.27	0.064	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
tert-Butylbenzene	ND		0.27	0.053	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Tetrachloroethene	ND		0.11	0.048	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Toluene	ND		0.27	0.036	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
trans-1,2-Dichloroethene	ND		0.27	0.062	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
trans-1,3-Dichloropropene	ND		0.27	0.072	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Trichloroethene	ND		0.068	0.021	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Trichlorofluoromethane	ND		0.55	0.089	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-29(1)

Lab Sample ID: 590-22134-7

Date Collected: 10/30/23 15:20

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.16	0.055	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1
Xylenes, Total	ND		1.6	0.14	mg/Kg	☼	11/01/23 17:44	11/02/23 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	11/01/23 17:44	11/02/23 04:44	1
4-Bromofluorobenzene (Surr)	99		66 - 129	11/01/23 17:44	11/02/23 04:44	1
Dibromofluoromethane (Surr)	104		80 - 120	11/01/23 17:44	11/02/23 04:44	1
Toluene-d8 (Surr)	106		80 - 120	11/01/23 17:44	11/02/23 04:44	1

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44406/1-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44406

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Benzene	ND		0.020	0.010	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Bromobenzene	ND		0.10	0.022	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Bromoform	ND		0.20	0.019	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Bromomethane	ND		0.50	0.033	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chlorobromomethane	ND		0.10	0.040	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chlorodibromomethane	ND		0.20	0.016	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chloroethane	ND		0.20	0.056	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chloroform	ND		0.10	0.024	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Chloromethane	ND		0.50	0.042	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Dibromomethane	ND		0.10	0.022	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Dichlorobromomethane	ND		0.10	0.062	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Ethylene Dibromide	ND		0.10	0.034	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Naphthalene	ND		0.20	0.028	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
o-Xylene	ND		0.20	0.023	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		11/01/23 17:44	11/01/23 18:37	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-44406/1-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.10	0.024	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Toluene	ND		0.10	0.013	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		11/01/23 17:44	11/01/23 18:37	1
Xylenes, Total	ND		0.60	0.052	mg/Kg		11/01/23 17:44	11/01/23 18:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		79 - 124	11/01/23 17:44	11/01/23 18:37	1
4-Bromofluorobenzene (Surr)	100		66 - 129	11/01/23 17:44	11/01/23 18:37	1
Dibromofluoromethane (Surr)	102		80 - 120	11/01/23 17:44	11/01/23 18:37	1
Toluene-d8 (Surr)	103		80 - 120	11/01/23 17:44	11/01/23 18:37	1

Lab Sample ID: LCS 590-44406/2-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	0.500	0.525		mg/Kg		105	76 - 139
1,1,1-Trichloroethane	0.500	0.455		mg/Kg		91	59 - 150
1,1,2,2-Tetrachloroethane	0.500	0.500		mg/Kg		100	66 - 130
1,1-Dichloroethane	0.500	0.485		mg/Kg		97	79 - 133
1,1-Dichloroethene	0.500	0.426		mg/Kg		85	50 - 150
1,1-Dichloropropene	0.500	0.546		mg/Kg		109	80 - 131
1,2,3-Trichlorobenzene	0.500	0.454		mg/Kg		91	72 - 130
1,2,3-Trichloropropane	0.500	0.446		mg/Kg		89	61 - 138
1,2,4-Trichlorobenzene	0.500	0.480		mg/Kg		96	73 - 129
1,2,4-Trimethylbenzene	0.500	0.582		mg/Kg		116	78 - 128
1,2-Dibromo-3-Chloropropane	0.500	0.422	J	mg/Kg		84	49 - 143
1,2-Dichlorobenzene	0.500	0.500		mg/Kg		100	80 - 121
1,2-Dichloroethane	0.500	0.502		mg/Kg		100	77 - 126
1,2-Dichloropropane	0.500	0.513		mg/Kg		103	71 - 136
1,3,5-Trimethylbenzene	0.500	0.586		mg/Kg		117	76 - 130
1,3-Dichlorobenzene	0.500	0.533		mg/Kg		107	80 - 121
1,4-Dichlorobenzene	0.500	0.529		mg/Kg		106	80 - 122
2,2-Dichloropropane	0.500	0.415		mg/Kg		83	50 - 150
2-Chlorotoluene	0.500	0.556		mg/Kg		111	73 - 131
4-Chlorotoluene	0.500	0.555		mg/Kg		111	76 - 128
Benzene	0.500	0.520		mg/Kg		104	80 - 128
Bromobenzene	0.500	0.524		mg/Kg		105	70 - 129
Bromoform	0.500	0.467		mg/Kg		93	49 - 150
Bromomethane	0.500	0.580		mg/Kg		116	39 - 150
Carbon tetrachloride	0.500	0.487		mg/Kg		97	61 - 150
Chlorobenzene	0.500	0.523		mg/Kg		105	80 - 124

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44406/2-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chlorobromomethane	0.500	0.455		mg/Kg		91	67 - 138
Chlorodibromomethane	0.500	0.490		mg/Kg		98	70 - 132
Chloroethane	0.500	0.528		mg/Kg		106	38 - 150
Chloroform	0.500	0.492		mg/Kg		98	80 - 131
Chloromethane	0.500	0.471	J	mg/Kg		94	29 - 150
cis-1,2-Dichloroethene	0.500	0.483		mg/Kg		97	78 - 132
cis-1,3-Dichloropropene	0.500	0.498		mg/Kg		100	71 - 123
Dibromomethane	0.500	0.458		mg/Kg		92	76 - 121
Dichlorobromomethane	0.500	0.519		mg/Kg		104	79 - 122
Dichlorodifluoromethane	0.500	0.337		mg/Kg		67	14 - 120
Ethylbenzene	0.500	0.531		mg/Kg		106	80 - 127
Ethylene Dibromide	0.500	0.461		mg/Kg		92	76 - 126
Hexachlorobutadiene	0.500	0.495		mg/Kg		99	75 - 136
Isopropylbenzene	0.500	0.530		mg/Kg		106	79 - 134
m,p-Xylene	0.500	0.526		mg/Kg		105	80 - 131
Methyl tert-butyl ether	0.500	0.373		mg/Kg		75	69 - 132
Methylene Chloride	0.500	0.610		mg/Kg		122	42 - 150
Naphthalene	0.500	0.414		mg/Kg		83	57 - 131
n-Butylbenzene	0.500	0.536		mg/Kg		107	75 - 128
N-Propylbenzene	0.500	0.579		mg/Kg		116	71 - 136
o-Xylene	0.500	0.512		mg/Kg		102	78 - 128
sec-Butylbenzene	0.500	0.595		mg/Kg		119	78 - 132
Styrene	0.500	0.544		mg/Kg		109	76 - 128
tert-Butylbenzene	0.500	0.571		mg/Kg		114	74 - 129
Tetrachloroethene	0.500	0.576		mg/Kg		115	76 - 142
Toluene	0.500	0.543		mg/Kg		109	79 - 130
trans-1,2-Dichloroethene	0.500	0.433		mg/Kg		87	75 - 140
trans-1,3-Dichloropropene	0.500	0.503		mg/Kg		101	68 - 133
Trichloroethene	0.500	0.525		mg/Kg		105	80 - 129
Trichlorofluoromethane	0.500	0.483		mg/Kg		97	45 - 150
Vinyl chloride	0.500	0.482		mg/Kg		96	38 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		79 - 124
4-Bromofluorobenzene (Surr)	102		66 - 129
Dibromofluoromethane (Surr)	101		80 - 120
Toluene-d8 (Surr)	103		80 - 120

Lab Sample ID: LCSD 590-44406/3-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.500	0.532		mg/Kg		106	76 - 139	1	23
1,1,1-Trichloroethane	0.500	0.454		mg/Kg		91	59 - 150	0	31
1,1,2,2-Tetrachloroethane	0.500	0.514		mg/Kg		103	66 - 130	3	23
1,1-Dichloroethane	0.500	0.487		mg/Kg		97	79 - 133	1	17
1,1-Dichloroethene	0.500	0.419		mg/Kg		84	50 - 150	2	37

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 590-44406/3-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
							Limits	RPD		
1,1-Dichloropropene	0.500	0.556		mg/Kg		111	80 - 131	2	20	
1,2,3-Trichlorobenzene	0.500	0.480		mg/Kg		96	72 - 130	6	31	
1,2,3-Trichloropropane	0.500	0.540		mg/Kg		108	61 - 138	19	28	
1,2,4-Trichlorobenzene	0.500	0.506		mg/Kg		101	73 - 129	5	29	
1,2,4-Trimethylbenzene	0.500	0.576		mg/Kg		115	78 - 128	1	19	
1,2-Dibromo-3-Chloropropane	0.500	0.520		mg/Kg		104	49 - 143	21	33	
1,2-Dichlorobenzene	0.500	0.507		mg/Kg		101	80 - 121	1	21	
1,2-Dichloroethane	0.500	0.522		mg/Kg		104	77 - 126	4	18	
1,2-Dichloropropane	0.500	0.538		mg/Kg		108	71 - 136	5	22	
1,3,5-Trimethylbenzene	0.500	0.583		mg/Kg		117	76 - 130	0	18	
1,3-Dichlorobenzene	0.500	0.525		mg/Kg		105	80 - 121	2	19	
1,4-Dichlorobenzene	0.500	0.529		mg/Kg		106	80 - 122	0	18	
2,2-Dichloropropane	0.500	0.428		mg/Kg		86	50 - 150	3	31	
2-Chlorotoluene	0.500	0.546		mg/Kg		109	73 - 131	2	21	
4-Chlorotoluene	0.500	0.550		mg/Kg		110	76 - 128	1	20	
Benzene	0.500	0.523		mg/Kg		105	80 - 128	1	17	
Bromobenzene	0.500	0.528		mg/Kg		106	70 - 129	1	23	
Bromoform	0.500	0.517		mg/Kg		103	49 - 150	10	23	
Bromomethane	0.500	0.483	J	mg/Kg		97	39 - 150	18	40	
Carbon tetrachloride	0.500	0.493		mg/Kg		99	61 - 150	1	36	
Chlorobenzene	0.500	0.525		mg/Kg		105	80 - 124	0	18	
Chlorobromomethane	0.500	0.497		mg/Kg		99	67 - 138	9	29	
Chlorodibromomethane	0.500	0.511		mg/Kg		102	70 - 132	4	20	
Chloroethane	0.500	0.442		mg/Kg		88	38 - 150	18	40	
Chloroform	0.500	0.497		mg/Kg		99	80 - 131	1	20	
Chloromethane	0.500	0.440	J	mg/Kg		88	29 - 150	7	40	
cis-1,2-Dichloroethene	0.500	0.496		mg/Kg		99	78 - 132	3	19	
cis-1,3-Dichloropropene	0.500	0.514		mg/Kg		103	71 - 123	3	20	
Dibromomethane	0.500	0.509		mg/Kg		102	76 - 121	11	20	
Dichlorobromomethane	0.500	0.537		mg/Kg		107	79 - 122	4	20	
Dichlorodifluoromethane	0.500	0.293		mg/Kg		59	14 - 120	14	40	
Ethylbenzene	0.500	0.528		mg/Kg		106	80 - 127	1	19	
Ethylene Dibromide	0.500	0.520		mg/Kg		104	76 - 126	12	20	
Hexachlorobutadiene	0.500	0.541		mg/Kg		108	75 - 136	9	29	
Isopropylbenzene	0.500	0.519		mg/Kg		104	79 - 134	2	19	
m,p-Xylene	0.500	0.519		mg/Kg		104	80 - 131	1	19	
Methyl tert-butyl ether	0.500	0.401		mg/Kg		80	69 - 132	7	32	
Methylene Chloride	0.500	0.676		mg/Kg		135	42 - 150	10	39	
Naphthalene	0.500	0.452		mg/Kg		90	57 - 131	9	34	
n-Butylbenzene	0.500	0.557		mg/Kg		111	75 - 128	4	21	
N-Propylbenzene	0.500	0.573		mg/Kg		115	71 - 136	1	20	
o-Xylene	0.500	0.514		mg/Kg		103	78 - 128	0	19	
sec-Butylbenzene	0.500	0.577		mg/Kg		115	78 - 132	3	20	
Styrene	0.500	0.536		mg/Kg		107	76 - 128	1	19	
tert-Butylbenzene	0.500	0.554		mg/Kg		111	74 - 129	3	21	
Tetrachloroethene	0.500	0.573		mg/Kg		115	76 - 142	1	19	
Toluene	0.500	0.551		mg/Kg		110	79 - 130	2	21	
trans-1,2-Dichloroethene	0.500	0.433		mg/Kg		87	75 - 140	0	23	
trans-1,3-Dichloropropene	0.500	0.556		mg/Kg		111	68 - 133	10	22	

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 590-44406/3-A
Matrix: Solid
Analysis Batch: 44383

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44406

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
Trichloroethene	0.500	0.528		mg/Kg		106	80 - 129	1	17	
Trichlorofluoromethane	0.500	0.465		mg/Kg		93	45 - 150	4	37	
Vinyl chloride	0.500	0.452		mg/Kg		90	38 - 150	6	40	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	104		79 - 124
4-Bromofluorobenzene (Surr)	100		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	103		80 - 120

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Client Sample ID: DF-HA-19(5)

Date Collected: 10/30/23 11:25

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-19(5)

Date Collected: 10/30/23 11:25

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-1

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.776 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:01	JSP	EET SPK

Client Sample ID: DF-HA-28(1)

Date Collected: 10/30/23 14:05

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-28(1)

Date Collected: 10/30/23 14:05

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-4

Matrix: Solid

Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.596 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:22	JSP	EET SPK

Client Sample ID: DF-HA-29(1)

Date Collected: 10/30/23 15:20

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44424	11/02/23 15:35	JSP	EET SPK

Client Sample ID: DF-HA-29(1)

Date Collected: 10/30/23 15:20

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-7

Matrix: Solid

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.038 g	10 mL	44406	11/01/23 17:44	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44383	11/02/23 04:44	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins Spokane

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





Haley & Aldrich, Inc.
505 West Riverside
Suite 450,
Spokane, WA 99216

CHAIN OF CUSTODY RECORD


Phone 509-960-7447

Fax

Page 1 of 1

H&A FILE NO. 0203154-013 LABORATORY Eurofins Environment Testing DELIVERY DATE 10/31/2023
 PROJECT NAME POM Historic Debris Field-October 2023 ADDRESS 11922 East 1st Avenue Spokane, WA TURNAROUND TIME 48-hours/Select samples hold until further notice
 H&A CONTACT McKynzie Clark CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth (feet)	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					TC	CE	PE	PA	NO	3	6	9	10	15	16	17			18
DF-HA-19(5)	10/30/2023	1125	5.0	Soil	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 48-HR TAT MEM 10/31/23
DF-HA-19(6)	10/30/2023	1130	6.0	Soil														3	
DF-HA-19(7)	10/30/2023	1135	7.0	Soil														3	
DF-HA-28(1)	10/30/2023	1405	1.0	Soil	X													3	
DF-HA-28(2)	10/30/2023	1410	2.0	Soil														3	
DF-HA-28(2.5)	10/30/2023	1445	2.5	Soil														3	
DF-HA-29(1)	10/30/2023	1520	1.0	Soil	X													3	
DF-HA-29(2)	10/30/2023	1540	2.0	Soil														3	
DF-HA-29(2.5)	10/30/2023	1615	2.5	Soil														3	
DF-HA-28(4)	10/30/2023	1700	1.0	Soil	X													3	

Sampled and Relinquished by		Received by		LIQUID				Sampling Comments	
Sign <i>[Signature]</i>	Sign <i>[Signature]</i>					VOA Vial		4 3, 4 4 con 10005  590-22134 Chain of Custody	
Print Ward McDonald	Print Mackey Harris					Amber Glass			
Firm Haley & Aldrich, Inc.	Firm EET SFO					Plastic Bottle			
Date 10/31/23 Time 1054	Date 10/31/23 Time 1055					Preservative			
Relinquished by		Received by		SOLID				Volume	
Sign	Sign					VOA Vial		Evidence samples were tampered with? YES NO If YES, please explain in section below	
Print	Print	X				Amber Glass			
Firm	Firm					Clear Glass			
Date	Date	X				Preservative			
Relinquished by		Received by		PRESERVATION KEY				Volume	
Sign	Sign	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol							
Print	Print	B Sample filtered D HNO ₃ F HCL H Water/NaHSO ₄ (circle)							
Firm	Firm								
Date	Date								

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22134-1

Login Number: 22134

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 11/8/2023 12:37:33 PM

JOB DESCRIPTION

Pend Oreille Mine

JOB NUMBER

590-22134-3

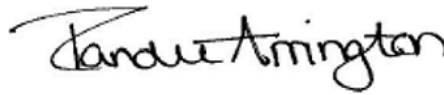
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Job ID: 590-22134-3

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22134-3

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/31/2023 10:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

Receipt Exceptions

The following samples were activated by the client on 11/06/23: DF-HA-19(6) (590-22134-2) and DF-HA-28(2) (590-22134-5).

GC/MS VOA

Method 8260D: The initial calibration verification (ICV) result for batch 590-44464 was above the upper control limit for Methylene Chloride. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-22134-2	DF-HA-19(6)	Solid	10/30/23 11:30	10/31/23 10:55
590-22134-5	DF-HA-28(2)	Solid	10/30/23 14:10	10/31/23 10:55

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Client Sample ID: DF-HA-19(6)

Lab Sample ID: 590-22134-2

Date Collected: 10/30/23 11:30

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 87.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.25	0.071	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chloromethane	ND		1.3	0.11	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Vinyl chloride	ND		0.15	0.051	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Bromomethane	ND		1.3	0.083	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chloroethane	ND		0.50	0.14	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Trichlorofluoromethane	0.12	J	0.50	0.083	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1-Dichloroethene	ND		0.25	0.086	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Methylene Chloride	ND		0.88	0.50	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
trans-1,2-Dichloroethene	ND		0.25	0.058	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1-Dichloroethane	ND		0.25	0.067	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
2,2-Dichloropropane	ND		0.25	0.061	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
cis-1,2-Dichloroethene	ND		0.25	0.052	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chlorobromomethane	ND		0.25	0.10	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chloroform	ND		0.25	0.059	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1,1-Trichloroethane	ND		0.25	0.044	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Carbon tetrachloride	ND		0.25	0.028	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1-Dichloropropene	ND		0.25	0.044	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Benzene	ND		0.050	0.025	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,2-Dichloroethane	ND		0.25	0.018	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Trichloroethene	0.15		0.063	0.019	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,2-Dichloropropane	ND		0.30	0.076	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Dibromomethane	ND		0.25	0.056	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Dichlorobromomethane	ND		0.25	0.16	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
cis-1,3-Dichloropropene	ND		0.25	0.051	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Toluene	ND		0.25	0.034	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
trans-1,3-Dichloropropene	ND		0.25	0.066	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1,2-Trichloroethane	ND		0.25	0.089	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Tetrachloroethene	ND		0.10	0.044	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,3-Dichloropropane	ND		0.25	0.075	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chlorodibromomethane	ND		0.50	0.041	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Ethylene Dibromide	ND		0.25	0.084	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Chlorobenzene	ND		0.25	0.052	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Ethylbenzene	ND		0.25	0.041	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1,1,2-Tetrachloroethane	ND		0.25	0.048	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,1,2,2-Tetrachloroethane	ND		0.25	0.073	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
m,p-Xylene	ND		1.0	0.072	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
o-Xylene	ND		0.50	0.058	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Styrene	ND		0.25	0.059	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Bromoform	ND		0.50	0.048	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Isopropylbenzene	ND		0.25	0.078	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
Bromobenzene	ND		0.25	0.056	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
N-Propylbenzene	ND		0.25	0.067	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,2,3-Trichloropropane	ND		0.50	0.092	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
2-Chlorotoluene	ND		0.25	0.041	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,3,5-Trimethylbenzene	ND		0.25	0.081	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
4-Chlorotoluene	ND		0.25	0.022	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
tert-Butylbenzene	ND		0.25	0.049	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
1,2,4-Trimethylbenzene	ND		0.25	0.059	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1
sec-Butylbenzene	ND		0.25	0.047	mg/Kg	✱	11/06/23 13:31	11/06/23 15:59	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Client Sample ID: DF-HA-19(6)

Lab Sample ID: 590-22134-2

Date Collected: 10/30/23 11:30

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 87.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.25	0.032	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
p-Isopropyltoluene	ND		0.25	0.051	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
1,4-Dichlorobenzene	ND		0.25	0.052	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
n-Butylbenzene	ND		0.25	0.069	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
1,2-Dichlorobenzene	ND		0.25	0.059	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.15	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
1,2,4-Trichlorobenzene	ND		0.25	0.047	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
1,2,3-Trichlorobenzene	ND		0.25	0.084	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
Hexachlorobutadiene	ND		0.25	0.041	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
Naphthalene	ND		0.50	0.071	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
Methyl tert-butyl ether	ND		0.13	0.076	mg/Kg	☼	11/06/23 13:31	11/06/23 15:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120				11/06/23 13:31	11/06/23 15:59	1
4-Bromofluorobenzene (Surr)	99		66 - 129				11/06/23 13:31	11/06/23 15:59	1
Dibromofluoromethane (Surr)	100		80 - 120				11/06/23 13:31	11/06/23 15:59	1
1,2-Dichloroethane-d4 (Surr)	98		79 - 124				11/06/23 13:31	11/06/23 15:59	1

Client Sample ID: DF-HA-28(2)

Lab Sample ID: 590-22134-5

Date Collected: 10/30/23 14:10

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.30	0.085	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chloromethane	ND		1.5	0.13	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Vinyl chloride	ND		0.18	0.061	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Bromomethane	ND		1.5	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chloroethane	ND		0.60	0.17	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Trichlorofluoromethane	ND		0.60	0.099	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1-Dichloroethene	ND		0.30	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Methylene Chloride	ND		1.1	0.60	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
trans-1,2-Dichloroethene	ND		0.30	0.069	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1-Dichloroethane	ND		0.30	0.079	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
2,2-Dichloropropane	ND		0.30	0.073	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
cis-1,2-Dichloroethene	ND		0.30	0.063	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chlorobromomethane	ND		0.30	0.12	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chloroform	ND		0.30	0.071	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1,1-Trichloroethane	ND		0.30	0.052	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Carbon tetrachloride	ND		0.30	0.033	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1-Dichloropropene	ND		0.30	0.052	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Benzene	ND		0.060	0.030	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2-Dichloroethane	ND		0.30	0.021	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Trichloroethene	0.31		0.075	0.023	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2-Dichloropropane	ND		0.36	0.091	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Dibromomethane	ND		0.30	0.067	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Dichlorobromomethane	ND		0.30	0.19	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
cis-1,3-Dichloropropene	ND		0.30	0.061	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Toluene	ND		0.30	0.040	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
trans-1,3-Dichloropropene	ND		0.30	0.079	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Client Sample ID: DF-HA-28(2)

Lab Sample ID: 590-22134-5

Date Collected: 10/30/23 14:10

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 93.2

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.30	0.11	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Tetrachloroethene	ND		0.12	0.053	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,3-Dichloropropane	ND		0.30	0.089	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chlorodibromomethane	ND		0.60	0.049	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Ethylene Dibromide	ND		0.30	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Chlorobenzene	ND		0.30	0.062	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Ethylbenzene	ND		0.30	0.049	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1,1,2-Tetrachloroethane	ND		0.30	0.058	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,1,2,2-Tetrachloroethane	ND		0.30	0.088	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
m,p-Xylene	ND		1.2	0.086	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
o-Xylene	ND		0.60	0.069	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Styrene	ND		0.30	0.071	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Bromoform	ND		0.60	0.057	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Isopropylbenzene	ND		0.30	0.093	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Bromobenzene	ND		0.30	0.067	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
N-Propylbenzene	ND		0.30	0.079	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2,3-Trichloropropane	ND		0.60	0.11	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
2-Chlorotoluene	ND		0.30	0.049	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,3,5-Trimethylbenzene	ND		0.30	0.096	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
4-Chlorotoluene	ND		0.30	0.026	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
tert-Butylbenzene	ND		0.30	0.059	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2,4-Trimethylbenzene	ND		0.30	0.070	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
sec-Butylbenzene	ND		0.30	0.056	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,3-Dichlorobenzene	ND		0.30	0.038	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
p-Isopropyltoluene	ND		0.30	0.061	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,4-Dichlorobenzene	ND		0.30	0.062	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
n-Butylbenzene	ND		0.30	0.083	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2-Dichlorobenzene	ND		0.30	0.070	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2-Dibromo-3-Chloropropane	ND		1.5	0.18	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2,4-Trichlorobenzene	ND		0.30	0.056	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
1,2,3-Trichlorobenzene	ND		0.30	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Hexachlorobutadiene	ND		0.30	0.049	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Naphthalene	ND		0.60	0.084	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1
Methyl tert-butyl ether	ND		0.15	0.090	mg/Kg	☼	11/06/23 13:31	11/06/23 16:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120	11/06/23 13:31	11/06/23 16:21	1
4-Bromofluorobenzene (Surr)	99		66 - 129	11/06/23 13:31	11/06/23 16:21	1
Dibromofluoromethane (Surr)	99		80 - 120	11/06/23 13:31	11/06/23 16:21	1
1,2-Dichloroethane-d4 (Surr)	96		79 - 124	11/06/23 13:31	11/06/23 16:21	1

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44472/1-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44472

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloromethane	ND		0.50	0.042	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromomethane	ND		0.50	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloroethane	ND		0.20	0.056	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chlorobromomethane	ND		0.10	0.040	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloroform	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Benzene	ND		0.020	0.010	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Dibromomethane	ND		0.10	0.022	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Dichlorobromomethane	ND		0.10	0.062	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Toluene	ND		0.10	0.013	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chlorodibromomethane	ND		0.20	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Ethylene Dibromide	ND		0.10	0.034	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
o-Xylene	ND		0.20	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Styrene	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromoform	ND		0.20	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromobenzene	ND		0.10	0.022	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-44472/1-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44472

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Naphthalene	0.0293	J	0.20	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	104		80 - 120	11/06/23 13:31	11/06/23 15:14	1
4-Bromofluorobenzene (Surr)	97		66 - 129	11/06/23 13:31	11/06/23 15:14	1
Dibromofluoromethane (Surr)	102		80 - 120	11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloroethane-d4 (Surr)	95		79 - 124	11/06/23 13:31	11/06/23 15:14	1

Lab Sample ID: LCS 590-44472/2-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloromethane	0.500	0.370	J	mg/Kg		74	29 - 150
Vinyl chloride	0.500	0.452		mg/Kg		90	38 - 150
Bromomethane	0.500	0.452	J	mg/Kg		90	39 - 150
Chloroethane	0.500	0.530		mg/Kg		106	38 - 150
Trichlorofluoromethane	0.500	0.663		mg/Kg		133	45 - 150
1,1-Dichloroethene	0.500	0.557		mg/Kg		111	50 - 150
Methylene Chloride	0.500	0.424		mg/Kg		85	42 - 150
trans-1,2-Dichloroethene	0.500	0.434		mg/Kg		87	75 - 140
1,1-Dichloroethane	0.500	0.496		mg/Kg		99	79 - 133
2,2-Dichloropropane	0.500	0.511		mg/Kg		102	50 - 150
cis-1,2-Dichloroethene	0.500	0.490		mg/Kg		98	78 - 132
Chlorobromomethane	0.500	0.461		mg/Kg		92	67 - 138
Chloroform	0.500	0.509		mg/Kg		102	80 - 131
1,1,1-Trichloroethane	0.500	0.524		mg/Kg		105	59 - 150
Carbon tetrachloride	0.500	0.541		mg/Kg		108	61 - 150
1,1-Dichloropropene	0.500	0.541		mg/Kg		108	80 - 131
Benzene	0.500	0.514		mg/Kg		103	80 - 128
1,2-Dichloroethane	0.500	0.493		mg/Kg		99	77 - 126
Trichloroethene	0.500	0.535		mg/Kg		107	80 - 129
1,2-Dichloropropane	0.500	0.520		mg/Kg		104	71 - 136
Dibromomethane	0.500	0.505		mg/Kg		101	76 - 121
Dichlorobromomethane	0.500	0.519		mg/Kg		104	79 - 122
cis-1,3-Dichloropropene	0.500	0.506		mg/Kg		101	71 - 123

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44472/2-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.550		mg/Kg		110	79 - 130
trans-1,3-Dichloropropene	0.500	0.508		mg/Kg		102	68 - 133
1,1,2-Trichloroethane	0.500	0.528		mg/Kg		106	74 - 131
Tetrachloroethene	0.500	0.557		mg/Kg		111	76 - 142
1,3-Dichloropropane	0.500	0.511		mg/Kg		102	73 - 125
Chlorodibromomethane	0.500	0.536		mg/Kg		107	70 - 132
Ethylene Dibromide	0.500	0.538		mg/Kg		108	76 - 126
Chlorobenzene	0.500	0.553		mg/Kg		111	80 - 124
Ethylbenzene	0.500	0.557		mg/Kg		111	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.557		mg/Kg		111	76 - 139
1,1,2,2-Tetrachloroethane	0.500	0.467		mg/Kg		93	66 - 130
m,p-Xylene	0.500	0.554		mg/Kg		111	80 - 131
o-Xylene	0.500	0.545		mg/Kg		109	78 - 128
Styrene	0.500	0.601		mg/Kg		120	76 - 128
Bromoform	0.500	0.564		mg/Kg		113	49 - 150
Isopropylbenzene	0.500	0.566		mg/Kg		113	79 - 134
Bromobenzene	0.500	0.460		mg/Kg		92	70 - 129
N-Propylbenzene	0.500	0.514		mg/Kg		103	71 - 136
1,2,3-Trichloropropane	0.500	0.489		mg/Kg		98	61 - 138
2-Chlorotoluene	0.500	0.507		mg/Kg		101	73 - 131
1,3,5-Trimethylbenzene	0.500	0.534		mg/Kg		107	76 - 130
4-Chlorotoluene	0.500	0.503		mg/Kg		101	76 - 128
tert-Butylbenzene	0.500	0.510		mg/Kg		102	74 - 129
1,2,4-Trimethylbenzene	0.500	0.536		mg/Kg		107	78 - 128
sec-Butylbenzene	0.500	0.549		mg/Kg		110	78 - 132
1,3-Dichlorobenzene	0.500	0.537		mg/Kg		107	80 - 121
p-Isopropyltoluene	0.500	0.550		mg/Kg		110	79 - 128
1,4-Dichlorobenzene	0.500	0.531		mg/Kg		106	80 - 122
n-Butylbenzene	0.500	0.549		mg/Kg		110	75 - 128
1,2-Dichlorobenzene	0.500	0.489		mg/Kg		98	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.483	J	mg/Kg		97	49 - 143
1,2,4-Trichlorobenzene	0.500	0.445		mg/Kg		89	73 - 129
1,2,3-Trichlorobenzene	0.500	0.405		mg/Kg		81	72 - 130
Hexachlorobutadiene	0.500	0.452		mg/Kg		90	75 - 136
Naphthalene	0.500	0.408		mg/Kg		82	57 - 131
Methyl tert-butyl ether	0.500	0.471		mg/Kg		94	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	88		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		79 - 124

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Client Sample ID: DF-HA-19(6)

Date Collected: 10/30/23 11:30

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44426	11/02/23 15:55	MRV	EET SPK

Client Sample ID: DF-HA-19(6)

Date Collected: 10/30/23 11:30

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-2

Matrix: Solid

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.843 g	10 mL	44472	11/06/23 13:31	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44464	11/06/23 15:59	JSP	EET SPK

Client Sample ID: DF-HA-28(2)

Date Collected: 10/30/23 14:10

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44426	11/02/23 15:55	MRV	EET SPK

Client Sample ID: DF-HA-28(2)

Date Collected: 10/30/23 14:10

Date Received: 10/31/23 10:55

Lab Sample ID: 590-22134-5

Matrix: Solid

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.657 g	10 mL	44472	11/06/23 13:31	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44464	11/06/23 16:21	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-3

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





Haley & Aldrich, Inc.
505 West Riverside
Suite 450,
Spokane, WA 99216

CHAIN OF CUSTODY RECORD


Phone 509-960-7447

Fax

Page 1 of 1

H&A FILE NO. 0203154-013 LABORATORY Eurofins Environment Testing DELIVERY DATE 10/31/2023
 PROJECT NAME POM Historic Debris Field-October 2023 ADDRESS 11922 East 1st Avenue Spokane, WA TURNAROUND TIME 48-hours/Select samples hold until further notice
 H&A CONTACT McKynzie Clark CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth (feet)	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					TC	CE	EA	PA	NO3	NO2	NO	NH4	PO4	PO3	PO	PH			
DF-HA-19(5)	10/30/2023	1125	5.0	Soil	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 48-HR TAT MEM 10/31/23
DF-HA-19(6)	10/30/2023	1130	6.0	Soil														3	
DF-HA-19(7)	10/30/2023	1135	7.0	Soil														3	
DF-HA-28(1)	10/30/2023	1405	1.0	Soil	X													3	
DF-HA-28(2)	10/30/2023	1410	2.0	Soil														3	
DF-HA-28(2.5)	10/30/2023	1445	2.5	Soil														3	
DF-HA-29(1)	10/30/2023	1520	1.0	Soil	X													3	
DF-HA-29(2)	10/30/2023	1540	2.0	Soil														3	
DF-HA-29(2.5)	10/30/2023	1615	2.5	Soil														3	
DF-HA-28(4)	10/30/2023	1700	1.0	Soil	X													3	

Sampled and Relinquished by		Received by		LIQUID		Sampling Comments	
Sign <i>[Signature]</i>	Sign <i>[Signature]</i>			VOA Vial		43,44 con 1005	
Print Ward McDonald	Print <i>Maclay Harris</i>			Amber Glass			
Firm Haley & Aldrich, Inc.	Firm <i>EET SFO</i>			Plastic Bottle			
Date 10/31/23 Time 1054	Date 10/31/23 Time 1055			Preservative		 590-22134 Chain of Custody	
Relinquished by		Received by		Volume			
Sign	Sign			VOA Vial			
Print	Print			Amber Glass			
Firm	Firm			Clear Glass		Evidence samples were tampered with? YES NO If YES, please explain in section below	
Date	Date			Preservative			
Time	Time			Volume			
Relinquished by		Received by		PRESERVATION KEY			
Sign	Sign			A Sample chilled C NaOH E H2SO4 G Methanol			
Print	Print			B Sample filtered D HNO3 F HCL H Water/NaHSO4 (circle)			
Firm	Firm						
Date	Date						
Time	Time						

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22134-3

Login Number: 22134

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

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JOB DESCRIPTION

Pend Oreille Mine

JOB NUMBER

590-22134-4

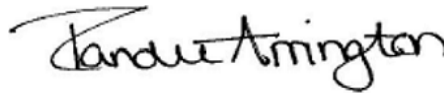
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Job ID: 590-22134-4

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22134-4

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 10/31/2023 10:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.4°C

GC/MS VOA

Method 8260D: The laboratory control sample (LCS) for preparation batch 590-44538 and analytical batch 590-44534 recovered outside control limits for the following analytes: Bromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-44590 recovered outside acceptance criteria, low biased, for 1,2-Dibromo-3-Chloropropane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
590-22134-3	DF-HA-19(7)	Solid	10/30/23 11:35	10/31/23 10:55
590-22134-6	DF-HA-28(2.5)	Solid	10/30/23 14:45	10/31/23 10:55

1

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Client Sample ID: DF-HA-19(7)

Lab Sample ID: 590-22134-3

Date Collected: 10/30/23 11:35

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 82.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.28	0.079	mg/Kg	☼	11/09/23 12:00	11/13/23 19:45	1
Chloromethane	ND		1.4	0.12	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Vinyl chloride	ND		0.17	0.057	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Bromomethane	ND	+	1.4	0.093	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Chloroethane	ND		0.56	0.16	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Trichlorofluoromethane	ND		0.56	0.092	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1-Dichloroethene	ND		0.28	0.096	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Methylene Chloride	ND		0.99	0.56	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
trans-1,2-Dichloroethene	ND		0.28	0.065	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1-Dichloroethane	ND		0.28	0.074	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
2,2-Dichloropropane	ND		0.28	0.068	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
cis-1,2-Dichloroethene	ND		0.28	0.059	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Bromochloromethane	ND		0.28	0.11	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Chloroform	ND		0.28	0.066	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1,1-Trichloroethane	ND		0.28	0.049	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Carbon tetrachloride	ND		0.28	0.031	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1-Dichloropropene	ND		0.28	0.049	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Benzene	ND		0.056	0.028	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2-Dichloroethane	ND		0.28	0.020	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Trichloroethene	0.50		0.070	0.021	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2-Dichloropropane	ND		0.34	0.085	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Dibromomethane	ND		0.28	0.063	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Bromodichloromethane	ND		0.28	0.18	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
cis-1,3-Dichloropropene	ND		0.28	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Toluene	ND		0.28	0.037	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
trans-1,3-Dichloropropene	ND		0.28	0.074	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1,2-Trichloroethane	ND		0.28	0.10	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Tetrachloroethene	ND		0.11	0.050	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,3-Dichloropropane	ND		0.28	0.084	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Dibromochloromethane	ND		0.56	0.046	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2-Dibromoethane (EDB)	ND		0.28	0.094	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Chlorobenzene	ND		0.28	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Ethylbenzene	ND		0.28	0.046	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1,1,2-Tetrachloroethane	ND		0.28	0.054	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,1,2,2-Tetrachloroethane	ND		0.28	0.082	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
m,p-Xylene	ND		1.1	0.081	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
o-Xylene	ND		0.56	0.065	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Styrene	ND		0.28	0.067	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Bromoform	ND		0.56	0.054	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Isopropylbenzene	ND		0.28	0.087	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Bromobenzene	ND		0.28	0.063	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
N-Propylbenzene	ND		0.28	0.074	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2,3-Trichloropropane	ND		0.56	0.10	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
2-Chlorotoluene	ND		0.28	0.046	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,3,5-Trimethylbenzene	ND		0.28	0.090	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
4-Chlorotoluene	ND		0.28	0.025	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
tert-Butylbenzene	ND		0.28	0.055	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2,4-Trimethylbenzene	ND		0.28	0.066	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
sec-Butylbenzene	ND		0.28	0.052	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Client Sample ID: DF-HA-19(7)

Lab Sample ID: 590-22134-3

Date Collected: 10/30/23 11:35

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 82.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.28	0.036	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
p-Isopropyltoluene	ND		0.28	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,4-Dichlorobenzene	ND		0.28	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
n-Butylbenzene	ND		0.28	0.078	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2-Dichlorobenzene	ND		0.28	0.066	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2-Dibromo-3-Chloropropane	ND		1.4	0.17	mg/Kg	☼	11/09/23 12:00	11/13/23 19:45	1
1,2,4-Trichlorobenzene	ND		0.28	0.052	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
1,2,3-Trichlorobenzene	ND		0.28	0.094	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Hexachlorobutadiene	ND		0.28	0.046	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Naphthalene	ND		0.56	0.079	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1
Methyl tert-butyl ether	ND		0.14	0.085	mg/Kg	☼	11/09/23 12:00	11/09/23 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	11/09/23 12:00	11/09/23 15:48	1
Toluene-d8 (Surr)	107		80 - 120	11/09/23 12:00	11/13/23 19:45	1
4-Bromofluorobenzene (Surr)	97		66 - 129	11/09/23 12:00	11/09/23 15:48	1
4-Bromofluorobenzene (Surr)	94		66 - 129	11/09/23 12:00	11/13/23 19:45	1
Dibromofluoromethane (Surr)	103		80 - 120	11/09/23 12:00	11/09/23 15:48	1
Dibromofluoromethane (Surr)	100		80 - 120	11/09/23 12:00	11/13/23 19:45	1
1,2-Dichloroethane-d4 (Surr)	98		79 - 124	11/09/23 12:00	11/09/23 15:48	1
1,2-Dichloroethane-d4 (Surr)	91		79 - 124	11/09/23 12:00	11/13/23 19:45	1

Client Sample ID: DF-HA-28(2.5)

Lab Sample ID: 590-22134-6

Date Collected: 10/30/23 14:45

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.25	0.071	mg/Kg	☼	11/09/23 12:00	11/13/23 20:06	1
Chloromethane	ND		1.3	0.11	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Vinyl chloride	ND		0.15	0.051	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Bromomethane	ND	*+	1.3	0.084	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Chloroethane	ND		0.51	0.14	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Trichlorofluoromethane	ND		0.51	0.083	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1-Dichloroethene	ND		0.25	0.087	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Methylene Chloride	ND		0.89	0.51	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
trans-1,2-Dichloroethene	ND		0.25	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1-Dichloroethane	ND		0.25	0.067	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
2,2-Dichloropropane	ND		0.25	0.062	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
cis-1,2-Dichloroethene	ND		0.25	0.053	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Bromochloromethane	ND		0.25	0.10	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Chloroform	ND		0.25	0.060	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1,1-Trichloroethane	ND		0.25	0.044	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Carbon tetrachloride	ND		0.25	0.028	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1-Dichloropropene	ND		0.25	0.044	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Benzene	ND		0.051	0.025	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2-Dichloroethane	ND		0.25	0.018	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Trichloroethene	0.37		0.064	0.019	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2-Dichloropropane	ND		0.30	0.077	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Dibromomethane	ND		0.25	0.057	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Client Sample ID: DF-HA-28(2.5)

Lab Sample ID: 590-22134-6

Date Collected: 10/30/23 14:45

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		0.25	0.16	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
cis-1,3-Dichloropropene	ND		0.25	0.052	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Toluene	ND		0.25	0.034	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
trans-1,3-Dichloropropene	ND		0.25	0.067	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1,2-Trichloroethane	ND		0.25	0.090	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Tetrachloroethene	ND		0.10	0.045	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,3-Dichloropropane	ND		0.25	0.075	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Dibromochloromethane	ND		0.51	0.041	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2-Dibromoethane (EDB)	ND		0.25	0.085	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Chlorobenzene	ND		0.25	0.053	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Ethylbenzene	ND		0.25	0.041	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1,1,2-Tetrachloroethane	ND		0.25	0.049	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,1,2,2-Tetrachloroethane	ND		0.25	0.074	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
m,p-Xylene	ND		1.0	0.073	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
o-Xylene	ND		0.51	0.058	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Styrene	ND		0.25	0.060	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Bromoform	ND		0.51	0.049	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Isopropylbenzene	ND		0.25	0.079	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Bromobenzene	ND		0.25	0.057	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
N-Propylbenzene	ND		0.25	0.067	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2,3-Trichloropropane	ND		0.51	0.093	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
2-Chlorotoluene	ND		0.25	0.041	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,3,5-Trimethylbenzene	ND		0.25	0.081	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
4-Chlorotoluene	ND		0.25	0.022	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
tert-Butylbenzene	ND		0.25	0.050	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2,4-Trimethylbenzene	ND		0.25	0.059	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
sec-Butylbenzene	ND		0.25	0.047	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,3-Dichlorobenzene	ND		0.25	0.032	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
p-Isopropyltoluene	ND		0.25	0.052	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,4-Dichlorobenzene	ND		0.25	0.052	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
n-Butylbenzene	ND		0.25	0.070	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2-Dichlorobenzene	ND		0.25	0.059	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.15	mg/Kg	☼	11/09/23 12:00	11/13/23 20:06	1
1,2,4-Trichlorobenzene	ND		0.25	0.047	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
1,2,3-Trichlorobenzene	ND		0.25	0.085	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Hexachlorobutadiene	ND		0.25	0.042	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Naphthalene	ND		0.51	0.071	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1
Methyl tert-butyl ether	ND		0.13	0.076	mg/Kg	☼	11/09/23 12:00	11/09/23 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120	11/09/23 12:00	11/09/23 16:09	1
Toluene-d8 (Surr)	104		80 - 120	11/09/23 12:00	11/13/23 20:06	1
4-Bromofluorobenzene (Surr)	95		66 - 129	11/09/23 12:00	11/09/23 16:09	1
4-Bromofluorobenzene (Surr)	88		66 - 129	11/09/23 12:00	11/13/23 20:06	1
Dibromofluoromethane (Surr)	102		80 - 120	11/09/23 12:00	11/09/23 16:09	1
Dibromofluoromethane (Surr)	100		80 - 120	11/09/23 12:00	11/13/23 20:06	1
1,2-Dichloroethane-d4 (Surr)	97		79 - 124	11/09/23 12:00	11/09/23 16:09	1
1,2-Dichloroethane-d4 (Surr)	98		79 - 124	11/09/23 12:00	11/13/23 20:06	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44538/1-A
Matrix: Solid
Analysis Batch: 44534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44538

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chloromethane	ND		0.50	0.042	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Bromomethane	ND		0.50	0.033	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Chloroethane	ND		0.20	0.056	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Chloroform	ND		0.10	0.024	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Benzene	ND		0.020	0.010	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Dibromomethane	ND		0.10	0.022	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Toluene	ND		0.10	0.013	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
o-Xylene	ND		0.20	0.023	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Styrene	ND		0.10	0.024	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Bromoform	ND		0.20	0.019	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Bromobenzene	ND		0.10	0.022	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		11/09/23 12:00	11/09/23 12:34	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-44538/1-A
Matrix: Solid
Analysis Batch: 44534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44538

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Naphthalene	ND		0.20	0.028	mg/Kg		11/09/23 12:00	11/09/23 12:34	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		11/09/23 12:00	11/09/23 12:34	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	103		80 - 120	11/09/23 12:00	11/09/23 12:34	1
4-Bromofluorobenzene (Surr)	92		66 - 129	11/09/23 12:00	11/09/23 12:34	1
Dibromofluoromethane (Surr)	102		80 - 120	11/09/23 12:00	11/09/23 12:34	1
1,2-Dichloroethane-d4 (Surr)	95		79 - 124	11/09/23 12:00	11/09/23 12:34	1

Lab Sample ID: MB 590-44538/1-A
Matrix: Solid
Analysis Batch: 44590

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44538

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		11/09/23 12:00	11/13/23 19:02	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		11/09/23 12:00	11/13/23 19:02	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	104		80 - 120	11/09/23 12:00	11/13/23 19:02	1
4-Bromofluorobenzene (Surr)	96		66 - 129	11/09/23 12:00	11/13/23 19:02	1
Dibromofluoromethane (Surr)	102		80 - 120	11/09/23 12:00	11/13/23 19:02	1
1,2-Dichloroethane-d4 (Surr)	97		79 - 124	11/09/23 12:00	11/13/23 19:02	1

Lab Sample ID: LCS 590-44538/2-A
Matrix: Solid
Analysis Batch: 44534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	0.500	0.446		mg/Kg		89	38 - 150
Bromomethane	0.500	0.806	*+	mg/Kg		161	39 - 150
Chloroethane	0.500	0.528		mg/Kg		106	38 - 150
Trichlorofluoromethane	0.500	0.457		mg/Kg		91	45 - 150
1,1-Dichloroethene	0.500	0.507		mg/Kg		101	50 - 150
Methylene Chloride	0.500	0.585		mg/Kg		117	42 - 150
trans-1,2-Dichloroethene	0.500	0.513		mg/Kg		103	75 - 140
1,1-Dichloroethane	0.500	0.523		mg/Kg		105	79 - 133
2,2-Dichloropropane	0.500	0.628		mg/Kg		126	50 - 150
cis-1,2-Dichloroethene	0.500	0.526		mg/Kg		105	78 - 132
Bromochloromethane	0.500	0.479		mg/Kg		96	67 - 138

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44538/2-A

Matrix: Solid

Analysis Batch: 44534

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 44538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	0.500	0.542		mg/Kg		108	80 - 131
1,1,1-Trichloroethane	0.500	0.592		mg/Kg		118	59 - 150
Carbon tetrachloride	0.500	0.590		mg/Kg		118	61 - 150
1,1-Dichloropropene	0.500	0.512		mg/Kg		102	80 - 131
Benzene	0.500	0.524		mg/Kg		105	80 - 128
1,2-Dichloroethane	0.500	0.472		mg/Kg		94	77 - 126
Trichloroethene	0.500	0.523		mg/Kg		105	80 - 129
1,2-Dichloropropane	0.500	0.491		mg/Kg		98	71 - 136
Dibromomethane	0.500	0.488		mg/Kg		98	76 - 121
Bromodichloromethane	0.500	0.493		mg/Kg		99	79 - 122
cis-1,3-Dichloropropene	0.500	0.495		mg/Kg		99	71 - 123
Toluene	0.500	0.557		mg/Kg		111	79 - 130
trans-1,3-Dichloropropene	0.500	0.461		mg/Kg		92	68 - 133
1,1,2-Trichloroethane	0.500	0.484		mg/Kg		97	74 - 131
Tetrachloroethene	0.500	0.572		mg/Kg		114	76 - 142
1,3-Dichloropropane	0.500	0.461		mg/Kg		92	73 - 125
Dibromochloromethane	0.500	0.499		mg/Kg		100	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.446		mg/Kg		89	76 - 126
Chlorobenzene	0.500	0.550		mg/Kg		110	80 - 124
Ethylbenzene	0.500	0.560		mg/Kg		112	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.558		mg/Kg		112	76 - 139
1,1,2,2-Tetrachloroethane	0.500	0.445		mg/Kg		89	66 - 130
m,p-Xylene	0.500	0.538		mg/Kg		108	80 - 131
o-Xylene	0.500	0.553		mg/Kg		111	78 - 128
Styrene	0.500	0.550		mg/Kg		110	76 - 128
Bromoform	0.500	0.453		mg/Kg		91	49 - 150
Isopropylbenzene	0.500	0.552		mg/Kg		110	79 - 134
Bromobenzene	0.500	0.490		mg/Kg		98	70 - 129
N-Propylbenzene	0.500	0.559		mg/Kg		112	71 - 136
1,2,3-Trichloropropane	0.500	0.438		mg/Kg		88	61 - 138
2-Chlorotoluene	0.500	0.516		mg/Kg		103	73 - 131
1,3,5-Trimethylbenzene	0.500	0.525		mg/Kg		105	76 - 130
4-Chlorotoluene	0.500	0.519		mg/Kg		104	76 - 128
tert-Butylbenzene	0.500	0.522		mg/Kg		104	74 - 129
1,2,4-Trimethylbenzene	0.500	0.550		mg/Kg		110	78 - 128
sec-Butylbenzene	0.500	0.539		mg/Kg		108	78 - 132
1,3-Dichlorobenzene	0.500	0.528		mg/Kg		106	80 - 121
p-Isopropyltoluene	0.500	0.540		mg/Kg		108	79 - 128
1,4-Dichlorobenzene	0.500	0.520		mg/Kg		104	80 - 122
n-Butylbenzene	0.500	0.483		mg/Kg		97	75 - 128
1,2-Dichlorobenzene	0.500	0.515		mg/Kg		103	80 - 121
1,2,4-Trichlorobenzene	0.500	0.464		mg/Kg		93	73 - 129
1,2,3-Trichlorobenzene	0.500	0.420		mg/Kg		84	72 - 130
Hexachlorobutadiene	0.500	0.500		mg/Kg		100	75 - 136
Naphthalene	0.500	0.371		mg/Kg		74	57 - 131
Methyl tert-butyl ether	0.500	0.573		mg/Kg		115	69 - 132

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44538/2-A
Matrix: Solid
Analysis Batch: 44534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44538

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	91		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	92		79 - 124

Lab Sample ID: LCS 590-44538/2-A
Matrix: Solid
Analysis Batch: 44590

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44538

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	0.500	0.245		mg/Kg		49	14 - 120
1,2-Dibromo-3-Chloropropane	0.500	0.347	J	mg/Kg		69	49 - 143

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 120
4-Bromofluorobenzene (Surr)	93		66 - 129
Dibromofluoromethane (Surr)	99		80 - 120
1,2-Dichloroethane-d4 (Surr)	94		79 - 124

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Client Sample ID: DF-HA-19(7)

Lab Sample ID: 590-22134-3

Date Collected: 10/30/23 11:35

Matrix: Solid

Date Received: 10/31/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44426	11/02/23 15:55	MRV	EET SPK

Client Sample ID: DF-HA-19(7)

Lab Sample ID: 590-22134-3

Date Collected: 10/30/23 11:35

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.634 g	10 mL	44538	11/09/23 12:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44534	11/09/23 15:48	JSP	EET SPK
Total/NA	Prep	5035			4.634 g	10 mL	44538	11/09/23 12:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44590	11/13/23 19:45	JSP	EET SPK

Client Sample ID: DF-HA-28(2.5)

Lab Sample ID: 590-22134-6

Date Collected: 10/30/23 14:45

Matrix: Solid

Date Received: 10/31/23 10:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44426	11/02/23 15:55	MRV	EET SPK

Client Sample ID: DF-HA-28(2.5)

Lab Sample ID: 590-22134-6

Date Collected: 10/30/23 14:45

Matrix: Solid

Date Received: 10/31/23 10:55

Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.38 g	10 mL	44538	11/09/23 12:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44534	11/09/23 16:09	JSP	EET SPK
Total/NA	Prep	5035			4.38 g	10 mL	44538	11/09/23 12:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44590	11/13/23 20:06	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

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Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Pend Oreille Mine

Job ID: 590-22134-4

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200





Haley & Aldrich, Inc.
505 West Riverside
Suite 450,
Spokane, WA 99216

CHAIN OF CUSTODY RECORD


Phone 509-960-7447

Fax

Page 1 of 1

H&A FILE NO. 0203154-013 LABORATORY Eurofins Environment Testing DELIVERY DATE 10/31/2023
 PROJECT NAME POM Historic Debris Field-October 2023 ADDRESS 11922 East 1st Avenue Spokane, WA TURNAROUND TIME 48-hours/Select samples hold until further notice
 H&A CONTACT McKynzie Clark CONTACT Rande Arrington PROJECT MANAGER Ward McDonald

Sample No.	Date	Time	Depth (feet)	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					TC	CE	EA	PA	NO3	NO2	NO	NH4	PO4	PO3	PO	PH			
DF-HA-19(5)	10/30/2023	1125	5.0	Soil	X													3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 48-HR TAT MEM 10/31/23
DF-HA-19(6)	10/30/2023	1130	6.0	Soil														3	
DF-HA-19(7)	10/30/2023	1135	7.0	Soil														3	
DF-HA-28(1)	10/30/2023	1405	1.0	Soil	X													3	
DF-HA-28(2)	10/30/2023	1410	2.0	Soil														3	
DF-HA-28(2.5)	10/30/2023	1445	2.5	Soil														3	
DF-HA-29(1)	10/30/2023	1520	1.0	Soil	X													3	
DF-HA-29(2)	10/30/2023	1540	2.0	Soil														3	
DF-HA-29(2.5)	10/30/2023	1615	2.5	Soil														3	
DF-HA-28(4)	10/30/2023	1700	1.0	Soil	X													3	

Sampled and Relinquished by		Received by		LIQUID		Sampling Comments	
Sign <i>[Signature]</i>	Sign <i>[Signature]</i>			VOA Vial		43,44 con 1005	
Print Ward McDonald	Print <i>Maclay Harris</i>			Amber Glass			
Firm Haley & Aldrich, Inc.	Firm <i>EET SFO</i>			Plastic Bottle			
Date 10/31/23 Time 1054	Date 10/31/23 Time 1055			Preservative		 590-22134 Chain of Custody	
Relinquished by	Received by			Volume			
Sign	Sign			SOLID			
Print	Print	X		VOA Vial			
Firm	Firm			Amber Glass		Evidence samples were tampered with? YES NO	
Date	Date	X		Clear Glass			
Relinquished by	Received by			Preservative		If YES, please explain in section below	
Sign	Sign			Volume			
Print	Print			PRESERVATION KEY			
Firm	Firm			A Sample chilled C NaOH E H2SO4 G Methanol		Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)	
Date	Date			B Sample filtered D HNO3 F HCL H Water/NaHSO4 (circle)			

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22134-4

Login Number: 22134

List Source: Eurofins Spokane

List Number: 1

Creator: Morris, Mackenzie 1

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 11/6/2023 4:51:45 PM

JOB DESCRIPTION

POM Historic Debris Field/0203154-013

JOB NUMBER

590-22150-1

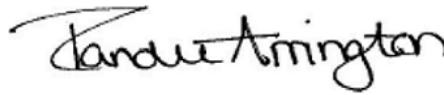
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Job ID: 590-22150-1

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22150-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The sample was received on 11/1/2023 4:40 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C

GC/MS VOA

Method 8260D: The initial calibration verification (ICV) result for batch 590-44464 was above the upper control limit for Methylene Chloride. Sample results were non-detects, and have been reported as qualified data.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-22150-1	DF-HA-30 (1)	Solid	10/30/23 17:00	11/01/23 16:40

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Client Sample ID: DF-HA-30 (1)

Lab Sample ID: 590-22150-1

Date Collected: 10/30/23 17:00

Matrix: Solid

Date Received: 11/01/23 16:40

Percent Solids: 92.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.31	0.086	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Chloromethane	ND		1.5	0.13	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Vinyl chloride	ND		0.18	0.062	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Bromomethane	ND		1.5	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Chloroethane	ND		0.61	0.17	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Trichlorofluoromethane	ND		0.61	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1-Dichloroethene	ND		0.31	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Methylene Chloride	ND		1.1	0.61	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
trans-1,2-Dichloroethene	ND		0.31	0.070	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1-Dichloroethane	ND		0.31	0.081	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
2,2-Dichloropropane	ND		0.31	0.075	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
cis-1,2-Dichloroethene	ND		0.31	0.064	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Bromochloromethane	ND		0.31	0.12	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Chloroform	ND		0.31	0.072	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1,1-Trichloroethane	ND		0.31	0.053	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Carbon tetrachloride	ND		0.31	0.034	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1-Dichloropropene	ND		0.31	0.053	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Benzene	ND		0.061	0.031	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2-Dichloroethane	ND		0.31	0.021	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Trichloroethene	ND		0.077	0.023	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2-Dichloropropane	ND		0.37	0.093	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Dibromomethane	ND		0.31	0.068	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Bromodichloromethane	ND		0.31	0.19	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
cis-1,3-Dichloropropene	ND		0.31	0.063	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Toluene	ND		0.31	0.041	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
trans-1,3-Dichloropropene	ND		0.31	0.081	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1,2-Trichloroethane	ND		0.31	0.11	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Tetrachloroethene	ND		0.12	0.054	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,3-Dichloropropane	ND		0.31	0.091	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Dibromochloromethane	ND		0.61	0.050	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2-Dibromoethane (EDB)	ND		0.31	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Chlorobenzene	ND		0.31	0.063	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Ethylbenzene	ND		0.31	0.050	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1,1,2-Tetrachloroethane	ND		0.31	0.059	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,1,2,2-Tetrachloroethane	ND		0.31	0.089	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
m,p-Xylene	ND		1.2	0.088	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
o-Xylene	ND		0.61	0.071	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Styrene	ND		0.31	0.072	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Bromoform	ND		0.61	0.059	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Isopropylbenzene	ND		0.31	0.095	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Bromobenzene	ND		0.31	0.068	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
N-Propylbenzene	ND		0.31	0.081	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2,3-Trichloropropane	ND		0.61	0.11	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
2-Chlorotoluene	ND		0.31	0.050	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,3,5-Trimethylbenzene	ND		0.31	0.098	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
4-Chlorotoluene	ND		0.31	0.027	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
tert-Butylbenzene	ND		0.31	0.060	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2,4-Trimethylbenzene	ND		0.31	0.072	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
sec-Butylbenzene	ND		0.31	0.057	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Client Sample ID: DF-HA-30 (1)

Lab Sample ID: 590-22150-1

Date Collected: 10/30/23 17:00

Matrix: Solid

Date Received: 11/01/23 16:40

Percent Solids: 92.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.31	0.039	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
p-Isopropyltoluene	ND		0.31	0.063	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,4-Dichlorobenzene	ND		0.31	0.063	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
n-Butylbenzene	ND		0.31	0.084	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2-Dichlorobenzene	ND		0.31	0.071	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2-Dibromo-3-Chloropropane	ND		1.5	0.18	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2,4-Trichlorobenzene	ND		0.31	0.057	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
1,2,3-Trichlorobenzene	ND		0.31	0.10	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Hexachlorobutadiene	ND		0.31	0.050	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Naphthalene	ND		0.61	0.086	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Methyl tert-butyl ether	ND		0.15	0.092	mg/Kg	☼	11/06/23 13:31	11/06/23 15:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120				11/06/23 13:31	11/06/23 15:37	1
4-Bromofluorobenzene (Surr)	87		66 - 129				11/06/23 13:31	11/06/23 15:37	1
Dibromofluoromethane (Surr)	106		80 - 120				11/06/23 13:31	11/06/23 15:37	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124				11/06/23 13:31	11/06/23 15:37	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44472/1-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44472

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloromethane	ND		0.50	0.042	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromomethane	ND		0.50	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloroethane	ND		0.20	0.056	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chloroform	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Benzene	ND		0.020	0.010	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloroethane	ND		0.10	0.0070	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Dibromomethane	ND		0.10	0.022	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Toluene	ND		0.10	0.013	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
o-Xylene	ND		0.20	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Styrene	ND		0.10	0.024	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromoform	ND		0.20	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Bromobenzene	ND		0.10	0.022	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
4-Chlorotoluene	ND		0.10	0.0087	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-44472/1-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44472

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Naphthalene	0.0293	J	0.20	0.028	mg/Kg		11/06/23 13:31	11/06/23 15:14	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		11/06/23 13:31	11/06/23 15:14	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	104		80 - 120	11/06/23 13:31	11/06/23 15:14	1
4-Bromofluorobenzene (Surr)	97		66 - 129	11/06/23 13:31	11/06/23 15:14	1
Dibromofluoromethane (Surr)	102		80 - 120	11/06/23 13:31	11/06/23 15:14	1
1,2-Dichloroethane-d4 (Surr)	95		79 - 124	11/06/23 13:31	11/06/23 15:14	1

Lab Sample ID: LCS 590-44472/2-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chloromethane	0.500	0.370	J	mg/Kg		74	29 - 150
Vinyl chloride	0.500	0.452		mg/Kg		90	38 - 150
Bromomethane	0.500	0.452	J	mg/Kg		90	39 - 150
Chloroethane	0.500	0.530		mg/Kg		106	38 - 150
Trichlorofluoromethane	0.500	0.663		mg/Kg		133	45 - 150
1,1-Dichloroethene	0.500	0.557		mg/Kg		111	50 - 150
Methylene Chloride	0.500	0.424		mg/Kg		85	42 - 150
trans-1,2-Dichloroethene	0.500	0.434		mg/Kg		87	75 - 140
1,1-Dichloroethane	0.500	0.496		mg/Kg		99	79 - 133
2,2-Dichloropropane	0.500	0.511		mg/Kg		102	50 - 150
cis-1,2-Dichloroethene	0.500	0.490		mg/Kg		98	78 - 132
Bromochloromethane	0.500	0.461		mg/Kg		92	67 - 138
Chloroform	0.500	0.509		mg/Kg		102	80 - 131
1,1,1-Trichloroethane	0.500	0.524		mg/Kg		105	59 - 150
Carbon tetrachloride	0.500	0.541		mg/Kg		108	61 - 150
1,1-Dichloropropene	0.500	0.541		mg/Kg		108	80 - 131
Benzene	0.500	0.514		mg/Kg		103	80 - 128
1,2-Dichloroethane	0.500	0.493		mg/Kg		99	77 - 126
Trichloroethene	0.500	0.535		mg/Kg		107	80 - 129
1,2-Dichloropropane	0.500	0.520		mg/Kg		104	71 - 136
Dibromomethane	0.500	0.505		mg/Kg		101	76 - 121
Bromodichloromethane	0.500	0.519		mg/Kg		104	79 - 122
cis-1,3-Dichloropropene	0.500	0.506		mg/Kg		101	71 - 123

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44472/2-A
Matrix: Solid
Analysis Batch: 44464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44472

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.550		mg/Kg		110	79 - 130
trans-1,3-Dichloropropene	0.500	0.508		mg/Kg		102	68 - 133
1,1,2-Trichloroethane	0.500	0.528		mg/Kg		106	74 - 131
Tetrachloroethene	0.500	0.557		mg/Kg		111	76 - 142
1,3-Dichloropropane	0.500	0.511		mg/Kg		102	73 - 125
Dibromochloromethane	0.500	0.536		mg/Kg		107	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.538		mg/Kg		108	76 - 126
Chlorobenzene	0.500	0.553		mg/Kg		111	80 - 124
Ethylbenzene	0.500	0.557		mg/Kg		111	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.557		mg/Kg		111	76 - 139
1,1,1,2-Tetrachloroethane	0.500	0.467		mg/Kg		93	66 - 130
m,p-Xylene	0.500	0.554		mg/Kg		111	80 - 131
o-Xylene	0.500	0.545		mg/Kg		109	78 - 128
Styrene	0.500	0.601		mg/Kg		120	76 - 128
Bromoform	0.500	0.564		mg/Kg		113	49 - 150
Isopropylbenzene	0.500	0.566		mg/Kg		113	79 - 134
Bromobenzene	0.500	0.460		mg/Kg		92	70 - 129
N-Propylbenzene	0.500	0.514		mg/Kg		103	71 - 136
1,2,3-Trichloropropane	0.500	0.489		mg/Kg		98	61 - 138
2-Chlorotoluene	0.500	0.507		mg/Kg		101	73 - 131
1,3,5-Trimethylbenzene	0.500	0.534		mg/Kg		107	76 - 130
4-Chlorotoluene	0.500	0.503		mg/Kg		101	76 - 128
tert-Butylbenzene	0.500	0.510		mg/Kg		102	74 - 129
1,2,4-Trimethylbenzene	0.500	0.536		mg/Kg		107	78 - 128
sec-Butylbenzene	0.500	0.549		mg/Kg		110	78 - 132
1,3-Dichlorobenzene	0.500	0.537		mg/Kg		107	80 - 121
p-Isopropyltoluene	0.500	0.550		mg/Kg		110	79 - 128
1,4-Dichlorobenzene	0.500	0.531		mg/Kg		106	80 - 122
n-Butylbenzene	0.500	0.549		mg/Kg		110	75 - 128
1,2-Dichlorobenzene	0.500	0.489		mg/Kg		98	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.483	J	mg/Kg		97	49 - 143
1,2,4-Trichlorobenzene	0.500	0.445		mg/Kg		89	73 - 129
1,2,3-Trichlorobenzene	0.500	0.405		mg/Kg		81	72 - 130
Hexachlorobutadiene	0.500	0.452		mg/Kg		90	75 - 136
Naphthalene	0.500	0.408		mg/Kg		82	57 - 131
Methyl tert-butyl ether	0.500	0.471		mg/Kg		94	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	88		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	98		79 - 124

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Client Sample ID: DF-HA-30 (1)

Lab Sample ID: 590-22150-1

Date Collected: 10/30/23 17:00

Matrix: Solid

Date Received: 11/01/23 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44454	11/03/23 15:05	JSP	EET SPK

Client Sample ID: DF-HA-30 (1)

Lab Sample ID: 590-22150-1

Date Collected: 10/30/23 17:00

Matrix: Solid

Date Received: 11/01/23 16:40

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.619 g	10 mL	44472	11/06/23 13:31	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44464	11/06/23 15:37	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM Historic Debris Field/0203154-013

Job ID: 590-22150-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



Spokane, WA 99206-5302
phone 509.924.9200 fax 509 924 9290

Regulatory Program DW NPDES RCRA Other

Eurofins Environment Testing America

Client Contact		Project Manager: <u>Ward McDonald</u>		Site Contact:		Date:		COC No: _____ of _____ COCs	
Your Company Name here: <u>Haley & Aldrich</u>		Email:		Lab Contact:		Carrier:		TALS Project #:	
Address		Tel/Fax:		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input checked="" type="checkbox"/> 2 days <input type="checkbox"/> 1 day		Filtered Sample (Y/N) Perform MS / MSD (Y/N) <u>NO C EPA 8240-B</u> <u>Percent Moisture</u>		Sampler:	
City/State/Zip								For Lab Use Only:	
(xxx) xxx-xxxx Phone								Walk-in Client:	
(xxx) xxx-xxxx FAX								Lab Sampling:	
Project Name: <u>POM Historic Debris field</u>								Job / SDG No.:	
Site: <u>Pend Oreille Mine</u>									
PO# <u>0203154-013</u>									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Sample Specific Notes:	
DF-HA-30 (1)	10/30/23	17:00	E	Soil	3			XX	2 day Turn around



Preservation Used: 1=Ice, 2=HQI, 3=H2SO4, 4=HNO3, 5=NaOH, 6=Other

Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return to Client Disposal by Lab Archive for _____ Months

Special Instructions/QC Requirements & Comments

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No. _____	Cooler Temp. (°C): Obs'd: <u>4.4</u> Cor'd: <u>4.5</u>	Therm ID No.: <u>1P005</u>
Relinquished by: <u>Kaylin Adelstein</u>	Company: <u>H&A</u>	Date/Time: <u>11/16/23 16:38</u>	Received by: <u>[Signature]</u>
		Date/Time:	Received by:
		Date/Time:	Received in Laboratory by:

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22150-1

Login Number: 22150

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 12/6/2023 3:49:52 PM

JOB DESCRIPTION

POM HDF/0203154-013

JOB NUMBER

590-22385-1

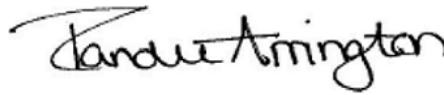
Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Randee Arrington, Business Unit Manager
Randee.Arrington@et.eurofinsus.com
(509)924-9200



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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Job ID: 590-22385-1

Laboratory: Eurofins Spokane

Narrative

Job Narrative 590-22385-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method. Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/1/2023 4:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

GC/MS VOA

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 590-44923 and analytical batch 590-44921 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-22385-1	DF-HA-36 (1)	Solid	12/01/23 11:50	12/01/23 16:25
590-22385-2	DF-HA-35 (1)	Solid	12/01/23 11:35	12/01/23 16:25
590-22385-4	DF-HA-32 (1)	Solid	12/01/23 10:25	12/01/23 16:25
590-22385-6	DF-HA-31 (1)	Solid	12/01/23 09:55	12/01/23 16:25
590-22385-7	DF-HA-33 (1)	Solid	12/01/23 10:55	12/01/23 16:25
590-22385-8	DF-HA-34 (1)	Solid	12/01/23 11:25	12/01/23 16:25

1

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-36 (1)

Lab Sample ID: 590-22385-1

Date Collected: 12/01/23 11:50

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 81.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		3.4	0.95	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Chloromethane	ND		17	1.4	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Vinyl chloride	ND		2.0	0.68	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Bromomethane	ND		17	1.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Chloroethane	ND		6.8	1.9	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Trichlorofluoromethane	ND		6.8	1.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1-Dichloroethene	ND		3.4	1.2	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Methylene Chloride	ND		12	6.8	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
trans-1,2-Dichloroethene	ND		3.4	0.77	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1-Dichloroethane	ND		3.4	0.89	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
2,2-Dichloropropane	ND		3.4	0.82	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
cis-1,2-Dichloroethene	ND		3.4	0.70	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Bromochloromethane	ND		3.4	1.3	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Chloroform	ND		3.4	0.79	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1,1-Trichloroethane	ND		3.4	0.58	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Carbon tetrachloride	ND		3.4	0.37	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1-Dichloropropene	ND		3.4	0.59	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Benzene	ND		0.68	0.34	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2-Dichloroethane	ND		3.4	0.74	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Trichloroethene	ND		0.85	0.26	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2-Dichloropropane	ND		4.1	1.0	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Dibromomethane	ND		3.4	0.75	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Bromodichloromethane	ND		3.4	2.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
cis-1,3-Dichloropropene	ND		3.4	0.69	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Toluene	ND		3.4	1.5	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
trans-1,3-Dichloropropene	ND		3.4	0.89	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1,2-Trichloroethane	ND		3.4	1.2	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Tetrachloroethene	ND		1.4	0.59	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,3-Dichloropropane	ND		3.4	1.0	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Dibromochloromethane	ND		6.8	0.55	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2-Dibromoethane (EDB)	ND		3.4	1.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Chlorobenzene	ND		3.4	0.70	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Ethylbenzene	ND		3.4	0.55	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1,1,2-Tetrachloroethane	ND		3.4	0.65	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,1,2,2-Tetrachloroethane	ND		3.4	0.98	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
m,p-Xylene	ND		14	0.97	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
o-Xylene	ND		6.8	0.78	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Styrene	ND		3.4	0.80	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Bromoform	ND		6.8	0.65	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Isopropylbenzene	ND		3.4	1.0	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Bromobenzene	ND		3.4	0.75	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
N-Propylbenzene	ND		3.4	0.89	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2,3-Trichloropropane	ND		6.8	1.2	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
2-Chlorotoluene	ND		3.4	0.55	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,3,5-Trimethylbenzene	ND		3.4	1.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
4-Chlorotoluene	ND		3.4	0.78	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
tert-Butylbenzene	ND		3.4	0.66	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2,4-Trimethylbenzene	ND		3.4	0.79	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
sec-Butylbenzene	ND		3.4	0.63	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-36 (1)

Lab Sample ID: 590-22385-1

Date Collected: 12/01/23 11:50

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 81.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		3.4	0.43	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
p-Isopropyltoluene	ND		3.4	0.69	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,4-Dichlorobenzene	ND		3.4	0.70	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
n-Butylbenzene	ND		3.4	0.93	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2-Dichlorobenzene	ND		3.4	0.79	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2-Dibromo-3-Chloropropane	ND		17	2.0	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2,4-Trichlorobenzene	ND		3.4	0.63	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
1,2,3-Trichlorobenzene	ND		3.4	1.1	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Hexachlorobutadiene	ND		3.4	0.55	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Naphthalene	ND		6.8	0.95	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10
Methyl tert-butyl ether	ND		1.7	1.0	mg/Kg	☼	12/04/23 14:00	12/04/23 16:21	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 16:21	10
4-Bromofluorobenzene (Surr)	102		66 - 129	12/04/23 14:00	12/04/23 16:21	10
Dibromofluoromethane (Surr)	106		80 - 120	12/04/23 14:00	12/04/23 16:21	10
1,2-Dichloroethane-d4 (Surr)	105		79 - 124	12/04/23 14:00	12/04/23 16:21	10

Client Sample ID: DF-HA-35 (1)

Lab Sample ID: 590-22385-2

Date Collected: 12/01/23 11:35

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 86.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	F1	0.33	0.094	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Chloromethane	ND		1.7	0.14	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Vinyl chloride	ND		0.20	0.068	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Bromomethane	ND		1.7	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Chloroethane	ND		0.67	0.19	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Trichlorofluoromethane	ND		0.67	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1-Dichloroethene	ND		0.33	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Methylene Chloride	ND		1.2	0.67	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
trans-1,2-Dichloroethene	ND	F1	0.33	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1-Dichloroethane	ND	F1	0.33	0.088	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
2,2-Dichloropropane	ND		0.33	0.081	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
cis-1,2-Dichloroethene	ND		0.33	0.070	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Bromochloromethane	ND		0.33	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Chloroform	ND	F1	0.33	0.079	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1,1-Trichloroethane	ND		0.33	0.058	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Carbon tetrachloride	ND		0.33	0.037	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1-Dichloropropene	ND	F1	0.33	0.058	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Benzene	ND	F1	0.067	0.033	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2-Dichloroethane	ND		0.33	0.073	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Trichloroethene	0.59		0.084	0.025	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2-Dichloropropane	ND		0.40	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Dibromomethane	ND		0.33	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Bromodichloromethane	ND	F1	0.33	0.21	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
cis-1,3-Dichloropropene	ND		0.33	0.068	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Toluene	ND	F1	0.33	0.15	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
trans-1,3-Dichloropropene	ND		0.33	0.088	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-35 (1)

Lab Sample ID: 590-22385-2

Date Collected: 12/01/23 11:35

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 86.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.33	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Tetrachloroethene	ND		0.13	0.059	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,3-Dichloropropane	ND		0.33	0.099	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Dibromochloromethane	ND		0.67	0.054	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2-Dibromoethane (EDB)	ND		0.33	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Chlorobenzene	ND	F1	0.33	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Ethylbenzene	ND	F1	0.33	0.054	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1,1,2-Tetrachloroethane	ND		0.33	0.064	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,1,2,2-Tetrachloroethane	ND		0.33	0.097	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
m,p-Xylene	ND		1.3	0.096	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
o-Xylene	ND		0.67	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Styrene	ND		0.33	0.079	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Bromoform	ND		0.67	0.064	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Isopropylbenzene	ND		0.33	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Bromobenzene	ND		0.33	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
N-Propylbenzene	ND		0.33	0.088	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2,3-Trichloropropane	ND		0.67	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
2-Chlorotoluene	ND		0.33	0.055	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,3,5-Trimethylbenzene	ND		0.33	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
4-Chlorotoluene	ND		0.33	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
tert-Butylbenzene	ND		0.33	0.065	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2,4-Trimethylbenzene	ND		0.33	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
sec-Butylbenzene	ND		0.33	0.062	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,3-Dichlorobenzene	ND	F1	0.33	0.042	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
p-Isopropyltoluene	ND	F1	0.33	0.068	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,4-Dichlorobenzene	ND	F1	0.33	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
n-Butylbenzene	ND	F1	0.33	0.092	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2-Dichlorobenzene	ND	F1	0.33	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2-Dibromo-3-Chloropropane	ND		1.7	0.20	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2,4-Trichlorobenzene	ND	F1	0.33	0.062	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
1,2,3-Trichlorobenzene	ND		0.33	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Hexachlorobutadiene	ND	F1	0.33	0.055	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Naphthalene	ND		0.67	0.094	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1
Methyl tert-butyl ether	ND		0.17	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 17:05	1
4-Bromofluorobenzene (Surr)	100		66 - 129	12/04/23 14:00	12/04/23 17:05	1
Dibromofluoromethane (Surr)	107		80 - 120	12/04/23 14:00	12/04/23 17:05	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124	12/04/23 14:00	12/04/23 17:05	1

Client Sample ID: DF-HA-32 (1)

Lab Sample ID: 590-22385-4

Date Collected: 12/01/23 10:25

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 76.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.37	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Chloromethane	ND		1.9	0.16	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Vinyl chloride	ND		0.22	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-32 (1)

Lab Sample ID: 590-22385-4

Date Collected: 12/01/23 10:25

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 76.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.9	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Chloroethane	ND		0.75	0.21	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Trichlorofluoromethane	ND		0.75	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1-Dichloroethene	ND		0.37	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Methylene Chloride	ND		1.3	0.75	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
trans-1,2-Dichloroethene	ND		0.37	0.085	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1-Dichloroethane	ND		0.37	0.099	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
2,2-Dichloropropane	ND		0.37	0.091	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
cis-1,2-Dichloroethene	ND		0.37	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Bromochloromethane	ND		0.37	0.15	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Chloroform	ND		0.37	0.088	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1,1-Trichloroethane	ND		0.37	0.065	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Carbon tetrachloride	ND		0.37	0.041	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1-Dichloropropene	ND		0.37	0.065	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Benzene	ND		0.075	0.037	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2-Dichloroethane	ND		0.37	0.081	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Trichloroethene	ND		0.093	0.028	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2-Dichloropropane	ND		0.45	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Dibromomethane	ND		0.37	0.083	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Bromodichloromethane	ND		0.37	0.23	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
cis-1,3-Dichloropropene	ND		0.37	0.076	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Toluene	ND		0.37	0.17	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
trans-1,3-Dichloropropene	ND		0.37	0.098	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1,2-Trichloroethane	ND		0.37	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Tetrachloroethene	ND		0.15	0.066	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,3-Dichloropropane	ND		0.37	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Dibromochloromethane	ND		0.75	0.060	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2-Dibromoethane (EDB)	ND		0.37	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Chlorobenzene	ND		0.37	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Ethylbenzene	ND		0.37	0.060	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1,1,2-Tetrachloroethane	ND		0.37	0.072	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,1,2,2-Tetrachloroethane	ND		0.37	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
m,p-Xylene	ND		1.5	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
o-Xylene	ND		0.75	0.086	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Styrene	ND		0.37	0.088	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Bromoform	ND		0.75	0.071	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Isopropylbenzene	ND		0.37	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Bromobenzene	ND		0.37	0.083	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
N-Propylbenzene	ND		0.37	0.099	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2,3-Trichloropropane	ND		0.75	0.14	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
2-Chlorotoluene	ND		0.37	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,3,5-Trimethylbenzene	ND		0.37	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
4-Chlorotoluene	ND		0.37	0.087	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
tert-Butylbenzene	ND		0.37	0.073	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2,4-Trimethylbenzene	ND		0.37	0.087	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
sec-Butylbenzene	ND		0.37	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,3-Dichlorobenzene	ND		0.37	0.047	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
p-Isopropyltoluene	ND		0.37	0.076	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,4-Dichlorobenzene	ND		0.37	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-32 (1)

Lab Sample ID: 590-22385-4

Date Collected: 12/01/23 10:25

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 76.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	ND		0.37	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2-Dichlorobenzene	ND		0.37	0.087	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2-Dibromo-3-Chloropropane	ND		1.9	0.22	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2,4-Trichlorobenzene	ND		0.37	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
1,2,3-Trichlorobenzene	ND		0.37	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Hexachlorobutadiene	ND		0.37	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Naphthalene	ND		0.75	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1
Methyl tert-butyl ether	ND		0.19	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 18:32	1
4-Bromofluorobenzene (Surr)	96		66 - 129	12/04/23 14:00	12/04/23 18:32	1
Dibromofluoromethane (Surr)	110		80 - 120	12/04/23 14:00	12/04/23 18:32	1
1,2-Dichloroethane-d4 (Surr)	106		79 - 124	12/04/23 14:00	12/04/23 18:32	1

Client Sample ID: DF-HA-31 (1)

Lab Sample ID: 590-22385-6

Date Collected: 12/01/23 09:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 80.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.36	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Chloromethane	ND		1.8	0.15	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Vinyl chloride	ND		0.22	0.074	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Bromomethane	ND		1.8	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Chloroethane	ND		0.73	0.21	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Trichlorofluoromethane	ND		0.73	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1-Dichloroethene	ND		0.36	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Methylene Chloride	ND		1.3	0.73	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
trans-1,2-Dichloroethene	ND		0.36	0.083	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1-Dichloroethane	ND		0.36	0.096	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
2,2-Dichloropropane	ND		0.36	0.089	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
cis-1,2-Dichloroethene	ND		0.36	0.076	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Bromochloromethane	ND		0.36	0.15	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Chloroform	ND		0.36	0.086	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1,1-Trichloroethane	ND		0.36	0.063	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Carbon tetrachloride	ND		0.36	0.040	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1-Dichloropropene	ND		0.36	0.063	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Benzene	ND		0.073	0.036	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2-Dichloroethane	ND		0.36	0.079	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Trichloroethene	ND		0.091	0.028	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2-Dichloropropane	ND		0.44	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Dibromomethane	ND		0.36	0.081	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Bromodichloromethane	ND		0.36	0.23	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
cis-1,3-Dichloropropene	ND		0.36	0.074	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Toluene	ND		0.36	0.16	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
trans-1,3-Dichloropropene	ND		0.36	0.096	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1,2-Trichloroethane	ND		0.36	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Tetrachloroethene	ND		0.15	0.064	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,3-Dichloropropane	ND		0.36	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-31 (1)

Lab Sample ID: 590-22385-6

Date Collected: 12/01/23 09:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 80.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.73	0.059	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2-Dibromoethane (EDB)	ND		0.36	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Chlorobenzene	ND		0.36	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Ethylbenzene	ND		0.36	0.059	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1,1,2-Tetrachloroethane	ND		0.36	0.070	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,1,1,2-Tetrachloroethane	ND		0.36	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
m,p-Xylene	ND		1.5	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
o-Xylene	ND		0.73	0.084	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Styrene	ND		0.36	0.086	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Bromoform	ND		0.73	0.070	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Isopropylbenzene	ND		0.36	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Bromobenzene	ND		0.36	0.081	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
N-Propylbenzene	ND		0.36	0.096	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2,3-Trichloropropane	ND		0.73	0.13	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
2-Chlorotoluene	ND		0.36	0.059	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,3,5-Trimethylbenzene	ND		0.36	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
4-Chlorotoluene	ND		0.36	0.085	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
tert-Butylbenzene	ND		0.36	0.071	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2,4-Trimethylbenzene	ND		0.36	0.085	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
sec-Butylbenzene	ND		0.36	0.068	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,3-Dichlorobenzene	ND		0.36	0.046	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
p-Isopropyltoluene	ND		0.36	0.074	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,4-Dichlorobenzene	ND		0.36	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
n-Butylbenzene	ND		0.36	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2-Dichlorobenzene	ND		0.36	0.085	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2-Dibromo-3-Chloropropane	ND		1.8	0.22	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2,4-Trichlorobenzene	ND		0.36	0.067	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
1,2,3-Trichlorobenzene	ND		0.36	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Hexachlorobutadiene	ND		0.36	0.060	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Naphthalene	ND		0.73	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1
Methyl tert-butyl ether	ND		0.18	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 18:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 18:53	1
4-Bromofluorobenzene (Surr)	104		66 - 129	12/04/23 14:00	12/04/23 18:53	1
Dibromofluoromethane (Surr)	108		80 - 120	12/04/23 14:00	12/04/23 18:53	1
1,2-Dichloroethane-d4 (Surr)	106		79 - 124	12/04/23 14:00	12/04/23 18:53	1

Client Sample ID: DF-HA-33 (1)

Lab Sample ID: 590-22385-7

Date Collected: 12/01/23 10:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 84.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.28	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Chloromethane	ND		1.4	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Vinyl chloride	ND		0.17	0.056	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Bromomethane	ND		1.4	0.091	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Chloroethane	ND		0.55	0.16	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Trichlorofluoromethane	ND		0.55	0.091	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-33 (1)

Lab Sample ID: 590-22385-7

Date Collected: 12/01/23 10:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 84.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		0.28	0.094	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Methylene Chloride	ND		0.97	0.55	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
trans-1,2-Dichloroethene	ND		0.28	0.063	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1-Dichloroethane	ND		0.28	0.073	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
2,2-Dichloropropane	ND		0.28	0.067	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
cis-1,2-Dichloroethene	ND		0.28	0.057	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Bromochloromethane	ND		0.28	0.11	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Chloroform	ND		0.28	0.065	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1,1-Trichloroethane	ND		0.28	0.048	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Carbon tetrachloride	ND		0.28	0.030	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1-Dichloropropene	ND		0.28	0.048	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Benzene	ND		0.055	0.028	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2-Dichloroethane	ND		0.28	0.060	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Trichloroethene	0.065	J	0.069	0.021	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2-Dichloropropane	ND		0.33	0.084	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Dibromomethane	ND		0.28	0.062	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Bromodichloromethane	ND		0.28	0.17	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
cis-1,3-Dichloropropene	ND		0.28	0.056	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Toluene	ND		0.28	0.12	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
trans-1,3-Dichloropropene	ND		0.28	0.073	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1,2-Trichloroethane	ND		0.28	0.098	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Tetrachloroethene	ND		0.11	0.049	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,3-Dichloropropane	ND		0.28	0.082	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Dibromochloromethane	ND		0.55	0.045	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2-Dibromoethane (EDB)	ND		0.28	0.093	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Chlorobenzene	ND		0.28	0.057	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Ethylbenzene	ND		0.28	0.045	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1,1,2-Tetrachloroethane	ND		0.28	0.053	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,1,2,2-Tetrachloroethane	ND		0.28	0.080	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
m,p-Xylene	ND		1.1	0.079	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
o-Xylene	ND		0.55	0.064	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Styrene	ND		0.28	0.065	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Bromoform	ND		0.55	0.053	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Isopropylbenzene	ND		0.28	0.085	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
Bromobenzene	ND		0.28	0.062	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
N-Propylbenzene	ND		0.28	0.073	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2,3-Trichloropropane	ND		0.55	0.10	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
2-Chlorotoluene	ND		0.28	0.045	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,3,5-Trimethylbenzene	ND		0.28	0.088	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
4-Chlorotoluene	ND		0.28	0.064	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
tert-Butylbenzene	ND		0.28	0.054	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2,4-Trimethylbenzene	ND		0.28	0.065	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
sec-Butylbenzene	ND		0.28	0.051	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,3-Dichlorobenzene	ND		0.28	0.035	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
p-Isopropyltoluene	ND		0.28	0.056	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,4-Dichlorobenzene	ND		0.28	0.057	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
n-Butylbenzene	ND		0.28	0.076	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2-Dichlorobenzene	ND		0.28	0.064	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1
1,2-Dibromo-3-Chloropropane	ND		1.4	0.17	mg/Kg	✳	12/04/23 14:00	12/04/23 19:15	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-33 (1)

Lab Sample ID: 590-22385-7

Date Collected: 12/01/23 10:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 84.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.28	0.051	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
1,2,3-Trichlorobenzene	ND		0.28	0.092	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Hexachlorobutadiene	ND		0.28	0.045	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Naphthalene	ND		0.55	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1
Methyl tert-butyl ether	ND		0.14	0.083	mg/Kg	☼	12/04/23 14:00	12/04/23 19:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120	12/04/23 14:00	12/04/23 19:15	1
4-Bromofluorobenzene (Surr)	101		66 - 129	12/04/23 14:00	12/04/23 19:15	1
Dibromofluoromethane (Surr)	107		80 - 120	12/04/23 14:00	12/04/23 19:15	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124	12/04/23 14:00	12/04/23 19:15	1

Client Sample ID: DF-HA-34 (1)

Lab Sample ID: 590-22385-8

Date Collected: 12/01/23 11:25

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 88.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.26	0.073	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Chloromethane	ND		1.3	0.11	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Vinyl chloride	ND		0.16	0.053	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Bromomethane	ND		1.3	0.086	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Chloroethane	ND		0.52	0.15	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Trichlorofluoromethane	ND		0.52	0.086	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1-Dichloroethene	ND		0.26	0.089	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Methylene Chloride	ND		0.91	0.52	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
trans-1,2-Dichloroethene	ND		0.26	0.060	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1-Dichloroethane	ND		0.26	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
2,2-Dichloropropane	ND		0.26	0.063	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
cis-1,2-Dichloroethene	ND		0.26	0.054	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Bromochloromethane	ND		0.26	0.10	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Chloroform	ND		0.26	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1,1-Trichloroethane	ND		0.26	0.045	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Carbon tetrachloride	ND		0.26	0.029	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1-Dichloropropene	ND		0.26	0.045	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Benzene	ND		0.052	0.026	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2-Dichloroethane	ND		0.26	0.057	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Trichloroethene	0.21		0.065	0.020	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2-Dichloropropane	ND		0.31	0.079	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Dibromomethane	ND		0.26	0.058	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Bromodichloromethane	ND		0.26	0.16	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
cis-1,3-Dichloropropene	ND		0.26	0.053	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Toluene	ND		0.26	0.12	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
trans-1,3-Dichloropropene	ND		0.26	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1,2-Trichloroethane	ND		0.26	0.092	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Tetrachloroethene	ND		0.10	0.046	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,3-Dichloropropane	ND		0.26	0.077	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Dibromochloromethane	ND		0.52	0.042	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2-Dibromoethane (EDB)	ND		0.26	0.087	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Chlorobenzene	ND		0.26	0.054	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-34 (1)

Lab Sample ID: 590-22385-8

Date Collected: 12/01/23 11:25

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 88.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		0.26	0.042	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1,1,2-Tetrachloroethane	ND		0.26	0.050	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,1,2,2-Tetrachloroethane	ND		0.26	0.076	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
m,p-Xylene	ND		1.0	0.075	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
o-Xylene	ND		0.52	0.060	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Styrene	ND		0.26	0.062	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Bromoform	ND		0.52	0.050	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Isopropylbenzene	ND		0.26	0.081	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Bromobenzene	ND		0.26	0.058	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
N-Propylbenzene	ND		0.26	0.069	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2,3-Trichloropropane	ND		0.52	0.095	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
2-Chlorotoluene	ND		0.26	0.043	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,3,5-Trimethylbenzene	ND		0.26	0.083	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
4-Chlorotoluene	ND		0.26	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
tert-Butylbenzene	ND		0.26	0.051	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2,4-Trimethylbenzene	ND		0.26	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
sec-Butylbenzene	ND		0.26	0.049	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,3-Dichlorobenzene	ND		0.26	0.033	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
p-Isopropyltoluene	ND		0.26	0.053	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,4-Dichlorobenzene	ND		0.26	0.054	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
n-Butylbenzene	ND		0.26	0.072	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2-Dichlorobenzene	ND		0.26	0.061	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.16	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2,4-Trichlorobenzene	ND		0.26	0.048	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
1,2,3-Trichlorobenzene	ND		0.26	0.087	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Hexachlorobutadiene	ND		0.26	0.043	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Naphthalene	ND		0.52	0.073	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1
Methyl tert-butyl ether	ND		0.13	0.078	mg/Kg	☼	12/04/23 14:00	12/04/23 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 19:37	1
4-Bromofluorobenzene (Surr)	104		66 - 129	12/04/23 14:00	12/04/23 19:37	1
Dibromofluoromethane (Surr)	105		80 - 120	12/04/23 14:00	12/04/23 19:37	1
1,2-Dichloroethane-d4 (Surr)	106		79 - 124	12/04/23 14:00	12/04/23 19:37	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-44923/1-A
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44923

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Chloromethane	ND		0.50	0.042	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Bromomethane	ND		0.50	0.033	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Chloroethane	ND		0.20	0.056	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Chloroform	ND		0.10	0.024	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Benzene	ND		0.020	0.010	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2-Dichloroethane	ND		0.10	0.022	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Trichloroethene	ND		0.025	0.0076	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Dibromomethane	ND		0.10	0.022	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Toluene	ND		0.10	0.045	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
o-Xylene	ND		0.20	0.023	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Styrene	ND		0.10	0.024	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Bromoform	ND		0.20	0.019	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Bromobenzene	ND		0.10	0.022	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
4-Chlorotoluene	ND		0.10	0.023	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		12/04/23 14:00	12/04/23 14:54	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-44923/1-A
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Naphthalene	ND		0.20	0.028	mg/Kg		12/04/23 14:00	12/04/23 14:54	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		12/04/23 14:00	12/04/23 14:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120	12/04/23 14:00	12/04/23 14:54	1
4-Bromofluorobenzene (Surr)	103		66 - 129	12/04/23 14:00	12/04/23 14:54	1
Dibromofluoromethane (Surr)	104		80 - 120	12/04/23 14:00	12/04/23 14:54	1
1,2-Dichloroethane-d4 (Surr)	103		79 - 124	12/04/23 14:00	12/04/23 14:54	1

Lab Sample ID: LCS 590-44923/2-A
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	0.500	0.355		mg/Kg		71	14 - 120
Chloromethane	0.500	0.383	J	mg/Kg		77	29 - 150
Vinyl chloride	0.500	0.461		mg/Kg		92	38 - 150
Bromomethane	0.500	0.457	J	mg/Kg		91	39 - 150
Chloroethane	0.500	0.445		mg/Kg		89	38 - 150
Trichlorofluoromethane	0.500	0.437		mg/Kg		87	45 - 150
1,1-Dichloroethene	0.500	0.531		mg/Kg		106	50 - 150
Methylene Chloride	0.500	0.503		mg/Kg		101	42 - 150
trans-1,2-Dichloroethene	0.500	0.593		mg/Kg		119	75 - 140
1,1-Dichloroethane	0.500	0.557		mg/Kg		111	79 - 133
2,2-Dichloropropane	0.500	0.601		mg/Kg		120	50 - 150
cis-1,2-Dichloroethene	0.500	0.534		mg/Kg		107	78 - 132
Bromochloromethane	0.500	0.512		mg/Kg		102	67 - 138
Chloroform	0.500	0.534		mg/Kg		107	80 - 131
1,1,1-Trichloroethane	0.500	0.615		mg/Kg		123	59 - 150
Carbon tetrachloride	0.500	0.613		mg/Kg		123	61 - 150
1,1-Dichloropropene	0.500	0.548		mg/Kg		110	80 - 131
Benzene	0.500	0.519		mg/Kg		104	80 - 128
1,2-Dichloroethane	0.500	0.499		mg/Kg		100	77 - 126
Trichloroethene	0.500	0.517		mg/Kg		103	80 - 129
1,2-Dichloropropane	0.500	0.530		mg/Kg		106	71 - 136
Dibromomethane	0.500	0.444		mg/Kg		89	76 - 121
Bromodichloromethane	0.500	0.507		mg/Kg		101	79 - 122
cis-1,3-Dichloropropene	0.500	0.482		mg/Kg		96	71 - 123

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-44923/2-A
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	0.500	0.550		mg/Kg		110	79 - 130
trans-1,3-Dichloropropene	0.500	0.521		mg/Kg		104	68 - 133
1,1,2-Trichloroethane	0.500	0.543		mg/Kg		109	74 - 131
Tetrachloroethene	0.500	0.558		mg/Kg		112	76 - 142
1,3-Dichloropropane	0.500	0.479		mg/Kg		96	73 - 125
Dibromochloromethane	0.500	0.503		mg/Kg		101	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.496		mg/Kg		99	76 - 126
Chlorobenzene	0.500	0.534		mg/Kg		107	80 - 124
Ethylbenzene	0.500	0.544		mg/Kg		109	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.536		mg/Kg		107	76 - 139
1,1,1,2-Tetrachloroethane	0.500	0.530		mg/Kg		106	66 - 130
m,p-Xylene	0.500	0.524		mg/Kg		105	80 - 131
o-Xylene	0.500	0.515		mg/Kg		103	78 - 128
Styrene	0.500	0.498		mg/Kg		100	76 - 128
Bromoform	0.500	0.496		mg/Kg		99	49 - 150
Isopropylbenzene	0.500	0.528		mg/Kg		106	79 - 134
Bromobenzene	0.500	0.513		mg/Kg		103	70 - 129
N-Propylbenzene	0.500	0.540		mg/Kg		108	71 - 136
1,2,3-Trichloropropane	0.500	0.528		mg/Kg		106	61 - 138
2-Chlorotoluene	0.500	0.593		mg/Kg		119	73 - 131
1,3,5-Trimethylbenzene	0.500	0.535		mg/Kg		107	76 - 130
4-Chlorotoluene	0.500	0.529		mg/Kg		106	76 - 128
tert-Butylbenzene	0.500	0.541		mg/Kg		108	74 - 129
1,2,4-Trimethylbenzene	0.500	0.534		mg/Kg		107	78 - 128
sec-Butylbenzene	0.500	0.546		mg/Kg		109	78 - 132
1,3-Dichlorobenzene	0.500	0.536		mg/Kg		107	80 - 121
p-Isopropyltoluene	0.500	0.540		mg/Kg		108	79 - 128
1,4-Dichlorobenzene	0.500	0.540		mg/Kg		108	80 - 122
n-Butylbenzene	0.500	0.550		mg/Kg		110	75 - 128
1,2-Dichlorobenzene	0.500	0.526		mg/Kg		105	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.533		mg/Kg		107	49 - 143
1,2,4-Trichlorobenzene	0.500	0.547		mg/Kg		109	73 - 129
1,2,3-Trichlorobenzene	0.500	0.512		mg/Kg		102	72 - 130
Hexachlorobutadiene	0.500	0.568		mg/Kg		114	75 - 136
Naphthalene	0.500	0.469		mg/Kg		94	57 - 131
Methyl tert-butyl ether	0.500	0.523		mg/Kg		105	69 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		79 - 124

QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-22385-2 MS
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-35 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Dichlorodifluoromethane	ND	F1	1.67	2.06	F1	mg/Kg	✱	123	14 - 120
Chloromethane	ND		1.67	2.12		mg/Kg	✱	127	29 - 150
Vinyl chloride	ND		1.67	2.12		mg/Kg	✱	127	38 - 150
Bromomethane	ND		1.67	1.88		mg/Kg	✱	113	39 - 150
Chloroethane	ND		1.67	1.94		mg/Kg	✱	116	38 - 150
Trichlorofluoromethane	ND		1.67	2.05		mg/Kg	✱	122	45 - 150
1,1-Dichloroethene	ND		1.67	2.26		mg/Kg	✱	135	50 - 150
Methylene Chloride	ND		1.67	2.09		mg/Kg	✱	125	42 - 150
trans-1,2-Dichloroethene	ND	F1	1.67	2.52	F1	mg/Kg	✱	151	75 - 140
1,1-Dichloroethane	ND	F1	1.67	2.34	F1	mg/Kg	✱	140	79 - 133
2,2-Dichloropropane	ND		1.67	2.31		mg/Kg	✱	138	50 - 150
cis-1,2-Dichloroethene	ND		1.67	2.19		mg/Kg	✱	131	78 - 132
Bromochloromethane	ND		1.67	2.18		mg/Kg	✱	131	67 - 138
Chloroform	ND	F1	1.67	2.24	F1	mg/Kg	✱	134	80 - 131
1,1,1-Trichloroethane	ND		1.67	2.46		mg/Kg	✱	147	59 - 150
Carbon tetrachloride	ND		1.67	2.47		mg/Kg	✱	148	61 - 150
1,1-Dichloropropene	ND	F1	1.67	2.28	F1	mg/Kg	✱	136	80 - 131
Benzene	ND	F1	1.67	2.17	F1	mg/Kg	✱	130	80 - 128
1,2-Dichloroethane	ND		1.67	2.06		mg/Kg	✱	123	77 - 126
Trichloroethene	0.59		1.67	2.73		mg/Kg	✱	128	80 - 129
1,2-Dichloropropane	ND		1.67	2.14		mg/Kg	✱	128	71 - 136
Dibromomethane	ND		1.67	1.99		mg/Kg	✱	119	76 - 121
Bromodichloromethane	ND	F1	1.67	2.13	F1	mg/Kg	✱	127	79 - 122
cis-1,3-Dichloropropene	ND		1.67	1.98		mg/Kg	✱	118	71 - 123
Toluene	ND	F1	1.67	2.22	F1	mg/Kg	✱	133	79 - 130
trans-1,3-Dichloropropene	ND		1.67	2.08		mg/Kg	✱	125	68 - 133
1,1,2-Trichloroethane	ND		1.67	2.17		mg/Kg	✱	130	74 - 131
Tetrachloroethene	ND		1.67	2.20		mg/Kg	✱	132	76 - 142
1,3-Dichloropropane	ND		1.67	1.97		mg/Kg	✱	118	73 - 125
Dibromochloromethane	ND		1.67	2.06		mg/Kg	✱	123	70 - 132
1,2-Dibromoethane (EDB)	ND		1.67	2.00		mg/Kg	✱	119	76 - 126
Chlorobenzene	ND	F1	1.67	2.09	F1	mg/Kg	✱	125	80 - 124
Ethylbenzene	ND	F1	1.67	2.14	F1	mg/Kg	✱	128	80 - 127
1,1,1,2-Tetrachloroethane	ND		1.67	2.19		mg/Kg	✱	131	76 - 139
1,1,2,2-Tetrachloroethane	ND		1.67	2.04		mg/Kg	✱	122	66 - 130
m,p-Xylene	ND		1.67	2.11		mg/Kg	✱	126	80 - 131
o-Xylene	ND		1.67	2.11		mg/Kg	✱	126	78 - 128
Styrene	ND		1.67	2.08		mg/Kg	✱	124	76 - 128
Bromoform	ND		1.67	1.92		mg/Kg	✱	115	49 - 150
Isopropylbenzene	ND		1.67	2.12		mg/Kg	✱	127	79 - 134
Bromobenzene	ND		1.67	2.09		mg/Kg	✱	125	70 - 129
N-Propylbenzene	ND		1.67	2.10		mg/Kg	✱	126	71 - 136
1,2,3-Trichloropropane	ND		1.67	2.17		mg/Kg	✱	130	61 - 138
2-Chlorotoluene	ND		1.67	2.18		mg/Kg	✱	130	73 - 131
1,3,5-Trimethylbenzene	ND		1.67	2.12		mg/Kg	✱	127	76 - 130
4-Chlorotoluene	ND		1.67	2.09		mg/Kg	✱	125	76 - 128
tert-Butylbenzene	ND		1.67	2.11		mg/Kg	✱	126	74 - 129
1,2,4-Trimethylbenzene	ND		1.67	2.12		mg/Kg	✱	127	78 - 128

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QC Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-22385-2 MS
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-35 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
sec-Butylbenzene	ND		1.67	2.17		mg/Kg	✖	130	78 - 132		
1,3-Dichlorobenzene	ND	F1	1.67	2.13	F1	mg/Kg	✖	127	80 - 121		
p-Isopropyltoluene	ND	F1	1.67	2.17	F1	mg/Kg	✖	130	79 - 128		
1,4-Dichlorobenzene	ND	F1	1.67	2.16	F1	mg/Kg	✖	129	80 - 122		
n-Butylbenzene	ND	F1	1.67	2.29	F1	mg/Kg	✖	137	75 - 128		
1,2-Dichlorobenzene	ND	F1	1.67	2.16	F1	mg/Kg	✖	129	80 - 121		
1,2-Dibromo-3-Chloropropane	ND		1.67	2.11		mg/Kg	✖	126	49 - 143		
1,2,4-Trichlorobenzene	ND	F1	1.67	2.18	F1	mg/Kg	✖	130	73 - 129		
1,2,3-Trichlorobenzene	ND		1.67	2.06		mg/Kg	✖	123	72 - 130		
Hexachlorobutadiene	ND	F1	1.67	2.43	F1	mg/Kg	✖	145	75 - 136		
Naphthalene	ND		1.67	1.87		mg/Kg	✖	112	57 - 131		
Methyl tert-butyl ether	ND		1.67	2.12		mg/Kg	✖	126	69 - 132		
			MS MS								
Surrogate	%Recovery	Qualifier	Limits								
Toluene-d8 (Surr)	100		80 - 120								
4-Bromofluorobenzene (Surr)	100		66 - 129								
Dibromofluoromethane (Surr)	105		80 - 120								
1,2-Dichloroethane-d4 (Surr)	105		79 - 124								

Lab Sample ID: 590-22385-2 MSD
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-35 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dichlorodifluoromethane	ND	F1	1.67	1.87		mg/Kg	✖	112	14 - 120	10	40
Chloromethane	ND		1.67	2.07		mg/Kg	✖	124	29 - 150	2	40
Vinyl chloride	ND		1.67	2.03		mg/Kg	✖	121	38 - 150	5	40
Bromomethane	ND		1.67	2.02		mg/Kg	✖	121	39 - 150	7	40
Chloroethane	ND		1.67	1.88		mg/Kg	✖	112	38 - 150	3	40
Trichlorofluoromethane	ND		1.67	1.63		mg/Kg	✖	97	45 - 150	23	37
1,1-Dichloroethene	ND		1.67	2.04		mg/Kg	✖	122	50 - 150	11	37
Methylene Chloride	ND		1.67	1.85		mg/Kg	✖	111	42 - 150	12	39
trans-1,2-Dichloroethene	ND	F1	1.67	2.04		mg/Kg	✖	122	75 - 140	21	23
1,1-Dichloroethane	ND	F1	1.67	2.00		mg/Kg	✖	120	79 - 133	15	17
2,2-Dichloropropane	ND		1.67	2.02		mg/Kg	✖	121	50 - 150	13	31
cis-1,2-Dichloroethene	ND		1.67	1.92		mg/Kg	✖	115	78 - 132	13	19
Bromochloromethane	ND		1.67	1.90		mg/Kg	✖	113	67 - 138	14	29
Chloroform	ND	F1	1.67	1.94		mg/Kg	✖	116	80 - 131	14	20
1,1,1-Trichloroethane	ND		1.67	2.28		mg/Kg	✖	136	59 - 150	7	31
Carbon tetrachloride	ND		1.67	2.21		mg/Kg	✖	132	61 - 150	11	36
1,1-Dichloropropene	ND	F1	1.67	2.00		mg/Kg	✖	120	80 - 131	13	20
Benzene	ND	F1	1.67	1.89		mg/Kg	✖	113	80 - 128	14	17
1,2-Dichloroethane	ND		1.67	1.86		mg/Kg	✖	111	77 - 126	10	18
Trichloroethene	0.59		1.67	2.46		mg/Kg	✖	112	80 - 129	10	17
1,2-Dichloropropane	ND		1.67	1.88		mg/Kg	✖	112	71 - 136	13	22
Dibromomethane	ND		1.67	1.66		mg/Kg	✖	99	76 - 121	18	20
Bromodichloromethane	ND	F1	1.67	1.86		mg/Kg	✖	111	79 - 122	13	20
cis-1,3-Dichloropropene	ND		1.67	1.74		mg/Kg	✖	104	71 - 123	13	20

Eurofins Spokane

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-22385-2 MSD
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-35 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Toluene	ND	F1	1.67	1.94		mg/Kg	*	116	79 - 130	13	21
trans-1,3-Dichloropropene	ND		1.67	1.82		mg/Kg	*	109	68 - 133	13	22
1,1,2-Trichloroethane	ND		1.67	1.86		mg/Kg	*	111	74 - 131	16	20
Tetrachloroethene	ND		1.67	2.00		mg/Kg	*	120	76 - 142	10	19
1,3-Dichloropropane	ND		1.67	1.75		mg/Kg	*	104	73 - 125	12	18
Dibromochloromethane	ND		1.67	1.78		mg/Kg	*	106	70 - 132	15	20
1,2-Dibromoethane (EDB)	ND		1.67	1.74		mg/Kg	*	104	76 - 126	14	20
Chlorobenzene	ND	F1	1.67	1.88		mg/Kg	*	112	80 - 124	10	18
Ethylbenzene	ND	F1	1.67	1.92		mg/Kg	*	115	80 - 127	11	19
1,1,1,2-Tetrachloroethane	ND		1.67	1.94		mg/Kg	*	116	76 - 139	12	23
1,1,2,2-Tetrachloroethane	ND		1.67	1.82		mg/Kg	*	109	66 - 130	12	23
m,p-Xylene	ND		1.67	1.93		mg/Kg	*	115	80 - 131	9	19
o-Xylene	ND		1.67	1.86		mg/Kg	*	111	78 - 128	12	19
Styrene	ND		1.67	1.80		mg/Kg	*	108	76 - 128	14	19
Bromoform	ND		1.67	1.70		mg/Kg	*	102	49 - 150	12	23
Isopropylbenzene	ND		1.67	1.90		mg/Kg	*	114	79 - 134	11	19
Bromobenzene	ND		1.67	1.89		mg/Kg	*	113	70 - 129	10	23
N-Propylbenzene	ND		1.67	1.89		mg/Kg	*	113	71 - 136	11	20
1,2,3-Trichloropropane	ND		1.67	1.85		mg/Kg	*	110	61 - 138	16	28
2-Chlorotoluene	ND		1.67	1.94		mg/Kg	*	116	73 - 131	12	21
1,3,5-Trimethylbenzene	ND		1.67	1.88		mg/Kg	*	112	76 - 130	12	18
4-Chlorotoluene	ND		1.67	1.84		mg/Kg	*	110	76 - 128	12	20
tert-Butylbenzene	ND		1.67	1.90		mg/Kg	*	114	74 - 129	10	21
1,2,4-Trimethylbenzene	ND		1.67	1.91		mg/Kg	*	114	78 - 128	11	19
sec-Butylbenzene	ND		1.67	1.93		mg/Kg	*	115	78 - 132	12	20
1,3-Dichlorobenzene	ND	F1	1.67	1.86		mg/Kg	*	111	80 - 121	14	19
p-Isopropyltoluene	ND	F1	1.67	1.95		mg/Kg	*	116	79 - 128	11	20
1,4-Dichlorobenzene	ND	F1	1.67	1.91		mg/Kg	*	114	80 - 122	12	18
n-Butylbenzene	ND	F1	1.67	1.96		mg/Kg	*	117	75 - 128	16	21
1,2-Dichlorobenzene	ND	F1	1.67	1.86		mg/Kg	*	111	80 - 121	15	21
1,2-Dibromo-3-Chloropropane	ND		1.67	1.98		mg/Kg	*	118	49 - 143	7	33
1,2,4-Trichlorobenzene	ND	F1	1.67	1.99		mg/Kg	*	119	73 - 129	9	29
1,2,3-Trichlorobenzene	ND		1.67	1.92		mg/Kg	*	115	72 - 130	7	31
Hexachlorobutadiene	ND	F1	1.67	2.13		mg/Kg	*	127	75 - 136	13	29
Naphthalene	ND		1.67	1.74		mg/Kg	*	104	57 - 131	7	34
Methyl tert-butyl ether	ND		1.67	1.88		mg/Kg	*	112	69 - 132	12	32

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	101		66 - 129
Dibromofluoromethane (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		79 - 124

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-22385-1 DU
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-36 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Dichlorodifluoromethane	ND		ND		mg/Kg	*	NC	40
Chloromethane	ND		ND		mg/Kg	*	NC	40
Vinyl chloride	ND		ND		mg/Kg	*	NC	40
Bromomethane	ND		ND		mg/Kg	*	NC	40
Chloroethane	ND		ND		mg/Kg	*	NC	40
Trichlorofluoromethane	ND		ND		mg/Kg	*	NC	37
1,1-Dichloroethene	ND		ND		mg/Kg	*	NC	37
Methylene Chloride	ND		ND		mg/Kg	*	NC	39
trans-1,2-Dichloroethene	ND		ND		mg/Kg	*	NC	23
1,1-Dichloroethane	ND		ND		mg/Kg	*	NC	17
2,2-Dichloropropane	ND		ND		mg/Kg	*	NC	31
cis-1,2-Dichloroethene	ND		ND		mg/Kg	*	NC	19
Bromochloromethane	ND		ND		mg/Kg	*	NC	29
Chloroform	ND		ND		mg/Kg	*	NC	20
1,1,1-Trichloroethane	ND		ND		mg/Kg	*	NC	31
Carbon tetrachloride	ND		ND		mg/Kg	*	NC	36
1,1-Dichloropropene	ND		ND		mg/Kg	*	NC	20
Benzene	ND		ND		mg/Kg	*	NC	17
1,2-Dichloroethane	ND		ND		mg/Kg	*	NC	18
Trichloroethene	ND		ND		mg/Kg	*	NC	17
1,2-Dichloropropane	ND		ND		mg/Kg	*	NC	22
Dibromomethane	ND		ND		mg/Kg	*	NC	20
Bromodichloromethane	ND		ND		mg/Kg	*	NC	20
cis-1,3-Dichloropropene	ND		ND		mg/Kg	*	NC	20
Toluene	ND		ND		mg/Kg	*	NC	21
trans-1,3-Dichloropropene	ND		ND		mg/Kg	*	NC	22
1,1,2-Trichloroethane	ND		ND		mg/Kg	*	NC	20
Tetrachloroethene	ND		ND		mg/Kg	*	NC	19
1,3-Dichloropropane	ND		ND		mg/Kg	*	NC	18
Dibromochloromethane	ND		ND		mg/Kg	*	NC	20
1,2-Dibromoethane (EDB)	ND		ND		mg/Kg	*	NC	20
Chlorobenzene	ND		ND		mg/Kg	*	NC	18
Ethylbenzene	ND		ND		mg/Kg	*	NC	19
1,1,1,2-Tetrachloroethane	ND		ND		mg/Kg	*	NC	23
1,1,2,2-Tetrachloroethane	ND		ND		mg/Kg	*	NC	23
m,p-Xylene	ND		ND		mg/Kg	*	NC	19
o-Xylene	ND		ND		mg/Kg	*	NC	19
Styrene	ND		ND		mg/Kg	*	NC	19
Bromoform	ND		ND		mg/Kg	*	NC	23
Isopropylbenzene	ND		ND		mg/Kg	*	NC	19
Bromobenzene	ND		ND		mg/Kg	*	NC	23
N-Propylbenzene	ND		ND		mg/Kg	*	NC	20
1,2,3-Trichloropropane	ND		ND		mg/Kg	*	NC	28
2-Chlorotoluene	ND		ND		mg/Kg	*	NC	21
1,3,5-Trimethylbenzene	ND		ND		mg/Kg	*	NC	18
4-Chlorotoluene	ND		ND		mg/Kg	*	NC	20
tert-Butylbenzene	ND		ND		mg/Kg	*	NC	21
1,2,4-Trimethylbenzene	ND		ND		mg/Kg	*	NC	19

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 590-22385-1 DU
Matrix: Solid
Analysis Batch: 44921

Client Sample ID: DF-HA-36 (1)
Prep Type: Total/NA
Prep Batch: 44923

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
sec-Butylbenzene	ND		ND		mg/Kg	☼	NC	20
1,3-Dichlorobenzene	ND		ND		mg/Kg	☼	NC	19
p-Isopropyltoluene	ND		ND		mg/Kg	☼	NC	20
1,4-Dichlorobenzene	ND		ND		mg/Kg	☼	NC	18
n-Butylbenzene	ND		ND		mg/Kg	☼	NC	21
1,2-Dichlorobenzene	ND		ND		mg/Kg	☼	NC	21
1,2-Dibromo-3-Chloropropane	ND		ND		mg/Kg	☼	NC	33
1,2,4-Trichlorobenzene	ND		ND		mg/Kg	☼	NC	29
1,2,3-Trichlorobenzene	ND		ND		mg/Kg	☼	NC	31
Hexachlorobutadiene	ND		ND		mg/Kg	☼	NC	29
Naphthalene	ND		ND		mg/Kg	☼	NC	34
Methyl tert-butyl ether	ND		ND		mg/Kg	☼	NC	32
		DU	DU					
Surrogate	%Recovery	Qualifier	Limits					
<i>Toluene-d8 (Surr)</i>	105		80 - 120					
<i>4-Bromofluorobenzene (Surr)</i>	103		66 - 129					
<i>Dibromofluoromethane (Surr)</i>	104		80 - 120					
<i>1,2-Dichloroethane-d4 (Surr)</i>	105		79 - 124					

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-36 (1)
Date Collected: 12/01/23 11:50
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Client Sample ID: DF-HA-36 (1)
Date Collected: 12/01/23 11:50
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-1
Matrix: Solid
Percent Solids: 81.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.87 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		10	0.86 mL	43 mL	44921	12/04/23 16:21	JSP	EET SPK

Client Sample ID: DF-HA-35 (1)
Date Collected: 12/01/23 11:35
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Client Sample ID: DF-HA-35 (1)
Date Collected: 12/01/23 11:35
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-2
Matrix: Solid
Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.646 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44921	12/04/23 17:05	JSP	EET SPK

Client Sample ID: DF-HA-32 (1)
Date Collected: 12/01/23 10:25
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Client Sample ID: DF-HA-32 (1)
Date Collected: 12/01/23 10:25
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-4
Matrix: Solid
Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.789 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44921	12/04/23 18:32	JSP	EET SPK

Client Sample ID: DF-HA-31 (1)
Date Collected: 12/01/23 09:55
Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Client Sample ID: DF-HA-31 (1)

Date Collected: 12/01/23 09:55

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-6

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			3.645 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44921	12/04/23 18:53	JSP	EET SPK

Client Sample ID: DF-HA-33 (1)

Date Collected: 12/01/23 10:55

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Client Sample ID: DF-HA-33 (1)

Date Collected: 12/01/23 10:55

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-7

Matrix: Solid

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.565 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44921	12/04/23 19:15	JSP	EET SPK

Client Sample ID: DF-HA-34 (1)

Date Collected: 12/01/23 11:25

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44927	12/05/23 09:29	MRV	EET SPK

Client Sample ID: DF-HA-34 (1)

Date Collected: 12/01/23 11:25

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-8

Matrix: Solid

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.567 g	10 mL	44923	12/04/23 14:00	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	44921	12/04/23 19:37	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

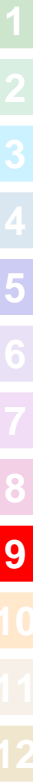
Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

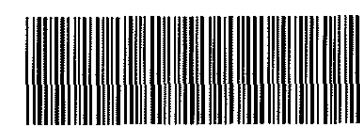
EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200



CHAIN OF CUSTODY RECORD

H&A FILE NO. 0203154-013 LABORATORY EVOLANS DELIVERY DATE 12/1/23
PROJECT NAME POM HDF ADDRESS _____ TURNAROUND TIME STD
H&A CONTACT Ward McDonald CONTACT _____ PROJECT MANAGER _____

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOAs	-1- methanol												
DF-HA-36 (1)	12/1/23	11:50			X	X										3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. > DF-HA-37CD hold S 1, 3, 2 corr 1200L	
DF-HA-35 (1)		11:35			X	X												
DF-HA-32 (2)		10:40			X	X												
DF-HA-32 (1)		10:25			X	X												
DF-HA-37 (1)		12:00																
DF-HA-31 (1)		9:55			X	X												
DF-HA-33 (1)		10:55			X	X												
DF-HA-34 (1)		11:25			X	X												
DF-HA-33 (2)		11:00			X	X												
DF-HA-35 (1)		11:40			X	X												

Sampled and Relinquished by		Received by		LIQUID												Sampling Comments			
Sign <u>[Signature]</u>	Sign <u>[Signature]</u>															VOA Vial	 590-22385 Chain of Custody		
Print <u>Chad M HOA</u>	Print <u>Mackey Morris</u>														Amber Glass				
Firm <u>HOA</u>	Firm <u>DET SPO</u>														Plastic Bottle				
Date <u>12/1/23</u> Time <u>16:25</u>	Date <u>12/1/23</u> Time <u>11:25</u>														Preservative				
															Volume				
Relinquished by		Received by		SOLID															
Sign _____	Sign _____														VOA Vial	Evidence samples were tampered with? YES NO If YES, please explain in section below.			
Print _____	Print _____														Amber Glass				
Firm _____	Firm _____														Clear Glass				
Date _____ Time _____	Date _____ Time _____														Preservative				
															Volume				
Relinquished by		Received by		PRESERVATION KEY															
Sign _____	Sign _____	A Sample chilled				C NaOH				E H ₂ SO ₄				G Methanol					
Print _____	Print _____	B Sample filtered				D HNO ₃				F HCL				H Water/NaHSO ₄ (circle)					
Firm _____	Firm _____																		
Date _____ Time _____	Date _____ Time _____																		

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		



Haley & Aldrich, Inc.
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Suite 205,
Spokane WA, 99212

CHAIN OF CUSTODY RECORD

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Fax (617) 886-7600
Page 2 of 2

H&A FILE NO. 020354-013 LABORATORY Empiris DELIVERY DATE 12/1/23
 PROJECT NAME POM HDP ADDRESS _____ TURNAROUND TIME DTD
 H&A CONTACT Wendy McDonald CONTACT _____ PROJECT MANAGER _____

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOCS	Y	MONITOR											
DF-HA-31 (2) DF-HA-34 (2)		10.05 11.30			X	X										3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 3-2, 3, 3 cover upcode	

Sampled and Relinquished by <i>[Signature]</i> Print <u>Chad M</u> Firm <u>H&A</u> Date <u>12/1/23</u> Time <u>16:25</u>	Received by <i>[Signature]</i> Print <u>Mackey Morris</u> Firm <u>H&A</u> Date <u>12/1/23</u> Time <u>16:25</u>	LIQUID	Sampling Comments
Relinquished by	Received by	SOLID	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Relinquished by	Received by	PRESERVATION KEY	

PRESERVATION KEY
 A Sample chilled C NaOH E H₂SO₄ G Methanol
 B Sample filtered D HNO₃ F HCL H Water/NaHSO₄ (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:
 _____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.
 _____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.
 _____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.
 _____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

RC-S1 S1 GW1
 RC-S2 S2 GW2
 RC-GW1 S3 GW3
 RC-GW2

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22385-1

Login Number: 22385

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



 **ANALYTICAL REPORT****PREPARED FOR**

Attn: John Haney
Haley & Aldrich, Inc.
505 W Riverside Ave
Suite 205
Spokane, Washington 99201

Generated 12/13/2023 3:16:07 PM

JOB DESCRIPTION

POM HDF/0203154-013

JOB NUMBER

590-22385-3

Eurofins Spokane

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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12/13/2023 3:16:07 PM

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Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Job ID: 590-22385-3

Laboratory: Eurofins Spokane

Narrative

Receipt

The samples were received on 12/1/2023 4:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

Receipt Exceptions

The following samples were activated by the client on 11/7/23: DF-HA-37 (1) (590-22385-5), DF-HA-33 (2) (590-22385-9), DF-HA-35 (2) (590-22385-10) and DF-HA-34 (2) (590-22385-12).

The following sample was activated for 8260D SIM TCE by the client on 11/07/23: DF-HA-33 (1) (590-22385-7).

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 590-45004 recovered above the upper control limit for Trichlorofluoromethane, Methylene Chloride, 1,2-Dichloroethane, Dibromomethane, 1,2,4-Trichlorobenzene and 1,2,3-Trichlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The laboratory control sample (LCS) for preparation batch 590-45010 and 590-45010 and analytical batch 590-45004 recovered outside control limits for the following analytes: Dichlorodifluoromethane, Chloroform, 1,2-Dichloroethane and Dibromomethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
590-22385-5	DF-HA-37 (1)	Solid	12/01/23 12:00	12/01/23 16:25
590-22385-7	DF-HA-33 (1)	Solid	12/01/23 10:55	12/01/23 16:25
590-22385-9	DF-HA-33 (2)	Solid	12/01/23 11:00	12/01/23 16:25
590-22385-10	DF-HA-35 (2)	Solid	12/01/23 11:40	12/01/23 16:25
590-22385-12	DF-HA-34 (2)	Solid	12/01/23 11:30	12/01/23 16:25

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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-37 (1)

Lab Sample ID: 590-22385-5

Date Collected: 12/01/23 12:00

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 93.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.19	0.053	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Chloromethane	ND		0.95	0.079	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Vinyl chloride	ND		0.11	0.038	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Bromomethane	ND		0.95	0.063	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Chloroethane	ND		0.38	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Trichlorofluoromethane	ND		0.38	0.062	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1-Dichloroethene	ND		0.19	0.065	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Methylene Chloride	ND		0.66	0.38	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
trans-1,2-Dichloroethene	ND		0.19	0.043	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1-Dichloroethane	ND		0.19	0.050	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
2,2-Dichloropropane	ND		0.19	0.046	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
cis-1,2-Dichloroethene	ND		0.19	0.039	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Bromochloromethane	ND		0.19	0.076	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Chloroform	ND	*+	0.19	0.045	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1,1-Trichloroethane	ND		0.19	0.033	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Carbon tetrachloride	ND		0.19	0.021	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1-Dichloropropene	ND		0.19	0.033	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Benzene	ND		0.038	0.019	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2-Dichloroethane	ND	*+	0.19	0.041	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Trichloroethene	ND		0.047	0.014	mg/Kg	☼	12/08/23 12:15	12/11/23 14:06	1
1,2-Dichloropropane	ND		0.23	0.057	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Dibromomethane	ND	*+	0.19	0.042	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Bromodichloromethane	ND	*+	0.19	0.12	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
cis-1,3-Dichloropropene	ND		0.19	0.039	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Toluene	ND		0.19	0.085	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
trans-1,3-Dichloropropene	ND		0.19	0.050	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1,2-Trichloroethane	ND		0.19	0.067	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Tetrachloroethene	ND		0.076	0.033	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,3-Dichloropropane	ND		0.19	0.056	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Dibromochloromethane	ND		0.38	0.031	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2-Dibromoethane (EDB)	ND		0.19	0.063	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Chlorobenzene	ND		0.19	0.039	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Ethylbenzene	ND		0.19	0.031	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1,1,2-Tetrachloroethane	ND		0.19	0.036	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,1,2,2-Tetrachloroethane	ND		0.19	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
m,p-Xylene	ND		0.76	0.054	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
o-Xylene	ND		0.38	0.044	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Styrene	ND		0.19	0.045	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Bromoform	ND		0.38	0.036	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Isopropylbenzene	ND		0.19	0.059	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Bromobenzene	ND		0.19	0.042	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
N-Propylbenzene	ND		0.19	0.050	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2,3-Trichloropropane	ND		0.38	0.069	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
2-Chlorotoluene	ND		0.19	0.031	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,3,5-Trimethylbenzene	ND		0.19	0.061	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
4-Chlorotoluene	ND		0.19	0.044	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
tert-Butylbenzene	ND		0.19	0.037	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2,4-Trimethylbenzene	ND		0.19	0.044	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
sec-Butylbenzene	ND		0.19	0.035	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1

Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-37 (1)

Lab Sample ID: 590-22385-5

Date Collected: 12/01/23 12:00

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 93.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.19	0.024	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
p-Isopropyltoluene	0.17	J	0.19	0.039	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,4-Dichlorobenzene	ND		0.19	0.039	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
n-Butylbenzene	ND		0.19	0.052	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2-Dichlorobenzene	ND		0.19	0.044	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2-Dibromo-3-Chloropropane	ND		0.95	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2,4-Trichlorobenzene	ND		0.19	0.035	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
1,2,3-Trichlorobenzene	ND		0.19	0.063	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Hexachlorobutadiene	ND		0.19	0.031	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Naphthalene	ND		0.38	0.053	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1
Methyl tert-butyl ether	ND		0.095	0.057	mg/Kg	☼	12/08/23 12:15	12/08/23 14:50	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120			12/08/23 12:15	12/08/23 14:50	1
Toluene-d8 (Surr)	103		80 - 120			12/08/23 12:15	12/11/23 14:06	1
4-Bromofluorobenzene (Surr)	90		66 - 129			12/08/23 12:15	12/08/23 14:50	1
4-Bromofluorobenzene (Surr)	101		66 - 129			12/08/23 12:15	12/11/23 14:06	1
Dibromofluoromethane (Surr)	102		80 - 120			12/08/23 12:15	12/08/23 14:50	1
Dibromofluoromethane (Surr)	108		80 - 120			12/08/23 12:15	12/11/23 14:06	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124			12/08/23 12:15	12/08/23 14:50	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124			12/08/23 12:15	12/11/23 14:06	1

Client Sample ID: DF-HA-33 (1)

Lab Sample ID: 590-22385-7

Date Collected: 12/01/23 10:55

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 84.8

Method: SW846 8260D SIM - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.040		0.0064	0.0041	mg/Kg	☼	12/08/23 12:15	12/09/23 00:26	1

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		70 - 126			12/08/23 12:15	12/09/23 00:26	1
4-Bromofluorobenzene (Surr)	97		79 - 125			12/08/23 12:15	12/09/23 00:26	1
Dibromofluoromethane (Surr)	104		80 - 120			12/08/23 12:15	12/09/23 00:26	1
Toluene-d8 (Surr)	101		80 - 120			12/08/23 12:15	12/09/23 00:26	1

Client Sample ID: DF-HA-33 (2)

Lab Sample ID: 590-22385-9

Date Collected: 12/01/23 11:00

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 85.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.26	0.073	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Chloromethane	ND		1.3	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Vinyl chloride	ND		0.16	0.053	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Bromomethane	ND		1.3	0.087	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Chloroethane	ND		0.52	0.15	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Trichlorofluoromethane	ND		0.52	0.086	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
1,1-Dichloroethene	ND		0.26	0.089	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
Methylene Chloride	ND		0.91	0.52	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1
trans-1,2-Dichloroethene	ND		0.26	0.060	mg/Kg	☼	12/08/23 12:15	12/08/23 15:12	1

Eurofins Spokane

Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-33 (2)

Lab Sample ID: 590-22385-9

Date Collected: 12/01/23 11:00

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 85.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		0.26	0.069	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
2,2-Dichloropropane	ND		0.26	0.064	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
cis-1,2-Dichloroethene	ND		0.26	0.054	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Bromochloromethane	ND		0.26	0.10	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Chloroform	ND	+	0.26	0.061	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,1,1-Trichloroethane	ND		0.26	0.045	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Carbon tetrachloride	ND		0.26	0.029	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,1-Dichloropropene	ND		0.26	0.045	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Benzene	ND		0.052	0.026	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2-Dichloroethane	ND	+	0.26	0.057	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Trichloroethene	0.040	J	0.065	0.020	mg/Kg	✧	12/08/23 12:15	12/11/23 14:29	1
1,2-Dichloropropane	ND		0.31	0.079	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Dibromomethane	ND	+	0.26	0.058	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Bromodichloromethane	ND	+	0.26	0.16	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
cis-1,3-Dichloropropene	ND		0.26	0.053	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Toluene	ND		0.26	0.12	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
trans-1,3-Dichloropropene	ND		0.26	0.069	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,1,2-Trichloroethane	ND		0.26	0.092	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Tetrachloroethene	ND		0.10	0.046	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,3-Dichloropropane	ND		0.26	0.078	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Dibromochloromethane	ND		0.52	0.042	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2-Dibromoethane (EDB)	ND		0.26	0.088	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Chlorobenzene	ND		0.26	0.054	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Ethylbenzene	ND		0.26	0.042	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,1,1,2-Tetrachloroethane	ND		0.26	0.050	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,1,2,2-Tetrachloroethane	ND		0.26	0.076	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
m,p-Xylene	ND		1.0	0.075	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
o-Xylene	ND		0.52	0.060	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Styrene	ND		0.26	0.062	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Bromoform	ND		0.52	0.050	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Isopropylbenzene	ND		0.26	0.081	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Bromobenzene	ND		0.26	0.058	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
N-Propylbenzene	ND		0.26	0.069	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2,3-Trichloropropane	ND		0.52	0.096	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
2-Chlorotoluene	ND		0.26	0.043	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,3,5-Trimethylbenzene	ND		0.26	0.084	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
4-Chlorotoluene	ND		0.26	0.061	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
tert-Butylbenzene	ND		0.26	0.051	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2,4-Trimethylbenzene	ND		0.26	0.061	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
sec-Butylbenzene	ND		0.26	0.049	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,3-Dichlorobenzene	ND		0.26	0.033	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
p-Isopropyltoluene	0.094	J	0.26	0.053	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,4-Dichlorobenzene	ND		0.26	0.054	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
n-Butylbenzene	ND		0.26	0.072	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2-Dichlorobenzene	ND		0.26	0.061	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.16	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2,4-Trichlorobenzene	ND		0.26	0.048	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
1,2,3-Trichlorobenzene	ND		0.26	0.087	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1
Hexachlorobutadiene	ND		0.26	0.043	mg/Kg	✧	12/08/23 12:15	12/08/23 15:12	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-33 (2)

Date Collected: 12/01/23 11:00

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-9

Matrix: Solid

Percent Solids: 85.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.52	0.073	mg/Kg	✱	12/08/23 12:15	12/08/23 15:12	1
Methyl tert-butyl ether	ND		0.13	0.078	mg/Kg	✱	12/08/23 12:15	12/08/23 15:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 120	12/08/23 12:15	12/08/23 15:12	1
Toluene-d8 (Surr)	102		80 - 120	12/08/23 12:15	12/11/23 14:29	1
4-Bromofluorobenzene (Surr)	97		66 - 129	12/08/23 12:15	12/08/23 15:12	1
4-Bromofluorobenzene (Surr)	98		66 - 129	12/08/23 12:15	12/11/23 14:29	1
Dibromofluoromethane (Surr)	100		80 - 120	12/08/23 12:15	12/08/23 15:12	1
Dibromofluoromethane (Surr)	108		80 - 120	12/08/23 12:15	12/11/23 14:29	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	12/08/23 12:15	12/08/23 15:12	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124	12/08/23 12:15	12/11/23 14:29	1

Client Sample ID: DF-HA-35 (2)

Date Collected: 12/01/23 11:40

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-10

Matrix: Solid

Percent Solids: 84.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.29	0.081	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Chloromethane	ND		1.4	0.12	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Vinyl chloride	ND		0.17	0.058	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Bromomethane	ND		1.4	0.096	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Chloroethane	ND		0.58	0.16	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Trichlorofluoromethane	ND		0.58	0.095	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,1-Dichloroethene	ND		0.29	0.099	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Methylene Chloride	ND		1.0	0.58	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
trans-1,2-Dichloroethene	ND		0.29	0.066	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,1-Dichloroethane	ND		0.29	0.076	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
2,2-Dichloropropane	ND		0.29	0.070	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
cis-1,2-Dichloroethene	ND		0.29	0.060	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Bromochloromethane	ND		0.29	0.12	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Chloroform	ND	+	0.29	0.068	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,1,1-Trichloroethane	ND		0.29	0.050	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Carbon tetrachloride	ND		0.29	0.032	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,1-Dichloropropene	ND		0.29	0.050	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Benzene	ND		0.058	0.029	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,2-Dichloroethane	ND	+	0.29	0.063	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Trichloroethene	1.7		0.072	0.022	mg/Kg	✱	12/08/23 12:15	12/11/23 14:50	1
1,2-Dichloropropane	ND		0.35	0.088	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Dibromomethane	ND	+	0.29	0.064	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Bromodichloromethane	ND	+	0.29	0.18	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
cis-1,3-Dichloropropene	ND		0.29	0.059	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Toluene	ND		0.29	0.13	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
trans-1,3-Dichloropropene	ND		0.29	0.076	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,1,2-Trichloroethane	ND		0.29	0.10	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Tetrachloroethene	ND		0.12	0.051	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,3-Dichloropropane	ND		0.29	0.086	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
Dibromochloromethane	ND		0.58	0.047	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1
1,2-Dibromoethane (EDB)	ND		0.29	0.097	mg/Kg	✱	12/08/23 12:15	12/08/23 15:33	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-35 (2)

Date Collected: 12/01/23 11:40

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-10

Matrix: Solid

Percent Solids: 84.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.29	0.060	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Ethylbenzene	ND		0.29	0.047	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,1,1,2-Tetrachloroethane	ND		0.29	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,1,2,2-Tetrachloroethane	ND		0.29	0.084	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
m,p-Xylene	ND		1.2	0.083	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
o-Xylene	ND		0.58	0.066	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Styrene	ND		0.29	0.068	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Bromoform	ND		0.58	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Isopropylbenzene	ND		0.29	0.089	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Bromobenzene	ND		0.29	0.064	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
N-Propylbenzene	ND		0.29	0.076	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2,3-Trichloropropane	ND		0.58	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
2-Chlorotoluene	ND		0.29	0.047	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,3,5-Trimethylbenzene	ND		0.29	0.092	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
4-Chlorotoluene	ND		0.29	0.067	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
tert-Butylbenzene	ND		0.29	0.056	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2,4-Trimethylbenzene	ND		0.29	0.068	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
sec-Butylbenzene	ND		0.29	0.054	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,3-Dichlorobenzene	ND		0.29	0.036	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
p-Isopropyltoluene	ND		0.29	0.059	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,4-Dichlorobenzene	ND		0.29	0.060	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
n-Butylbenzene	ND		0.29	0.079	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2-Dichlorobenzene	ND		0.29	0.067	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2-Dibromo-3-Chloropropane	ND		1.4	0.17	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2,4-Trichlorobenzene	ND		0.29	0.053	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
1,2,3-Trichlorobenzene	ND		0.29	0.097	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Hexachlorobutadiene	ND		0.29	0.047	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Naphthalene	ND		0.58	0.081	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1
Methyl tert-butyl ether	ND		0.14	0.087	mg/Kg	☼	12/08/23 12:15	12/08/23 15:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	94		80 - 120	12/08/23 12:15	12/08/23 15:33	1
Toluene-d8 (Surr)	102		80 - 120	12/08/23 12:15	12/11/23 14:50	1
4-Bromofluorobenzene (Surr)	99		66 - 129	12/08/23 12:15	12/08/23 15:33	1
4-Bromofluorobenzene (Surr)	99		66 - 129	12/08/23 12:15	12/11/23 14:50	1
Dibromofluoromethane (Surr)	107		80 - 120	12/08/23 12:15	12/08/23 15:33	1
Dibromofluoromethane (Surr)	107		80 - 120	12/08/23 12:15	12/11/23 14:50	1
1,2-Dichloroethane-d4 (Surr)	104		79 - 124	12/08/23 12:15	12/08/23 15:33	1
1,2-Dichloroethane-d4 (Surr)	100		79 - 124	12/08/23 12:15	12/11/23 14:50	1

Client Sample ID: DF-HA-34 (2)

Date Collected: 12/01/23 11:30

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-12

Matrix: Solid

Percent Solids: 92.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		0.27	0.075	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Chloromethane	ND		1.3	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Vinyl chloride	ND		0.16	0.054	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Bromomethane	ND		1.3	0.088	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-34 (2)

Lab Sample ID: 590-22385-12

Date Collected: 12/01/23 11:30

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 92.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		0.53	0.15	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Trichlorofluoromethane	ND		0.53	0.088	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1-Dichloroethene	ND		0.27	0.091	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Methylene Chloride	ND		0.93	0.53	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
trans-1,2-Dichloroethene	ND		0.27	0.061	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1-Dichloroethane	ND		0.27	0.070	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
2,2-Dichloropropane	ND		0.27	0.065	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
cis-1,2-Dichloroethene	ND		0.27	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Bromochloromethane	ND		0.27	0.11	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Chloroform	ND	*+	0.27	0.063	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1,1-Trichloroethane	ND		0.27	0.046	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Carbon tetrachloride	ND		0.27	0.029	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1-Dichloropropene	ND		0.27	0.046	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Benzene	ND		0.053	0.027	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2-Dichloroethane	ND	*+	0.27	0.058	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Trichloroethene	0.66		0.067	0.020	mg/Kg	☼	12/08/23 12:15	12/11/23 15:12	1
1,2-Dichloropropane	ND		0.32	0.081	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Dibromomethane	ND	*+	0.27	0.059	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Bromodichloromethane	ND	*+	0.27	0.17	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
cis-1,3-Dichloropropene	ND		0.27	0.054	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Toluene	ND		0.27	0.12	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
trans-1,3-Dichloropropene	ND		0.27	0.070	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1,2-Trichloroethane	ND		0.27	0.094	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Tetrachloroethene	ND		0.11	0.047	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,3-Dichloropropane	ND		0.27	0.079	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Dibromochloromethane	ND		0.53	0.043	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2-Dibromoethane (EDB)	ND		0.27	0.089	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Chlorobenzene	ND		0.27	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Ethylbenzene	ND		0.27	0.043	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1,1,2-Tetrachloroethane	ND		0.27	0.051	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,1,2,2-Tetrachloroethane	ND		0.27	0.078	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
m,p-Xylene	ND		1.1	0.077	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
o-Xylene	ND		0.53	0.061	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Styrene	ND		0.27	0.063	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Bromoform	ND		0.53	0.051	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Isopropylbenzene	ND		0.27	0.082	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Bromobenzene	ND		0.27	0.059	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
N-Propylbenzene	ND		0.27	0.070	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2,3-Trichloropropane	ND		0.53	0.098	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
2-Chlorotoluene	ND		0.27	0.043	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,3,5-Trimethylbenzene	ND		0.27	0.085	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
4-Chlorotoluene	ND		0.27	0.062	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
tert-Butylbenzene	ND		0.27	0.052	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2,4-Trimethylbenzene	ND		0.27	0.062	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
sec-Butylbenzene	ND		0.27	0.050	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,3-Dichlorobenzene	ND		0.27	0.034	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
p-Isopropyltoluene	ND		0.27	0.054	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,4-Dichlorobenzene	ND		0.27	0.055	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
n-Butylbenzene	ND		0.27	0.073	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1

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Client Sample Results

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-34 (2)

Lab Sample ID: 590-22385-12

Date Collected: 12/01/23 11:30

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 92.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		0.27	0.062	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2-Dibromo-3-Chloropropane	ND		1.3	0.16	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2,4-Trichlorobenzene	ND		0.27	0.049	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
1,2,3-Trichlorobenzene	ND		0.27	0.089	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Hexachlorobutadiene	ND		0.27	0.044	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Naphthalene	ND		0.53	0.075	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1
Methyl tert-butyl ether	ND		0.13	0.080	mg/Kg	☼	12/08/23 12:15	12/08/23 15:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 120	12/08/23 12:15	12/08/23 15:55	1
Toluene-d8 (Surr)	103		80 - 120	12/08/23 12:15	12/11/23 15:12	1
4-Bromofluorobenzene (Surr)	99		66 - 129	12/08/23 12:15	12/08/23 15:55	1
4-Bromofluorobenzene (Surr)	98		66 - 129	12/08/23 12:15	12/11/23 15:12	1
Dibromofluoromethane (Surr)	103		80 - 120	12/08/23 12:15	12/08/23 15:55	1
Dibromofluoromethane (Surr)	107		80 - 120	12/08/23 12:15	12/11/23 15:12	1
1,2-Dichloroethane-d4 (Surr)	105		79 - 124	12/08/23 12:15	12/08/23 15:55	1
1,2-Dichloroethane-d4 (Surr)	99		79 - 124	12/08/23 12:15	12/11/23 15:12	1

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 590-45010/1-A
Matrix: Solid
Analysis Batch: 45004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45010

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	ND		0.10	0.028	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Chloromethane	ND		0.50	0.042	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Vinyl chloride	ND		0.060	0.020	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Bromomethane	ND		0.50	0.033	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Chloroethane	ND		0.20	0.056	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Trichlorofluoromethane	ND		0.20	0.033	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1-Dichloroethene	ND		0.10	0.034	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Methylene Chloride	ND		0.35	0.20	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
trans-1,2-Dichloroethene	ND		0.10	0.023	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1-Dichloroethane	ND		0.10	0.026	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
2,2-Dichloropropane	ND		0.10	0.024	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
cis-1,2-Dichloroethene	ND		0.10	0.021	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Bromochloromethane	ND		0.10	0.040	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Chloroform	ND		0.10	0.024	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1,1-Trichloroethane	ND		0.10	0.017	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Carbon tetrachloride	ND		0.10	0.011	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1-Dichloropropene	ND		0.10	0.017	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Benzene	ND		0.020	0.010	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2-Dichloroethane	ND		0.10	0.022	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2-Dichloropropane	ND		0.12	0.030	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Dibromomethane	ND		0.10	0.022	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Bromodichloromethane	ND		0.10	0.062	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
cis-1,3-Dichloropropene	ND		0.10	0.020	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Toluene	ND		0.10	0.045	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
trans-1,3-Dichloropropene	ND		0.10	0.026	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1,1,2-Trichloroethane	ND		0.10	0.035	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Tetrachloroethene	ND		0.040	0.018	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,3-Dichloropropane	ND		0.10	0.030	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Dibromochloromethane	ND		0.20	0.016	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2-Dibromoethane (EDB)	ND		0.10	0.034	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Chlorobenzene	ND		0.10	0.021	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Ethylbenzene	ND		0.10	0.016	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1,1,2-Tetrachloroethane	ND		0.10	0.019	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,1,1,2,2-Tetrachloroethane	ND		0.10	0.029	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
m,p-Xylene	ND		0.40	0.029	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
o-Xylene	ND		0.20	0.023	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Styrene	ND		0.10	0.024	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Bromoform	ND		0.20	0.019	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Isopropylbenzene	ND		0.10	0.031	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Bromobenzene	ND		0.10	0.022	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
N-Propylbenzene	ND		0.10	0.026	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2,3-Trichloropropane	ND		0.20	0.037	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
2-Chlorotoluene	ND		0.10	0.016	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,3,5-Trimethylbenzene	ND		0.10	0.032	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
4-Chlorotoluene	ND		0.10	0.023	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
tert-Butylbenzene	ND		0.10	0.020	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2,4-Trimethylbenzene	ND		0.10	0.023	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
sec-Butylbenzene	ND		0.10	0.019	mg/Kg		12/08/23 12:15	12/08/23 13:44	1

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 590-45010/1-A
Matrix: Solid
Analysis Batch: 45004

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.10	0.013	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
p-Isopropyltoluene	ND		0.10	0.020	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,4-Dichlorobenzene	ND		0.10	0.021	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
n-Butylbenzene	ND		0.10	0.028	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2-Dichlorobenzene	ND		0.10	0.023	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2-Dibromo-3-Chloropropane	ND		0.50	0.060	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2,4-Trichlorobenzene	ND		0.10	0.019	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
1,2,3-Trichlorobenzene	ND		0.10	0.033	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Hexachlorobutadiene	ND		0.10	0.016	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Naphthalene	ND		0.20	0.028	mg/Kg		12/08/23 12:15	12/08/23 13:44	1
Methyl tert-butyl ether	ND		0.050	0.030	mg/Kg		12/08/23 12:15	12/08/23 13:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120	12/08/23 12:15	12/08/23 13:44	1
4-Bromofluorobenzene (Surr)	104		66 - 129	12/08/23 12:15	12/08/23 13:44	1
Dibromofluoromethane (Surr)	99		80 - 120	12/08/23 12:15	12/08/23 13:44	1
1,2-Dichloroethane-d4 (Surr)	102		79 - 124	12/08/23 12:15	12/08/23 13:44	1

Lab Sample ID: MB 590-45010/1-A
Matrix: Solid
Analysis Batch: 45061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.025	0.0076	mg/Kg		12/08/23 12:15	12/12/23 13:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120	12/08/23 12:15	12/12/23 13:15	1
4-Bromofluorobenzene (Surr)	93		66 - 129	12/08/23 12:15	12/12/23 13:15	1
Dibromofluoromethane (Surr)	107		80 - 120	12/08/23 12:15	12/12/23 13:15	1
1,2-Dichloroethane-d4 (Surr)	101		79 - 124	12/08/23 12:15	12/12/23 13:15	1

Lab Sample ID: LCS 590-45010/2-A
Matrix: Solid
Analysis Batch: 45004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dichlorodifluoromethane	0.500	0.364		mg/Kg		73	14 - 120
Chloromethane	0.500	0.445	J	mg/Kg		89	29 - 150
Vinyl chloride	0.500	0.510		mg/Kg		102	38 - 150
Bromomethane	0.500	0.569		mg/Kg		114	39 - 150
Chloroethane	0.500	0.493		mg/Kg		99	38 - 150
Trichlorofluoromethane	0.500	0.711		mg/Kg		142	45 - 150
1,1-Dichloroethene	0.500	0.646		mg/Kg		129	50 - 150
Methylene Chloride	0.500	0.626		mg/Kg		125	42 - 150
trans-1,2-Dichloroethene	0.500	0.691		mg/Kg		138	75 - 140
1,1-Dichloroethane	0.500	0.656		mg/Kg		131	79 - 133
2,2-Dichloropropane	0.500	0.739		mg/Kg		148	50 - 150
cis-1,2-Dichloroethene	0.500	0.618		mg/Kg		124	78 - 132

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QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-45010/2-A
Matrix: Solid
Analysis Batch: 45004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromochloromethane	0.500	0.679		mg/Kg		136	67 - 138
Chloroform	0.500	0.665	*+	mg/Kg		133	80 - 131
1,1,1-Trichloroethane	0.500	0.689		mg/Kg		138	59 - 150
Carbon tetrachloride	0.500	0.644		mg/Kg		129	61 - 150
1,1-Dichloropropene	0.500	0.573		mg/Kg		115	80 - 131
Benzene	0.500	0.566		mg/Kg		113	80 - 128
1,2-Dichloroethane	0.500	0.687	*+	mg/Kg		137	77 - 126
1,2-Dichloropropane	0.500	0.477		mg/Kg		95	71 - 136
Dibromomethane	0.500	0.664	*+	mg/Kg		133	76 - 121
Bromodichloromethane	0.500	0.657	*+	mg/Kg		131	79 - 122
cis-1,3-Dichloropropene	0.500	0.522		mg/Kg		104	71 - 123
Toluene	0.500	0.559		mg/Kg		112	79 - 130
trans-1,3-Dichloropropene	0.500	0.501		mg/Kg		100	68 - 133
1,1,2-Trichloroethane	0.500	0.504		mg/Kg		101	74 - 131
Tetrachloroethene	0.500	0.585		mg/Kg		117	76 - 142
1,3-Dichloropropane	0.500	0.504		mg/Kg		101	73 - 125
Dibromochloromethane	0.500	0.543		mg/Kg		109	70 - 132
1,2-Dibromoethane (EDB)	0.500	0.521		mg/Kg		104	76 - 126
Chlorobenzene	0.500	0.594		mg/Kg		119	80 - 124
Ethylbenzene	0.500	0.573		mg/Kg		115	80 - 127
1,1,1,2-Tetrachloroethane	0.500	0.552		mg/Kg		110	76 - 139
1,1,2,2-Tetrachloroethane	0.500	0.596		mg/Kg		119	66 - 130
m,p-Xylene	0.500	0.552		mg/Kg		110	80 - 131
o-Xylene	0.500	0.530		mg/Kg		106	78 - 128
Styrene	0.500	0.541		mg/Kg		108	76 - 128
Bromoform	0.500	0.554		mg/Kg		111	49 - 150
Isopropylbenzene	0.500	0.552		mg/Kg		110	79 - 134
Bromobenzene	0.500	0.528		mg/Kg		106	70 - 129
N-Propylbenzene	0.500	0.551		mg/Kg		110	71 - 136
1,2,3-Trichloropropane	0.500	0.558		mg/Kg		112	61 - 138
2-Chlorotoluene	0.500	0.535		mg/Kg		107	73 - 131
1,3,5-Trimethylbenzene	0.500	0.526		mg/Kg		105	76 - 130
4-Chlorotoluene	0.500	0.536		mg/Kg		107	76 - 128
tert-Butylbenzene	0.500	0.560		mg/Kg		112	74 - 129
1,2,4-Trimethylbenzene	0.500	0.496		mg/Kg		99	78 - 128
sec-Butylbenzene	0.500	0.577		mg/Kg		115	78 - 132
1,3-Dichlorobenzene	0.500	0.574		mg/Kg		115	80 - 121
p-Isopropyltoluene	0.500	0.540		mg/Kg		108	79 - 128
1,4-Dichlorobenzene	0.500	0.584		mg/Kg		117	80 - 122
n-Butylbenzene	0.500	0.514		mg/Kg		103	75 - 128
1,2-Dichlorobenzene	0.500	0.577		mg/Kg		115	80 - 121
1,2-Dibromo-3-Chloropropane	0.500	0.572		mg/Kg		114	49 - 143
1,2,4-Trichlorobenzene	0.500	0.574		mg/Kg		115	73 - 129
1,2,3-Trichlorobenzene	0.500	0.600		mg/Kg		120	72 - 130
Hexachlorobutadiene	0.500	0.608		mg/Kg		122	75 - 136
Naphthalene	0.500	0.534		mg/Kg		107	57 - 131
Methyl tert-butyl ether	0.500	0.635		mg/Kg		127	69 - 132

QC Sample Results

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 590-45010/2-A
Matrix: Solid
Analysis Batch: 45004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45010

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	94		66 - 129
Dibromofluoromethane (Surr)	96		80 - 120
1,2-Dichloroethane-d4 (Surr)	100		79 - 124

Lab Sample ID: LCS 590-45010/2-A
Matrix: Solid
Analysis Batch: 45061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.500	0.552		mg/Kg		110	80 - 129

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	93		66 - 129
Dibromofluoromethane (Surr)	107		80 - 120
1,2-Dichloroethane-d4 (Surr)	100		79 - 124

Method: 8260D SIM - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 590-45010/1-A
Matrix: Solid
Analysis Batch: 45026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 45010

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		0.0025	0.0016	mg/Kg		12/08/23 12:15	12/08/23 23:23	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 126	12/08/23 12:15	12/08/23 23:23	1
4-Bromofluorobenzene (Surr)	97		79 - 125	12/08/23 12:15	12/08/23 23:23	1
Dibromofluoromethane (Surr)	106		80 - 120	12/08/23 12:15	12/08/23 23:23	1
Toluene-d8 (Surr)	101		80 - 120	12/08/23 12:15	12/08/23 23:23	1

Lab Sample ID: LCS 590-45010/2-A
Matrix: Solid
Analysis Batch: 45026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 45010

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	0.500	0.565		mg/Kg		113	76 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 126
4-Bromofluorobenzene (Surr)	99		79 - 125
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-37 (1)

Date Collected: 12/01/23 12:00

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44987	12/07/23 14:30	MRV	EET SPK

Client Sample ID: DF-HA-37 (1)

Date Collected: 12/01/23 12:00

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-5

Matrix: Solid

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.843 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45004	12/08/23 14:50	JSP	EET SPK
Total/NA	Prep	5035			5.843 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45036	12/11/23 14:06	JSP	EET SPK

Client Sample ID: DF-HA-33 (1)

Date Collected: 12/01/23 10:55

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-7

Matrix: Solid

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.976 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D SIM		1	0.86 mL	43 mL	45026	12/09/23 00:26	JSP	EET SPK

Client Sample ID: DF-HA-33 (2)

Date Collected: 12/01/23 11:00

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44987	12/07/23 14:30	MRV	EET SPK

Client Sample ID: DF-HA-33 (2)

Date Collected: 12/01/23 11:00

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-9

Matrix: Solid

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.77 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45004	12/08/23 15:12	JSP	EET SPK
Total/NA	Prep	5035			4.77 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45036	12/11/23 14:29	JSP	EET SPK

Client Sample ID: DF-HA-35 (2)

Date Collected: 12/01/23 11:40

Date Received: 12/01/23 16:25

Lab Sample ID: 590-22385-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44987	12/07/23 14:30	MRV	EET SPK

Eurofins Spokane

Lab Chronicle

Client: Haley & Aldrich, Inc.
 Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Client Sample ID: DF-HA-35 (2)

Lab Sample ID: 590-22385-10

Date Collected: 12/01/23 11:40

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.369 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45004	12/08/23 15:33	JSP	EET SPK
Total/NA	Prep	5035			4.369 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45036	12/11/23 14:50	JSP	EET SPK

Client Sample ID: DF-HA-34 (2)

Lab Sample ID: 590-22385-12

Date Collected: 12/01/23 11:30

Matrix: Solid

Date Received: 12/01/23 16:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			44987	12/07/23 14:30	MRV	EET SPK

Client Sample ID: DF-HA-34 (2)

Lab Sample ID: 590-22385-12

Date Collected: 12/01/23 11:30

Matrix: Solid

Date Received: 12/01/23 16:25

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.171 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45004	12/08/23 15:55	JSP	EET SPK
Total/NA	Prep	5035			4.171 g	10 mL	45010	12/08/23 12:15	JSP	EET SPK
Total/NA	Analysis	8260D		1	0.86 mL	43 mL	45036	12/11/23 15:12	JSP	EET SPK

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Laboratory: Eurofins Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-07-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260D SIM	5035	Solid	Trichloroethene
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: POM HDF/0203154-013

Job ID: 590-22385-3

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET SPK
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	EET SPK
Moisture	Percent Moisture	EPA	EET SPK
5035	Closed System Purge and Trap	SW846	EET SPK

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET SPK = Eurofins Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

CHAIN OF CUSTODY RECORD


H&A FILE NO. 0203154-013 LABORATORY EVOLANS DELIVERY DATE 12/1/23
 PROJECT NAME POM HDF ADDRESS _____ TURNAROUND TIME STD
 H&A CONTACT Ward McDonald CONTACT _____ PROJECT MANAGER _____

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					VOAs	-1- methanol												
DF-HA-36 (1)	12/1/23	11:50			X	X											3	Laboratory to use applicable DEP CAM methods, unless otherwise directed. > DF-HA-37CD hold S 1, 3, 2 corr 1200L
DF-HA-35 (1)		11:35			X	X												
DF-HA-32 (2)		10:40			X	X												
DF-HA-32 (1)		10:25			X	X												
DF-HA-37 (1)		12:00																
DF-HA-31 (1)		9:55			X	X												
DF-HA-33 (1)		10:55			X	X												
DF-HA-34 (1)		11:25			X	X												
DF-HA-33 (2)		11:00			X	X												
DF-HA-35 (1)		11:40			X	X												

Liquid Section

Sampled and Relinquished by	Received by	VOA Vial	Sampling Comments
Sign <u>[Signature]</u> Print <u>Chad M HOA</u> Firm <u>HOA</u> Date <u>12/1/23</u> Time <u>10:25</u>	Sign <u>[Signature]</u> Print <u>Mackey Morris</u> Firm <u>DET SPO</u> Date <u>12/1/23</u> Time <u>11:25</u>	Amber Glass Plastic Bottle Preservative Volume	

Solid Section

Sampled and Relinquished by	Received by	VOA Vial	 590-22385 Chain of Custody
Sign _____	Sign _____	Amber Glass	
Print _____	Print _____	Clear Glass	

Evidence samples were tampered with? YES NO
 If YES, please explain in section below.

PRESERVATION KEY

A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol
B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

<p>If Presumptive Certainty Data Package is needed, initial all sections:</p> <p>_____ The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.</p> <p>_____ Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.</p> <p>_____ This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.</p> <p>_____ If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze</p>	<p>Required Reporting Limits and Data Quality Objectives</p> <table border="0"> <tr> <td><input type="checkbox"/> RC-S1</td> <td><input type="checkbox"/> S1</td> <td><input type="checkbox"/> GW1</td> </tr> <tr> <td><input type="checkbox"/> RC-S2</td> <td><input type="checkbox"/> S2</td> <td><input type="checkbox"/> GW2</td> </tr> <tr> <td><input type="checkbox"/> RC-GW1</td> <td><input type="checkbox"/> S3</td> <td><input type="checkbox"/> GW3</td> </tr> <tr> <td><input type="checkbox"/> RC-GW2</td> <td></td> <td></td> </tr> </table>	<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1	<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2	<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3	<input type="checkbox"/> RC-GW2		
<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1											
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2											
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3											
<input type="checkbox"/> RC-GW2													



Haley & Aldrich, Inc.
505 W Riverside,
Suite 205,
Spokane WA, 99212

CHAIN OF CUSTODY RECORD

Phone (617) 886-7400
Fax (617) 886-7600
Page 2 of 2

H&A FILE NO. 020354-013 LABORATORY Empiris DELIVERY DATE 12/1/23
PROJECT NAME POM HDP ADDRESS _____ TURNAROUND TIME DTD
H&A CONTACT Wendy McDonald CONTACT _____ PROJECT MANAGER _____

Sample No.	Date	Time	Depth	Type	Analysis Requested													Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					VOCS	Y														
DF-HA-31 (2) DF-HA-34 (2)		10.05 11.30			X	X													3 1	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 3-2, 3, 3 error recycle

Sampled and Relinquished by <u>Chad M</u>	Received by <u>Mackey Morris</u>	LIQUID	Sampling Comments
Sign <u>[Signature]</u>	Sign <u>[Signature]</u>	VOA Vial	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Print <u>Chad M</u>	Print <u>Mackey Morris</u>	Amber Glass	
Firm <u>H&A</u>	Firm <u>H&A</u>	Plastic Bottle	
Date <u>12/1/23</u> Time <u>16:25</u>	Date <u>12/1/23</u> Time <u>16:25</u>	Preservative	
Relinquished by	Received by	Volume	

Sign	Sign	SOLID	VOA Vial
Print	Print		Amber Glass
Firm	Firm		Clear Glass
Date	Date		Preservative
Time	Time		Volume

Sign	Sign	PRESERVATION KEY			
Print	Print	A Sample chilled	C NaOH	E H ₂ SO ₄	G Methanol
Firm	Firm	B Sample filtered	D HNO ₃	F HCL	H Water/NaHSO ₄ (circle)
Date	Date				

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) _____ includes _____ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) _____ analyze

Required Reporting Limits and Data Quality Objectives

<input type="checkbox"/> RC-S1	<input type="checkbox"/> S1	<input type="checkbox"/> GW1
<input type="checkbox"/> RC-S2	<input type="checkbox"/> S2	<input type="checkbox"/> GW2
<input type="checkbox"/> RC-GW1	<input type="checkbox"/> S3	<input type="checkbox"/> GW3
<input type="checkbox"/> RC-GW2		

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 590-22385-3

Login Number: 22385

List Number: 1

Creator: Morris, Mackenzie 1

List Source: Eurofins Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	