UST Decommissioning and Cleanup Report

Teufel Hangar – Hillsboro Airport
3115 NE Cornell Road
Hillsboro, Oregon 97124
HydroCon Project Number: 10024-017
Oregon DEQ LUST No. 34-23-0710

Prepared for:

Anderson Environmental Contracting, LLC
705 Colorado Street
Kelso, Washington 98626

February 14, 2024

Prepared by:

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HydroCon
An ACC Environmental Consultants, Inc. Company

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1.0 INTRODUCTION

HydroCon Environmental LLC (HydroCon) has prepared this Underground Storage Tank (UST) Decommissioning and Cleanup Report on behalf of Anderson Environmental Contracting, LLC (AEC; the Client) to document the decommissioning of two (2) 6,000-gallon USTs near the Teufel Hangar on the Hillsboro Airport located at 3115 NE Cornell Road in Hillsboro, Washington County, Oregon (the Site; Figure 1). The Site is owned by the Port of Portland, and the facility is operated by Teufel Nursery, Inc. under a property lease agreement. The Site was permitted to operate USTs under Department of Environmental Quality (DEQ) UST Facility Identification No. 10591.

On September 13, 2023, two (2) USTs were decommissioned by removal along with all associated pumps, turbines, product piping, vent lines, two (2) product dispensers, and surface coverings and infrastructure. The two 6,000-gallon regulated USTs contained commercial jet fuel (Jet-A) prior to decommissioning. All decommissioning activities were completed in accordance with DEQ decommissioning rules. The UST system details are shown on Figure 3.

Following the removal of tanks and ancillary equipment, petroleum contaminated soils (PCS) were excavated from the subsurface in the vicinity of the former tank nest and beneath the former dispensers, pump islands, and drive lanes. This report focuses on the decommissioning of and cleanup related to the regulated USTs and aviation fuel system.

Following receipt of analytical results from compliance soil sampling during the decommissioning, a release from the UST system was reported to the DEQ on October 9, 2023, and the Site was listed under UST Cleanup File No. 34-23-0710.

The following sections summarize the UST decommissioning and subsequent cleanup activities performed at the Site between September 12 and September 14, 2023.

2.0 BACKGROUND

This section summarizes the results of previous investigations and regional and local geology and hydrogeology.

2.1 Site Location

The subject property is comprised of one tax parcel totaling approximately 0.70 acres in size and is located at 3115 Cornell Road in Hillsboro, Oregon (Figure 2). The Site is located in the northeast quarter of the southeast quarter of Section 29, Township 1 North, Range 2 West of the Willamette Meridian, Washington County, Oregon. The Washington County Assessor identifies the Site parcel as Lot 1N228CB00400. The Site is located on the Hillsboro Airport and is bounded on the northeast, east, and southeast by airport runways and taxiways, to the south by storage hangars, and to the west by an airport access road and several retail properties (Figure 2). The subject property is zoned Industrial Urban.

2.2 Description of Property

The majority of the Site is paved with asphalt-concrete and Portland cement-concrete. The Site is secured behind chain-link fencing and under security surveillance. Access to the Site is restricted unless facilitated by the Port of Portland or tenants of the Port of Portland.

The Site includes an approximately 10,000-square foot airplane hangar. The hangar was reportedly constructed in 1990 and includes a maintenance area and office. The Site includes a vehicle parking area on the southwest end of the parcel and an airplane parking area on the northeast end of the property. The parking areas are connected by a vehicle drive lane on the northern portion of the property. Prior to decommissioning, the fueling area consisted of a small canopy covering two fuel dispensers on the north end of the airplane parking area. The fueling system was supplied by two 6,000-gallon USTs containing Jet-A aviation fuel. The USTs were located in a tank nest immediately northeast of the Teufel Hangar with product piping and electrical running underground from the UST basin to the fuel dispensers.

The USTs were Owens Corning fiberglass reinforced plastic construction equipped with cathodic protection, overfill alarms, and Veeder-Root automatic tank gauging. The product lines were steel wrapped with Smith Fiberglass fiberglass reinforced plastic with automatic line-leak detectors. The USTs and system components were reportedly brought in to service on October 18, 1990. Site features are depicted on Figure 3.

2.3 Site Background

The Site has been used for aviation fueling since at least 1990 when the two 6,000-gallon USTs were installed, but was likely active prior to the 1990s. The Site is listed on the Oregon DEQ Leaking UST (LUST) Database, and is identified as “Teufel Hangar” (UST Cleanup File No. 34-20-0042). The Site was listed in the LUST Database on January 16, 2020, after a release resulting from physical or mechanical damage was identified during routine tank tightness testing and reported to DEQ. On February 10, 2020, a Phase II Environmental Site Assessment (ESA) was completed at the Site by Tim O’Gara, RG, a “Consulting Hydrogeologist” from Oregon City, Oregon. The ESA was completed for the Teufel Nursery and included the installation of six (6) temporary direct-push explorations (borings B-1, B-2, B-3, B-3A, B-4, and B-5) for the collection of soil and groundwater (borings B-1, B-2, B-3A, B-4, and B-5) samples in the vicinity of the tank nest. Explorations were installed using direct-push drilling to depths of 15 feet bgs. A total of six (6) soil samples (one from each boring) and five (5) groundwater samples (from temporary wells installed in the borings) were collected for laboratory analysis during the investigation. Gasoline-range petroleum hydrocarbons (GRPH; later determined to be Jet-A), toluene, naphthalene, and other related volatile organic compounds (VOCs) were detected in soil and groundwater at relatively low concentrations below generic DEQ Risk-Based Concentrations (RBCs) deemed potentially applicable to the Site. Based on the reported results and to further delineate impacts to Site soil and groundwater, the DEQ requested that additional investigation be carried out at the Site. On December 29, 2020, four additional borings were installed around the tank nest (B-6, B-7, B-8, and B-9) and soil and groundwater samples were collected from the borings by Tim O’Gara. The sample

results were similar to those from the earlier investigation and a No Further Action (NFA) determination was requested by the consultant. The DEQ issued a NFA determination letter on July 20, 2021 and closed the LUST Cleanup File No. 34-20-0042 with minor residual impacts in soil and groundwater to remain at the Site. Copies of the historical documents that HydroCon reviewed during the preparation of this report are included in Appendix A.

2.4 Local Geology and Hydrogeology

The Site is located within the Tualatin Basin and is bounded by the Coast Range to the west and the Portland Hills, Tualatin Mountains, and Cascade Range to the east. The basin consists of Holocene sediments in the streambeds and flood plains and deposits from glacial outburst flooding during the late Pleistocene. More specifically, according to the USGS's *Geologic Map of the Greater Portland Metropolitan Area and Surrounding Region, Oregon and Washington*, the Site is located within the mapped Missoula flood deposits (Qf) – a mix of rhythmically stratified clay, silt, sand, and minor gravel deposited by Missoula floods as they spilled into the Tualatin Basin from the Columbia Gorge. The thickness of the Qf deposits varies across the region, but can exceed 400 feet in thickness. The basin is flanked by igneous (volcanic and intrusive) rocks of the Columbia River Basalt Group and the Boring Volcanic Field – Pleistocene- to Miocene-aged basalt and basaltic andesite flows, breccia, and tuff. Soils encountered at the Site during the 2020 Phase II ESA included silts, silty sands, sandy silts, gravels, and some clay. Gravels and pea gravels were observed primarily within the tank pit area of the Site.

Based on the nearby well logs, the regional groundwater is present at variable depths ranging from approximately 6 to 30 feet bgs. At the time of the 2020 Phase II ESA, groundwater was observed in the borings (in temporary wells; B-1, B-2, B-3A, B-4, and B-5) at depths between approximately 7.5 feet and 9 feet bgs. Static groundwater levels measured in temporary wells during the 2020 Phase II ESA ranged between 3.6 and 5.2 feet bgs – indicating that the shallow water bearing zone in the vicinity of the Site is at least partially under confining conditions. Groundwater flow direction is unknown, but can be inferred to flow generally southeast towards Dawson Creek, located on the southeast end of the airport.

Domestic water supply wells exist in the vicinity of, and within, the same Township, Range, and Section as the Site, however, precise locations of these wells were not reported or able to be determined during the course of this assessment. Based on well construction details available on the Oregon Water Resources Department (OWRD) Well Report Query website and reviewed by HydroCon, these domestic water supply wells are installed at depths ranging from 101 feet bgs to 385 feet bgs – in the deeper regional aquifer.

3.0 PERMITTING AND HEALTH AND SAFETY

3.1 Permits

Decommissioning/Change-in-Service Notices were submitted to the DEQ by AEC prior to the commencement of field activities.

3.2 Health and Safety Plan

HydroCon prepared a Site-specific health and safety plan (HASP) to govern health and safety protocols used during this investigation. Work was performed using Occupational Safety and Health Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots.

3.3 Underground Utility Locates

Prior to the commencement of subsurface activities, public utility notification was requested through the Oregon One Call service. Additionally, all underground utilities in the vicinity of the tank vault and construction/demolition area were deactivated prior to the start of work.

4.0 UST DECOMMISSIONING ACTIVITIES

This section provides a discussion of the procedures utilized and the compliance and confirmation soil sampling activities completed for the decommissioning of two USTs and associated infrastructure at the Site. The DEQ *UST Decommissioning Checklist and Site Assessment Reports* are included in Appendix B. Photographic documentation of the UST decommissioning activities is included in Appendix C.

4.1 UST Decommissioning

On September 13, 2023, the two USTs and associated fuel system infrastructure were decommissioned by removal. The decommissioning and supervision were completed by AEC (DEQ Service Provider License #16356). Mr. Kyle Johnson of AEC – a licensed DEQ Decommissioning Supervisor (License #10286368) – provided additional oversight and supervision during the decommissioning.

Prior to decommissioning, the USTs were emptied and the fill and access ports were uncovered by AEC. Between September 12 and September 13, 2023, AEC excavated to the tops of the USTs, exposed product piping, vapor recovery ports, fill ports and turbine sumps, and cut and drained product lines residing within the tank nest. AEC inerted the tanks with dry ice for cleaning and triple-rinsing of each tank. Once the USTs were inerted and cleaned, AEC exposed the remainder of each tank and removed each tank from the tank nest using an excavator. Once removed, each tank was inspected (externally and internally) for signs of failure, and subsequently loaded onto a trailer for transportation to an offsite facility for storage and future recycling. All tanks were found to be in good condition upon inspection.

Product piping (service lines), vent lines, buried electrical lines, and the two dispensers and associated infrastructure were decommissioned by AEC between September 12 and September 13, 2023. The product lines and dispensers appeared to be in good condition with no visible holes or signs of heavy corrosion.

The two USTs were removed from the Site, crushed, and disposed at Cowlitz County Municipal Solid Waste Landfill in Kelso, Washington. Residual fuel and sludge were recycled at Oil Re-Refining Company in Portland, Oregon. Copies of recycling and disposal receipts are included in Appendix D.

Following the decommissioning, field indications including visibly stained soils and a noticeable weathered petroleum hydrocarbon odor were noted beneath the former dispensers on the northeast portion of the Site.

4.2 Compliance Soil Sampling

On September 13, 2023, HydroCon collected compliance soil samples from soil beneath the former USTs, beneath product piping runs, and beneath the dispensers in accordance with DEQ's rules and regulations. A total of eight (8) compliance soil samples were collected from the Site as described below:

- Four compliance soil samples collected from the footprints of the former tanks at depths of approximately 13.5 feet bgs. A soil sample was collected from each end of the former tanks and within approximately 6-inches to 1-foot of the tank bottom elevation (T1-NW-13.5, T1-SW-13.5, T2-NW-13.5, and T2-SW-13.5);
- One compliance soil sample collected from native soil beneath the piping run extending from the former tank nest to the former dispensers to the northeast at a depth of approximately 2.5 feet bgs (Piping-1); and
- Three compliance soil samples collected from the native soil beneath the former fuel dispensers at depths of approximately 2.5 feet bgs (Disp-1, Disp-2-2.5, and Disp-3-2.5).

Soil samples were collected directly from the backhoe bucket or directly from the excavation leave surface (where feasible) using a new pair of disposable nitrile gloves and placed directly into labeled laboratory prepared jars and sealed with Teflon-lined lids. Soil samples intended for analysis of volatile organic compounds (VOCs) were collected utilizing the U.S. Environmental Protection Agency (EPA) Method 5035A. These soil samples were placed into labeled pre-preserved and pre-weighed laboratory supplied vials using a new polyethylene t-handle sample coring device supplied by the laboratory. Samples were immediately placed in an ice filled cooler along with chain-of-custody documentation for delivery to Apex Laboratories LLC (Apex Labs) of Tigard, Oregon.

Compliance soil sample locations are shown on Figure 4.

No groundwater was encountered during the decommissioning or compliance soil sampling activities which reached depths of 13.5 feet bgs.

4.3 Field Screening

Field screening consisted of volatile organic vapor measurements using a photoionization detector (PID), sheen testing, visual observations (staining, etc.), and olfactory observations. A portion of each soil

sample was placed in a sealable plastic bag. The tip of the PID was inserted into the plastic bag in the airspace above the soil sample and the PID measurement was recorded. The PID was calibrated before use at the Site to a test gas standard consisting of 100 parts per million (ppmv) isobutylene. Because several factors can affect PID readings (e.g. moisture, temperature, and background conditions), HydroCon determined that a value of 2 ppm or greater may indicate the presence of organic vapors originating from contaminants at the Site.

4.4 Remedial Excavation

On September 14, 2023, HydroCon documented the excavation and removal of PCS from areas beneath the former dispensers with obvious residual contamination and that were identified following receipt and review of compliance soil sample analytical results. Excavation earthwork was performed by AEC.

During the remedial excavation activities, HydroCon utilized field screening techniques to determine areas of impacted soil and to assess removal efforts. The excavation targeted impacted soils identified during the decommissioning assessment. These target areas were extended vertically and horizontally until the field screening suggested that the impacts had been removed to the extent practicable.

PCS was observed around and beneath the former dispensers on the northeast portion of the subject property. Impacts beneath the former dispensers extended to depths of approximately 4.5 feet bgs. The final remedial excavation measured approximately 12-feet in length (north/south) by 12-feet in width (east/west) by 4.5-feet deep. The approximate extents of the remedial excavation are depicted on Figure 4.

No groundwater was observed or encountered in the remedial excavation.

Excavated soils were directly loaded into trucks and transported to the Waste Management Hillsboro Landfill in Hillsboro, Oregon for disposal. A total of 38.38 tons of PCS were excavated and disposed of at the landfill. Copies of the disposal receipts are included in Appendix D of this report. Photographic documentation is included in Appendix C.

4.5 Confirmation Soil Sampling

Upon completion of soil removal activities, confirmation soil samples were collected from the leave surfaces of the excavation beneath the former dispensers to assess the efficacy of cleanup efforts. Two (2) confirmation soil samples were collected from the excavation.

Soil samples were collected directly from the backhoe bucket or directly from the excavation leave surface (where feasible) using a new pair of disposable nitrile gloves and placed directly into labeled laboratory prepared jars and sealed with Teflon-lined lids. Soil samples intended for analysis of VOCs were collected utilizing the EPA Method 5035A. Samples were kept with chain-of-custody documentation for delivery to Apex Laboratories of Tigard, Oregon.

The samples collected on September 14, 2023 (soil samples Disp-4-4.5 and Disp-5-4.5) were submitted to the laboratory outside of the recommended temperature range. The reported analytical results for this batch of samples were flagged with a "TEMP" qualifier and considered estimated. However, the samples were received by the laboratory within one-hour of sample collection, and in the proper glassware, therefore, this is not expected to have impacted the reported results.

Confirmation soil sample locations are shown on Figure 4.

4.6 Laboratory Analysis

A total of ten (10) soil samples were collected for laboratory analysis. Each sample was analyzed for the following set of parameters:

- Diesel-range and oil-range petroleum hydrocarbons (DRPH and ORPH) by Northwest Method NWTPH-Dx; and
- Benzene, toluene, ethylbenzene, total xylenes, and naphthalene (BTEX+N) by EPA Method 8260D.

Additionally, the compliance soil sample exhibiting the greatest detected concentration of DRPH (Disp-3-2.5) was analyzed for polycyclic aromatic hydrocarbons (PAHs) by EPA Method 8270E.

4.7 Management of Investigation Derived Waste

Investigation Derived Waste (IDW) consisted of water/rinsate/sludge from cleaning of the USTs, two decommissioned fiberglass reinforced plastic USTs, decommissioned infrastructure (dispensers, product piping, concrete debris, etc.), and PCS. As detailed above, USTs were crushed and disposed of at the Cowlitz County Municipal Solid Waste Landfill, the water, rinsate, and sludge removed from the USTs was transported to ORRCO for recycling, and PCS was transported to Waste Management's Hillsboro Landfill for disposal. All recycling and disposal receipts from the UST decommissioning are included in Appendix D.

Disposable items, such as nitrile gloves, protective overalls (*e.g.*, Tyvek®), paper towels, etc., were placed in plastic bags after use and deposited in trash receptacles on Site for disposal.

4.8 Site Restoration

Following the remedial excavation and confirmation soil sampling activities, and upon receipt of confirmation soil sample analytical results, the excavation was backfilled with imported crushed rock aggregate fill that was compacted in lifts in accordance with project requirements and specifications.

5.0 INVESTIGATION RESULTS

5.1 Subsurface Conditions

Subsurface soil (below asphalt-concrete, Portland cement-concrete and base rock aggregate material) consists of silt with varying amounts of sand, gravel, and trace clay to depths of up to 13.5 feet bgs. Soils in the vicinity of the former tank pit and around the former tanks, product piping and dispensers consisted of pea gravel fill material.

Groundwater was not encountered to explored depths of up to 13.5 feet bgs during the UST decommissioning and remedial excavation activities completed in September 2023. Groundwater was reportedly found during the Phase II subsurface investigation conducted by Tim O'Gara, RG in both January and December 2020. Depths to groundwater measured in the temporary monitoring wells at the time of the Phase II investigation ranged from approximately 3.6 to 5.2 feet bgs. During the investigation, groundwater was first encountered in the borings at depths ranging between 7.5 and 9.0 feet bgs, indicating the that shallow groundwater at the Site is under some confining condition possibly due to fine-grained low-permeability soils in the subsurface at the Site.

The majority of petroleum hydrocarbon impacts appeared in the soils beneath the former dispensers from the near surface (approximately 2.5 feet bgs) to depths up to 4.5 feet bgs (depth of remedial excavation). Soils below the product piping did not show noticeable evidence of contamination.

5.2 Analytical Results

Compliance and confirmation soil sample analytical results were compared to DEQ RBCs considered potentially complete for the Site including the Volatilization to Outdoor Air (*RBCso*) pathway for the occupational receptor and the Soil Ingestion, Dermal Contact, and Inhalation (*RBCss*) pathway for the construction worker and excavation worker receptors. Groundwater at the Site is not currently used for domestic purposes – and given that the Site is located on an active airport in a highly developed urban area which receives water from the local municipality – is not reasonably likely to be used in the future. Therefore, the Leaching to Groundwater (*RBCsw*) pathway was not considered. The following sections describe the results of compliance and confirmation soil sampling conducted at the Site from September 13 to September 14, 2023. The complete laboratory analytical reports and chain-of-custody records are included as Appendix E.

Compliance Soil Sample Analytical Results

Compliance soil sample analytical results are reported as milligrams per kilograms (mg/kg) and are summarized on Tables 1 and 2 and on Figure 4. A summary of the results is provided below.

DRPH were detected above the laboratory method reporting limit (MRL) in two of the compliance soil samples – samples Disp-1 and Disp-3-2.5 (collected from the central and eastern portions of the fueling area beneath the dispensers at depths of approximately 2.5 feet bgs) at concentrations of 90.7 mg/kg

and 1,730 mg/kg, respectively. The detected concentrations in these samples are below the most stringent applicable DEQ RBC – the Soil Ingestion, Dermal Contact, and Inhalation (*RBCss*) pathway for the construction worker of 4,600 mg/kg. These detected DRPH results were flagged by the laboratory as being primarily due to overlap from a heavier fuel hydrocarbon product (i.e. Jet-A).

ORPH were detected in compliance soil sample Disp-1 at a concentration of 41.1 mg/kg. The detected concentration of ORPH is well below the most stringent applicable *RBCss* of 11,000 mg/kg.

One or more VOC compounds including benzene, toluene, ethylbenzene, total xylenes, and naphthalene were detected above their respective MRLs in the compliance soil samples collected from the fuel dispenser area (samples Disp-1, Disp-2-2.5, and Disp-3-2.5). In general, these detections are low and below applicable DEQ RBCs for the Site.

PAHs fluorene, 1-methylnaphtahlene, 2-methylnaphthalene, and naphthalene were detected above their respective MRLs in compliance soil sample Disp-3-2.5. As shown on Table 2, these detections are low and below applicable DEQ RBCs for the Site.

Of note, the decommissioning compliance soil sample locations collected from the fuel dispenser area (detailed above) were subsequently removed during remedial excavation conducted at the Site on September 14, 2023.

There were no compounds detected above their respective MRLs in the compliance UST and piping run soil samples collected from the Site (T1-NW-13.5, T1-SW-13.5, T2-NW-13.5, T2-SW-13.5, and Piping-1).

Confirmation Soil Sample Analytical Results

Confirmation soil sample analytical results are reported as mg/kg and are summarized in Table 1 and on Figure 4. A summary of the results is provided below.

DRPH were detected above the laboratory MRL in one of the two confirmation soil samples Disp-4-4.5 (collected from beneath the east dispenser at a depth of approximately 4.5 feet bgs) at a concentration of 1,820 mg/kg. The detected concentration of DRPH in this confirmation sample is below the most stringent applicable DEQ RBC of 4,600 mg/kg (*RBCss*).

Ethylbenzene, total xylenes, and naphthalene were detected above their respective MRLs in confirmation soil sample Disp-4-4.5. Ethylbenzene and xylene were detected in the sample at concentrations of 0.829 mg/kg and 14.7 mg/kg, and naphthalene was detected at a concentration of 3.08 mg/kg. The detections of ethylbenzene and xylene are below the most stringent applicable DEQ RBC for ethylbenzene and xylene).

ORPH and VOCs, other than discussed above, were not detected above their respective MRLs in the confirmation soil samples collected from the remedial excavation at the Site.

6.0 DISCUSSION

Between September 12 and September 14, 2023, the former aviation fueling area at the subject Site was decommissioned including the decommissioning by removal of two fuel USTs, two fuel dispensers, and related infrastructure. PCS were observed in the vicinity of the former fuel dispensers to the northeast of the former USTs. The presence of PCS in this area is likely the result of drippage/spillage at the dispenser but may be related to the piping release discovered at the Site in January 2020. A total of 38.38 tons of PCS were excavated from the dispenser area and disposed of at Waste Management's Hillsboro Landfill in Hillsboro, Oregon. A total of 10 compliance and confirmation soil samples were collected from the Site to assess the UST decommissioning and cleanup remedy.

6.1 Soil Conditions

Results of compliance and confirmation soil sampling show that with the exception of naphthalene detected in one soil sample from the former dispenser area, the soils remaining onsite are non-detect or have minor detections of COPCs below applicable DEQ RBCs.

6.2 Groundwater Conditions

Groundwater was not encountered during the UST decommissioning and subsequent cleanup activities completed in September 2023. Groundwater was reportedly encountered during the 2020 Phase II ESA conducted at the Site. At the time, Site groundwater was first encountered at depths ranging from 7.5 to 9.0 feet bgs with static groundwater levels measured in temporary monitoring wells reported at depths ranging from 3.6 to 5.2 feet bgs. Shallow groundwater at the Site is likely under confining conditions due to a confining layer or low-permeability soils in the subsurface. The same confining layer that is acting upon the shallow water table beneath the Site would act on the residual impacts in shallow soil at the Site, thus preventing vertical contaminant migration and contact with groundwater at the Site.

7.0 CONCLUSIONS

Based on the above-described activities and findings, impacted soils have been removed from the Site, and final confirmation soil sampling has shown that native soils and materials remaining on Site are non-detect or have detectable concentrations of COPCs below the applicable DEQ RBCs for the Site – given the continuing property use as an airport hangar on an active airport and provided that Site groundwater is not used for drinking water. Therefore, unacceptable risks are no longer present. HydroCon recommends no further action at the Site and that DEQ consider Site closure.

8.0 QUALIFICATIONS

HydroCon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. HydroCon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that HydroCon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

Findings and conclusions resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this monitoring. Subsurface conditions may vary from those encountered at specific sampling locations or during other surveys, tests, assessments, investigations, or exploratory services; the data, interpretations and findings are based solely upon data obtained at the time and within the scope of these services.

This report is intended for the sole use of **Anderson Environmental Contracting, LLC**. This report may not be used or relied upon by any other party without the written consent of HydroCon. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

The conclusions presented in this report are, in part, based upon subsurface sampling performed at selected locations and depths. There may be conditions between borings or samples that differ significantly from those presented in this report and which cannot be predicted by this study.

Signature:

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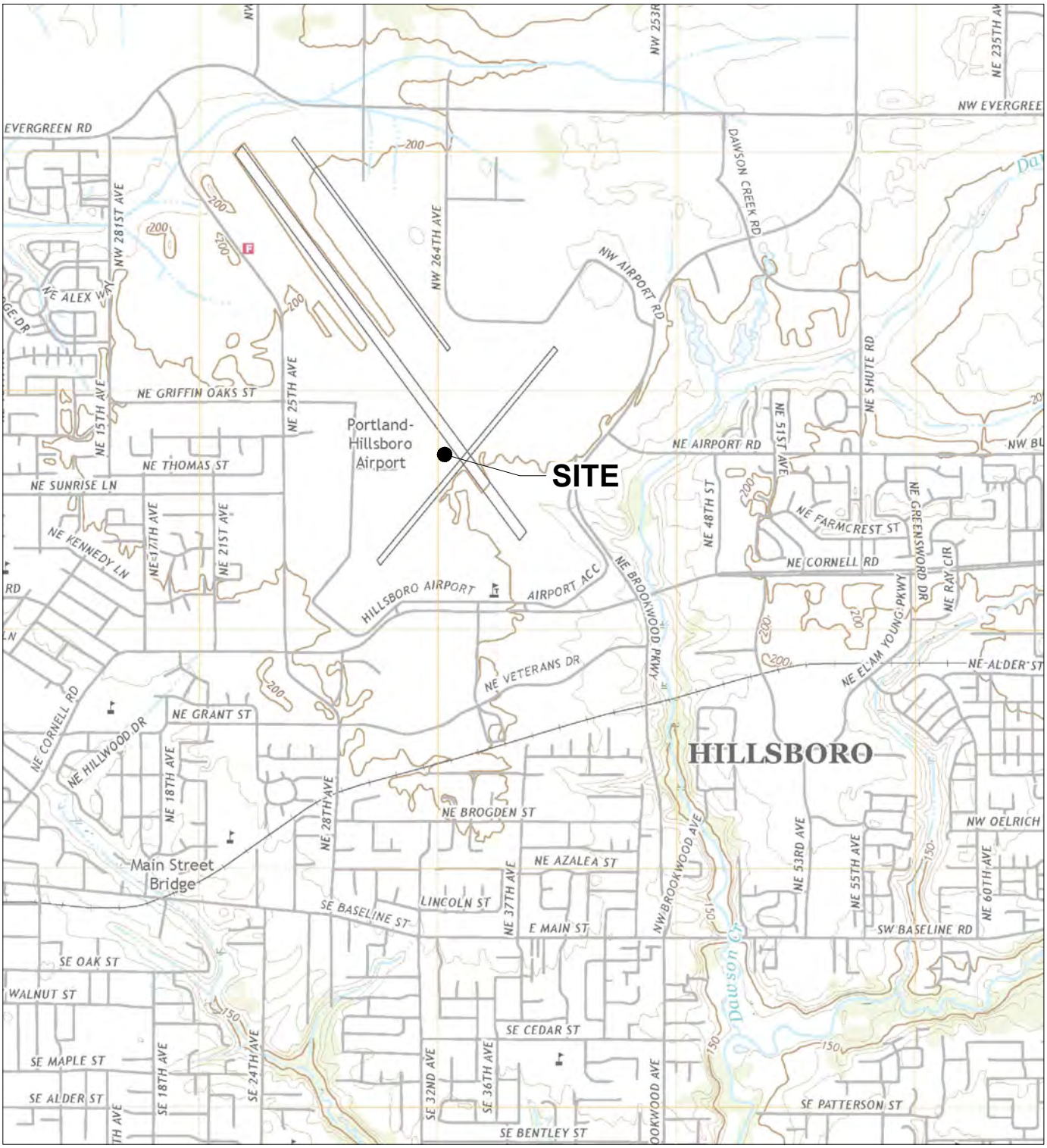
Senior Project Geologist



NOTE(S):

USGS, HILLSBORO QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)

0 2000 4000

SCALE IN FEET
1" = 2000'

N
W E

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DATE: 12-13-23
DWN: MW
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PROJECT NO: 10024-017

FIGURE 1
SITE LOCATION MAP
UST DECOMMISSIONING AND CLEANUP REPORT
TEUFEL HANGAR - HILLSBORO AIRPORT
3115 NE CORNELL ROAD
HILLSBORO, OREGON

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Legend

— — Subject Site Property Boundary (Approximate)

N W E S

0 100 200

SCALE IN FEET
1" = 100'

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PROJECT NO: 10024-017

FIGURE 2
SITE VICINITY
UST DECOMMISSIONING AND CLEANUP REPORT
TEUFEL HANGAR - HILLSBORO AIRPORT
3115 CORNELL ROAD
HILLSBORO, OREGON

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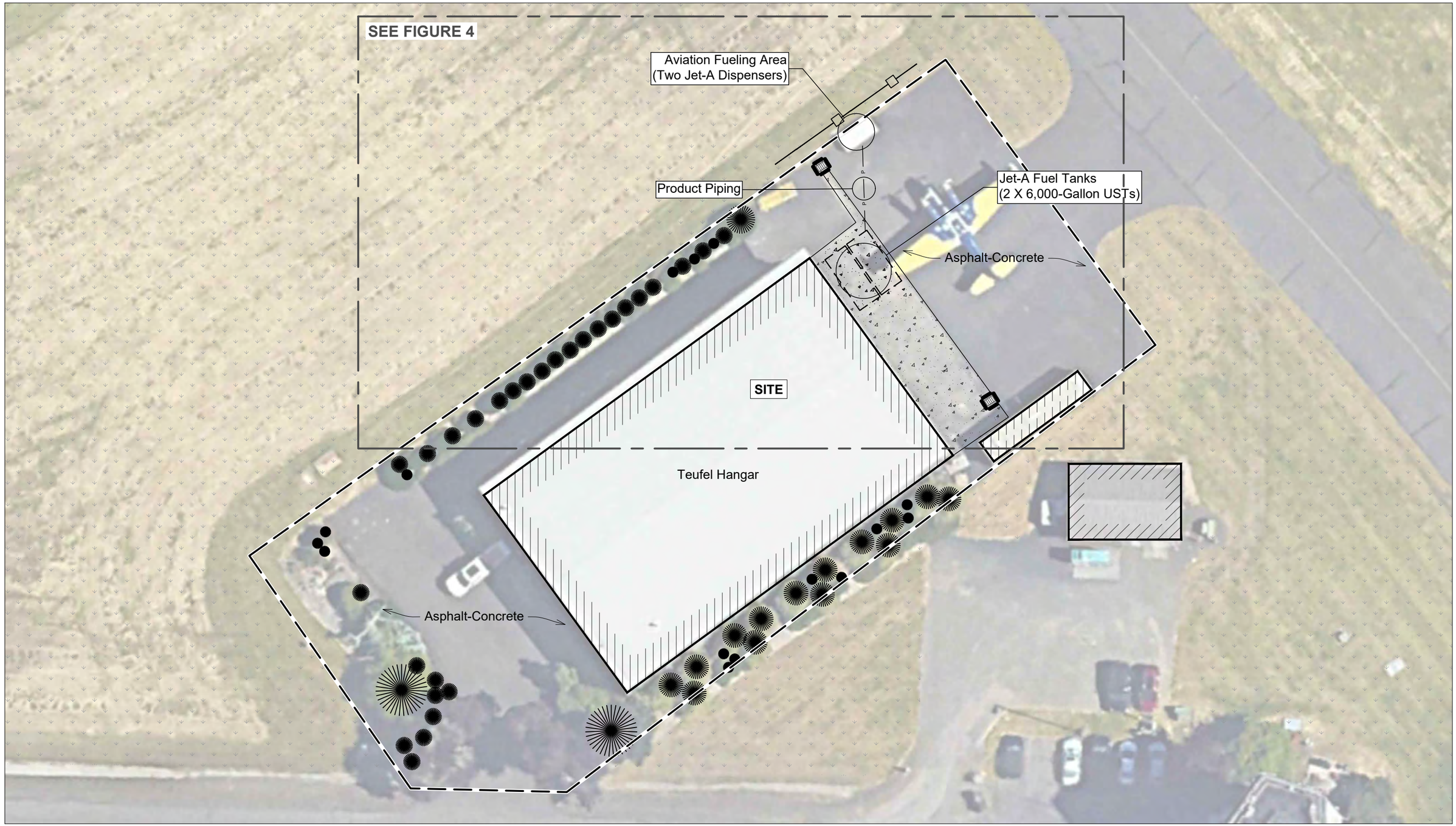

Legend

— — Subject Site Property Boundary (Approximate)

N W E S

0 30 60

SCALE IN FEET
1" = 30'

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FIGURE 3
SITE FEATURES
UST DECOMMISSIONING AND CLEANUP REPORT
TEUFEL HANGAR - HILLSBORO AIRPORT
3115 NE CORNELL ROAD
HILLSBORO, OREGON

S:\2023 Projects\10024-017.00 AEC Hillsboro Airport\Figures\10024-017.00_F1-F3 DRAFT_REV01.dwg

Sample Identification	Sample Depth (feet bgs)	Sample Date	DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Naphthalene
T1-SW-13.5	13.5	09/13/23	<26.8	<53.5	<0.0157	<0.0783	<0.0391	<0.117	<0.157
T1-NW-13.5	13.5	09/13/23	<26.5	<52.9	<0.0124	<0.0620	<0.0310	<0.0930	<0.124
T2-SE-13.5	13.5	09/13/23	<20.3	<40.5	<0.0120	<0.0600	<0.0300	<0.0900	<0.120
T2-NE-13.5	13.5	09/13/23	<25.9	<51.8	<0.0121	<0.0603	<0.0301	<0.0904	<0.121
Piping-1	2.5	09/13/23	<25.4	<50.7	<0.0128	<0.0641	<0.0320	<0.0961	<0.128
Disp-1	2.5	09/13/23	**90.7**	**41.1**	<0.00766	<0.0383	<0.0191	**0.0831**	**0.0969**
Disp-2-2.5	2.5	09/13/23	<25.8	<51.6	<0.0154	<0.0768	**0.0561**	**0.429**	<0.154
Disp-3-2.5	2.5	09/13/23	**1,730** F-13	<50.2	**0.176**	**3.49**	**3.14**	**20.8**	**4.33**
Disp-4-4.5	4.5	09/14/23	**1,820** F-13	<54.9	<0.149	<0.747	**0.829**	**14.7**	**3.08**
Disp-5-4.5	4.5	09/14/23	<25.3	<50.6	<0.0159	<0.0793	<0.0396	<0.119	<0.159
Applicable DEQ Risk-Based Concentrations[1]									
Volatilization to Outdoor Air (RBC $_{so}$)									
Occupational			>Max	>Max	50	>Csat	160	>Csat	83
Soil Ingestion, Dermal Contact, and Inhalation (RBC $_{ss}$)									
Construction Worker			4,600	11,000	380	28,000	1,700	20,000	580
Excavation Worker			>Max	>Max	11,000	770,000	49,000	560,000	16,000

NOTES:

bgs = below ground surface.

Chemical analyses performed by APEX Labs of Tigard, Oregon.

Diesel-Range Petroleum Hydrocarbons (DRPH) analyzed by Northwest Method NWTPH-Dx.

Oil-Range Petroleum Hydrocarbons (ORPH) analyzed by Northwest Method NWTPH-Dx.

Volatile Organic Compounds (VOCs) analyzed by EPA Method 8260D.

[1]Oregon Department of Environmental Quality (DEQ). Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites.

mg/kg = milligrams per kilogram (parts per million).

Bold indicates analyte detection.

Red Bold indicates the detected concentration exceeds one or more DEQ RBCs.

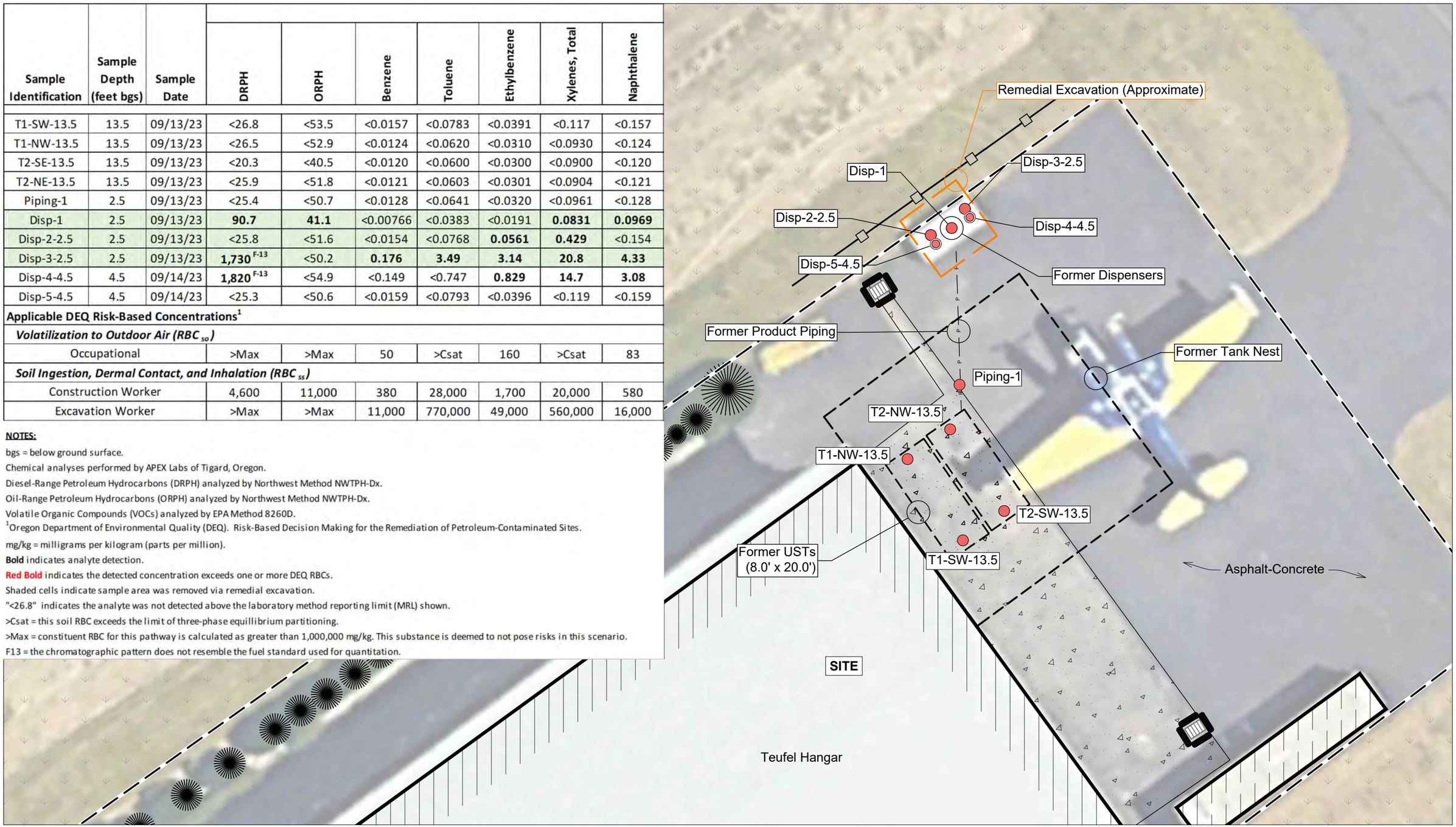
Shaded cells indicate sample area was removed via remedial excavation.

"<26.8" indicates the analyte was not detected above the laboratory method reporting limit (MRL) shown.

>Csat = this soil RBC exceeds the limit of three-phase equillibrium partitioning.

>Max = constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg. This substance is deemed to not pose risks in this scenario.

F13 = the chromatographic pattern does not resemble the fuel standard used for quantitation.



Legend

T1-SW-13.5 Compliance Soil Sample Location and Designation (HydroCon, 2023)

Disp-4-4.5 Confirmation Soil Sample Location and Designation (HydroCon, 2023)

Subject Site Property Boundary (Approximate)

N W E S

0 16 32

SCALE IN FEET
1" = 16'

HydroCon
An ACC Environmental Consultants, Inc. Company
3925 NE 72nd Avenue, Suite 103, Vancouver, Washington 98661
Phone 360.703.6079 Fax 360.703.6086

DATE: 12-14-23
DWN: MW
CHK: CS
APPROVED: CS
PRJ. MGR: CS
PROJECT NO: 10024-017

FIGURE 4
UST DECOMMISSIONING AND SOIL ANALYTICAL RESULTS
UST DECOMMISSIONING AND CLEANUP REPORT
TEUFEL HANGAR - HILLSBORO AIRPORT
3115 NE CORNELL ROAD
HILLSBORO, OREGON

S:\2023 Projects\10024-017.00 AEC Hillsboro Airport\Figures\10024-017.00_F1-F3 DRAFT_REV01.dwg

HydroCon
An ACC Environmental Consultants, Inc. Company

Table 1

Summary of Soil Analytical Results - DRPH and VOCs
Teufel Hangar - UST Decommissioning
Hillsboro Airport
3115 Cornell Road, Hillsboro, Oregon

Sample Identification	Sample Depth (feet bgs)	Sample Date	Soil Analytical Results in mg/kg						
			DRPH	ORPH	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Naphthalene
T1-SW-13.5	13.5	09/13/23	<26.8	<53.5	<0.0157	<0.0783	<0.0391	<0.117	<0.157
T1-NW-13.5	13.5	09/13/23	<26.5	<52.9	<0.0124	<0.0620	<0.0310	<0.0930	<0.124
T2-SE-13.5	13.5	09/13/23	<20.3	<40.5	<0.0120	<0.0600	<0.0300	<0.0900	<0.120
T2-NE-13.5	13.5	09/13/23	<25.9	<51.8	<0.0121	<0.0603	<0.0301	<0.0904	<0.121
Piping-1	2.5	09/13/23	<25.4	<50.7	<0.0128	<0.0641	<0.0320	<0.0961	<0.128
Disp-1	2.5	09/13/23	**90.7**	**41.1**	<0.00766	<0.0383	<0.0191	**0.0831**	**0.0969**
Disp-2-2.5	2.5	09/13/23	<25.8	<51.6	<0.0154	<0.0768	**0.0561**	**0.429**	<0.154
Disp-3-2.5	2.5	09/13/23	**1,730** F-13	<50.2	**0.176**	**3.49**	**3.14**	**20.8**	**4.33**
Disp-4-4.5	4.5	09/14/23	**1,820** F-13	<54.9	<0.149	<0.747	**0.829**	**14.7**	**3.08**
Disp-5-4.5	4.5	09/14/23	<25.3	<50.6	<0.0159	<0.0793	<0.0396	<0.119	<0.159
Applicable DEQ Risk-Based Concentrations[1]									
Volatilization to Outdoor Air (RBC$_{so}$)									
Occupational			>Max	>Max	50	>Csat	160	>Csat	83
Soil Ingestion, Dermal Contact, and Inhalation (RBC$_{ss}$)									
Construction Worker			4,600	11,000	380	28,000	1,700	20,000	580
Excavation Worker			>Max	>Max	11,000	770,000	49,000	560,000	16,000

NOTES:

bgs = below ground surface.

Chemical analyses performed by APEX Labs of Tigard, Oregon.

Diesel-Range Petroleum Hydrocarbons (DRPH) analyzed by Northwest Method NWTPH-Dx.

Oil-Range Petroleum Hydrocarbons (ORPH) analyzed by Northwest Method NWTPH-Dx.

Volatile Organic Compounds (VOCs) analyzed by EPA Method 8260D.

[1]Oregon Department of Environmental Quality (DEQ). Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites.

mg/kg = milligrams per kilogram (parts per million).

Bold indicates analyte detection.

Red Bold indicates the detected concentration exceeds one or more DEQ RBCs.

Shaded cells indicate sample area was removed via remedial excavation.

"<26.8" indicates the analyte was not detected above the laboratory method reporting limit (MRL) shown.

>Csat = this soil RBC exceeds the limit of three-phase equillibrium partitioning.

>Max = constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg. This substance is deemed to not pose risks in this scenario.

F13 = the chromatographic pattern does not resemble the fuel standard used for quantitation.

Table 2
Summary of Soil Analytical Results - PAHs
Teufel Hangar - UST Decommissioning
Hillsboro Airport
3115 Cornell Road, Hillsboro, Oregon

Sample Identification	Sample Depth (feet bgs)	Sample Date	Soil Analytical Results in mg/kg																		
			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carbazole	Dibenzofuran
Disp-3-2.5	2.5	09/13/23	<0.0720	<0.0350	<0.0350	<0.0350	<0.0524	<0.0524	<0.0524	<0.0350	<0.0350	<0.0350	<0.0350	**0.0908**	<0.0350	**3.05**	**4.44**	**2.21**	<0.0350	<0.0350	<0.0524	<0.0812
Applicable DEQ Risk-Based Concentrations[1]																					
Volatilization to Outdoor Air (RBC $_{so}$)																					
Occupational			>Max	NL	>Max	>Csat	NV	NV	NV	NL	NV	NV	NV	>Max	NV	NL	NL	83	NL	>Csat	NL	NL
Soil Ingestion, Dermal Contact, and Inhalation (RBC $_{ss}$)																					
Construction Worker			21,000	NL	110,000	170	17	170	1,700	NL	17,000	17	10,000	14,000	170	NL	NL	580	NL	7,500	NL	NL
Excavation Worker			590,000	NL	>Max	4,800	490	4,900	49,000	NL	490,000	490	280,000	390,000	4,800	NL	NL	1,600	NL	210,000	NL	NL

NOTES:

bgs = below ground surface.
Chemical analyses performed by APEX Labs of Tigard, Oregon.
Polyaromatic Hydrocarbons (PAHs) analyzed by EPA Method 8270E.
[1]Oregon Department of Environmental Quality (DEQ). Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites.
mg/kg = milligrams per kilogram (parts per million).
Bold indicates analyte detection.
Red indicates analyte concentration exceeding one or more applicable RBCs.
"<0.0720" indicates the analyte was not detected above the laboratory method reporting limit (MRL) shown.
>Csat = this soil RBC exceeds the limit of three-phase equillibrium partitioning.
>Max = this constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg. Therefore, this substance is deemed to not pose risks in this scenario.
NL = chemical not listed.
NV = chemical is considered non-volatile.
Shaded cells indicate sample area was removed via remedial excavation.

APPENDIX A
HISTORICAL DOCUMENTS

TIM O'GARA, R.G.
CONSULTING HYDROGEOLOGIST

February 26, 2020

Mark Drouin
Oregon DEQ
700 NE Multnomah

Re: Teufel Hanger tank leak

Mark,

A fuel leak was discovered at the Teufel hanger on the Hillsboro Airport property. After it was reported to the DEQ and airport management, a workplan was developed to begin to identify the extent of any environmental impacts from that leak.

Sample Collection

On February 10, 2020, six borings were installed around the perimeter of the tank pit. A soil sample was collected at the soil/water interface in each boring and a water sample was collected from five of the six borings. Figure 1 shows the site location. Figure 2 shows the sampling locations around the tank.

Before any borings were installed, each individual location was "cleared" by an on-site locate service. Boring B-1 was initially started at the edge of the concrete slab that covered the tank pit

The tank pit is located in a NW-SE direction. There are two 6,000 gallon tanks in the pit. The leak is apparently in the piping from the tank that is closest to the hanger. There is a fueling station along the northwest edge of the asphalt pad.

Boring B-1 was located at what we considered to be the edge of the tank pit. However, it turns out that the tank pit extends quite a few feet past the ends of the tanks. When we started the initial boring, we found that we were still inside the pit because we encountered only pea gravel in the 0-5-foot soil core. We moved another 5 feet to the southeast so we could get down into native soil for the second attempt at boring B-1.

The boring was drilled down to a depth of 15 feet, and it encountered first water at just below 9 feet below grade. A soil sample from the soil/water interface was collected from the 9-foot depth. Once the boring continued deeper, the water, which is under semi-confined conditions, rose up in the boring to 3.9 feet below grade. A water sample was also collected from this location before the hole was closed.

Boring B-2 was placed between the tank pit and the hanger doors. Because the hanger doors are just about 3 feet from the concrete slab that covers the tank pit, we were not able to get far enough away from the pit to avoid drilling in the pit itself.

650 Charman St. • Oregon City Oregon 97045 • TimogaraRGeo@gmail.com • Office 503.908.8977 • Cell 503.307.8916

Figure 1
Site Location

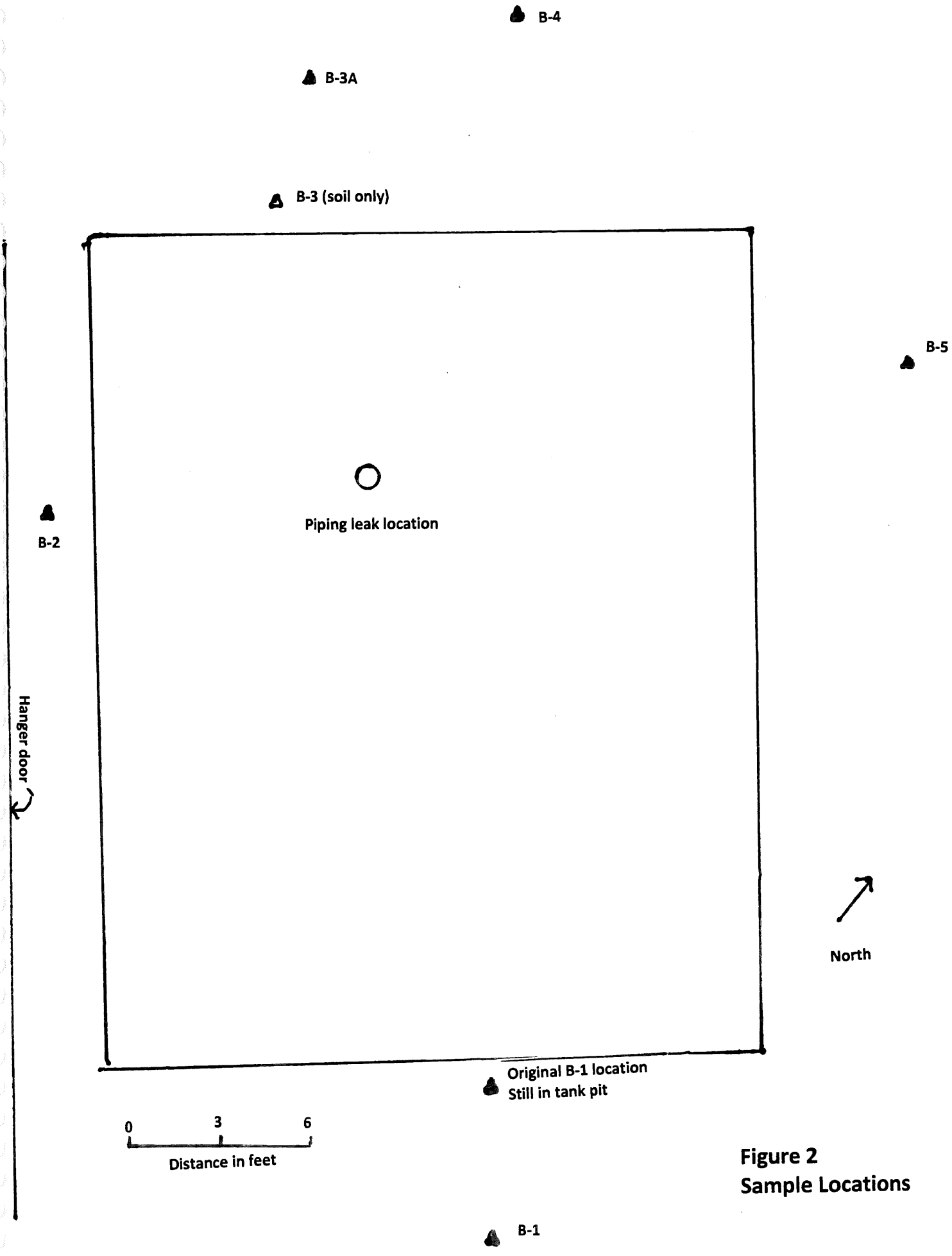


Figure 2
Sample Locations

Since we were drilling inside the pit, we used this boring to grab a pit bottom sample and to collect a tank pit water sample. The bottom of the tank pit was found at 8.5 feet. Water in the pit was at 3.9 feet below grade.

Boring B-3 was located at the northwest edge of the concrete that covered the tank pit. Once again, we grabbed a soil sample at the bottom of the pit, but this time we did not pull a water sample.

Since we wanted to get a soil sample from northwest of the pit between the pit and the fueling area, we stepped back another 7 feet to the northwest and installed boring B-3A.

Boring B-3A encountered native soil all the way down to its total depth of i5 feet. As usual for this area, we hit ground water at 8 feet and collected a soil sample from just above the soil/water interface. A water sample was collected from this boring as well.

Boring B-4 was also placed along the northwest side of the tank pit. There was a slight odor of fuel in the soil sample from eight feet, but nothing from the deeper samples.

The final boring, B-5, was placed on the north east side of the pit. It was placed relatively near to the northwest corner of the pit because the piping leak was at that end of the tank pit and we wanted to see if it had spread laterally

Analytical Results

Each soil and water sample was initially analyzed for gasoline and diesel range hydrocarbons. Once the data was available, it was determined by the lab that what was being detected in the water is only Jet A fuel.

The lab was not able to make a similar a determination in the case of the soil samples because of the low level of contamination that was detected in the soil, but for the sake of this report, we are going to assume that since there is nothing except for Jet A in the ground water, any gasoline range hits in the soil are also Jet A. If there was gasoline in the soil, we would have found other compounds such as benzene, which was not detected in the sample results.

Once we received the initial Dx and Gx sample results, and the contaminants were identified as Jet A, two soil samples and two water samples that had the highest concentrations of fuel were also selected for complete PAH and volatile organic compound analyses.

Table 1 shows the initial Dx and Gx sample soil results. Table 2 shows the initial water results. The lab also included Jet A results when it was detected.

Table 1
Initial Soil results
Results in mg/kg

Sample Number	Diesel Range hydrocarbons	Gasoline range hydrocarbons (assume to be Jet A)
B-1-9	ND	ND
B-2-9	ND	6.18
B-3-10	ND	ND
B-3A-10	ND	ND
B-4-8	ND	29.0
B-5-8	ND	ND

Note: ND means nothing detected at the Method Reporting Level

Table 2
Initial Water Results
Results in mg/l

Location	Diesel Range Hydrocarbons	Gasoline Range Hydrocarbons	Jet A
B-1-W	ND	ND	1.35
B-2-W	ND	ND	3.10
B-3A-W	ND	ND	1.07
B-4-W	ND	ND	82.6
B-5-W	ND	ND	0.686

Note: ND means nothing detected at the Method Reporting Level,

Based on the slightly elevated levels that were detected in B-2 and B-4, all samples from those two borings were also analyzed for PAHs using EPA Method 8270E and volatile organic compounds using EPA Method 8260D. These results are shown in table 3 for soil and table 4 for water. Because the lists of potential compounds are so long, I am only listing compounds that were detected and that have Risk-Based Concentrations (RBCs) that have been identified by the Oregon DEQ.

Table 3
VOCs in Soil
Results in mg/kg

Compound	B-2-9	B-4-8	Vapor Intrusion into Building	Excavation Worker	Leach to ground water
1,.24 Trimethylbenzene	0.0384	ND	>Csat	81,000	48
1,3,5 trimethylbenzene	0.0211	ND	>Csat	81,000	53
Naphthalene	0.0178	ND	83	16,000	0.34

Notes: ND means nothing detected at the Method Reporting Level
>Csat means This RBC exceeds the limit of three-phase equilibrium partitioning
No PAHs were detected in these samples

Table 4
PAHs and VOCs in Ground Water
Results in ug/l

Compound	B-2-W	B-4-W	Vapor Intrusion into buildings RBC	Excavation Worker RBC
Acenaphthene	0.357	0.210	>S	>S
Fluorene	0.727	0.385	>S	>S
Naphthalene	55.3	1.95	11,000	500
1,2,4 trimethylbenzene	372	125	>S	6,300
1,3,5 trimethylbenzene	116	46.2	>S	7,500
isopropylbenzene	12.7	1.62	>S	>S
Toluene	1.42	ND	>S	220,000

Notes: RBCs are for occupational settings
ND means nothing detected at the Method Reporting Level
>S means the ground water RBC exceeds the solubility limit

Conceptual Site Model

This site is considered to be a Occupational site, so we will review the sample results using the Occupational Risk- Based Concentrations (RBCs). Because the site contains both soil and ground water, we will evaluate all potential pathways for coming impacting people.

Soil

Soil ingestion, Dermal Contact and Inhalation – Because the site is completely paved, the only potential contact with people would be from an excavation worker who is working on the site. For that reason, this pathway is potentially complete. However, due to the extremely low levels of contaminants are well below the applicable RBC, this pathway is not complete.

Vapor Intrusion into Buildings- The hanger is within 3-5 feet of the tank pit, so there is a potential pathway for vapor intrusion of volatile compounds into the building. However, RBCs that have been set for this pathway, and the extremely low levels of volatile compounds that were detected, there is no danger of this potential pathway being completed.

Leaching to Ground Water – Because some soil contamination has been detected, there is the potential for this pathway to be complete. However, once again with the extremely low levels of contamination that was detected in the soil, it does not appear that leaching into groundwater will happen.

Ground Water- We are not evaluating the ingestion from tap water risk for the ground water portion of this Conceptual Site Model because the water supply for the area is taken from deep wells that are off site. The other potential risk pathways are evaluated below.

Volatilization to outdoor air – Because there is water in the tank pit at a relatively shallow depth, this is a potential pathway. However, the levels of potential contaminants that were detected are well below the appropriate RBC, we do not consider this potential pathway to be completed.

Vapor intrusion into Buildings - The edge of the tank pit is within 3-5 feet of the tank pit and we have identified ground water contamination at that distance from the pit in B-3A, B-4 and B-5. Based on that data, there is a potential for vapor intrusion into the hanger building. In this case, as you can see from Table 4, the contamination level that was detected is well below the applicable RBCs and therefore this pathway is not considered to be complete.

Ground Water in an Excavation – Since there will be a need for a worker to enter the pit to repair the leaky piping on the tank, there is a possibility that that worker will come into contact with contaminated ground water. Thus, this potential pathway is considered to be potentially be complete and needs to be studied. Once again, the RBCs for this are shown in Table 4, and it can be seen that the levels of contaminants are well below acceptable levels, so there is no risk for workers. With that in mind, this potential pathway is not considered to be complete.

Discussion

A fuel leak was discovered in the piping for one of the two 6.000-gallon Jet A fuel tanks that are in the tank pit at this facility. The piping for that tank was drained and the tanks were taken out of service at that time.

After gaining permission from the DEQ and the Port of Portland, a workplan was developed for this work, The work was completed on February 10, 2020.

- The sampling results have confirmed that the tanks did only contain jet A fuel.
- The sampling has shown that the native soils around the tank pit have been impacted by the leak
- Contaminant levels in both the soil and ground water are well below any applicable RBCs that have been set by the DEQ for an Occupational site.

Based on this initial work, we suggest that we have discussions with the DEQ to decide on the next step. We do know that the complete lateral extent of the impact has not been determined throughout the entire area, and that needs to happen, but based on the low levels of contaminants in the ground water, we are hoping to do that with borings instead of monitoring wells.

At this time, we suggest that the site operator excavate down to the leaking pipeline and repair it so they can get back into normal operations. Due to the clayey soils in the area, we do not expect the plume of contaminated water to expand during that operation.

Once the piping leak is fixed there will be time to come back in and complete the investigation to determine the lateral and vertical extent of contamination.

Respectfully Submitted,

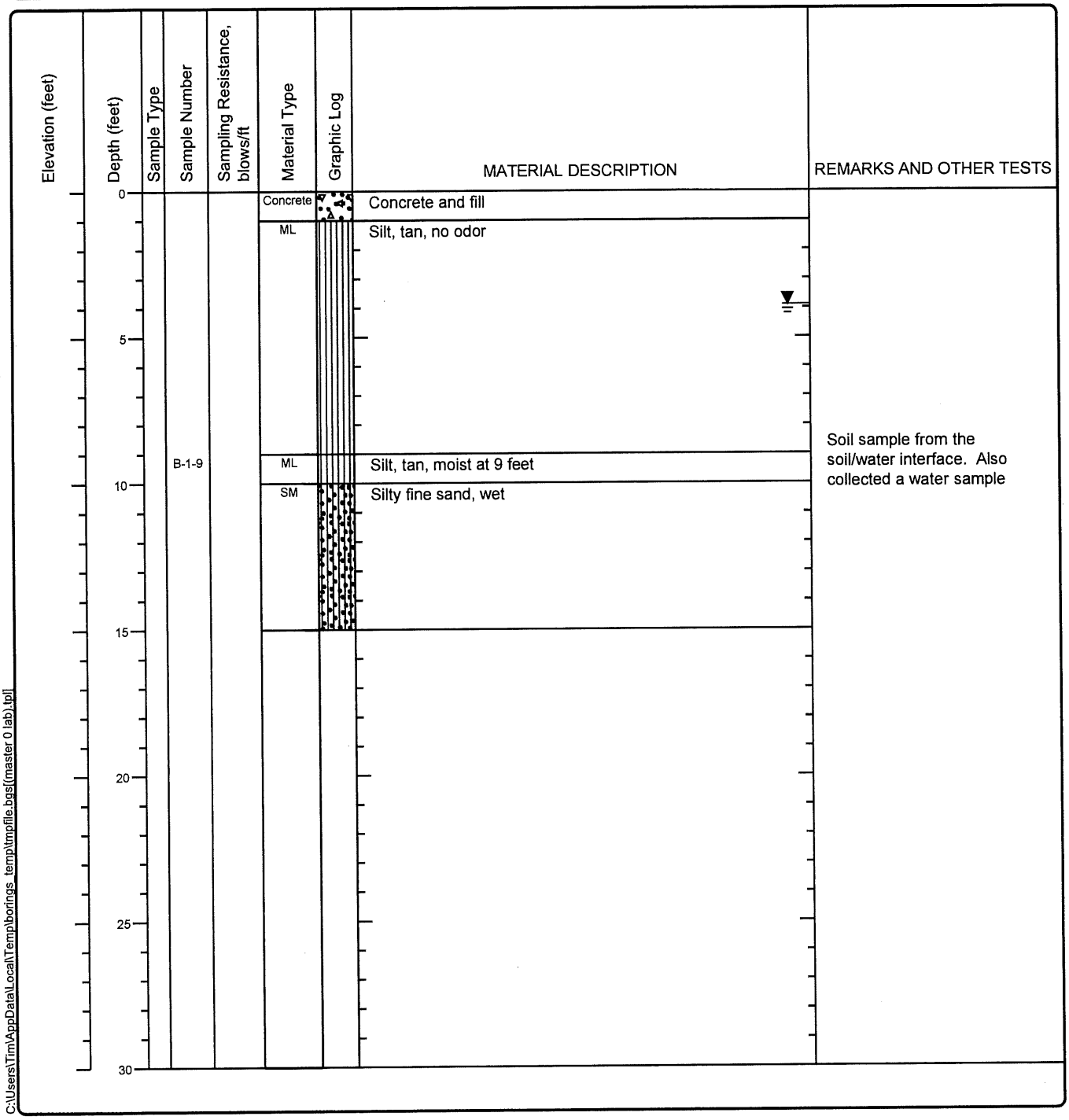
Tim O'Gara R.G.
Consulting Hydrogeologist

Attachment A

Boring Logs

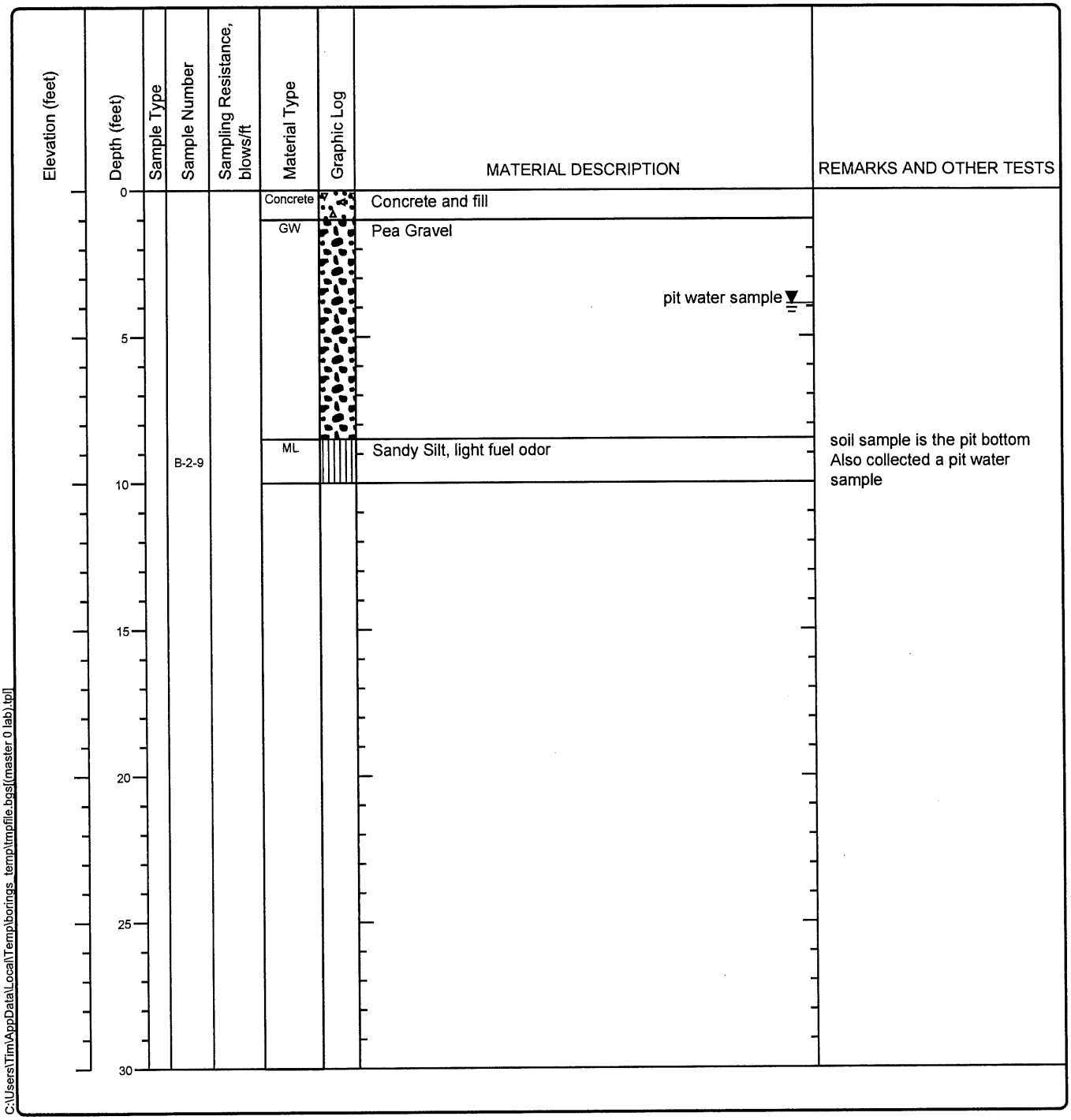
Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd, Hillsboro** Project Number:	**Log of Boring B-1** **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd. ,Hillsboro** Project Number:	**Log of Boring B-2** **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



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Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd. ,Hillsboro** Project Number:	**Log of Boring B-3** **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				Asphalt		Asphalt and fill	
					GP		gravel and Coarse Sand wet at 8 ft.	
	5							
	10		B-3-10		SM		Silty Sand, light fuel odor	pit bottom sample
	15							
	20							
	25							
	30							

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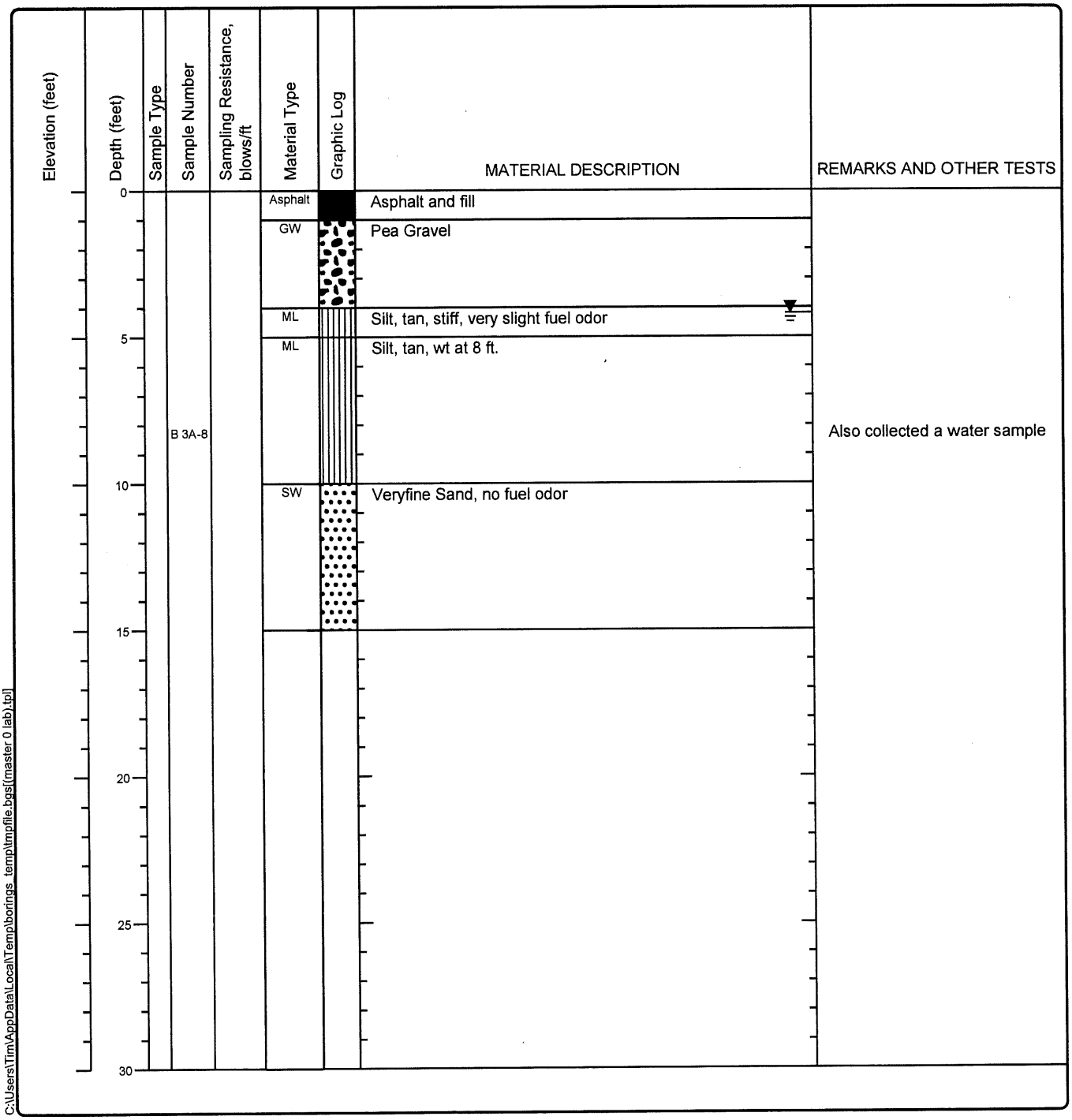
Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd. ,Hillsboro** Project Number:	Log of Boring B-3A **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



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Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd. ,Hillsboro** Project Number:	**Log of Boring B-4** **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				Asphalt		Asphalt and fill	
					ML		Silt, fuel odor	
	5				SP		Fine sand, light fuel odor	
			B-4-8					Also collected water sample. Water rose to 3.6 feet in boring
	10				SW		fine sand, tan, no fuel odor, wet at 8 feet	
	15							
	20							
	25							
	30							

C:\Users\Tim\AppData\Local\Temp\borings temp\tmpfile.bgs[(master 0 lab).tpl]

Project: **Teufel Hanger Tank Leak** Project Location: **3115 NE Cornell Rd. ,Hillsboro** Project Number:	**Log of Boring B-5** **Sheet 1 of 1**

Date(s) Drilled **February 10, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				Asphalt		Asphalt and fill	
					CL-ML		Silty Clay, tan, no fuel odor	
	5				SM		Silty Sand with minor Clay, wet at 9 ft.	
			B-5-8					Also collected a water sample, Water rose to 3.8 feet in the boring
	10				SM		Silty Sand, no clay mixture	
	15							
	20							
	25							
	30							

C:\Users\Tim\AppData\Local\Temp\borings_temp\tmpfile.bgs[(master 0 lab).tpl]

Attachment B

Lab Data Report

Specialty Analytical

9011 SE Jannsen Rd
Clackamas, Oregon 97015
TEL: 503-607-1331 FAX: 503-607-1336
Website: www.specialtyanalytical.com

February 25, 2020

Tim O'Gara
Tim O'Gara R.G.
650 Charman Street
Oregon City, OR 97045

TEL:
FAX (503) 266-5974

RE: Teufel Nursery

Dear Tim O'Gara:

Order No.: 2002079

Specialty Analytical received 12 sample(s) on 2/10/2020 for the analyses presented in the following report.

REVISED REPORT: Please see case narrative for information on revision.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Case Narrative

WO#: **2002079**

Date: **2/25/2020**

CLIENT: Tim O'Gara R.G.

Project: Teufel Nursery

The product detemined is Jet-A or -A1, a kerosene derived fuel for turbine aircraft. It exhibits in both the NWTPH-Dx and -Gx range due to having a boiling point range from C8 to C16. To most accurately quantify the results, it should be analyzed using NWTPH-Dx, and quantified using a kerosene or Jet-A standard with retention time markers from C8 to C16/18.
Soil samples analyzed for gasoline showed evidence of low level hits. Due to the low level of the hits pattern recognition identification was not possible.

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-001
Client Sample ID: B-1-9

Collection Date: 2/10/2020 9:55:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.5		mg/Kg-dry	1	2/13/2020 2:47:10 AM
Lube Oil	ND	68.5		mg/Kg-dry	1	2/13/2020 2:47:10 AM
Surr: o-Terphenyl	71.7	50-150		%REC	1	2/13/2020 2:47:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	3.78		mg/Kg-dry	1	2/13/2020 10:30:00 PM
Surr: 4-Bromofluorobenzene	97.7	50-150		%REC	1	2/13/2020 10:30:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-002
Client Sample ID: B-1-W

Collection Date: 2/10/2020 10:04:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	0.117	A3	mg/L	1	2/12/2020 8:50:30 PM
Jet-A	1.35	0.146		mg/L	1	2/13/2020 3:40:30 PM
Lube Oil	ND	0.292		mg/L	1	2/12/2020 8:50:30 PM
Surr: o-Terphenyl	91.9	50-150		%REC	1	2/12/2020 8:50:30 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	100	A3,CN	µg/L	1	2/11/2020 2:41:43 AM
Surr: 4-Bromofluorobenzene	102	50-150		%REC	1	2/11/2020 2:41:43 AM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-003
Client Sample ID: B-2-9

Collection Date: 2/10/2020 10:31:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.4		mg/Kg-dry	1	2/13/2020 3:10:10 AM
Lube Oil	ND	68.1		mg/Kg-dry	1	2/13/2020 3:10:10 AM
Surr: o-Terphenyl	71.9	50-150		%REC	1	2/13/2020 3:10:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	6.18	3.76	CN	mg/Kg-dry	1	2/13/2020 10:57:00 PM
Surr: 4-Bromofluorobenzene	97.9	50-150		%REC	1	2/13/2020 10:57:00 PM
PAH'S BY GC/MS - LOW LEVEL		**SW8270E**				Analyst: **CK**
1-Methylnaphthalene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
2-Methylnaphthalene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Acenaphthene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Acenaphthylene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Anthracene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Benz(a)anthracene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Benzo(a)pyrene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Benzo(b)fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Benzo(g,h,i)perylene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Benzo(k)fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Chrysene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Dibenz(a,h)anthracene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Fluorene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Indeno(1,2,3-cd)pyrene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Naphthalene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Phenanthrene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Pyrene	ND	3.33		µg/Kg	1	2/21/2020 8:01:00 PM
Surr: 2-Fluorobiphenyl	60.9	42.6-128		%REC	1	2/21/2020 8:01:00 PM
Surr: Nitrobenzene-d5	57.1	21.7-155		%REC	1	2/21/2020 8:01:00 PM
Surr: p-Terphenyl-d14	106	44.9-155		%REC	1	2/21/2020 8:01:00 PM
RBC VOLATILES VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260D**				Analyst: **CK**
1,2,4-Trimethylbenzene	34.8	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
1,2-Dibromoethane	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
1,2-Dichloroethane	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
1,3,5-Trimethylbenzene	21.1	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Benzene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Ethylbenzene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-003
Client Sample ID: B-2-9

Collection Date: 2/10/2020 10:31:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
RBC VOLATILES VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260D**				Analyst: **CK**
Isopropylbenzene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
m,p-Xylene	ND	34.5		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Methyl tert-butyl ether	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Naphthalene	17.8	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
n-Propylbenzene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
o-Xylene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Toluene	ND	17.2		µg/Kg-dry	1	2/20/2020 6:54:00 PM
Surr: 1,2-Dichloroethane-d4	89.8	71.5-124		%REC	1	2/20/2020 6:54:00 PM
Surr: 4-Bromofluorobenzene	109	75.7-122		%REC	1	2/20/2020 6:54:00 PM
Surr: Dibromofluoromethane	102	64.3-124		%REC	1	2/20/2020 6:54:00 PM
Surr: Toluene-d8	97.1	74.9-120		%REC	1	2/20/2020 6:54:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-004
Client Sample ID: B-2-W

Collection Date: 2/10/2020 10:48:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	0.0943	A3	mg/L	1	2/12/2020 9:12:30 PM
Jet-A	3.10	0.118		mg/L	1	2/13/2020 4:03:30 PM
Lube Oil	ND	0.236		mg/L	1	2/12/2020 9:12:30 PM
Surr: o-Terphenyl	105	50-150		%REC	1	2/12/2020 9:12:30 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	100	A3,CN	µg/L	1	2/11/2020 3:08:43 AM
Surr: 4-Bromofluorobenzene	114	50-150		%REC	1	2/11/2020 3:08:43 AM
PAH'S BY GC/MS - LOW LEVEL		**SW8270E**				Analyst: **CK**
1-Methylnaphthalene	38.8	0.686		µg/L	10	2/17/2020 3:56:00 PM
2-Methylnaphthalene	42.7	0.686		µg/L	10	2/17/2020 3:56:00 PM
Acenaphthene	0.357	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Acenaphthylene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Anthracene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Benz(a)anthracene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Benzo(a)pyrene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Benzo(b)fluoranthene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Benzo(g,h,i)perylene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Benzo(k)fluoranthene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Carbazole	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Chrysene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Dibenz(a,h)anthracene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Dibenzofuran	0.755	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Fluoranthene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Fluorene	0.727	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Naphthalene	55.3	0.686		µg/L	10	2/17/2020 3:56:00 PM
Phenanthrene	0.206	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Pyrene	ND	0.0686		µg/L	1	2/17/2020 12:38:00 PM
Surr: 2-Fluorobiphenyl	71.7	18.6-106		%REC	1	2/17/2020 12:38:00 PM
Surr: Nitrobenzene-d5	62.1	17-130		%REC	1	2/17/2020 12:38:00 PM
Surr: Terphenyl-d14	107	39.6-131		%REC	1	2/17/2020 12:38:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 10:48:00 AM
Project: Teufel Nursery
Lab ID: 2002079-004
Client Sample ID: B-2-W
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2,4-Trimethylbenzene	372	10.0		µg/L	10	2/17/2020 12:18:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,3,5-Trimethylbenzene	116	10.0		µg/L	10	2/17/2020 12:18:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
2-Butanone	ND	10.0		µg/L	1	2/17/2020 1:00:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
2-Hexanone	ND	10.0		µg/L	1	2/17/2020 1:00:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
4-Isopropyltoluene	30.9	1.00		µg/L	1	2/17/2020 1:00:00 PM
4-Methyl-2-pentanone	ND	10.0		µg/L	1	2/17/2020 1:00:00 PM
Acetone	ND	20.0		µg/L	1	2/17/2020 1:00:00 PM
Acrylonitrile	ND	5.00		µg/L	1	2/17/2020 1:00:00 PM
Benzene	ND	0.300		µg/L	1	2/17/2020 1:00:00 PM
Bromobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Bromochloromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Bromoform	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Bromomethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Carbon disulfide	ND	2.00		µg/L	1	2/17/2020 1:00:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Chlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Chloroethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Chloroform	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Chloromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 10:48:00 AM
Project: Teufel Nursery
Lab ID: 2002079-004
Client Sample ID: B-2-W
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Dibromomethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Dichlorodifluoromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Ethylbenzene	12.4	1.00		µg/L	1	2/17/2020 1:00:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Isopropylbenzene	12.7	1.00		µg/L	1	2/17/2020 1:00:00 PM
m,p-Xylene	27.4	2.00		µg/L	1	2/17/2020 1:00:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Methylene chloride	ND	50.0		µg/L	1	2/17/2020 1:00:00 PM
Naphthalene	136	10.0		µg/L	10	2/17/2020 12:18:00 PM
n-Butylbenzene	22.9	1.00		µg/L	1	2/17/2020 1:00:00 PM
n-Propylbenzene	25.7	1.00		µg/L	1	2/17/2020 1:00:00 PM
o-Xylene	51.8	1.00		µg/L	1	2/17/2020 1:00:00 PM
sec-Butylbenzene	11.0	1.00		µg/L	1	2/17/2020 1:00:00 PM
Styrene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Toluene	1.42	1.00		µg/L	1	2/17/2020 1:00:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Trichloroethene	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Vinyl chloride	ND	1.00		µg/L	1	2/17/2020 1:00:00 PM
Surr: 1,2-Dichloroethane-d4	95.1	75.3-126		%REC	1	2/17/2020 1:00:00 PM
Surr: 4-Bromofluorobenzene	107	78.1-120		%REC	1	2/17/2020 1:00:00 PM
Surr: Dibromofluoromethane	103	74.2-122		%REC	1	2/17/2020 1:00:00 PM
Surr: Toluene-d8	86.6	76.2-135		%REC	1	2/17/2020 1:00:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 11:05:00 AM
Project: Teufel Nursery
Lab ID: 2002079-005
Client Sample ID: B-3-10
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.6		mg/Kg-dry	1	2/13/2020 3:32:10 AM
Lube Oil	ND	68.7		mg/Kg-dry	1	2/13/2020 3:32:10 AM
Surr: o-Terphenyl	71.7	50-150		%REC	1	2/13/2020 3:32:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	3.80		mg/Kg-dry	1	2/13/2020 11:25:00 PM
Surr: 4-Bromofluorobenzene	95.8	50-150		%REC	1	2/13/2020 11:25:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-006
Client Sample ID: B-3A-8

Collection Date: 2/10/2020 11:17:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.5		mg/Kg-dry	1	2/13/2020 4:16:10 AM
Lube Oil	ND	68.2		mg/Kg-dry	1	2/13/2020 4:16:10 AM
Surr: o-Terphenyl	73.9	50-150		%REC	1	2/13/2020 4:16:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	3.76		mg/Kg-dry	1	2/14/2020 1:13:00 AM
Surr: 4-Bromofluorobenzene	96.5	50-150		%REC	1	2/14/2020 1:13:00 AM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 11:36:00 AM
Project: Teufel Nursery
Lab ID: 2002079-007
Client Sample ID: B-3A-W
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	0.102	A3	mg/L	1	2/12/2020 9:35:30 PM
Jet-A	1.07	0.128		mg/L	1	2/13/2020 4:25:30 PM
Lube Oil	ND	0.256		mg/L	1	2/12/2020 9:35:30 PM
Surr: o-Terphenyl	78.6	50-150		%REC	1	2/12/2020 9:35:30 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	100	A3,CN	µg/L	1	2/11/2020 3:36:43 AM
Surr: 4-Bromofluorobenzene	104	50-150		%REC	1	2/11/2020 3:36:43 AM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 12:11:00 PM
Project: Teufel Nursery
Lab ID: 2002079-008
Client Sample ID: B-4-8
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.1		mg/Kg-dry	1	2/13/2020 5:23:10 AM
Lube Oil	ND	67.1		mg/Kg-dry	1	2/13/2020 5:23:10 AM
Surr: o-Terphenyl	72.5	50-150		%REC	1	2/13/2020 5:23:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	29.0	3.72	CN	mg/Kg-dry	1	2/14/2020 1:41:00 AM
Surr: 4-Bromofluorobenzene	96.7	50-150		%REC	1	2/14/2020 1:41:00 AM
PAH'S BY GC/MS - LOW LEVEL		**SW8270E**				Analyst: **CK**
1-Methylnaphthalene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
2-Methylnaphthalene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Acenaphthene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Acenaphthylene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Anthracene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Benz(a)anthracene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Benzo(a)pyrene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Benzo(b)fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Benzo(g,h,i)perylene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Benzo(k)fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Chrysene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Dibenz(a,h)anthracene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Fluoranthene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Fluorene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Indeno(1,2,3-cd)pyrene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Naphthalene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Phenanthrene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Pyrene	ND	3.33		µg/Kg	1	2/21/2020 7:34:00 PM
Surr: 2-Fluorobiphenyl	63.2	42.6-128		%REC	1	2/21/2020 7:34:00 PM
Surr: Nitrobenzene-d5	59.5	21.7-155		%REC	1	2/21/2020 7:34:00 PM
Surr: p-Terphenyl-d14	107	44.9-155		%REC	1	2/21/2020 7:34:00 PM
RBC VOLATILES VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260D**				Analyst: **CK**
1,2,4-Trimethylbenzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
1,2-Dibromoethane	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
1,2-Dichloroethane	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
1,3,5-Trimethylbenzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Benzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Ethylbenzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 12:11:00 PM
Project: Teufel Nursery
Lab ID: 2002079-008
Client Sample ID: B-4-8
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
RBC VOLATILES VOLATILE ORGANIC COMPOUNDS BY GC/MS		**SW8260D**				Analyst: **CK**
Isopropylbenzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
m,p-Xylene	ND	33.7		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Methyl tert-butyl ether	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Naphthalene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
n-Propylbenzene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
o-Xylene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Toluene	ND	16.8		µg/Kg-dry	1	2/20/2020 9:30:00 PM
Surr: 1,2-Dichloroethane-d4	84.6	71.5-124		%REC	1	2/20/2020 9:30:00 PM
Surr: 4-Bromofluorobenzene	101	75.7-122		%REC	1	2/20/2020 9:30:00 PM
Surr: Dibromofluoromethane	94.7	64.3-124		%REC	1	2/20/2020 9:30:00 PM
Surr: Toluene-d8	99.5	74.9-120		%REC	1	2/20/2020 9:30:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-009
Client Sample ID: B-4-W

Collection Date: 2/10/2020 12:22:00 PM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	0.103	A3	mg/L	1	2/12/2020 10:42:30 PM
Jet-A	82.6	0.643		mg/L	5	2/14/2020 10:08:30 AM
Lube Oil	0.296	0.257	M	mg/L	1	2/12/2020 10:42:30 PM
Surr: o-Terphenyl	106	50-150		%REC	1	2/12/2020 10:42:30 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	100	A3,CN	µg/L	1	2/11/2020 4:30:43 AM
Surr: 4-Bromofluorobenzene	113	50-150		%REC	1	2/11/2020 4:30:43 AM
PAH'S BY GC/MS - LOW LEVEL		**SW8270E**				Analyst: **CK**
1-Methylnaphthalene	15.9	0.0584		µg/L	1	2/17/2020 12:11:00 PM
2-Methylnaphthalene	1.00	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Acenaphthene	0.210	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Acenaphthylene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Anthracene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Benz(a)anthracene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Benzo(a)pyrene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Benzo(b)fluoranthene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Benzo(g,h,i)perylene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Benzo(k)fluoranthene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Carbazole	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Chrysene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Dibenz(a,h)anthracene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Dibenzofuran	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Fluoranthene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Fluorene	0.385	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Naphthalene	1.95	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Phenanthrene	0.117	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Pyrene	ND	0.0584		µg/L	1	2/17/2020 12:11:00 PM
Surr: 2-Fluorobiphenyl	83.4	18.6-106		%REC	1	2/17/2020 12:11:00 PM
Surr: Nitrobenzene-d5	72.7	17-130		%REC	1	2/17/2020 12:11:00 PM
Surr: Terphenyl-d14	108	39.6-131		%REC	1	2/17/2020 12:11:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
1,1,1,2-Tetrachloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1,1-Trichloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-009
Client Sample ID: B-4-W

Collection Date: 2/10/2020 12:22:00 PM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
1,1,2-Trichloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1-Dichloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,1-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2,3-Trichloropropane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2,4-Trimethylbenzene	125	10.0		µg/L	10	2/17/2020 12:39:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,2-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,3,5-Trimethylbenzene	46.2	10.0		µg/L	10	2/17/2020 12:39:00 PM
1,3-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,3-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
2,2-Dichloropropane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
2-Butanone	ND	10.0		µg/L	1	2/17/2020 1:21:00 PM
2-Chlorotoluene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
2-Hexanone	ND	10.0		µg/L	1	2/17/2020 1:21:00 PM
4-Chlorotoluene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
4-Isopropyltoluene	23.8	1.00		µg/L	1	2/17/2020 1:21:00 PM
4-Methyl-2-pentanone	ND	10.0		µg/L	1	2/17/2020 1:21:00 PM
Acetone	ND	20.0		µg/L	1	2/17/2020 1:21:00 PM
Acrylonitrile	ND	5.00		µg/L	1	2/17/2020 1:21:00 PM
Benzene	ND	0.300		µg/L	1	2/17/2020 1:21:00 PM
Bromobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Bromochloromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Bromodichloromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Bromoform	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Bromomethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Carbon disulfide	ND	2.00		µg/L	1	2/17/2020 1:21:00 PM
Carbon tetrachloride	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Chlorobenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Chloroethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Chloroform	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Chloromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
cis-1,2-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Project: Teufel Nursery
Lab ID: 2002079-009
Client Sample ID: B-4-W

Collection Date: 2/10/2020 12:22:00 PM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260D**				Analyst: **CK**
cis-1,3-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Dibromomethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Dichlorodifluoromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Ethylbenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Isopropylbenzene	1.62	1.00		µg/L	1	2/17/2020 1:21:00 PM
m,p-Xylene	6.53	2.00		µg/L	1	2/17/2020 1:21:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Methylene chloride	ND	50.0		µg/L	1	2/17/2020 1:21:00 PM
Naphthalene	46.9	10.0		µg/L	10	2/17/2020 12:39:00 PM
n-Butylbenzene	13.4	1.00		µg/L	1	2/17/2020 1:21:00 PM
n-Propylbenzene	3.81	1.00		µg/L	1	2/17/2020 1:21:00 PM
o-Xylene	26.8	1.00		µg/L	1	2/17/2020 1:21:00 PM
sec-Butylbenzene	4.58	1.00		µg/L	1	2/17/2020 1:21:00 PM
Styrene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
tert-Butylbenzene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Toluene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
trans-1,2-Dichloroethene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
trans-1,3-Dichloropropene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Trichloroethene	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Vinyl chloride	ND	1.00		µg/L	1	2/17/2020 1:21:00 PM
Surr: 1,2-Dichloroethane-d4	93.3	75.3-126		%REC	1	2/17/2020 1:21:00 PM
Surr: 4-Bromofluorobenzene	105	78.1-120		%REC	1	2/17/2020 1:21:00 PM
Surr: Dibromofluoromethane	98.3	74.2-122		%REC	1	2/17/2020 1:21:00 PM
Surr: Toluene-d8	90.2	76.2-135		%REC	1	2/17/2020 1:21:00 PM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 12:45:00 PM
Project: Teufel Nursery
Lab ID: 2002079-010
Client Sample ID: B-5-8
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.1		mg/Kg-dry	1	2/13/2020 5:46:10 AM
Lube Oil	ND	66.9		mg/Kg-dry	1	2/13/2020 5:46:10 AM
Surr: o-Terphenyl	72.9	50-150		%REC	1	2/13/2020 5:46:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	3.72		mg/Kg-dry	1	2/14/2020 2:08:00 AM
Surr: 4-Bromofluorobenzene	99.7	50-150		%REC	1	2/14/2020 2:08:00 AM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 12:55:00 PM
Project: Teufel Nursery
Lab ID: 2002079-011
Client Sample ID: B-5-W
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX - RBC		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	0.0943	A3	mg/L	1	2/12/2020 10:20:30 PM
Jet-A	0.686	0.118		mg/L	1	2/13/2020 4:48:30 PM
Lube Oil	ND	0.236		mg/L	1	2/12/2020 10:20:30 PM
Surr: o-Terphenyl	113	50-150		%REC	1	2/12/2020 10:20:30 PM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	100	A3,CN	µg/L	1	2/11/2020 4:57:43 AM
Surr: 4-Bromofluorobenzene	101	50-150		%REC	1	2/11/2020 4:57:43 AM

Specialty Analytical

Date Reported: 25-Feb-20

CLIENT: Tim O'Gara R.G.
Collection Date: 2/10/2020 11:17:00 AM
Project: Teufel Nursery
Lab ID: 2002079-012
Client Sample ID: B-3A-10
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **AM**
Diesel	ND	20.5		mg/Kg-dry	1	2/13/2020 6:08:10 AM
Lube Oil	ND	68.2		mg/Kg-dry	1	2/13/2020 6:08:10 AM
Surr: o-Terphenyl	75.0	50-150		%REC	1	2/13/2020 6:08:10 AM
NWTPH-GX		**NWTPH-GX**				Analyst: **AM**
Gasoline	ND	3.41		mg/Kg-dry	1	2/14/2020 2:35:00 AM
Surr: 4-Bromofluorobenzene	97.9	50-150		%REC	1	2/14/2020 2:35:00 AM

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery

TestCode: **8260_5035**

Sample ID **CCV MSVWS-3035** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **34382**

Client ID: **CCV** Batch ID: **15471** TestNo: **SW8260D** **SW 5035** Analysis Date: **2/20/2020** SeqNo: **447787**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	83.0	10.0	80.00	0	104	80	120				
1,2-Dibromoethane	82.2	10.0	80.00	0	103	80	120				
1,2-Dichloroethane	82.8	10.0	80.00	0	103	80	120				
1,3,5-Trimethylbenzene	84.3	10.0	80.00	0	105	80	120				
Benzene	84.3	10.0	80.00	0	105	80	120				
Ethylbenzene	87.6	10.0	80.00	0	109	80	120				
Isopropylbenzene	88.9	10.0	80.00	0	111	80	120				
m,p-Xylene	172	20.0	160.0	0	108	80	120				
Methyl tert-butyl ether	74.1	10.0	80.00	0	92.6	80	120				
Naphthalene	78.4	10.0	80.00	0	98.0	80	120				
n-Propylbenzene	85.0	10.0	80.00	0	106	80	120				
o-Xylene	87.6	10.0	80.00	0	109	80	120				
Toluene	84.5	10.0	80.00	0	106	80	120				

Sample ID **LCS MSVWS-3035** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **34382**

Client ID: **LCSS** Batch ID: **15471** TestNo: **SW8260D** **SW 5035** Analysis Date: **2/20/2020** SeqNo: **447788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	44.1	10.0	40.00	0	110	70	130				
1,2-Dibromoethane	43.7	10.0	40.00	0	109	70	130				
1,2-Dichloroethane	43.4	10.0	40.00	0	108	70	130				
1,3,5-Trimethylbenzene	44.0	10.0	40.00	0	110	70	130				
Benzene	43.9	10.0	40.00	0	110	74.3	136				
Ethylbenzene	44.3	10.0	40.00	0	111	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode: 8260_5035**

Sample ID **LCS MSVWS-3035** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **34382**

Client ID: **LCSS** Batch ID: **15471** TestNo: **SW8260D** **SW 5035** Analysis Date: **2/20/2020** SeqNo: **447788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	45.5	10.0	40.00	0	114	70	130				
m,p-Xylene	87.9	20.0	80.00	0	110	70	130				
Methyl tert-butyl ether	43.2	10.0	40.00	0	108	70	130				
Naphthalene	46.9	10.0	40.00	0	117	70	130				
n-Propylbenzene	44.6	10.0	40.00	0	112	70	130				
o-Xylene	44.5	10.0	40.00	0	111	70	130				
Toluene	42.6	10.0	40.00	0	107	75.1	123				

Sample ID **2002079-008AMS** SampType: **MS** TestCode: **8260_5035** Units: **µg/Kg-dry** Prep Date: RunNo: **34382**

Client ID: **B-4-8** Batch ID: **15471** TestNo: **SW8260D** **SW 5035** Analysis Date: **2/20/2020** SeqNo: **447793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	6390	1680	6739	0	94.8	70	130				
1,2-Dibromoethane	6790	1680	6739	0	101	70	130				
1,2-Dichloroethane	6810	1680	6739	0	101	70	130				
1,3,5-Trimethylbenzene	6390	1680	6739	0	94.9	70	130				
Benzene	6750	1680	6739	0	100	71.7	147				
Ethylbenzene	6260	1680	6739	0	92.9	70	130				
Isopropylbenzene	6340	1680	6739	0	94.0	70	130				
m,p-Xylene	12500	3370	13480	0	92.9	70	130				
Methyl tert-butyl ether	6890	1680	6739	0	102	70	130				
Naphthalene	6460	1680	6739	0	95.9	70	130				
n-Propylbenzene	6320	1680	6739	0	93.8	70	130				
o-Xylene	6540	1680	6739	0	97.1	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.
Project: Teufel Nursery

TestCode: **8260_5035**

Sample ID **2002079-008AMS**	SampType: **MS**	TestCode: **8260_5035**	Units: **µg/Kg-dry**	Prep Date:	RunNo: **34382**
Client ID: **B-4-8**	Batch ID: **15471**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **2/20/2020**	SeqNo: **447793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	6540	1680	6739	0	97.1	75.8	153				

Sample ID **2002079-008AMSD**	SampType: **MSD**	TestCode: **8260_5035**	Units: **µg/Kg-dry**	Prep Date:	RunNo: **34382**
Client ID: **B-4-8**	Batch ID: **15471**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **2/20/2020**	SeqNo: **447794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	6390	1680	6739	0	94.9	70	130	6387	0.105	20	
1,2-Dibromoethane	6900	1680	6739	0	102	70	130	6788	1.62	20	
1,2-Dichloroethane	6830	1680	6739	0	101	70	130	6809	0.247	20	
1,3,5-Trimethylbenzene	6370	1680	6739	0	94.6	70	130	6393	0.317	20	
Benzene	6560	1680	6739	0	97.3	71.7	147	6745	2.81	20	
Ethylbenzene	6250	1680	6739	0	92.8	70	130	6260	0.135	20	
Isopropylbenzene	6310	1680	6739	0	93.7	70	130	6336	0.373	20	
m,p-Xylene	12400	3370	13480	0	92.3	70	130	12530	0.688	20	
Methyl tert-butyl ether	7150	1680	6739	0	106	70	130	6890	3.65	20	
Naphthalene	6850	1680	6739	0	102	70	130	6461	5.85	20	
n-Propylbenzene	6240	1680	6739	0	92.6	70	130	6319	1.26	20	
o-Xylene	6450	1680	6739	0	95.7	70	130	6543	1.48	20	
Toluene	6400	1680	6739	0	95.0	75.8	153	6545	2.24	20	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode: 8260_5035**

Sample ID **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **34382**

Client ID: **PBS** Batch ID: **15471** TestNo: **SW8260D** **SW 5035** Analysis Date: **2/20/2020** SeqNo: **447796**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichloroethane	ND	10.0									
1,3,5-Trimethylbenzene	ND	10.0									
Benzene	ND	10.0									
Ethylbenzene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Naphthalene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
Toluene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	114		100.0		114	71.5	124				
Surr: 4-Bromofluorobenzene	105		100.0		105	75.7	122				
Surr: Dibromofluoromethane	106		100.0		106	64.3	124				
Surr: Toluene-d8	97.1		100.0		97.1	74.9	120				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery

TestCode: **8260_W**

Sample ID **CCV MSVWS-3030** SampType: **CCV** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **CCV** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	38.7	1.00	40.00	0	96.7	80	120				
1,1,1-Trichloroethane	41.1	1.00	40.00	0	103	80	120				
1,1,2,2-Tetrachloroethane	39.8	1.00	40.00	0	99.6	80	120				
1,1,2-Trichloroethane	41.9	1.00	40.00	0	105	80	120				
1,1-Dichloroethane	44.6	1.00	40.00	0	112	80	120				
1,1-Dichloroethene	42.2	1.00	40.00	0	105	80	120				
1,1-Dichloropropene	42.8	1.00	40.00	0	107	80	120				
1,2,3-Trichlorobenzene	34.6	1.00	40.00	0	86.4	80	120				
1,2,3-Trichloropropane	39.1	1.00	40.00	0	97.8	80	120				
1,2,4-Trichlorobenzene	34.2	1.00	40.00	0	85.6	80	120				
1,2,4-Trimethylbenzene	38.7	1.00	40.00	0	96.7	80	120				
1,2-Dibromo-3-chloropropane	38.2	1.00	40.00	0	95.5	80	120				
1,2-Dibromoethane	43.6	1.00	40.00	0	109	80	120				
1,2-Dichlorobenzene	37.4	1.00	40.00	0	93.5	80	120				
1,2-Dichloroethane	42.4	1.00	40.00	0	106	80	120				
1,2-Dichloropropane	44.0	1.00	40.00	0	110	80	120				
1,3,5-Trimethylbenzene	37.9	1.00	40.00	0	94.7	80	120				
1,3-Dichlorobenzene	39.1	1.00	40.00	0	97.8	80	120				
1,3-Dichloropropane	43.0	1.00	40.00	0	107	80	120				
1,4-Dichlorobenzene	33.1	1.00	40.00	0	82.7	80	120				
2,2-Dichloropropane	43.7	1.00	40.00	0	109	80	120				
2-Butanone	93.8	10.0	80.00	0	117	80	120				
2-Chlorotoluene	37.2	1.00	40.00	0	93.0	80	120				
2-Hexanone	89.3	10.0	80.00	0	112	80	120				
4-Chlorotoluene	37.6	1.00	40.00	0	94.0	80	120				
4-Isopropyltoluene	39.3	1.00	40.00	0	98.3	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **CCV MSVWS-3030** SampType: **CCV** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **CCV** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Methyl-2-pentanone	84.0	10.0	80.00	0	105	80	120				
Acetone	88.4	20.0	80.00	0	111	80	120				
Acrylonitrile	43.4	5.00	40.00	0	109	80	120				
Benzene	41.9	0.300	40.00	0	105	80	120				
Bromobenzene	35.8	1.00	40.00	0	89.4	80	120				
Bromochloromethane	42.2	1.00	40.00	0	106	80	120				
Bromodichloromethane	43.5	1.00	40.00	0	109	80	120				
Bromoform	36.2	1.00	40.00	0	90.4	80	120				
Bromomethane	33.4	1.00	40.00	0	83.6	80	120				
Carbon disulfide	40.4	2.00	40.00	0	101	80	120				
Carbon tetrachloride	43.3	1.00	40.00	0	108	80	120				
Chlorobenzene	37.1	1.00	40.00	0	92.7	80	120				
Chloroethane	39.5	1.00	40.00	0	98.7	80	120				
Chloroform	40.7	1.00	40.00	0	102	80	120				
Chloromethane	39.5	1.00	40.00	0	98.7	80	120				
cis-1,2-Dichloroethene	45.6	1.00	40.00	0	114	80	120				
cis-1,3-Dichloropropene	39.1	1.00	40.00	0	97.8	80	120				
Dibromochloromethane	40.7	1.00	40.00	0	102	80	120				
Dibromomethane	43.3	1.00	40.00	0	108	80	120				
Dichlorodifluoromethane	34.8	1.00	40.00	0	87.1	80	120				
Ethylbenzene	39.8	1.00	40.00	0	99.6	80	120				
Hexachlorobutadiene	33.1	1.00	40.00	0	82.7	80	120				
Isopropylbenzene	36.8	1.00	40.00	0	91.9	80	120				
m,p-Xylene	80.8	2.00	80.00	0	101	80	120				
Methyl tert-butyl ether	47.8	1.00	40.00	0	120	80	120				
Methylene chloride	ND	50.0	40.00	0	101	80	120				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.
Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **CCV MSVWS-3030** SampType: **CCV** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**
Client ID: **CCV** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446744**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	35.4	1.00	40.00	0	88.4	80	120				
n-Butylbenzene	40.2	1.00	40.00	0	101	80	120				
n-Propylbenzene	37.5	1.00	40.00	0	93.8	80	120				
o-Xylene	37.2	1.00	40.00	0	93.0	80	120				
sec-Butylbenzene	38.2	1.00	40.00	0	95.6	80	120				
Styrene	36.5	1.00	40.00	0	91.2	80	120				
tert-Butylbenzene	39.5	1.00	40.00	0	98.7	80	120				
Tetrachloroethene	39.0	1.00	40.00	0	97.4	80	120				
Toluene	34.6	1.00	40.00	0	86.5	80	120				
trans-1,2-Dichloroethene	44.8	1.00	40.00	0	112	80	120				
trans-1,3-Dichloropropene	38.3	1.00	40.00	0	95.7	80	120				
Trichloroethene	42.0	1.00	40.00	0	105	80	120				
Trichlorofluoromethane	33.2	1.00	40.00	0	83.0	80	120				
Vinyl chloride	43.5	1.00	40.00	0	109	80	120				

Sample ID **MB** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**
Client ID: **PBW** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446745**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	1.00									
1,1,1-Trichloroethane	ND	1.00									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **MB** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **PBW** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446745**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	1.00									
1,1-Dichloroethene	ND	1.00									
1,1-Dichloropropene	ND	1.00									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	1.00									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,2-Dichloropropane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
1,3-Dichlorobenzene	ND	1.00									
1,3-Dichloropropane	ND	1.00									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	1.00									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	1.00									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	1.00									
4-Isopropyltoluene	ND	1.00									
4-Methyl-2-pentanone	ND	10.0									
Acetone	ND	20.0									
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery

TestCode: **8260_W**

Sample ID **MB** | SampType: **MBLK** | TestCode: **8260_W** | Units: **µg/L** | Prep Date: | RunNo: **34297**

Client ID: **PBW** | Batch ID: **R34297** | TestNo: **SW8260D** | Analysis Date: **2/17/2020** | SeqNo: **446745**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.00									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	1.00									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon disulfide	ND	2.00									
Carbon tetrachloride	ND	1.00									
Chlorobenzene	ND	1.00									
Chloroethane	ND	1.00									
Chloroform	ND	1.00									
Chloromethane	ND	1.00									
cis-1,2-Dichloroethene	ND	1.00									
cis-1,3-Dichloropropene	ND	1.00									
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	1.00									
Ethylbenzene	ND	1.00									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
Methylene chloride	ND	50.0									
Naphthalene	ND	1.00									
n-Butylbenzene	ND	1.00									
n-Propylbenzene	ND	1.00									
o-Xylene	ND	1.00									

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

Specialty Analytical

25-Feb-20

Client: Tim O'Gara R.G.
Project: Teufel Nursery

TestCode: **8260_W**

Sample ID **MB**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **34297**
Client ID: **PBW**	Batch ID: **R34297**	TestNo: **SW8260D**		Analysis Date: **2/17/2020**	SeqNo: **446745**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	1.00									
Styrene	ND	1.00									
tert-Butylbenzene	ND	1.00									
Tetrachloroethene	ND	1.00									
Toluene	ND	1.00									
trans-1,2-Dichloroethene	ND	1.00									
trans-1,3-Dichloropropene	ND	1.00									
Trichloroethene	ND	1.00									
Trichlorofluoromethane	ND	1.00									
Vinyl chloride	ND	1.00									
Surr: 1,2-Dichloroethane-d4	96.1		100.0		96.1	75.3	126				
Surr: 4-Bromofluorobenzene	106		100.0		106	78.1	120				
Surr: Dibromofluoromethane	108		100.0		108	74.2	122				
Surr: Toluene-d8	93.4		100.0		93.4	76.2	135				

Sample ID **A2002125-001BMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **34297**
Client ID: **ZZZZZZ**	Batch ID: **R34297**	TestNo: **SW8260D**		Analysis Date: **2/17/2020**	SeqNo: **446753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	41.5	1.00	40.00	0	104	70	130				
1,1,1-Trichloroethane	40.4	1.00	40.00	0	101	70	130				
1,1,2,2-Tetrachloroethane	40.4	1.00	40.00	0	101	70	130				
1,1,2-Trichloroethane	43.7	1.00	40.00	0	109	70	130				
1,1-Dichloroethane	43.0	1.00	40.00	0	107	70	130				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **A2002125-001BMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.7	1.00	40.00	0	104	47.8	165				
1,1-Dichloropropene	41.4	1.00	40.00	0	104	70	130				
1,2,3-Trichlorobenzene	37.4	1.00	40.00	0	93.4	70	130				
1,2,3-Trichloropropane	39.4	1.00	40.00	0	98.5	70	130				
1,2,4-Trichlorobenzene	37.3	1.00	40.00	0	93.4	70	130				
1,2,4-Trimethylbenzene	41.6	1.00	40.00	0	104	70	130				
1,2-Dibromo-3-chloropropane	38.6	1.00	40.00	0	96.6	70	130				
1,2-Dibromoethane	44.9	1.00	40.00	0	112	70	130				
1,2-Dichlorobenzene	39.8	1.00	40.00	0	99.5	70	130				
1,2-Dichloroethane	40.6	1.00	40.00	0	101	70	130				
1,2-Dichloropropane	42.6	1.00	40.00	0	106	70	130				
1,3,5-Trimethylbenzene	33.5	1.00	40.00	0	83.8	70	130				
1,3-Dichlorobenzene	41.4	1.00	40.00	0	103	70	130				
1,3-Dichloropropane	44.8	1.00	40.00	0	112	70	130				
1,4-Dichlorobenzene	35.4	1.00	40.00	0	88.5	70	130				
2,2-Dichloropropane	41.2	1.00	40.00	0	103	70	130				
2-Butanone	94.9	10.0	80.00	0	119	70	130				
2-Chlorotoluene	39.9	1.00	40.00	0	99.8	70	130				
2-Hexanone	91.1	10.0	80.00	0	114	70	130				
4-Chlorotoluene	39.4	1.00	40.00	0	98.6	70	130				
4-Isopropyltoluene	43.0	1.00	40.00	0	108	70	130				
4-Methyl-2-pentanone	89.0	10.0	80.00	0	111	70	130				
Acetone	94.1	20.0	80.00	16.05	97.6	70	130				
Acrylonitrile	43.3	5.00	40.00	0	108	70	130				
Benzene	41.3	0.300	40.00	0	103	74.1	136				
Bromobenzene	37.3	1.00	40.00	0	93.2	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **A2002125-001BMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromochloromethane	41.9	1.00	40.00	0	105	70	130				
Bromodichloromethane	43.4	1.00	40.00	0	109	70	130				
Bromoform	37.5	1.00	40.00	0	93.8	70	130				
Bromomethane	29.0	1.00	40.00	0	72.6	70	130				
Carbon disulfide	41.7	2.00	40.00	0	104	70	130				
Carbon tetrachloride	43.5	1.00	40.00	0	109	70	130				
Chlorobenzene	39.6	1.00	40.00	0	99.0	70.7	133				
Chloroethane	33.4	1.00	40.00	0	83.4	70	130				
Chloroform	51.8	1.00	40.00	12.03	99.5	70	130				
Chloromethane	39.8	1.00	40.00	0	99.5	70	130				
cis-1,2-Dichloroethene	43.5	1.00	40.00	0	109	70	130				
cis-1,3-Dichloropropene	36.0	1.00	40.00	0	89.9	70	130				
Dibromochloromethane	42.8	1.00	40.00	0	107	70	130				
Dibromomethane	42.3	1.00	40.00	0	106	70	130				
Dichlorodifluoromethane	35.0	1.00	40.00	0	87.4	70	130				
Ethylbenzene	43.6	1.00	40.00	0	109	70	130				
Hexachlorobutadiene	37.8	1.00	40.00	0	94.6	70	130				
Isopropylbenzene	40.0	1.00	40.00	0	100	70	130				
m,p-Xylene	87.4	2.00	80.00	0	109	70	130				
Methyl tert-butyl ether	43.7	1.00	40.00	0	109	70	130				
Methylene chloride	ND	50.0	40.00	0	95.7	70	130				
Naphthalene	36.6	1.00	40.00	0	91.6	70	130				
n-Butylbenzene	44.7	1.00	40.00	0	112	70	130				
n-Propylbenzene	40.4	1.00	40.00	0	101	70	130				
o-Xylene	40.1	1.00	40.00	0	100	70	130				
sec-Butylbenzene	42.3	1.00	40.00	0	106	70	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **A2002125-001BMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446753**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	1.11	1.00	40.00	0	2.78	70	130				SMI
tert-Butylbenzene	42.3	1.00	40.00	0	106	70	130				
Tetrachloroethene	42.5	1.00	40.00	0	106	70	130				
Toluene	37.3	1.00	40.00	0	93.3	68.4	135				
trans-1,2-Dichloroethene	43.7	1.00	40.00	0	109	70	130				
trans-1,3-Dichloropropene	38.9	1.00	40.00	0	97.2	70	130				
Trichloroethene	41.2	1.00	40.00	0	103	50.8	164				
Trichlorofluoromethane	30.1	1.00	40.00	0	75.3	70	130				
Vinyl chloride	44.1	1.00	40.00	0	110	70	130				

Sample ID **A2002125-001BMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	41.2	1.00	40.00	0	103	70	130	41.46	0.629	20	
1,1,1-Trichloroethane	40.3	1.00	40.00	0	101	70	130	40.37	0.124	20	
1,1,2,2-Tetrachloroethane	41.4	1.00	40.00	0	104	70	130	40.43	2.42	20	
1,1,2-Trichloroethane	44.5	1.00	40.00	0	111	70	130	43.74	1.79	20	
1,1-Dichloroethane	43.6	1.00	40.00	0	109	70	130	42.96	1.39	20	
1,1-Dichloroethene	41.4	1.00	40.00	0	104	47.8	165	41.67	0.626	20	
1,1-Dichloropropene	42.4	1.00	40.00	0	106	70	130	41.42	2.43	20	
1,2,3-Trichlorobenzene	39.8	1.00	40.00	0	99.5	70	130	37.35	6.35	20	
1,2,3-Trichloropropane	39.9	1.00	40.00	0	99.7	70	130	39.39	1.26	20	
1,2,4-Trichlorobenzene	39.1	1.00	40.00	0	97.8	70	130	37.34	4.60	20	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode: 8260_W**

Sample ID **A2002125-001BMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	42.2	1.00	40.00	0	106	70	130	41.57	1.50	20	
1,2-Dibromo-3-chloropropane	40.3	1.00	40.00	0	101	70	130	38.64	4.18	20	
1,2-Dibromoethane	45.0	1.00	40.00	0	113	70	130	44.94	0.178	20	
1,2-Dichlorobenzene	40.4	1.00	40.00	0	101	70	130	39.79	1.60	20	
1,2-Dichloroethane	41.6	1.00	40.00	0	104	70	130	40.57	2.58	20	
1,2-Dichloropropane	43.3	1.00	40.00	0	108	70	130	42.60	1.72	20	
1,3,5-Trimethylbenzene	32.4	1.00	40.00	0	80.9	70	130	33.50	3.49	20	
1,3-Dichlorobenzene	42.0	1.00	40.00	0	105	70	130	41.38	1.56	20	
1,3-Dichloropropane	45.2	1.00	40.00	0	113	70	130	44.81	0.822	20	
1,4-Dichlorobenzene	36.0	1.00	40.00	0	90.1	70	130	35.39	1.79	20	
2,2-Dichloropropane	42.2	1.00	40.00	0	106	70	130	41.20	2.52	20	
2-Butanone	100	10.0	80.00	0	125	70	130	94.90	5.51	20	
2-Chlorotoluene	40.5	1.00	40.00	0	101	70	130	39.93	1.32	20	
2-Hexanone	93.8	10.0	80.00	0	117	70	130	91.11	2.95	20	
4-Chlorotoluene	38.1	1.00	40.00	0	95.2	70	130	39.43	3.54	20	
4-Isopropyltoluene	44.2	1.00	40.00	0	111	70	130	43.04	2.77	20	
4-Methyl-2-pentanone	89.7	10.0	80.00	0	112	70	130	88.99	0.839	20	
Acetone	97.3	20.0	80.00	16.05	102	70	130	94.10	3.36	20	
Acrylonitrile	44.9	5.00	40.00	0	112	70	130	43.33	3.47	20	
Benzene	42.1	0.300	40.00	0	105	74.1	136	41.31	1.92	20	
Bromobenzene	37.8	1.00	40.00	0	94.4	70	130	37.27	1.36	20	
Bromochloromethane	42.1	1.00	40.00	0	105	70	130	41.91	0.405	20	
Bromodichloromethane	43.6	1.00	40.00	0	109	70	130	43.45	0.253	20	
Bromoform	38.0	1.00	40.00	0	94.9	70	130	37.50	1.22	20	
Bromomethane	33.6	1.00	40.00	0	83.9	70	130	29.05	14.4	20	
Carbon disulfide	40.2	2.00	40.00	0	101	70	130	41.74	3.73	20	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode: 8260_W**

Sample ID **A2002125-001BMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	43.3	1.00	40.00	0	108	70	130	43.49	0.438	20	
Chlorobenzene	40.0	1.00	40.00	0	100	70.7	133	39.58	1.16	20	
Chloroethane	35.7	1.00	40.00	0	89.2	70	130	33.35	6.72	20	
Chloroform	52.7	1.00	40.00	12.03	102	70	130	51.82	1.68	20	
Chloromethane	41.8	1.00	40.00	0	105	70	130	39.80	4.93	20	
cis-1,2-Dichloroethene	45.0	1.00	40.00	0	112	70	130	43.52	3.34	20	
cis-1,3-Dichloropropene	36.6	1.00	40.00	0	91.6	70	130	35.96	1.82	20	
Dibromochloromethane	43.2	1.00	40.00	0	108	70	130	42.83	0.860	20	
Dibromomethane	42.2	1.00	40.00	0	106	70	130	42.29	0.0946	20	
Dichlorodifluoromethane	34.2	1.00	40.00	0	85.4	70	130	34.96	2.29	20	
Ethylbenzene	43.5	1.00	40.00	0	109	70	130	43.56	0.115	20	
Hexachlorobutadiene	35.9	1.00	40.00	0	89.7	70	130	37.82	5.24	20	
Isopropylbenzene	41.3	1.00	40.00	0	103	70	130	39.99	3.25	20	
m,p-Xylene	88.8	2.00	80.00	0	111	70	130	87.42	1.57	20	
Methyl tert-butyl ether	45.4	1.00	40.00	0	113	70	130	43.66	3.86	20	
Methylene chloride	ND	50.0	40.00	0	97.3	70	130	0	0	20	
Naphthalene	39.6	1.00	40.00	0	99.1	70	130	36.65	7.86	20	
n-Butylbenzene	45.5	1.00	40.00	0	114	70	130	44.69	1.75	20	
n-Propylbenzene	41.3	1.00	40.00	0	103	70	130	40.37	2.20	20	
o-Xylene	40.4	1.00	40.00	0	101	70	130	40.08	0.770	20	
sec-Butylbenzene	43.9	1.00	40.00	0	110	70	130	42.26	3.90	20	
Styrene	1.10	1.00	40.00	0	2.75	70	130	1.110	0.905	20	SMI
tert-Butylbenzene	44.4	1.00	40.00	0	111	70	130	42.32	4.91	20	
Tetrachloroethene	42.9	1.00	40.00	0	107	70	130	42.50	0.843	20	
Toluene	37.3	1.00	40.00	0	93.3	68.4	135	37.31	0.0268	20	
trans-1,2-Dichloroethene	44.2	1.00	40.00	0	111	70	130	43.71	1.18	20	

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **A2002125-001BMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **ZZZZZZ** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	39.5	1.00	40.00	0	98.7	70	130	38.89	1.51	20	
Trichloroethene	41.5	1.00	40.00	0	104	50.8	164	41.15	0.775	20	
Trichlorofluoromethane	31.6	1.00	40.00	0	79.0	70	130	30.13	4.79	20	
Vinyl chloride	43.6	1.00	40.00	0	109	70	130	44.14	1.28	20	

Sample ID **LCS MSVWS-3030** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **LCSW** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	38.7	1.00	40.00	0	96.7	80	120				
1,1,1-Trichloroethane	41.1	1.00	40.00	0	103	80	120				
1,1,2,2-Tetrachloroethane	39.8	1.00	40.00	0	99.6	80	120				
1,1,2-Trichloroethane	41.9	1.00	40.00	0	105	80	120				
1,1-Dichloroethane	44.6	1.00	40.00	0	112	80	120				
1,1-Dichloroethene	42.2	1.00	40.00	0	105	61.2	135				
1,1-Dichloropropene	42.8	1.00	40.00	0	107	80	120				
1,2,3-Trichlorobenzene	34.6	1.00	40.00	0	86.4	80	120				
1,2,3-Trichloropropane	39.1	1.00	40.00	0	97.8	80	120				
1,2,4-Trichlorobenzene	34.2	1.00	40.00	0	85.6	80	120				
1,2,4-Trimethylbenzene	38.7	1.00	40.00	0	96.7	80	120				
1,2-Dibromo-3-chloropropane	38.2	1.00	40.00	0	95.5	80	120				
1,2-Dibromoethane	43.6	1.00	40.00	0	109	80	120				
1,2-Dichlorobenzene	37.4	1.00	40.00	0	93.5	80	120				
1,2-Dichloroethane	42.4	1.00	40.00	0	106	80	120				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

Specialty Analytical

25-Feb-20

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode: 8260_W**

Sample ID **LCS MSVWS-3030** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **LCSW** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	44.0	1.00	40.00	0	110	80	120				
1,3,5-Trimethylbenzene	37.9	1.00	40.00	0	94.7	80	120				
1,3-Dichlorobenzene	39.1	1.00	40.00	0	97.8	80	120				
1,3-Dichloropropane	43.0	1.00	40.00	0	107	80	120				
1,4-Dichlorobenzene	33.1	1.00	40.00	0	82.7	80	120				
2,2-Dichloropropane	43.7	1.00	40.00	0	109	80	120				
2-Butanone	93.8	10.0	80.00	0	117	80	120				
2-Chlorotoluene	37.2	1.00	40.00	0	93.0	80	120				
2-Hexanone	89.3	10.0	80.00	0	112	80	120				
4-Chlorotoluene	37.6	1.00	40.00	0	94.0	80	120				
4-Isopropyltoluene	39.3	1.00	40.00	0	98.3	80	120				
4-Methyl-2-pentanone	84.0	10.0	80.00	0	105	80	120				
Acetone	88.4	20.0	80.00	0	111	80	120				
Acrylonitrile	43.4	5.00	40.00	0	109	80	120				
Benzene	41.9	0.300	40.00	0	105	76.8	125				
Bromobenzene	35.8	1.00	40.00	0	89.4	80	120				
Bromochloromethane	42.2	1.00	40.00	0	106	80	120				
Bromodichloromethane	43.5	1.00	40.00	0	109	80	120				
Bromoform	36.2	1.00	40.00	0	90.4	80	120				
Bromomethane	33.4	1.00	40.00	0	83.6	80	120				
Carbon disulfide	40.4	2.00	40.00	0	101	80	120				
Carbon tetrachloride	43.3	1.00	40.00	0	108	80	120				
Chlorobenzene	37.1	1.00	40.00	0	92.7	84.1	116				
Chloroethane	39.5	1.00	40.00	0	98.7	80	120				
Chloroform	40.7	1.00	40.00	0	102	80	120				
Chloromethane	39.5	1.00	40.00	0	98.7	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **8260_W**

Sample ID **LCS MSVWS-3030** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: RunNo: **34297**

Client ID: **LCSW** Batch ID: **R34297** TestNo: **SW8260D** Analysis Date: **2/17/2020** SeqNo: **446764**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	45.6	1.00	40.00	0	114	80	120				
cis-1,3-Dichloropropene	39.1	1.00	40.00	0	97.8	80	120				
Dibromochloromethane	40.7	1.00	40.00	0	102	80	120				
Dibromomethane	43.3	1.00	40.00	0	108	80	120				
Dichlorodifluoromethane	34.8	1.00	40.00	0	87.1	80	120				
Ethylbenzene	39.8	1.00	40.00	0	99.6	80	120				
Hexachlorobutadiene	33.1	1.00	40.00	0	82.7	80	120				
Isopropylbenzene	36.8	1.00	40.00	0	91.9	80	120				
m,p-Xylene	80.8	2.00	80.00	0	101	80	120				
Methyl tert-butyl ether	47.8	1.00	40.00	0	120	80	120				
Methylene chloride	ND	50.0	40.00	0	101	80	120				
Naphthalene	35.4	1.00	40.00	0	88.4	80	120				
n-Butylbenzene	40.2	1.00	40.00	0	101	80	120				
n-Propylbenzene	37.5	1.00	40.00	0	93.8	80	120				
o-Xylene	37.2	1.00	40.00	0	93.0	80	120				
sec-Butylbenzene	38.2	1.00	40.00	0	95.6	80	120				
Styrene	36.5	1.00	40.00	0	91.2	80	120				
tert-Butylbenzene	39.5	1.00	40.00	0	98.7	80	120				
Tetrachloroethene	39.0	1.00	40.00	0	97.4	80	120				
Toluene	34.6	1.00	40.00	0	86.5	82	122				
trans-1,2-Dichloroethene	44.8	1.00	40.00	0	112	82	120				
trans-1,3-Dichloropropene	38.3	1.00	40.00	0	95.7	82	120				
Trichloroethene	42.0	1.00	40.00	0	105	68.5	124				
Trichlorofluoromethane	33.2	1.00	40.00	0	83.0	80	120				
Vinyl chloride	43.5	1.00	40.00	0	109	80	120				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHDX_S**

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **34223**
Client ID: **CCV**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/12/2020**	SeqNo: **445835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1210	15.0	1332	0	90.5	85	115				
Lube Oil	657	50.0	666.0	0	98.7	85	115				

Sample ID **MB-15402**	SampType: **MBLK**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **2/11/2020**	RunNo: **34223**
Client ID: **PBS**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/13/2020**	SeqNo: **445836**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	15.0									
Lube Oil	ND	50.0									
Surr: o-Terphenyl	27.1		33.30		81.3	50	150				

Sample ID **LCS-15402**	SampType: **LCS**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date: **2/11/2020**	RunNo: **34223**
Client ID: **LCSS**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/13/2020**	SeqNo: **445837**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	143	15.0	166.5	0	86.2	76.3	125				
Lube Oil	158	50.0	166.5	0	94.7	69.9	127				

Sample ID **2002079-006ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **2/11/2020**	RunNo: **34223**
Client ID: **B-3A-8**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/13/2020**	SeqNo: **445842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHDX_S**

Sample ID	**2002079-006ADUP**	SampType: **DUP**	TestCode: **NWTPHDX_S**	Units: **mg/Kg-dry**	Prep Date: **2/11/2020**	RunNo: **34223**
Client ID:	**B-3A-8**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/13/2020**	SeqNo: **445842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	20.5						0	0	20	
Lube Oil	ND	68.2						0	0	20	

Sample ID	**CCV**	SampType: **CCV**	TestCode: **NWTPHDX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **34223**
Client ID:	**CCV**	Batch ID: **15402**	TestNo: **NWTPH-Dx**	**SW3545A**	Analysis Date: **2/13/2020**	SeqNo: **445846**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	947	15.0	999.0	0	94.8	85	115				
Lube Oil	484	50.0	499.5	0	96.8	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.
Project: Teufel Nursery

TestCode: **NWTPHDXLL_W**

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCV**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/12/2020**	SeqNo: **445867**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	5.58	0.0800	6.000	0	93.0	85	115				
Lube Oil	3.13	0.200	3.000	0	104	85	115				

Sample ID **MB-15408**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **2/12/2020**	RunNo: **34225**
Client ID: **PBW**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/12/2020**	SeqNo: **445868**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	ND	0.200									
Surr: o-Terphenyl	0.172		0.2000		86.1	50	150				

Sample ID **LCS-15408**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **2/12/2020**	RunNo: **34225**
Client ID: **LCSW**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/12/2020**	SeqNo: **445869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.890	0.0800	1.000	0	89.0	60.7	121				
Lube Oil	1.03	0.200	1.000	0	103	64	126				

Sample ID **LCSD-15408**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **2/12/2020**	RunNo: **34225**
Client ID: **LCSS02**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/12/2020**	SeqNo: **445870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.
Project: Teufel Nursery **TestCode:** **NWTPHDXLL_W**

Sample ID **LCSD-15408**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **2/12/2020**	RunNo: **34225**
Client ID: **LCSS02**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/12/2020**	SeqNo: **445870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.958	0.0800	1.000	0	95.8	60.7	121	0.8901	7.34	20	
Lube Oil	1.11	0.200	1.000	0	111	64	126	1.026	7.90	20	

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCV**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/13/2020**	SeqNo: **446278**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Jet-A	6.20	0.100	6.000	0	103	85	115				

Sample ID **CCB-15408**	SampType: **CCB**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCB**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/13/2020**	SeqNo: **446279**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Jet-A	ND	0.100									

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCV**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/14/2020**	SeqNo: **446286**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Jet-A	6.23	0.100	6.000	0	104	85	115				

Qualifiers:
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHDXLL_W**

Sample ID **CCB-15408**	SampType: **CCB**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCB**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/14/2020**	SeqNo: **446289**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Jet-A	ND	0.100									

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	RunNo: **34225**
Client ID: **CCV**	Batch ID: **15408**	TestNo: **NWTPH-Dx**	**SW 3510C**	Analysis Date: **2/14/2020**	SeqNo: **446291**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Jet-A	8.33	0.100	8.000	0	104	85	115				

Qualifiers:

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHGX_SA**

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date:	RunNo: **34255**
Client ID: **CCV**	Batch ID: **15434**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **2/13/2020**	SeqNo: **446300**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	101	2.50	100.0	0	101	80	120				

Sample ID **LCS-15434**	SampType: **LCS**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **2/11/2020**	RunNo: **34255**
Client ID: **LCSS**	Batch ID: **15434**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **2/13/2020**	SeqNo: **446301**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	63.4	2.50	62.50	0	101	53.5	121				

Sample ID **MB-15434**	SampType: **MBLK**	TestCode: **NWTPHGX_S**	Units: **mg/Kg**	Prep Date: **2/11/2020**	RunNo: **34255**
Client ID: **PBS**	Batch ID: **15434**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **2/13/2020**	SeqNo: **446302**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	5.76		5.000		115	50	150				

Sample ID **2002079-005ADUP**	SampType: **DUP**	TestCode: **NWTPHGX_S**	Units: **mg/Kg-dry**	Prep Date: **2/11/2020**	RunNo: **34255**
Client ID: **B-3-10**	Batch ID: **15434**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **2/14/2020**	SeqNo: **446306**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	3.80						0	0	20	

Qualifiers:

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
O RSD is greater than RSDlimit
R RPD outside accepted recovery limits
S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHGX_SA**

Sample ID **CCV** SampType: **CCV** TestCode: **NWTPHGX_S** Units: **mg/Kg** Prep Date: RunNo: **34255**

Client ID: **CCV** Batch ID: **15434** TestNo: **NWTPH-Gx** **SW 5035** Analysis Date: **2/14/2020** SeqNo: **446311**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	144	2.50	150.0	0	96.3	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHGX_W**

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **34197**
Client ID: **CCV**	Batch ID: **R34197**	TestNo: **NWTPH-Gx**		Analysis Date: **2/11/2020**	SeqNo: **445542**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1970	100	2000	0	98.3	80	120				

Sample ID **LCS-R34197**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **34197**
Client ID: **LCSW**	Batch ID: **R34197**	TestNo: **NWTPH-Gx**		Analysis Date: **2/11/2020**	SeqNo: **445543**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1970	100	2000	0	98.3	74.4	128				

Sample ID **MB-R34197**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **34197**
Client ID: **PBW**	Batch ID: **R34197**	TestNo: **NWTPH-Gx**		Analysis Date: **2/11/2020**	SeqNo: **445544**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	100									
Surr: 4-Bromofluorobenzene	91.4		100.0		91.4	50	150				

Sample ID **2002038-002ADUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **34197**
Client ID: **ZZZZZZ**	Batch ID: **R34197**	TestNo: **NWTPH-Gx**		Analysis Date: **2/11/2020**	SeqNo: **445546**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1210	100						1208	0.0124	20	

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **NWTPHGX_W**

Sample ID **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **34197**
Client ID: **CCV**	Batch ID: **R34197**	TestNo: **NWTPH-Gx**		Analysis Date: **2/11/2020**	SeqNo: **445555**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	3000	100	3000	0	100	80	120				

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_S**

Sample ID	**CCV MSVWS-1575**	SampType: **CCV**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date:	RunNo: **34386**
Client ID:	**CCV**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447810**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.97	0.0500	2.000	0	98.5	80	120				
2-Methylnaphthalene	1.96	0.0500	2.000	0	98.0	80	120				
Acenaphthene	1.95	0.0500	2.000	0	97.5	80	120				
Acenaphthylene	1.91	0.0500	2.000	0	95.5	80	120				
Anthracene	2.00	0.0500	2.000	0	100	80	120				
Benz(a)anthracene	1.99	0.0500	2.000	0	99.5	80	120				
Benzo(a)pyrene	2.03	0.0500	2.000	0	102	80	120				
Benzo(b)fluoranthene	2.05	0.0500	2.000	0	103	80	120				
Benzo(g,h,i)perylene	2.15	0.0500	2.000	0	108	80	120				
Benzo(k)fluoranthene	2.01	0.0500	2.000	0	101	80	120				
Chrysene	2.01	0.0500	2.000	0	101	80	120				
Dibenz(a,h)anthracene	2.19	0.0500	2.000	0	110	80	120				
Fluoranthene	1.98	0.0500	2.000	0	99.0	80	120				
Fluorene	2.03	0.0500	2.000	0	102	80	120				
Indeno(1,2,3-cd)pyrene	2.15	0.0500	2.000	0	108	80	120				
Naphthalene	1.91	0.0500	2.000	0	95.5	80	120				
Phenanthrene	1.99	0.0500	2.000	0	99.5	80	120				
Pyrene	1.97	0.0500	2.000	0	98.5	80	120				

Sample ID	**MB-15465**	SampType: **MBLK**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **2/20/2020**	RunNo: **34386**
Client ID:	**PBS**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	3.33									

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_S**

Sample ID **MB-15465**	SampType: **MBLK**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **2/20/2020**	RunNo: **34386**
Client ID: **PBS**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447811**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	3.33									
Acenaphthene	ND	3.33									
Acenaphthylene	ND	3.33									
Anthracene	ND	3.33									
Benz(a)anthracene	ND	3.33									
Benzo(a)pyrene	ND	3.33									
Benzo(b)fluoranthene	ND	3.33									
Benzo(g,h,i)perylene	ND	3.33									
Benzo(k)fluoranthene	ND	3.33									
Chrysene	ND	3.33									
Dibenz(a,h)anthracene	ND	3.33									
Fluoranthene	ND	3.33									
Fluorene	ND	3.33									
Indeno(1,2,3-cd)pyrene	ND	3.33									
Naphthalene	ND	3.33									
Phenanthrene	ND	3.33									
Pyrene	ND	3.33									
Surr: 2-Fluorobiphenyl	811		1333		60.8	42.6	128				
Surr: Nitrobenzene-d5	752		1333		56.4	21.7	155				
Surr: p-Terphenyl-d14	1490		1333		112	44.9	155				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_S**

Sample ID **2002079-003BMS** SampType: **MS** TestCode: **PAHLL_S** Units: **µg/Kg** Prep Date: **2/20/2020** RunNo: **34386**

Client ID: **B-2-9** Batch ID: **15465** TestNo: **SW8270E** **SW 3545A** Analysis Date: **2/21/2020** SeqNo: **447814**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	190	3.33	333.4	0	57.0	40	120				
2-Methylnaphthalene	190	3.33	333.4	0	57.0	40	120				
Acenaphthene	179	3.33	333.4	0	53.8	40	120				
Acenaphthylene	183	3.33	333.4	0	54.8	40	120				
Anthracene	260	3.33	333.4	0	78.0	40	120				
Benz(a)anthracene	275	3.33	333.4	0	82.6	40	120				
Benzo(a)pyrene	285	3.33	333.4	0	85.4	40	120				
Benzo(b)fluoranthene	311	3.33	333.4	0	93.4	40	120				
Benzo(g,h,i)perylene	292	3.33	333.4	0	87.6	40	120				
Benzo(k)fluoranthene	311	3.33	333.4	0	93.2	40	120				
Chrysene	293	3.33	333.4	0	88.0	40	120				
Dibenz(a,h)anthracene	295	3.33	333.4	0	88.6	40	120				
Fluoranthene	269	3.33	333.4	0	80.8	40	120				
Fluorene	213	3.33	333.4	0	63.8	40	120				
Indeno(1,2,3-cd)pyrene	364	3.33	333.4	0	109	40	120				
Naphthalene	160	3.33	333.4	0	48.0	40	120				
Phenanthrene	247	3.33	333.4	0	74.0	40	120				
Pyrene	303	3.33	333.4	0	91.0	40	120				

Sample ID **2002079-003BMSD** SampType: **MSD** TestCode: **PAHLL_S** Units: **µg/Kg** Prep Date: **2/20/2020** RunNo: **34386**

Client ID: **B-2-9** Batch ID: **15465** TestNo: **SW8270E** **SW 3545A** Analysis Date: **2/21/2020** SeqNo: **447815**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	193	3.33	333.4	0	58.0	40	120	190.0	1.74	20	

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_S**

Sample ID **2002079-003BMSD**	SampType: **MSD**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **2/20/2020**	RunNo: **34386**
Client ID: **B-2-9**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447815**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	189	3.33	333.4	0	56.6	40	120	190.0	0.704	20	
Acenaphthene	180	3.33	333.4	0	54.0	40	120	179.3	0.371	20	
Acenaphthylene	179	3.33	333.4	0	53.6	40	120	182.7	2.21	20	
Anthracene	259	3.33	333.4	0	77.6	40	120	260.0	0.514	20	
Benz(a)anthracene	265	3.33	333.4	0	79.4	40	120	275.3	3.95	20	
Benzo(a)pyrene	291	3.33	333.4	0	87.2	40	120	284.7	2.09	20	
Benzo(b)fluoranthene	298	3.33	333.4	0	89.4	40	120	311.3	4.38	20	
Benzo(g,h,i)perylene	287	3.33	333.4	0	86.0	40	120	292.0	1.84	20	
Benzo(k)fluoranthene	308	3.33	333.4	0	92.4	40	120	310.7	0.862	20	
Chrysene	283	3.33	333.4	0	85.0	40	120	293.3	3.47	20	
Dibenz(a,h)anthracene	291	3.33	333.4	0	87.2	40	120	295.3	1.59	20	
Fluoranthene	272	3.33	333.4	0	81.6	40	120	269.3	0.985	20	
Fluorene	209	3.33	333.4	0	62.6	40	120	212.7	1.90	20	
Indeno(1,2,3-cd)pyrene	360	3.33	333.4	0	108	40	120	364.0	1.10	20	
Naphthalene	162	3.33	333.4	0	48.6	40	120	160.0	1.24	20	
Phenanthrene	249	3.33	333.4	0	74.6	40	120	246.7	0.808	20	
Pyrene	297	3.33	333.4	0	89.0	40	120	303.3	2.22	20	

Sample ID **LCS-15465**	SampType: **LCS**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **2/20/2020**	RunNo: **34386**
Client ID: **LCSS**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	202	3.33	333.4	0	60.6	40	130				
2-Methylnaphthalene	199	3.33	333.4	0	59.8	40	130				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_S**

Sample ID **LCS-15465**	SampType: **LCS**	TestCode: **PAHLL_S**	Units: **µg/Kg**	Prep Date: **2/20/2020**	RunNo: **34386**
Client ID: **LCSS**	Batch ID: **15465**	TestNo: **SW8270E**	**SW 3545A**	Analysis Date: **2/21/2020**	SeqNo: **447816**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	164	3.33	333.4	0	49.2	40	130				
Acenaphthylene	162	3.33	333.4	0	48.6	40	130				
Anthracene	231	3.33	333.4	0	69.2	40	130				
Benz(a)anthracene	198	3.33	333.4	0	59.4	40	130				
Benzo(a)pyrene	160	3.33	333.4	0	48.0	40	130				
Benzo(b)fluoranthene	223	3.33	333.4	0	67.0	40	130				
Benzo(g,h,i)perylene	194	3.33	333.4	0	58.2	40	130				
Benzo(k)fluoranthene	220	3.33	333.4	0	66.0	40	130				
Chrysene	210	3.33	333.4	0	63.0	40	130				
Dibenz(a,h)anthracene	207	3.33	333.4	0	62.0	40	130				
Fluoranthene	233	3.33	333.4	0	70.0	40	130				
Fluorene	184	3.33	333.4	0	55.2	40	130				
Indeno(1,2,3-cd)pyrene	256	3.33	333.4	0	76.8	40	130				
Naphthalene	171	3.33	333.4	0	51.4	40	130				
Phenanthrene	235	3.33	333.4	0	70.6	40	130				
Pyrene	217	3.33	333.4	0	65.2	40	130				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_W**

Sample ID **CCV MSVWS-1575** SampType: **CCV** TestCode: **PAHLL_W** Units: **µg/L** Prep Date: RunNo: **34304**

Client ID: **CCV** Batch ID: **15442** TestNo: **SW8270E** **SW 3510C** Analysis Date: **2/17/2020** SeqNo: **446824**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.96	0.0500	2.000	0	98.0	80	120				
2-Methylnaphthalene	2.00	0.0500	2.000	0	100	80	120				
Acenaphthene	2.14	0.0500	2.000	0	107	80	120				
Acenaphthylene	2.18	0.0500	2.000	0	109	80	120				
Anthracene	2.14	0.0500	2.000	0	107	80	120				
Benz(a)anthracene	1.99	0.0500	2.000	0	99.5	80	120				
Benzo(a)pyrene	2.35	0.0500	2.000	0	118	80	120				
Benzo(b)fluoranthene	2.17	0.0500	2.000	0	108	80	120				
Benzo(g,h,i)perylene	1.90	0.0500	2.000	0	95.0	80	120				
Benzo(k)fluoranthene	2.15	0.0500	2.000	0	108	80	120				
Carbazole	1.97	0.0500	2.000	0	98.5	80	120				
Chrysene	1.94	0.0500	2.000	0	97.0	80	120				
Dibenz(a,h)anthracene	1.67	0.0500	2.000	0	83.5	80	120				
Dibenzofuran	2.17	0.0500	2.000	0	108	80	120				
Fluoranthene	2.12	0.0500	2.000	0	106	80	120				
Fluorene	2.17	0.0500	2.000	0	108	80	120				
Indeno(1,2,3-cd)pyrene	1.76	0.0500	2.000	0	88.0	80	120				
Naphthalene	2.03	0.0500	2.000	0	102	80	120				
Phenanthrene	2.15	0.0500	2.000	0	108	80	120				
Pyrene	2.29	0.0500	2.000	0	114	80	120				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_W**

Sample ID **MB-15442**	SampType: **MBLK**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **2/17/2020**	RunNo: **34304**
Client ID: **PBW**	Batch ID: **15442**	TestNo: **SW8270E**	**SW 3510C**	Analysis Date: **2/17/2020**	SeqNo: **446825**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.0500									
2-Methylnaphthalene	ND	0.0500									
Acenaphthene	ND	0.0500									
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	ND	0.0500									
Benzo(a)pyrene	ND	0.0500									
Benzo(b)fluoranthene	ND	0.0500									
Benzo(g,h,i)perylene	ND	0.0500									
Benzo(k)fluoranthene	ND	0.0500									
Carbazole	ND	0.0500									
Chrysene	ND	0.0500									
Dibenz(a,h)anthracene	ND	0.0500									
Dibenzofuran	ND	0.0500									
Fluoranthene	ND	0.0500									
Fluorene	ND	0.0500									
Indeno(1,2,3-cd)pyrene	ND	0.0500									
Naphthalene	ND	0.0500									
Phenanthrene	ND	0.0500									
Pyrene	ND	0.0500									
Surr: 2-Fluorobiphenyl	16.3		20.00		81.5	18.6	106				
Surr: Nitrobenzene-d5	15.5		20.00		77.4	17	130				
Surr: Terphenyl-d14	23.6		20.00		118	39.6	131				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_W**

Sample ID **LCS-15442** SampType: **LCS** TestCode: **PAHLL_W** Units: **µg/L** Prep Date: **2/17/2020** RunNo: **34304**

Client ID: **LCSW** Batch ID: **15442** TestNo: **SW8270E** **SW 3510C** Analysis Date: **2/17/2020** SeqNo: **446830**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.54	0.0500	5.000	0	70.8	39.6	131				
2-Methylnaphthalene	3.91	0.0500	5.000	0	78.2	25.6	106				
Acenaphthene	4.52	0.0500	5.000	0	90.4	35.1	131				
Acenaphthylene	4.52	0.0500	5.000	0	90.4	29	126				
Anthracene	4.95	0.0500	5.000	0	99.0	42	130				
Benz(a)anthracene	4.95	0.0500	5.000	0	99.0	34.2	129.1				
Benzo(a)pyrene	4.97	0.0500	5.000	0	99.4	23.4	127.4				
Benzo(b)fluoranthene	4.90	0.0500	5.000	0	98.0	36.6	125.8				
Benzo(g,h,i)perylene	4.61	0.0500	5.000	0	92.2	20.8	123				
Benzo(k)fluoranthene	4.97	0.0500	5.000	0	99.4	39.7	129.5				
Carbazole	5.45	0.0500	5.000	0	109	60	126				
Chrysene	5.05	0.0500	5.000	0	101	39.1	120				
Dibenz(a,h)anthracene	4.42	0.0500	5.000	0	88.4	5.05	123.4				
Dibenzofuran	4.68	0.0500	5.000	0	93.6	60	118				
Fluoranthene	5.09	0.0500	5.000	0	102	42.4	119				
Fluorene	4.53	0.0500	5.000	0	90.6	37.4	129				
Indeno(1,2,3-cd)pyrene	4.67	0.0500	5.000	0	93.4	10.5	125.9				
Naphthalene	3.34	0.0500	5.000	0	66.8	25.6	128.4				
Phenanthrene	4.89	0.0500	5.000	0	97.8	38.1	128.4				
Pyrene	5.29	0.0500	5.000	0	106	41.3	126				

Qualifiers:

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted reco

QC SUMMARY REPORT

WO#: **2002079**

25-Feb-20

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Nursery **TestCode:** **PAHLL_W**

Sample ID **LCSD-15442**	SampType: **LCSD**	TestCode: **PAHLL_W**	Units: **µg/L**	Prep Date: **2/17/2020**	RunNo: **34304**
Client ID: **LCSS02**	Batch ID: **15442**	TestNo: **SW8270E**	**SW 3510C**	Analysis Date: **2/17/2020**	SeqNo: **446831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	3.98	0.0500	5.000	0	79.6	39.6	131	3.540	11.7	20	
2-Methylnaphthalene	3.98	0.0500	5.000	0	79.6	25.6	106	3.910	1.77	20	
Acenaphthene	4.73	0.0500	5.000	0	94.6	35.1	131	4.520	4.54	20	
Acenaphthylene	4.62	0.0500	5.000	0	92.4	29	126	4.520	2.19	20	
Anthracene	5.09	0.0500	5.000	0	102	42	130	4.950	2.79	20	
Benz(a)anthracene	5.16	0.0500	5.000	0	103	34.2	129.1	4.950	4.15	20	
Benzo(a)pyrene	5.16	0.0500	5.000	0	103	23.4	127.4	4.970	3.75	20	
Benzo(b)fluoranthene	5.07	0.0500	5.000	0	101	36.6	125.8	4.900	3.41	20	
Benzo(g,h,i)perylene	4.86	0.0500	5.000	0	97.2	20.8	123	4.610	5.28	20	
Benzo(k)fluoranthene	5.21	0.0500	5.000	0	104	39.7	129.5	4.970	4.72	20	
Carbazole	5.67	0.0500	5.000	0	113	60	126	5.450	3.96	20	
Chrysene	5.26	0.0500	5.000	0	105	39.1	120	5.050	4.07	20	
Dibenz(a,h)anthracene	4.88	0.0500	5.000	0	97.6	5.05	123.4	4.420	9.89	20	
Dibenzofuran	4.83	0.0500	5.000	0	96.6	60	118	4.680	3.15	20	
Fluoranthene	5.21	0.0500	5.000	0	104	42.4	119	5.090	2.33	20	
Fluorene	4.71	0.0500	5.000	0	94.2	37.4	129	4.530	3.90	20	
Indeno(1,2,3-cd)pyrene	5.10	0.0500	5.000	0	102	10.5	125.9	4.670	8.80	20	
Naphthalene	3.44	0.0500	5.000	0	68.8	25.6	128.4	3.340	2.95	20	
Phenanthrene	5.03	0.0500	5.000	0	101	38.1	128.4	4.890	2.82	20	
Pyrene	5.46	0.0500	5.000	0	109	41.3	126	5.290	3.16	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted reco

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

www.specialtyanalytical.com

Specialty Analytical
9011 SE Jannsen Rd
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Chain of Custody Record

Date: | Page: of:

Project Name: TEVFEL

Laboratory Project No (internal): 2002079

Temperature on Receipt: 3.9 °C on ice

Client: TIM O'CONNOR

Project No: PO No:

Custody Seal: Y (N)

Address:

Collected by:

Intact / Broken Cooler / Bottle

City, State, Zip:

State Collected: OR WA OTHER

Shipped Via: Client

Telephone:

Report To (PM):

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 60 days)

AP Email:

PM Email:

	Sample Name	Sample Date	Sample Time	Sample Matrix*	# of Containers	Requested Tests: DX	GX										Comments
1	B-1-9	2/14	9:55	S	1	X	X										WILL ADD ADDL. PAH
2	~~B-2~~ B-1-W	2/14	11:31	W	5	X	X										+ VOCS AFTER INITIAL
3	B-2-9		10:33	S	1	X	X										RESULTS
4	B-2-W		10:48	W	5	X	X										
5	B-3-10		11:05	S	1	X	X										
6	B-3A-8		11:17	S	1	X	X										
7	B-3A-W		11:36	W	5	X	X										
8	B-4-8		12:11	S		X	X										
9	B-4-W		12:22			X	X										
10	~~B-5-8~~ B-5-W		12:35			X	X										

*Matrix: A=Air, AQ=Aqueous, L=Liquid, O=Oil, P=Product, S=Soil, SD=Sediment, SL=Solid, W=Water, DW=Drinking Water, GW=Ground Water, SW=Storm Water, WW=Waste Water, M=Miscellaneous

Turn-around Time: Standard (5-7 Business): _____ 3 Day: _____ 2 Day: _____ Next Day: _____ Same Day: _____

Relinquished	Date/Time	Received	Date/Time
x	2/14 3:50	x	2/14/2020 3:50 pm
x		x	
x		x	

TIM O'GARA, R.G.
CONSULTING HYDROGEOLOGIST

January 6, 2021

Ash Desmond
Oregon DEQ
700 NE Multnomah Street, Suite 600
Portland, Oregon 97232

Re: Additional soil/water sampling, Teufel Hanger tank site
DEQ # 34-20-0042

Ash,

As requested, 4 additional soil borings were placed near the Teufel Tank as per the approved workplan that was submitted on November 30, 2020. The borings were completed on December 29, 2020. A soil sample was collected in each boring at the soil/water interface. A water sample was also collected from the boring. All samples were analyzed for gasoline range hydrocarbons using the NWTPH-Gx method as well as VOCs using EPA Method 8260B. Figure 1 shows the sample locations in relation to the earlier samples that were taken in February of 2020.

Previous Sampling Results

The original sampling results were presented in Tables 1 and 2 of the initial report. For your reference, I have included them in this additional report.

Table 1
Initial Soil Results
Results in mg/kg

Sample Number	Diesel Range Hydrocarbons	Gasoline Range Hydrocarbons (assumed to be Jet A)
B-1-9	ND	ND
B-2-9	ND	6.18
B-3-10	ND	ND
B-3A-10	ND	ND
B-4-8	ND	29
B-5-8	ND	ND

Note: ND means nothing detected at the Method Reporting Level

650 Charman St. • Oregon City Oregon 97045 • TimogaraRGeo@gmail.com • Office 503.908.8977 • Cell 503.307.8916

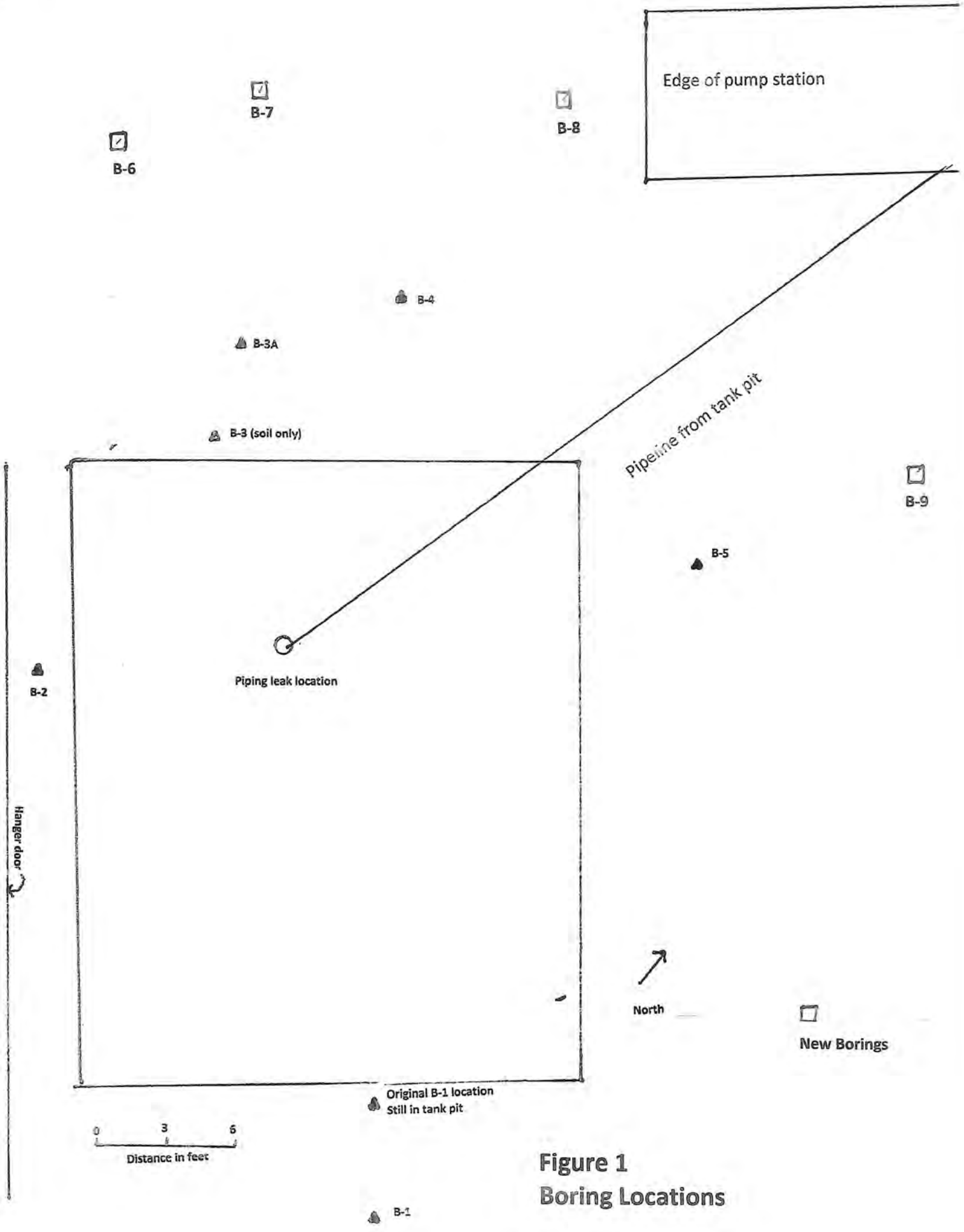


Figure 1
Boring Locations

Table 2
Initial Water Results
Dx in mg/l, Jet A in ug/l

Location	Diesel Range Hydrocarbons	Jet A
B-1-W	ND	1,350
B-2-W	ND	3,100
B-3A-W	ND	1,070
B-4-W	ND	82,600
B-5-W	ND	686

Note: ND means nothing detected at the Method Reporting Level

At that time, the two highest waster samples were also analyzed for PAHs and VOCs. This is shown in Table 3

Table 3
PAHs and VOCs in Ground Water

Compound	B-2-W	B-4-W	Vapor Intrusion into Buildings RBC	Excavation Worker RBC
Acenaphthene	0.357	0.210	>S	<S
Fluorene	0.727	0.385	>S	>S
Naphthalene	55.3	1.95	11,000	500
1,2,4 trimethylbenzene	372	125	>S	6,300
1,3,5 trimethylbenzene	116	46.2	>S	7,500
Isopropylbenzene	12.7	1.62	>S	>S
Toluene	1.42	ND	>S	220,000

Notes: RBCS are for Occupational Settings
ND means nothing detected at the Method Reporting Level
>S means that the ground water RBC exceeds the solubility limit

Based on these findings we assumed that the site was not hazardous. However, we were asked to make additional samples to demonstrate that the fuels were attenuating as the water moved farther from the tank pit

Current Sampling

As mentioned previously, four additional borings were installed. The locations are shown on figure 1. Each soil and water sample was analyzed for Gx and VOCs as stated in the workplan. Table 4 shows the soil results. The ground water results are shown in Table 5.

Table 4
Gx and VOCs in Soil
Results in mg/kg

Compound	B-6-7	B-7-8	B-8-8.5	B-9-9
Gx (jet A)	< 4.14	<4.45	<4.26	<4.37
1,2,4 trimethylbenzene	<16.6	<17.8	<17.0	<17.5
1,2-Dibromoethane	<16.6	<17.8	<17.0	<17.5
1-2-Dichloroethane	<16.6	<17.8	<17.0	<17.5
1,3,5 trimethylbenzene	<16.6	<17.8	<17.0	<17.5
Benzene	<16.6	<17.8	<17.0	<17.5
Ethylbenzene	<16.6	<17.8	<17.0	<17.5
Isopropylbenzene	<16.6	<17.8	<17.0	<17.5
m-p-Xylene	<33.1	<35.6	<34.1	<35.0
MTBE	<16.6	<17.8	<17.0	<17.5
Naphthalene	<16.6	<17.8	<17.0	<17.5
n-Propylbenzene	<16.6	<17.8	<17.0	<17.5
o-Xylene	<16.6	<17.8	<17.0	<17.5
Toluene	<16.6	<17.8	<17.0	<17.5

Table 5
Gx and VOCs in Water
Results in ug/l

Compound	B-6-W	B-7-W	B-8-W	B-9-W
Gx (Jet A)	<100	112	<100	115
1,2,4 trimethylbenzene	<1.00	<1.00	<1.00	<1.00
1,2-Dibromoethane	<1.00	<1.00	<1.00	<1.00
1-2-Dichloroethane	<1.00	<1.00	<1.00	<1.00
1,3,5 trimethylbenzene	<1.00	<1.00	<1.00	<1.00
Benzene	<0.300	<0.300	<0.300	<0.300
Ethylbenzene	<1.00	<1.00	<1.00	<1.00
Isopropylbenzene	<1.00	<1.00	<1.00	<1.00
m-p-Xylene	2.01	2.64	<2.00	<2.00
MTBE	<1.00	<1.00	<1.00	<1.00
Naphthalene	3.12	<1.00	<1.00	<1.00
n-Propylbenzene	<1.00	<1.00	<1.00	<1.00
o-Xylene	<1.00	<1.00	<1.00	<1.00
Toluene	16.2	19.1	7.11	18.0

As you can see, the minor contamination that remained in the soil and ground water at this site after the tank piping leak was repaired has attenuated greatly within the 10 feet distance between the original sample locations and the most recent sampling. It appears that nothing of substance has left the site.

Based on these latest sample results, we request that this site be closed and that a NFA be issued for this site.

Respectfully Submitted,

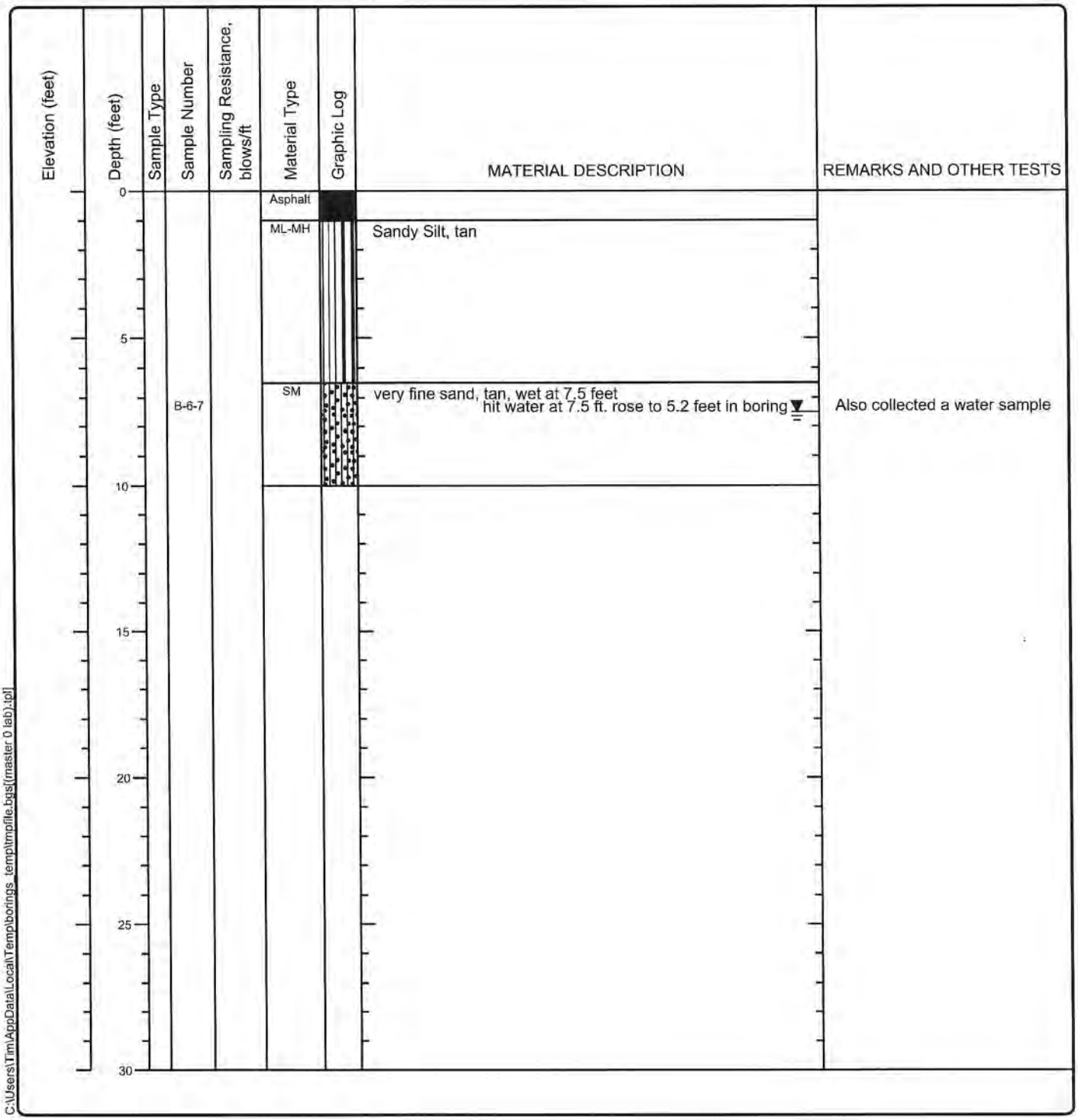
Tim O'Gara, R.G.
Consulting Hydrogeologist

Attachment B

Boring Logs

Project: **Teufel Hanger Tank** Project Location: **3115 Cornell** Project Number:	Log of Boring B-6 **Sheet 1 of 1**

Date(s) Drilled **December 29, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



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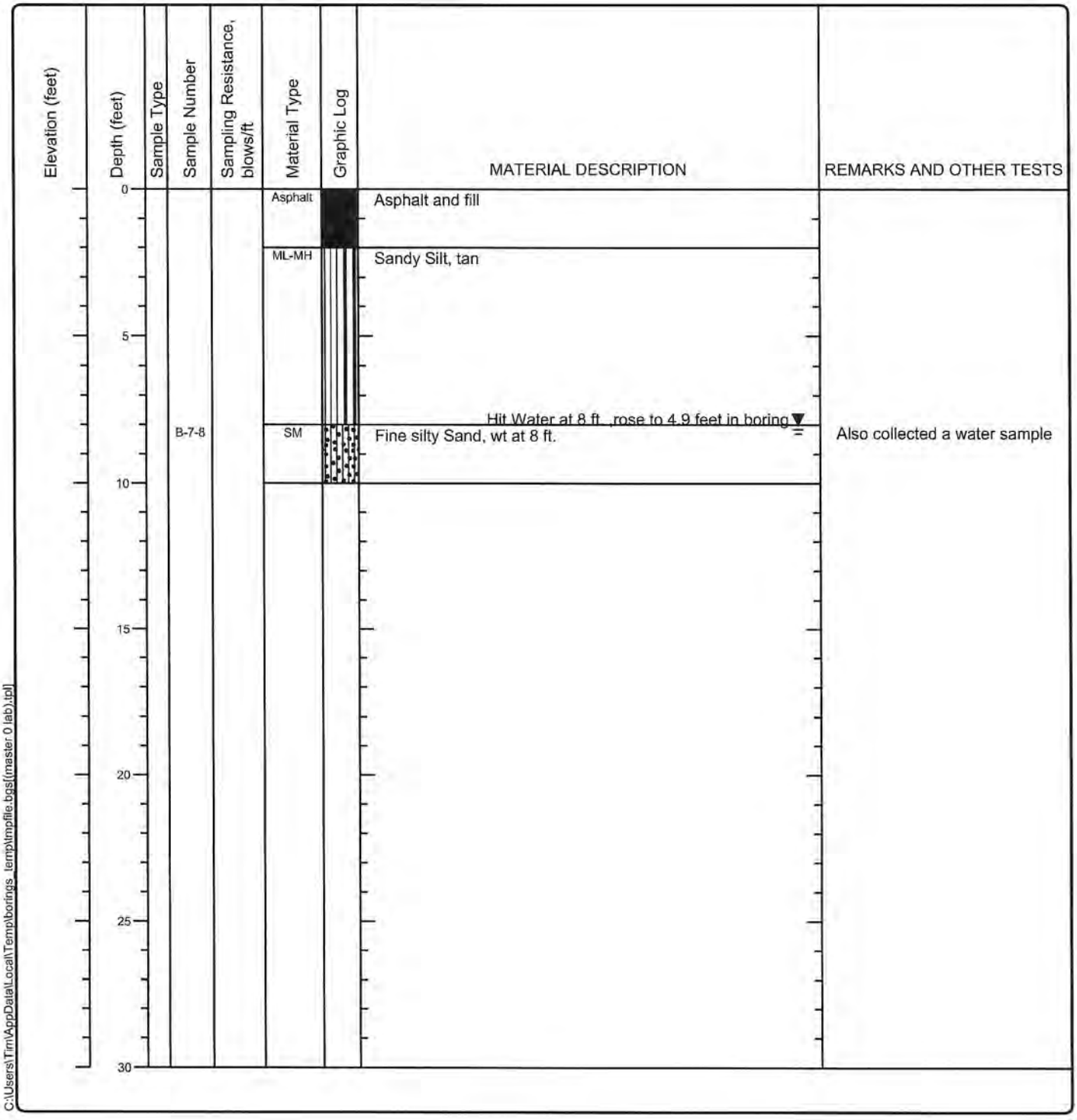
Project: **Teufel Hanger Tank** Project Location: **3115 Cornell** Project Number:	Log of Boring B-7 **Sheet 1 of 1**

Date(s) Drilled **December 29, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



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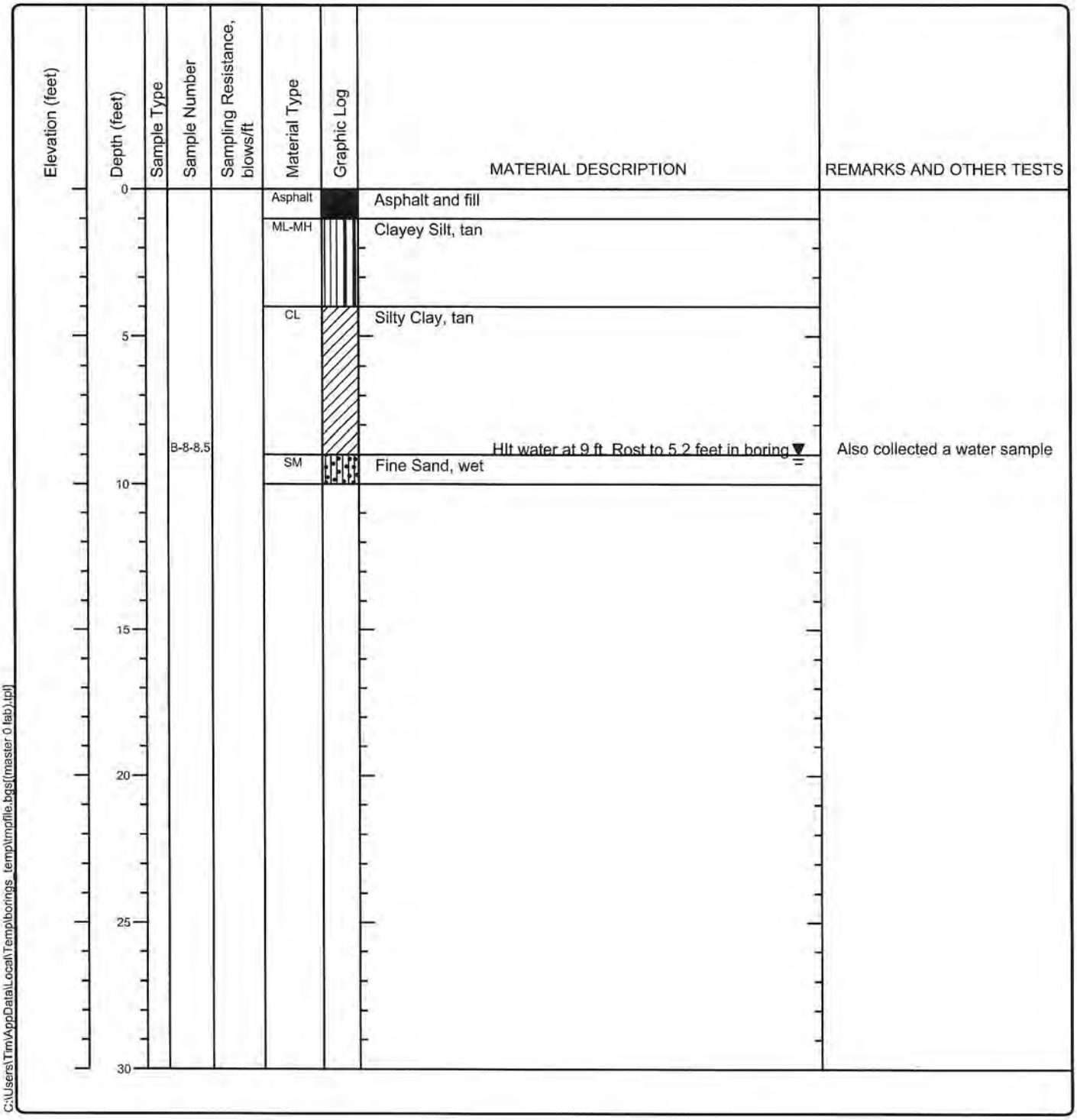
Project: **Teufel Hanger Tank** Project Location: **3115 Cornell** Project Number:	Log of Boring B-8 **Sheet 1 of 1**

Date(s) Drilled **December 29, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	



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Project: **Teufel Hanger Tank** Project Location: **3115 Cornell** Project Number:	Log of Boring B-9 **Sheet 1 of 1**

Date(s) Drilled **December 29, 2020**	Logged By **Tim O'Gara, R.G.**	Checked By
Drilling Method **Push Probe**	Drill Bit Size/Type	Total Depth of Borehole
Drill Rig Type	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured	Sampling Method(s)	Hammer Data
Borehole Backfill	Location	

Elevation (feet)	Depth (feet)	Sample Type	Sample Number	Sampling Resistance, blows/ft	Material Type	Graphic Log	MATERIAL DESCRIPTION	REMARKS AND OTHER TESTS
	0				Asphalt		Asphalt and fill	
					ML-MH		Sandy Silt	
	5							
							Hit water at 9 ft. Rose to 4.0 feet in boring ▼	
			B-9-9		SM		Fine Sand, tan	Also collected a water sample
	10							
	15							
	20							
	25							
	30							

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Attachment A

Lab Report

Specialty Analytical

9011 SE Jannsen Rd
Clackamas, OR 97015
TEL: (503) 607-1331
Website: www.specialtyanalytical.com

January 05, 2021

Tim O'Gara
Tim O'Gara R.G.
650 Charman Street
Oregon City, OR 97045
TEL: (503) 908-8977
FAX (503) 974-9459

RE: Teufel Hanger Order No.: 2012286

Dear Tim O'Gara:

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Marty French
Lab Director

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-001
Client Sample ID B-6-7

Collection Date: 12/29/2020 8:45:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**	**SW 5035**	Analyst: **TB**
Gasoline	ND	4.14		mg/Kg-dry	1	12/30/2020 12:37:00 PM
Surr: 4-Bromofluorobenzene	90.0	50 - 150		%Rec	1	12/30/2020 12:37:00 PM
RBC VOLATILES				**SW8260D**	**SW 5035**	Analyst: **CK**
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,2,4-Trimethylbenzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
1,2-Dibromoethane	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
1,2-Dichloroethane	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
1,3,5-Trimethylbenzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Benzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Ethylbenzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Isopropylbenzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
m,p-Xylene	ND	33.1		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Methyl tert-butyl ether	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Naphthalene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
n-Propylbenzene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
o-Xylene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Toluene	ND	16.6		µg/Kg-dry	1	1/4/2021 1:14:00 PM
Surr: 1,2-Dichloroethane-d4	96.7	71.5 - 124		%Rec	1	1/4/2021 1:14:00 PM
Surr: 4-Bromofluorobenzene	96.5	75.7 - 122		%Rec	1	1/4/2021 1:14:00 PM
Surr: Dibromofluoromethane	97.8	64.3 - 124		%Rec	1	1/4/2021 1:14:00 PM
Surr: Toluene-d8	104	74.9 - 120		%Rec	1	1/4/2021 1:14:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-002
Client Sample ID B-6-W

Collection Date: 12/29/2020 8:54:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**		Analyst: **TB**
Gasoline	ND	100		µg/L	1	12/31/2020 11:50:00 AM
Surr: 4-Bromofluorobenzene	109	50 - 150		%Rec	1	12/31/2020 11:50:00 AM
RBC				**SW8260D**		Analyst: **CK**
VOLATILE ORGANICS BY GC/MS						
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
Benzene	ND	0.300		µg/L	1	12/29/2020 3:08:00 PM
Ethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
m,p-Xylene	2.01	2.00		µg/L	1	12/29/2020 3:08:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
Naphthalene	3.12	1.00		µg/L	1	12/29/2020 3:08:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
o-Xylene	ND	1.00		µg/L	1	12/29/2020 3:08:00 PM
Toluene	16.2	1.00		µg/L	1	12/29/2020 3:08:00 PM
Surr: 1,2-Dichloroethane-d4	91.3	75.3 - 126		%Rec	1	12/29/2020 3:08:00 PM
Surr: 4-Bromofluorobenzene	98.0	78.1 - 120		%Rec	1	12/29/2020 3:08:00 PM
Surr: Dibromofluoromethane	93.1	74.2 - 122		%Rec	1	12/29/2020 3:08:00 PM
Surr: Toluene-d8	105	76.2 - 135		%Rec	1	12/29/2020 3:08:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-003
Client Sample ID B-7-8

Collection Date: 12/29/2020 9:22:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**	**SW 5035**	Analyst: **TB**
Gasoline	ND	4.45		mg/Kg-dry	1	12/30/2020 1:24:00 PM
Surr: 4-Bromofluorobenzene	93.0	50 - 150		%Rec	1	12/30/2020 1:24:00 PM
RBC VOLATILES				**SW8260D**	**SW 5035**	Analyst: **CK**
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,2,4-Trimethylbenzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
1,2-Dibromoethane	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
1,2-Dichloroethane	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
1,3,5-Trimethylbenzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Benzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Ethylbenzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Isopropylbenzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
m,p-Xylene	ND	35.6		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Methyl tert-butyl ether	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Naphthalene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
n-Propylbenzene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
o-Xylene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Toluene	ND	17.8		µg/Kg-dry	1	1/4/2021 1:36:00 PM
Surr: 1,2-Dichloroethane-d4	97.7	71.5 - 124		%Rec	1	1/4/2021 1:36:00 PM
Surr: 4-Bromofluorobenzene	97.3	75.7 - 122		%Rec	1	1/4/2021 1:36:00 PM
Surr: Dibromofluoromethane	95.6	64.3 - 124		%Rec	1	1/4/2021 1:36:00 PM
Surr: Toluene-d8	104	74.9 - 120		%Rec	1	1/4/2021 1:36:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-004
Client Sample ID B-7-W

Collection Date: 12/29/2020 9:35:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**		Analyst: **TB**
Gasoline	112	100		µg/L	1	12/31/2020 12:14:00 PM
Surr: 4-Bromofluorobenzene	107	50 - 150		%Rec	1	12/31/2020 12:14:00 PM
RBC				**SW8260D**		Analyst: **CK**
VOLATILE ORGANICS BY GC/MS						
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
Benzene	ND	0.300		µg/L	1	12/29/2020 3:30:00 PM
Ethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
m,p-Xylene	2.64	2.00		µg/L	1	12/29/2020 3:30:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
Naphthalene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
o-Xylene	ND	1.00		µg/L	1	12/29/2020 3:30:00 PM
Toluene	19.1	1.00		µg/L	1	12/29/2020 3:30:00 PM
Surr: 1,2-Dichloroethane-d4	90.8	75.3 - 126		%Rec	1	12/29/2020 3:30:00 PM
Surr: 4-Bromofluorobenzene	97.8	78.1 - 120		%Rec	1	12/29/2020 3:30:00 PM
Surr: Dibromofluoromethane	91.9	74.2 - 122		%Rec	1	12/29/2020 3:30:00 PM
Surr: Toluene-d8	106	76.2 - 135		%Rec	1	12/29/2020 3:30:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-005
Client Sample ID B-8-8.5

Collection Date: 12/29/2020 9:44:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**	**SW 5035**	Analyst: **TB**
Gasoline	ND	4.26		mg/Kg-dry	1	12/30/2020 1:28:00 PM
Surr: 4-Bromofluorobenzene	95.0	50 - 150		%Rec	1	12/30/2020 1:28:00 PM
RBC VOLATILES				**SW8260D**	**SW 5035**	Analyst: **CK**
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,2,4-Trimethylbenzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
1,2-Dibromoethane	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
1,2-Dichloroethane	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
1,3,5-Trimethylbenzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Benzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Ethylbenzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Isopropylbenzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
m,p-Xylene	ND	34.1		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Methyl tert-butyl ether	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Naphthalene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
n-Propylbenzene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
o-Xylene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Toluene	ND	17.0		µg/Kg-dry	1	1/4/2021 1:59:00 PM
Surr: 1,2-Dichloroethane-d4	99.4	71.5 - 124		%Rec	1	1/4/2021 1:59:00 PM
Surr: 4-Bromofluorobenzene	97.0	75.7 - 122		%Rec	1	1/4/2021 1:59:00 PM
Surr: Dibromofluoromethane	95.7	64.3 - 124		%Rec	1	1/4/2021 1:59:00 PM
Surr: Toluene-d8	102	74.9 - 120		%Rec	1	1/4/2021 1:59:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-006
Client Sample ID B-8-W

Collection Date: 12/29/2020 9:47:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**		Analyst: **TB**
Gasoline	ND	100		µg/L	1	12/31/2020 1:01:00 PM
Surr: 4-Bromofluorobenzene	108	50 - 150		%Rec	1	12/31/2020 1:01:00 PM
RBC				**SW8260D**		Analyst: **CK**
VOLATILE ORGANICS BY GC/MS						
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
Benzene	ND	0.300		µg/L	1	12/29/2020 3:51:00 PM
Ethylbenzene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
m,p-Xylene	ND	2.00		µg/L	1	12/29/2020 3:51:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
Naphthalene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
o-Xylene	ND	1.00		µg/L	1	12/29/2020 3:51:00 PM
Toluene	7.11	1.00		µg/L	1	12/29/2020 3:51:00 PM
Surr: 1,2-Dichloroethane-d4	90.8	75.3 - 126		%Rec	1	12/29/2020 3:51:00 PM
Surr: 4-Bromofluorobenzene	97.6	78.1 - 120		%Rec	1	12/29/2020 3:51:00 PM
Surr: Dibromofluoromethane	91.8	74.2 - 122		%Rec	1	12/29/2020 3:51:00 PM
Surr: Toluene-d8	107	76.2 - 135		%Rec	1	12/29/2020 3:51:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-007
Client Sample ID B-9-9

Collection Date: 12/29/2020 10:03:00 AM
Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**	**SW 5035**	Analyst: **TB**
Gasoline	13.9	4.37		mg/Kg-dry	1	12/30/2020 2:12:00 PM
Surr: 4-Bromofluorobenzene	97.5	50 - 150		%Rec	1	12/30/2020 2:12:00 PM
RBC VOLATILES				**SW8260D**	**SW 5035**	Analyst: **CK**
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,2,4-Trimethylbenzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
1,2-Dibromoethane	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
1,2-Dichloroethane	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
1,3,5-Trimethylbenzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Benzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Ethylbenzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Isopropylbenzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
m,p-Xylene	ND	35.0		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Methyl tert-butyl ether	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Naphthalene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
n-Propylbenzene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
o-Xylene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Toluene	ND	17.5		µg/Kg-dry	1	1/4/2021 2:21:00 PM
Surr: 1,2-Dichloroethane-d4	99.8	71.5 - 124		%Rec	1	1/4/2021 2:21:00 PM
Surr: 4-Bromofluorobenzene	97.2	75.7 - 122		%Rec	1	1/4/2021 2:21:00 PM
Surr: Dibromofluoromethane	97.0	64.3 - 124		%Rec	1	1/4/2021 2:21:00 PM
Surr: Toluene-d8	103	74.9 - 120		%Rec	1	1/4/2021 2:21:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits

Specialty Analytical

WO#: **2012286**
Date Reported: **1/5/2021**

CLIENT: Tim O'Gara R.G.
Project: Teufel Hanger
Lab ID: 2012286-008
Client Sample ID B-9-W

Collection Date: 12/29/2020 10:10:00 AM
Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
NWTPH-GX				**NWTPH-GX**		Analyst: **TB**
Gasoline	115	100		µg/L	1	12/31/2020 1:25:00 PM
Surr: 4-Bromofluorobenzene	109	50 - 150		%Rec	1	12/31/2020 1:25:00 PM
RBC VOLATILE ORGANICS BY GC/MS				**SW8260D**		Analyst: **CK**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
Benzene	ND	0.300		µg/L	1	12/29/2020 4:12:00 PM
Ethylbenzene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
Isopropylbenzene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
m,p-Xylene	ND	2.00		µg/L	1	12/29/2020 4:12:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
Naphthalene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
o-Xylene	ND	1.00		µg/L	1	12/29/2020 4:12:00 PM
Toluene	18.0	1.00		µg/L	1	12/29/2020 4:12:00 PM
Surr: 1,2-Dichloroethane-d4	102	75.3 - 126		%Rec	1	12/29/2020 4:12:00 PM
Surr: 4-Bromofluorobenzene	97.3	78.1 - 120		%Rec	1	12/29/2020 4:12:00 PM
Surr: Dibromofluoromethane	87.7	74.2 - 122		%Rec	1	12/29/2020 4:12:00 PM
Surr: Toluene-d8	106	76.2 - 135		%Rec	1	12/29/2020 4:12:00 PM

Qualifiers: H Holding times for preparation or analysis exceeded S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **2012286**

1/5/2021

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **8260_5035**

Sample ID **CCV MSVWS-3041** SampType: **CCV** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **38712**

Client ID: **CCV** Batch ID: **17171** TestNo: **SW8260D** **SW 5035** Analysis Date: **1/4/2021** SeqNo: **500748**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	80.9	10.0	80.00	0	101	80	120				
1,2-Dibromoethane	92.8	10.0	80.00	0	116	80	120				
1,2-Dichloroethane	89.4	10.0	80.00	0	112	80	120				
1,3,5-Trimethylbenzene	80.7	10.0	80.00	0	101	80	120				
Benzene	82.4	10.0	80.00	0	103	80	120				
Ethylbenzene	83.9	10.0	80.00	0	105	80	120				
Isopropylbenzene	83.1	10.0	80.00	0	104	80	120				
m,p-Xylene	161	20.0	160.0	0	101	80	120				
Methyl tert-butyl ether	88.0	10.0	80.00	0	110	80	120				
Naphthalene	93.9	10.0	80.00	0	117	80	120				
n-Propylbenzene	78.9	10.0	80.00	0	98.6	80	120				
o-Xylene	84.6	10.0	80.00	0	106	80	120				
Toluene	80.0	10.0	80.00	0	100	80	120				

Sample ID **MB** SampType: **MBLK** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **38712**

Client ID: **PBS** Batch ID: **17171** TestNo: **SW8260D** **SW 5035** Analysis Date: **1/4/2021** SeqNo: **500749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	10.0									
1,2-Dibromoethane	ND	10.0									
1,2-Dichloroethane	ND	10.0									

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger

TestCode: **8260_5035**

Sample ID **MB**	SampType: **MBLK**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date:	RunNo: **38712**
Client ID: **PBS**	Batch ID: **17171**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **1/4/2021**	SeqNo: **500749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	10.0									
Benzene	ND	10.0									
Ethylbenzene	ND	10.0									
Isopropylbenzene	ND	10.0									
m,p-Xylene	ND	20.0									
Methyl tert-butyl ether	ND	10.0									
Naphthalene	ND	10.0									
n-Propylbenzene	ND	10.0									
o-Xylene	ND	10.0									
Toluene	ND	10.0									
Surr: 1,2-Dichloroethane-d4	113		100.0		113	71.5	124				
Surr: 4-Bromofluorobenzene	99.4		100.0		99.4	75.7	122				
Surr: Dibromofluoromethane	105		100.0		105	64.3	124				
Surr: Toluene-d8	96.9		100.0		96.9	74.9	120				

Sample ID **2012286-007AMS**	SampType: **MS**	TestCode: **8260_5035**	Units: **µg/Kg-dry**	Prep Date:	RunNo: **38712**
Client ID: **B-9-9**	Batch ID: **17171**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **1/4/2021**	SeqNo: **500754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	87.7	17.5	70.00	0	125	70	130				
1,2-Dibromoethane	77.2	17.5	70.00	0	110	70	130				

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger

TestCode: 8260_5035

Sample ID **2012286-007AMS** SampType: **MS** TestCode: **8260_5035** Units: **µg/Kg-dry** Prep Date: RunNo: **38712**
Client ID: **B-9-9** Batch ID: **17171** TestNo: **SW8260D** **SW 5035** Analysis Date: **1/4/2021** SeqNo: **500754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloroethane	77.3	17.5	70.00	0	110	70	130				
1,3,5-Trimethylbenzene	76.4	17.5	70.00	0	109	70	130				
Benzene	74.1	17.5	70.00	0	106	71.7	147				
Ethylbenzene	74.2	17.5	70.00	0	106	70	130				
Isopropylbenzene	83.7	17.5	70.00	0	120	70	130				
m,p-Xylene	152	35.0	140.0	0	109	70	130				
Methyl tert-butyl ether	75.9	17.5	70.00	0	108	70	130				
Naphthalene	88.3	17.5	70.00	0	126	70	130				
n-Propylbenzene	78.9	17.5	70.00	0	113	70	130				
o-Xylene	77.6	17.5	70.00	0	111	70	130				
Toluene	75.2	17.5	70.00	0	107	75.8	153				

Sample ID **2012286-007AMSD** SampType: **MSD** TestCode: **8260_5035** Units: **µg/Kg-dry** Prep Date: RunNo: **38712**
Client ID: **B-9-9** Batch ID: **17171** TestNo: **SW8260D** **SW 5035** Analysis Date: **1/4/2021** SeqNo: **500755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	78.5	17.5	70.00	0	112	70	130	87.68	11.0	20	
1,2-Dibromoethane	81.0	17.5	70.00	0	116	70	130	77.18	4.85	20	
1,2-Dichloroethane	79.1	17.5	70.00	0	113	70	130	77.34	2.24	20	
1,3,5-Trimethylbenzene	77.4	17.5	70.00	0	111	70	130	76.36	1.37	20	
Benzene	74.1	17.5	70.00	0	106	71.7	147	74.06	0	20	

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger **TestCode: 8260_5035**

Sample ID **2012286-007AMSD**	SampType: **MSD**	TestCode: **8260_5035**	Units: **µg/Kg-dry**	Prep Date:	RunNo: **38712**
Client ID: **B-9-9**	Batch ID: **17171**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **1/4/2021**	SeqNo: **500755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	75.0	17.5	70.00	0	107	70	130	74.15	1.13	20	
Isopropylbenzene	74.7	17.5	70.00	0	107	70	130	83.69	11.4	20	
m,p-Xylene	154	35.0	140.0	0	110	70	130	152.0	1.17	20	
Methyl tert-butyl ether	78.5	17.5	70.00	0	112	70	130	75.88	3.45	20	
Naphthalene	87.0	17.5	70.00	0	124	70	130	88.31	1.44	20	
n-Propylbenzene	76.8	17.5	70.00	0	110	70	130	78.88	2.61	20	
o-Xylene	76.5	17.5	70.00	0	109	70	130	77.56	1.39	20	
Toluene	72.8	17.5	70.00	0	104	75.8	153	75.17	3.17	20	

Sample ID **LCS MSVWS-3041**	SampType: **LCS**	TestCode: **8260_5035**	Units: **µg/Kg**	Prep Date:	RunNo: **38712**
Client ID: **LCSS**	Batch ID: **17171**	TestNo: **SW8260D**	**SW 5035**	Analysis Date: **1/4/2021**	SeqNo: **500781**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	80.9	10.0	80.00	0	101	70	130				
1,2-Dibromoethane	92.8	10.0	80.00	0	116	70	130				
1,2-Dichloroethane	89.4	10.0	80.00	0	112	70	130				
1,3,5-Trimethylbenzene	80.7	10.0	80.00	0	101	70	130				
Benzene	82.4	10.0	80.00	0	103	74.3	136				
Ethylbenzene	83.9	10.0	80.00	0	105	70	130				
Isopropylbenzene	83.1	10.0	80.00	0	104	70	130				
m,p-Xylene	161	20.0	160.0	0	101	70	130				

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **2012286**

1/5/2021

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **8260_5035**

Sample ID **LCS MSVWS-3041** SampType: **LCS** TestCode: **8260_5035** Units: **µg/Kg** Prep Date: RunNo: **38712**

Client ID: **LCSS** Batch ID: **17171** TestNo: **SW8260D** **SW 5035** Analysis Date: **1/4/2021** SeqNo: **500781**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether	88.0	10.0	80.00	0	110	70	130				
Naphthalene	93.9	10.0	80.00	0	117	70	130				
n-Propylbenzene	78.9	10.0	80.00	0	98.6	70	130				
o-Xylene	84.6	10.0	80.00	0	106	70	130				
Toluene	80.0	10.0	80.00	0	100	75.1	123				

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger **TestCode:** **8260_W**

Sample ID **CCV MSVWS-3037**	SampType: **CCV**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **CCV**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500361**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	38.5	1.00	40.00	0	96.2	80	120				
1,2-Dibromoethane	38.1	1.00	40.00	0	95.3	80	120				
1,2-Dichloroethane	38.9	1.00	40.00	0	97.2	80	120				
1,3,5-Trimethylbenzene	38.5	1.00	40.00	0	96.3	80	120				
Benzene	45.2	0.300	40.00	0	113	80	120				
Ethylbenzene	38.0	1.00	40.00	0	95.1	80	120				
Isopropylbenzene	38.0	1.00	40.00	0	95.1	80	120				
m,p-Xylene	75.2	2.00	80.00	0	94.1	80	120				
Methyl tert-butyl ether	39.9	1.00	40.00	0	99.7	80	120				
Naphthalene	37.0	1.00	40.00	0	92.5	80	120				
n-Propylbenzene	38.4	1.00	40.00	0	96.0	80	120				
o-Xylene	37.8	1.00	40.00	0	94.4	80	120				
Toluene	38.4	1.00	40.00	0	96.0	80	120				

Sample ID **2012262-001AMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **BatchQC**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500362**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	41.4	1.00	40.00	0	104	70	130				
1,2-Dibromoethane	42.0	1.00	40.00	0	105	70	130				
1,2-Dichloroethane	40.0	1.00	40.00	0	99.9	70	130				

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger

TestCode: **8260_W**

Sample ID **2012262-001AMS**	SampType: **MS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **BatchQC**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500362**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	41.4	1.00	40.00	0	104	70	130				
Benzene	45.8	0.300	40.00	0	115	74.1	136				
Ethylbenzene	41.8	1.00	40.00	0	105	70	130				
Isopropylbenzene	41.6	1.00	40.00	0	104	70	130				
m,p-Xylene	83.2	2.00	80.00	0	104	70	130				
Methyl tert-butyl ether	37.8	1.00	40.00	0	94.6	70	130				
Naphthalene	46.1	1.00	40.00	0	115	70	130				
n-Propylbenzene	41.2	1.00	40.00	0	103	70	130				
o-Xylene	41.5	1.00	40.00	0	104	70	130				
Toluene	41.6	1.00	40.00	0	104	68.4	135				

Sample ID **2012262-001AMSD**	SampType: **MSD**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **BatchQC**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500363**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	37.5	1.00	40.00	0	93.8	70	130	41.44	9.96	20	
1,2-Dibromoethane	37.0	1.00	40.00	0	92.5	70	130	41.95	12.6	20	
1,2-Dichloroethane	46.3	1.00	40.00	0	116	70	130	39.96	14.7	20	
1,3,5-Trimethylbenzene	37.3	1.00	40.00	0	93.2	70	130	41.42	10.5	20	
Benzene	44.3	0.300	40.00	0	111	74.1	136	45.83	3.30	20	
Ethylbenzene	35.9	1.00	40.00	0	89.8	70	130	41.82	15.2	20	

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**

1/5/2021

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **8260_W**

Sample ID **2012262-001AMSD**	SampType: **MSD**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **BatchQC**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500363**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	37.6	1.00	40.00	0	94.1	70	130	41.65	10.2	20	
m,p-Xylene	71.5	2.00	80.00	0	89.4	70	130	83.25	15.2	20	
Methyl tert-butyl ether	38.3	1.00	40.00	0	95.7	70	130	37.82	1.21	20	
Naphthalene	44.6	1.00	40.00	0	112	70	130	46.13	3.28	20	
n-Propylbenzene	37.3	1.00	40.00	0	93.3	70	130	41.17	9.84	20	
o-Xylene	36.2	1.00	40.00	0	90.5	70	130	41.48	13.6	20	
Toluene	34.8	1.00	40.00	0	87.1	68.4	135	41.63	17.8	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **PBW**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500364**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger **TestCode:** **8260_W**

Sample ID **MB**	SampType: **MBLK**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **PBW**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500364**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	1.00									
n-Propylbenzene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	113		100.0		113	75.3	126				
Surr: 4-Bromofluorobenzene	98.4		100.0		98.4	78.1	120				
Surr: Dibromofluoromethane	90.4		100.0		90.4	74.2	122				
Surr: Toluene-d8	105		100.0		105	76.2	135				

Sample ID **LCS MSVWS-3037**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **LCSW**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500378**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	38.5	1.00	40.00	0	96.2	80	120				
1,2-Dibromoethane	38.1	1.00	40.00	0	95.3	80	120				
1,2-Dichloroethane	38.9	1.00	40.00	0	97.2	80	120				
1,3,5-Trimethylbenzene	38.5	1.00	40.00	0	96.3	80	120				
Benzene	45.2	0.300	40.00	0	113	76.8	125				
Ethylbenzene	38.0	1.00	40.00	0	95.1	80	120				
Isopropylbenzene	38.0	1.00	40.00	0	95.1	80	120				
m,p-Xylene	75.2	2.00	80.00	0	94.1	80	120				

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **2012286**

1/5/2021

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **8260_W**

Sample ID **LCS MSVWS-3037**	SampType: **LCS**	TestCode: **8260_W**	Units: **µg/L**	Prep Date:	RunNo: **38673**
Client ID: **LCSW**	Batch ID: **R38673**	TestNo: **SW8260D**		Analysis Date: **12/29/2020**	SeqNo: **500378**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether	39.9	1.00	40.00	0	99.7	80	120				
Naphthalene	37.0	1.00	40.00	0	92.5	80	120				
n-Propylbenzene	38.4	1.00	40.00	0	96.0	80	120				
o-Xylene	37.8	1.00	40.00	0	94.4	80	120				
Toluene	38.4	1.00	40.00	0	96.0	82	122				

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **2012286**

1/5/2021

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **NWTPHGX_5035**

Sample ID **MB-17156**	SampType: **MBLK**	TestCode: **NWTPHGX_5**	Units: **mg/Kg**	Prep Date: **12/30/2020**	RunNo: **38692**
Client ID: **PBS**	Batch ID: **17156**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **12/30/2020**	SeqNo: **500515**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	2.50									
Surr: 4-Bromofluorobenzene	9.75		10.00		97.5	50	150				

Sample ID **LCS-17156**	SampType: **LCS**	TestCode: **NWTPHGX_5**	Units: **mg/Kg**	Prep Date: **12/30/2020**	RunNo: **38692**
Client ID: **LCSS**	Batch ID: **17156**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **12/30/2020**	SeqNo: **500516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	59.8	2.50	62.50	0	95.7	53.5	121				

Sample ID **2012286-001ADUP**	SampType: **DUP**	TestCode: **NWTPHGX_5**	Units: **mg/Kg-dry**	Prep Date: **12/30/2020**	RunNo: **38692**
Client ID: **B-6-7**	Batch ID: **17156**	TestNo: **NWTPH-Gx**	**SW 5035**	Analysis Date: **12/30/2020**	SeqNo: **500518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	4.16						0	0	20	RRF

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Specialty Analytical

WO#: **2012286**
1/5/2021

Client: Tim O'Gara R.G.
Project: Teufel Hanger
TestCode: **NWTPHGX_W**

Sample ID **LCS-R38698**	SampType: **LCS**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **38698**
Client ID: **LCSW**	Batch ID: **R38698**	TestNo: **NWTPH-Gx**		Analysis Date: **12/31/2020**	SeqNo: **500559**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1890	100	2000	0	94.6	74.4	128				

Sample ID **MB-R38698**	SampType: **MBLK**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **38698**
Client ID: **PBW**	Batch ID: **R38698**	TestNo: **NWTPH-Gx**		Analysis Date: **12/31/2020**	SeqNo: **500560**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	100									
Surr: 4-Bromofluorobenzene	110		100.0		110	50	150				

Sample ID **2012286-004ADUP**	SampType: **DUP**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **38698**
Client ID: **B-7-W**	Batch ID: **R38698**	TestNo: **NWTPH-Gx**		Analysis Date: **12/31/2020**	SeqNo: **500563**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	113	100						112.0	0.889	20	

Sample ID **CCV-R38698**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **38698**
Client ID: **CCV**	Batch ID: **R38698**	TestNo: **NWTPH-Gx**		Analysis Date: **12/31/2020**	SeqNo: **500566**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
H Holding times for preparation or analysis exceeded
S Spike Recovery outside accepted recovery limits
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **2012286**

1/5/2021

Specialty Analytical

Client: Tim O'Gara R.G.

Project: Teufel Hanger

TestCode: **NWTPHGX_W**

Sample ID	**CCV-R38698**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	RunNo: **38698**
Client ID:	**CCV**	Batch ID: **R38698**	TestNo: **NWTPH-Gx**		Analysis Date: **12/31/2020**	SeqNo: **500566**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2930	100	3000	0	97.8	80	120				

Qualifiers:

H Holding times for preparation or analysis exceeded

S Spike Recovery outside accepted recovery limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

www.specialtyanalytical.com

Chain of Custody Record 2012286

Specialty Analytical
9011 SE Jannsen Rd
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Date: 12/29/2020 Page: 1 of: 1
Project Name: TEUFEL HANGER
Laboratory Project No (internal): ~~2012286~~
Temperature on Receipt: 3.4 (IR) °C
Client: TIM O'GARA
Project No: PO No:
Custody Seal: Y / N
Address:
Collected by: TIM O'GARA
Intact / Broken Cooler / Bottle
City, State, Zip:
State Collected: OR WA OTHER
Shipped Via: UPS
Telephone:
Report To (PM):
Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 60 days)
AP Email:
PM Email:

	Sample Name	Sample Date	Sample Time	Sample Matrix*	# of Containers	Requested Tests: NWTPH-Dx	RBDA VOCs 8260												Comments
1	B-6-7	12/29	8:45	S	1	X	X												
2	D-6		8:54	W	3	X	X												
3	B-7-4		9:22	S	1	X	X												
4	B-7-W		9:35	W	3	X	X												
5	B-5-2.5		9:41	S	1	X	X												
6	B-5-W		9:47	W	3	X	X												
7	B-9-9'		10:3	S	1	X	X												
8	B-9-W		10:6	W	3	X	X												
9																			
10																			

*Matrix: A = Air, AQ = Aqueous, L=Liquid, O = Oil, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water, M = Miscellaneous

Turn-around Time: Standard (5-7 Business): _____ 3 Day: _____ 2 Day: _____ Next Day: _____ Same Day: _____

Relinquished	Date/Time	Received	Date/Time
x	12/29 12:55	x	12/29/2020 12:55
x		x	
x		x	

APPENDIX B
PERMITS/DEQ FORMS

State of Oregon Department of Environmental Quality

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

UNDERGROUND STORAGE TANK DECOMMISSIONING CHECKLIST AND SITE ASSESSMENT REPORT

A. FACILITY INFORMATION:

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

DEQ FACILITY NUMBER: 10591

FACILITY NAME: Teufel Hangar

FACILITY ADDRESS: 3115 NE Cornell Rd, HILLSBORO, OR 97124

PERMITTEE PHONE: 360-577-9194 DATE: 9/13/2023

B. WORK PERFORMED BY:

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

DEQ Service Provider's License #: 16356 Construction Contractors Board License #: 141376

Name: Anderson Environmental Contracting

Telephone: 360-577-9194

DEQ Decommissioning Supervisor's License #: 10286368

Name: Kyle Johnson

Telephone: 208-761-2023

DEQ Soil Matrix Service Provider's License #: (If applicable)

Name: Chris Sheridan

Telephone: 503-475-6835

DEQ Soil Matrix Supervisor's License #: (If applicable)

Name:

Telephone:

C. DATES:

Decommissioning/Change-in-Service Notice - Date Submitted: 5/1/2023 (30 days before work starts).

Work Start Telephone Notice - Number issued by DEQ: 34-3D-23-029 (3 working days before work starts).

DEQ Person Notified: Lauren Dimock

Date Work Started: 9/12/2023 Date Work Completed: 9/14/2023

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

Date Contamination Reported: 9/23/2023 By: HydroCon

DEQ Person Notified: Gerald.GAMOLO@deq.oregon.gov

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

DEQ Water Discharge Permit #: N/A Date:

Water Disposed to (Location): N/A

DEQ Solid Waste Disposal Permit #: 141170OR Date: 9/19/2023

Soil Disposal or Treatment Location: Hillsboro WM

E. TANK INFORMATION:

			PRODUCT: GASOLINE, DIESEL, USED OIL, OTHER?		CLOSURE OR CHANGE-IN- SERVICE?			TANK TO BE REPLACED?	
TANK ID #	DEQ-UST PERMIT #	TANK SIZE IN GALLONS	PRESENT	NEW	TANK REMOVAL	CLOSURE IN PLACE♦	CHANGE IN SERVICE♦	YES	NO
1	BAJDG	6000	JET-A		✓				✓
2	BAJDH	6000	JET-A		✓				✓

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

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

F. DISPOSAL INFORMATION:

	TANK AND PIPING DISPOSAL METHOD				DISPOSAL LOCATION OF TANK CONTENTS	
TANK ID #	SCRAP	LAND-FILL	OTHER	IDENTIFY LOCATION & PROPERTY OWNER	LIQUIDS	SLUDGES
1	☐	☐	☑		ORRCO	ORCCO
2	☐	☐	☑		ORRCO	ORRCO
	☐	☐	☐			
	☐	☐	☐			
	☐	☐	☐			

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

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

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

G. CONTAMINATION INFORMATION:

TANK ID #	GROUND WATER IN PIT ?	PRODUCT ODOR IN SOIL ?	PRODUCT STAINS IN SOIL ?	NUMBER OF SAMPLES	LABORATORY (NAME, CITY, STATE, PHONE)
1	☐	☑	☐	2	Apex Laboratories Tigard, OR 503-718-2323
2	☐	☑	☐	2	Apex Laboratories Tigard, OR 503-718-2323
	☐	☐	☐		
	☐	☐	☐		
	☐	☐	☐		

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

NOTE 2: If contamination is detected, DEQ requires you notify both the UST Program and Clean Up Program within 24 hours of observed contamination and/or analytical results. You must submit a **20 Day Report Form for UST Cleanup Projects** to the Cleanup Program and attach a copy of the form to this checklist.

I. SAFETY EQUIPMENT ON JOB SITE:

Fire Extinguisher:	Type/Size:	20-pound	Recharge Date:	8/10/2023
Combustible Gas Detector:	Model:	MX-4	Calibration Date:	9/15/2023
Oxygen Analyzer:	Model:	MX-4	Calibration Date:	9/15/2023

J. DECOMMISSIONING:

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

K. TANK ABANDONMENT IN-PLACE:

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

L. TANK REMOVAL:

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

M. SITE ASSESSMENT:

All Tanks: N/A = Not Applicable (Check (√) Appropriate Box)	YES	NO	UNKNOWN	N/A
25. Site assessed for contamination? See OAR 340-122-0340	✓			
26. Soil samples taken and analyzed?	✓			
27. Was contamination found? Date/Time: 9/13/2023	✓			
28. Was hazardous waste determination made for tank contents (Liquids/sludges)?	✓			

N. REQUIRED SIGNATURES:

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

Permittee or Tank Owner: Kyle Johnson
(Please Print)

Permittee or Tank Owner: Kyle Johnson Digitally signed by Kyle Johnson DN: C=US, E=KyleJ@AECLLC.net, O=AEC, OU=Environmental, CN=Kyle Johnson Date: 2023.11.02 09:32:23-07'00' Date:
(Signature)

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

Licensed Supervisor: Kyle Johnson
(Please Print)

Licensed Supervisor: Kyle Johnson Digitally signed by Kyle Johnson DN: C=US, E=KyleJ@AECLLC.net, O=AEC, OU=Environmental, CN=Kyle Johnson Date: 2023.11.02 09:32:37-07'00' Date:
(Signature)

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

Executive Officer: Brian Gabbard
Licensed Service Provider *(Please Print)*

Executive Officer: Date: 11/20/2023
Licensed Service Provider *(Signature)*

O. REPORT FILING:

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

P. HELP WITH THIS REPORT:

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

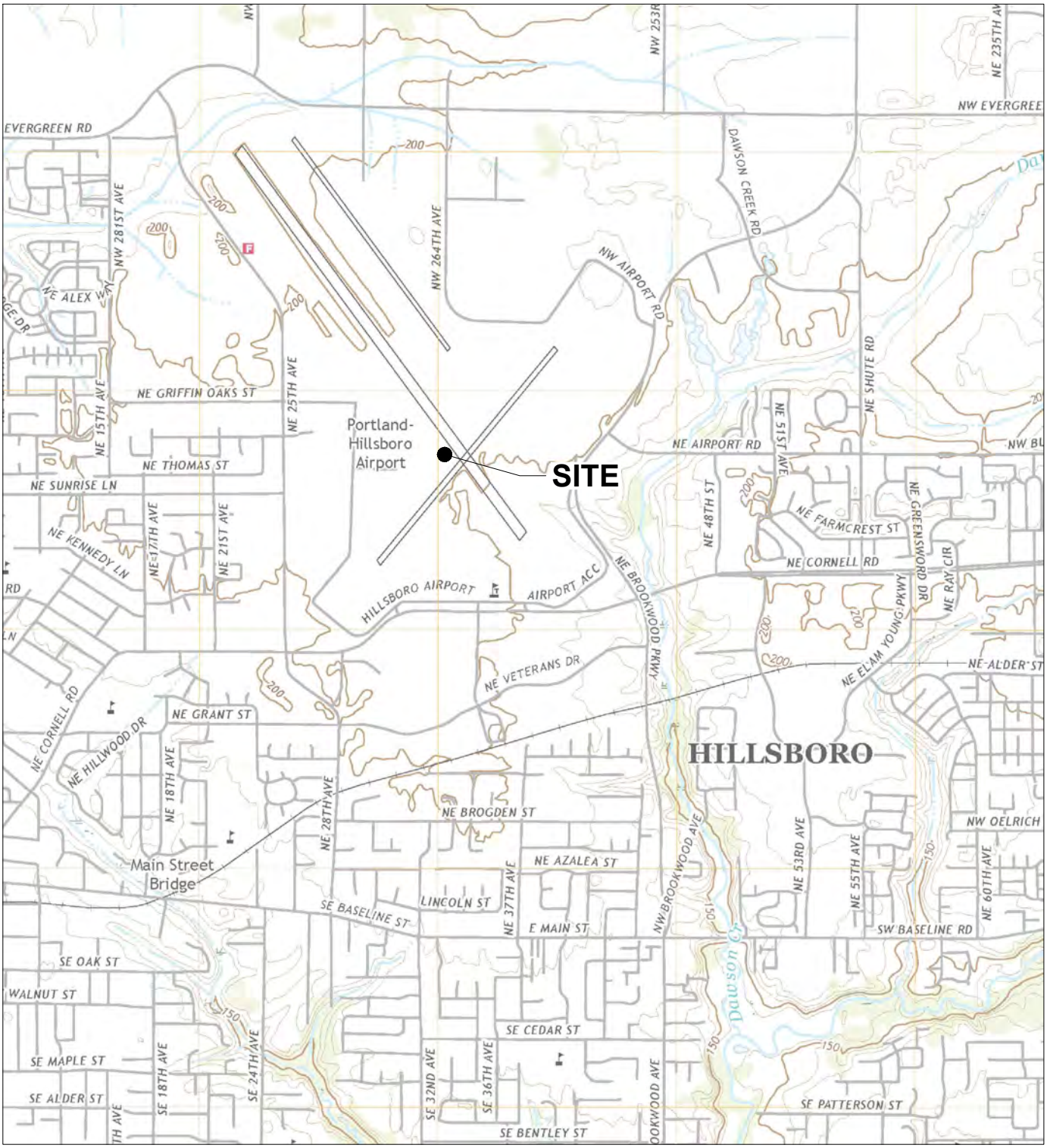
Q. COPIES OF THE GENERAL PERMIT TO DECOMMISSION OR COMPLETE A CHANGE-IN-SERVICE:

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

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

https://www.oregon.gov/deq/tanks/Pages/UST-Forms.aspx

NORTHWEST REGION	WESTERN REGION / EUGENE	WESTERN REGION / MEDFORD
700 NE MULTNOMAH ST.	165 EAST 7TH AVE., SUITE 100	221 STEWART AVE., SUITE 201
PORTLAND, OR 97232 Phone:	EUGENE, OR 97401	MEDFORD, OR 97501
503-229-5263	Phone: 541-686-7838	Phone: 541-776-6010
Fax: 503-229-6945	Fax: 541-686-7551	Fax: 541-776-6262



NOTE(S):
USGS, HILLSBORO QUADRANGLE
OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)

0 2000 4000
SCALE IN FEET
1" = 2000'

N E

HydroCon
An ACC Environmental Consultants, Inc. Company
3925 NE 72nd Avenue, Suite 103, Vancouver, Washington 98661
Phone 360.703.6079 Fax 360.703.6086

DATE: 11-21-23
DWN: MW
CHK: CS
APPROVED: CS
PRJ. MGR: CS
PROJECT NO: 10024-017

FIGURE 1
SITE LOCATION MAP

HILLSBORO AIRPORT UST REMOVAL
3115 NE CORNELL ROAD
HILLSBORO, OREGON

S:\2023 Projects\10024-017.00 AEC Hillsboro Airport\Figures\10024-017.00_F1-F3 DRAFT.dwg

Disp-1
Disp-3-2.5
Disp-2-2.5
Disp-4-4.5
Disp-5-4.5
Former Dispensers
Former Product Piping
Remedial Excavation (Approximate)
Piping-1
T2-NW-13.5
T1-NW-13.5
T2-SW-13.5
T1-SW-13.5
Former USTs
(8.0' x 20.0')
Existing Hangar

Legend

T1-SW-13.5 Decommissioning Soil Sample Location (HydroCon, 2023)

Subject Site Property Boundary (Approximate)

N W E S

0 16 32

SCALE IN FEET
1" = 16'

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FIGURE 2
DECOMMISSIONING AND SOIL SAMPLE LOCATIONS

HILLSBORO AIRPORT UST REMOVAL
3115 NE CORNELL ROAD
HILLSBORO, OREGON

S:\2023 Projects\10024-017.00 AEC Hillsboro Airport\Figures\10024-017.00_F1-F3 DRAFT.dwg

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

Initial (Twenty Day) Report Form for UST Cleanup Projects

This report is due twenty (20) days from the date of the release.

DEQ USTC File No. 34-23-0710

DEQ Facility ID No. 10591

Site Name: Teufel Hangar

Site Address: 3115 NE Cornell Rd, HILLSBORO, OR 97124

INITIAL CLEANUP INFORMATION

(1) Type of contamination (check √ all that apply):

☐ Gasoline ☐ Diesel ☐ Waste Oil ☐ Heating Oil

☑ Other (specify) Jet A

(2) Estimate quantity of release (based on information known to date – ● select only one):

◉ <100 gal. ○ 100-499 gal. ○ 500-999 gal. ○ 1,000-5,000 gal. ○ >5,000 gal.

SITE INFORMATION (check √ yes or √ no)

(3) ☐ Y ☑ N Did any water enter the excavation? If yes, please describe and identify the depth to groundwater in feet below ground surface: _____

(4) ☐ Y ☑ N Was a sheen or odor observed on any water in the excavation?

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BTEX and by the appropriate TPH method.

At sites where diesel or other non-gasoline products have been released, the water may also have to be screened or tested for polynuclear aromatic hydrocarbons (PAHs). *Please refer to OAR 340-122-0218.*

(5) ☐ Y ☑ N Was water pumped from the excavation?

☐ Y ☑ N If yes, did groundwater recharge within 24 hours after pumping?

Please describe the pumping procedure and disposal option selected for the purged excavation water:

n/a

(6) ☐ Y ☑ N Were any water samples collected from the excavation? If yes, please describe:

(7) ☑ Y ☐ N Have any soil and/or water sample results been received at this time?

If so, please attach any lab reports.

IF GROUNDWATER HAS BEEN ENCOUNTERED, PLEASE ANSWER QUESTIONS #8-13, BELOW.
IF NO WATER HAS BEEN ENCOUNTERED, PLEASE SKIP TO QUESTION #14

(8) What are the known uses of groundwater within a 500-foot radius of the release site (check √ all that apply)?

☑ non-use ☐ industrial ☐ agricultural ☐ drinking supply

(9) If groundwater in this area is being used as a drinking water supply, please check √ the type and size of population served by the supply:

☐ Community (community well used for drinking water year round – ● select only one)

size: ○ <1,000 people ○ 1,000 - 5,000 people ○ >5,000 people

☐ Intermittent use (public water used for drinking water only on a part-time basis – ● select only one)

size: ○ <50 people ○ 50 - 300 people ○ > 300 people

☐ Private wells (individual private water well or wells used for drinking water – ● select only one)

size: ○ <10 people ○ 10 - 25 people ○ >25 people

(10) ☐ **Y** ☐ **N** Is there any evidence this water supply has been or is likely to be impacted from the petroleum product release? If yes, estimate how difficult it would be to replace the existing supply:

☐ bottled water is the only alternative

☐ on-site water treatment; bulk water delivery; new wells are available

☐ able to connect to existing water supply

☐ do not know what alternatives would be available

(11) ☐ **Y** ☑ **N** Are/were vapors present in on-site or nearby buildings? If yes:

A. Are you monitoring and/or mitigating any potential fire and safety hazards posed by vapors and free product? Explain: _____

B. Estimate the number of people potentially affected by vapors – ● select only one:

○ 1-2 people ○ 3-10 people ○ >10 people

(12) ☐ **Y** ☑ **N** Are vapors or is petroleum contamination present in the utility corridors?

If yes, please explain: _____

(13) ☐ **Y** ☑ **N** Are natural areas located within 1/4 mile of the site? If so, please describe types (parks, rivers, wetlands, sensitive habitats, *etc.*) and proximity: _____

_____

(14) ☑ **Y** ☐ **N** If groundwater was not encountered in the excavation, do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site? If yes, then refer to OAR 340-122-0305 through 0360.

AREA/SITE CONDITIONS:

(15) Mean annual rainfall: ○ <20 inches ◉ 20-45 inches ○ >45 inches

(16) Soil type(s) of the naturally occurring soils, not the backfill around the tank – ● select only one:

○ clays, compact tills, shales, and unfractured metamorphic and igneous rocks

◉ sandy loams, loamy sands, silty clays, clay loams, moderately permeable limestone, dolomite, sandstones, moderately fractured igneous and metamorphic rock

○ fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rock, permeable basalts and lavas, karst limestones and dolomites

SOIL MANAGEMENT

(17) If soil sample results have been received:

☐ Y ☑ N Will the level of contamination detected require removal of contaminated soil for treatment or disposal?

(18) All contaminated soil temporarily stockpiled on-site prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why:

Some PCS was already excavated near the dispensers and some from the tank pit. Confirmation samples were collected. PCS was properly managed and disposed.

Note: It is a violation to stockpile petroleum contaminated soil (PCS) on-site for greater than 30 days without a DEQ Solid Waste Letter Authorization (SWLA) Permit.

(19) If contaminated soil is currently stockpiled on-site, please indicate when disposal will occur or when treatment will begin: Soil was removed to Hillsboro WM.

(20) Estimated volume of contaminated soil (specify tons or cubic yards): ~100 cys

(21) Intended disposition of soils (please ● select only one):

○ On-site/off-site treatment, Solid Waste Letter Authorization Permit Application attached.

○ Thermal treatment off-site at an authorized facility.
Facility name: _____

◉ Landfill disposal.
Name of Landfill: Hillsboro Waste Management

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports should provide a more detailed and complete picture of the cleanup project.

Please be aware that a DEQ permit/authorization is required for the following activities:

1) Soil aeration, bioremediation (on-site or off-site), or on-site thermal treatment.

2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

THIS REPORT WAS PREPARED BY:

Individual: Christopher Sheridan Date: 10/9/23

Company: Hydrocon Phone: 503.475.6835

Address: 3925 NE 72nd Ave, Suite 103

City: Vancouver State WA Zip 98661

1. Please return this form to the regional office in which the site is located. If you have questions, call the contact person in your regional office.

2. For all tanks, except heating oil tanks, you must submit an *UST Decommissioning Checklist and Site Assessment Report* to the appropriate regional office within 30 days of the UST decommissioning. Failure to do so can result in delays to your project and may result in continued billing for the annual tank permit fees.

3. Addresses and phone numbers for the regional offices can be found in the *UST Cleanup Manual* or viewed and downloaded from this DEQ Webpage: http://www.deq.state.or.us/about/locations.htm

4. Copies of the *UST Cleanup Manual* and other UST program forms and checklists can be viewed and downloaded from DEQ's Website: http://www.deq.state.or.us/lq/tanks/ust/index.htm

or in the Portland area by calling Steve Paiko at 503-229-6652

or outside the Portland area leaving a message on the UST Help Line (toll-free in Oregon) at 1-800-742-7878

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

Clears All Entries Print Form

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

ANALYTICAL REPORT

AMENDED REPORT

Monday, September 18, 2023

Chris Sheridan
HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

RE: A3I1065 - Hillsboro Airport - 10024-017.00

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

Enclosed are the results of analyses for work order A3I1065, which was received by the laboratory on 9/13/2023 at 4:24:00PM.

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

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

Cooler Receipt Information		
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.		
(See Cooler Receipt Form for details)		
Default Cooler	9.7	degC

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

Apex Laboratories

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T1-SW-13.5	A3I1065-01	Soil	09/13/23 14:15	09/13/23 16:24
T1-NW-13.5	A3I1065-02	Soil	09/13/23 14:20	09/13/23 16:24
T2-SE-13.5	A3I1065-03	Soil	09/13/23 14:50	09/13/23 16:24
T2-NE-13.5	A3I1065-04	Soil	09/13/23 14:55	09/13/23 16:24
Piping-1	A3I1065-05	Soil	09/13/23 14:25	09/13/23 16:24
Disp-1	A3I1065-06	Soil	09/13/23 14:30	09/13/23 16:24
Disp-2-2.5	A3I1065-07	Soil	09/13/23 14:35	09/13/23 16:24
Disp-3-2.5	A3I1065-08	Soil	09/13/23 14:40	09/13/23 16:24

Apex Laboratories

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL CASE NARRATIVE

Work Order: A3I1065

Amended Report Revision 1

This report supersedes all previous reports.

The Final Report has been amended to include 8270 SIM PAH results for sample Disp-3-2.5 (Apex Lab WO A3I1065-08).

Cameron O'Brien
Project Manager
9/15/23

Apex Laboratories

Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

Project: **Hillsboro Airport**
Project Number: **10024-017.00**
Project Manager: **Chris Sheridan**

Report ID:
A3I1065 - 09 18 23 1521

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	26.8	mg/kg dry	1	09/15/23 02:10	NWTPH-Dx	
Oil	ND	---	53.5	mg/kg dry	1	09/15/23 02:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:10*	*NWTPH-Dx*	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	26.5	mg/kg dry	1	09/15/23 02:30	NWTPH-Dx	
Oil	ND	---	52.9	mg/kg dry	1	09/15/23 02:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 87 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:30*	*NWTPH-Dx*	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	20.3	mg/kg dry	1	09/15/23 02:51	NWTPH-Dx	
Oil	ND	---	40.5	mg/kg dry	1	09/15/23 02:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:51*	*NWTPH-Dx*	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	25.9	mg/kg dry	1	09/15/23 03:12	NWTPH-Dx	
Oil	ND	---	51.8	mg/kg dry	1	09/15/23 03:12	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/15/23 03:12*	*NWTPH-Dx*	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	25.4	mg/kg dry	1	09/15/23 03:33	NWTPH-Dx	
Oil	ND	---	50.7	mg/kg dry	1	09/15/23 03:33	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*09/15/23 03:33*	*NWTPH-Dx*	
Disp-1 (A3I1065-06RE1)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	**90.7**	---	20.5	mg/kg dry	1	09/14/23 10:11	NWTPH-Dx	**F-13**
Oil	**41.1**	---	41.0	mg/kg dry	1	09/14/23 10:11	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 69 %*		*Limits: 50-150 %*	*1*	*09/14/23 10:11*	*NWTPH-Dx*	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	ND	---	25.8	mg/kg dry	1	09/14/23 00:10	NWTPH-Dx	
Oil	ND	---	51.6	mg/kg dry	1	09/14/23 00:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 52 %*		*Limits: 50-150 %*	*1*	*09/14/23 00:10*	*NWTPH-Dx*	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0397**		

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	**1730**	---	25.1	mg/kg dry	1	09/14/23 00:31	NWTPH-Dx	**F-13**
Oil	ND	---	50.2	mg/kg dry	1	09/14/23 00:31	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 69 %*		*Limits: 50-150 %*	*1*	*09/14/23 00:31*	*NWTPH-Dx*	

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0157	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Toluene	ND	---	0.0783	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Ethylbenzene	ND	---	0.0391	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Xylenes, total	ND	---	0.117	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Naphthalene	ND	---	0.157	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0124	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Toluene	ND	---	0.0620	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Ethylbenzene	ND	---	0.0310	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Xylenes, total	ND	---	0.0930	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Naphthalene	ND	---	0.124	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0120	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Toluene	ND	---	0.0600	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Ethylbenzene	ND	---	0.0300	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Xylenes, total	ND	---	0.0900	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Naphthalene	ND	---	0.120	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*79-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0121	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Toluene	ND	---	0.0603	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Ethylbenzene	ND	---	0.0301	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Xylenes, total	ND	---	0.0904	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Naphthalene	ND	---	0.121	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	

Apex Laboratories

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Cameron O'Brien, Project Manager

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6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0427**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0128	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Toluene	ND	---	0.0641	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Ethylbenzene	ND	---	0.0320	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Xylenes, total	ND	---	0.0961	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Naphthalene	ND	---	0.128	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
Disp-1 (A3I1065-06)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.00766	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Toluene	ND	---	0.0383	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Ethylbenzene	ND	---	0.0191	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Xylenes, total	**0.0831**	---	0.0574	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Naphthalene	**0.0969**	---	0.0766	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*79-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0154	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Toluene	ND	---	0.0768	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Ethylbenzene	**0.0561**	---	0.0384	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Xylenes, total	**0.429**	---	0.115	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Naphthalene	ND	---	0.154	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*79-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	**0.176**	---	0.136	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Toluene	**3.49**	---	0.679	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Ethylbenzene	**3.14**	---	0.339	mg/kg dry	500	09/14/23 19:59	5035A/8260D	

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
6700 S.W. Sandburg Street
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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0427**		
Xylenes, total	**20.8**	---	1.02	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Naphthalene	**4.33**	---	1.36	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*79-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0457**		
Acenaphthene	ND	---	0.0720	mg/kg dry	10	09/15/23 19:40	EPA 8270E	R-02
Acenaphthylene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benz(a)anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(a)pyrene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(b)fluoranthene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(k)fluoranthene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Chrysene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Fluoranthene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Fluorene	**0.0908**	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Phenanthrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Pyrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Carbazole	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Dibenzofuran	ND	---	0.0812	mg/kg dry	10	09/15/23 19:40	EPA 8270E	R-02
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*292 %*	*Limits:*	*37-122 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	*S-06*
2-Fluorobiphenyl (Surr)			*67 %*		*44-120 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
Phenol-d6 (Surr)			*73 %*		*33-122 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
p-Terphenyl-d14 (Surr)			*71 %*		*54-127 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
2-Fluorophenol (Surr)			*75 %*		*35-120 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
2,4,6-Tribromophenol (Surr)			*58 %*		*39-132 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
Disp-3-2.5 (A3I1065-08RE1)				**Matrix: Soil**		**Batch: 23I0457**		
1-Methylnaphthalene	**3.05**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	
2-Methylnaphthalene	**4.44**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	
Naphthalene	**2.21**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**73.8**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**75.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**95.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**75.1**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**76.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Disp-1 (A3I1065-06)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**94.1**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**71.6**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**74.8**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0397 - EPA 3546 (Fuels)							Soil					
Blank (23I0397-BLK1)		Prepared: 09/13/23 16:17		Analyzed: 09/13/23 21:07								
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (23I0397-BS1)		Prepared: 09/13/23 16:17		Analyzed: 09/13/23 21:27								
NWTPH-Dx												
Diesel	117	---	20.0	mg/kg wet	1	125	---	93	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0407 - EPA 3546 (Fuels)							Soil					
Blank (23I0407-BLK1)		Prepared: 09/14/23 07:06		Analyzed: 09/14/23 22:01								
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (23I0407-BS1)		Prepared: 09/14/23 07:06		Analyzed: 09/14/23 22:21								
NWTPH-Dx												
Diesel	110	---	20.0	mg/kg wet	1	125	---	88	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0427 - EPA 5035A							**Soil**					
Blank (23I0427-BLK1)		Prepared: 09/14/23 11:48 Analyzed: 09/14/23 13:06										
5035A/8260D												
Benzene	ND	---	0.0100	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0250	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0750	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.100	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*100 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*99 %*		*79-120 %*			*"*					
LCS (23I0427-BS1)		Prepared: 09/14/23 11:48 Analyzed: 09/14/23 12:10										
5035A/8260D												
Benzene	1.01	---	0.0100	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Toluene	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
Ethylbenzene	0.990	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Xylenes, total	2.98	---	0.0750	mg/kg wet	50	3.00	---	100	80 - 120%	---	---	
Naphthalene	0.923	---	0.100	mg/kg wet	50	1.00	---	92	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*104 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*95 %*		*79-120 %*			*"*					
Duplicate (23I0427-DUP1)		Prepared: 09/13/23 14:15 Analyzed: 09/14/23 16:58										
QC Source Sample: T1-SW-13.5 (A3I1065-01)												
5035A/8260D												
Benzene	ND	---	0.0157	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0783	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0391	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.117	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.157	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*101 %*		*79-120 %*			*"*					

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0457 - EPA 3546							Soil					
Blank (23I0457-BLK1)		Prepared: 09/15/23 06:44	Analyzed: 09/15/23 13:20									
EPA 8270E												
Acenaphthene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery: 82 %*	*Limits: 37-122 %*		*Dilution: 1x*							
2-Fluorobiphenyl (Surr)		*83 %*	*44-120 %*		*"*							
Phenol-d6 (Surr)		*81 %*	*33-122 %*		*"*							
p-Terphenyl-d14 (Surr)		*89 %*	*54-127 %*		*"*							
2-Fluorophenol (Surr)		*84 %*	*35-120 %*		*"*							
2,4,6-Tribromophenol (Surr)		*88 %*	*39-132 %*		*"*							
LCS (23I0457-BS1)		Prepared: 09/15/23 06:44	Analyzed: 09/15/23 13:54									
EPA 8270E												
Acenaphthene	0.481	---	0.0107	mg/kg wet	4	0.533	---	90	40 - 123%	---	---	
Acenaphthylene	0.459	---	0.0107	mg/kg wet	4	0.533	---	86	32 - 132%	---	---	
Anthracene	0.486	---	0.0107	mg/kg wet	4	0.533	---	91	47 - 123%	---	---	
Benz(a)anthracene	0.476	---	0.0107	mg/kg wet	4	0.533	---	89	49 - 126%	---	---	

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0457 - EPA 3546							**Soil**					
LCS (23I0457-BS1)		Prepared: 09/15/23 06:44		Analyzed: 09/15/23 13:54								
Benzo(a)pyrene	0.535	---	0.0160	mg/kg wet	4	0.533	---	100	45 - 129%	---	---	
Benzo(b)fluoranthene	0.482	---	0.0160	mg/kg wet	4	0.533	---	90	45 - 132%	---	---	
Benzo(k)fluoranthene	0.508	---	0.0160	mg/kg wet	4	0.533	---	95	47 - 132%	---	---	
Benzo(g,h,i)perylene	0.496	---	0.0107	mg/kg wet	4	0.533	---	93	43 - 134%	---	---	
Chrysene	0.473	---	0.0107	mg/kg wet	4	0.533	---	89	50 - 124%	---	---	
Dibenz(a,h)anthracene	0.489	---	0.0107	mg/kg wet	4	0.533	---	92	45 - 134%	---	---	
Fluoranthene	0.516	---	0.0107	mg/kg wet	4	0.533	---	97	50 - 127%	---	---	
Fluorene	0.443	---	0.0107	mg/kg wet	4	0.533	---	83	43 - 125%	---	---	
Indeno(1,2,3-cd)pyrene	0.460	---	0.0107	mg/kg wet	4	0.533	---	86	45 - 133%	---	---	
1-Methylnaphthalene	0.480	---	0.0213	mg/kg wet	4	0.533	---	90	40 - 120%	---	---	
2-Methylnaphthalene	0.498	---	0.0213	mg/kg wet	4	0.533	---	93	38 - 122%	---	---	
Naphthalene	0.464	---	0.0213	mg/kg wet	4	0.533	---	87	35 - 123%	---	---	
Phenanthrene	0.461	---	0.0107	mg/kg wet	4	0.533	---	86	50 - 121%	---	---	
Pyrene	0.501	---	0.0107	mg/kg wet	4	0.533	---	94	47 - 127%	---	---	
Carbazole	0.469	---	0.0160	mg/kg wet	4	0.533	---	88	50 - 123%	---	---	
Dibenzofuran	0.460	---	0.0107	mg/kg wet	4	0.533	---	86	44 - 120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery: 80 %*		*Limits: 37-122 %*				*Dilution: 4x*				
2-Fluorobiphenyl (Surr)		*88 %*		*44-120 %*				*"*				
Phenol-d6 (Surr)		*83 %*		*33-122 %*				*"*				
p-Terphenyl-d14 (Surr)		*95 %*		*54-127 %*				*"*				
2-Fluorophenol (Surr)		*80 %*		*35-120 %*				*"*				
2,4,6-Tribromophenol (Surr)		*91 %*		*39-132 %*				*"*				

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

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0369 - Total Solids (Dry Weight) - 2022								Soil				
Duplicate (23I0369-DUP6)		Prepared: 09/13/23 19:18			Analyzed: 09/14/23 05:25							
QC Source Sample: Disp-1 (A3I1065-06)												
EPA 8000D												
% Solids	**90.7**	---	1.00	%	1	---	94.1	---	---	4	10%	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0426 - Total Solids (Dry Weight) - 2022							**Soil**					

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

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0397							
A3I1065-06RE1	Soil	NWTPH-Dx	09/13/23 14:30	09/13/23 18:23	10.36g/5mL	10g/5mL	0.97
A3I1065-07	Soil	NWTPH-Dx	09/13/23 14:35	09/13/23 18:23	10.82g/5mL	10g/5mL	0.92
A3I1065-08	Soil	NWTPH-Dx	09/13/23 14:40	09/13/23 18:23	10.66g/5mL	10g/5mL	0.94
Batch: 23I0407							
A3I1065-01	Soil	NWTPH-Dx	09/13/23 14:15	09/14/23 07:06	10.12g/5mL	10g/5mL	0.99
A3I1065-02	Soil	NWTPH-Dx	09/13/23 14:20	09/14/23 07:06	10.05g/5mL	10g/5mL	1.00
A3I1065-03	Soil	NWTPH-Dx	09/13/23 14:50	09/14/23 07:06	10.37g/5mL	10g/5mL	0.96
A3I1065-04	Soil	NWTPH-Dx	09/13/23 14:55	09/14/23 07:06	10.28g/5mL	10g/5mL	0.97
A3I1065-05	Soil	NWTPH-Dx	09/13/23 14:25	09/14/23 07:06	10.35g/5mL	10g/5mL	0.97

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0427							
A3I1065-01	Soil	5035A/8260D	09/13/23 14:15	09/13/23 14:15	5.59g/5mL	5g/5mL	0.89
A3I1065-02	Soil	5035A/8260D	09/13/23 14:20	09/13/23 14:20	7.31g/5mL	5g/5mL	0.68
A3I1065-03	Soil	5035A/8260D	09/13/23 14:50	09/13/23 14:50	4.57g/5mL	5g/5mL	1.09
A3I1065-04	Soil	5035A/8260D	09/13/23 14:55	09/13/23 14:55	7.63g/5mL	5g/5mL	0.66
A3I1065-05	Soil	5035A/8260D	09/13/23 14:25	09/13/23 14:25	6.77g/5mL	5g/5mL	0.74
A3I1065-06	Soil	5035A/8260D	09/13/23 14:30	09/13/23 14:30	7.55g/5mL	5g/5mL	0.66
A3I1065-07	Soil	5035A/8260D	09/13/23 14:35	09/13/23 14:35	6.12g/5mL	5g/5mL	0.82
A3I1065-08	Soil	5035A/8260D	09/13/23 14:40	09/13/23 14:40	6.55g/5mL	5g/5mL	0.76

Selected Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0457							
A3I1065-08	Soil	EPA 8270E	09/13/23 14:40	09/15/23 15:15	15.31g/2mL	15g/2mL	0.98
A3I1065-08RE1	Soil	EPA 8270E	09/13/23 14:40	09/15/23 15:15	15.31g/2mL	15g/2mL	0.98

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

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

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3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0369							
A3I1065-06	Soil	EPA 8000D	09/13/23 14:30	09/13/23 19:18			NA
A3I1065-07	Soil	EPA 8000D	09/13/23 14:35	09/13/23 19:18			NA
A3I1065-08	Soil	EPA 8000D	09/13/23 14:40	09/13/23 19:18			NA
Batch: 23I0426							
A3I1065-01	Soil	EPA 8000D	09/13/23 14:15	09/14/23 10:21			NA
A3I1065-02	Soil	EPA 8000D	09/13/23 14:20	09/14/23 10:21			NA
A3I1065-03	Soil	EPA 8000D	09/13/23 14:50	09/14/23 10:21			NA
A3I1065-04	Soil	EPA 8000D	09/13/23 14:55	09/14/23 10:21			NA
A3I1065-05	Soil	EPA 8000D	09/13/23 14:25	09/14/23 10:21			NA

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QUALIFIER DEFINITIONS

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

Apex Laboratories

F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-06	Surrogate recovery is outside of established control limits.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported.

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

Apex Laboratories

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

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LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

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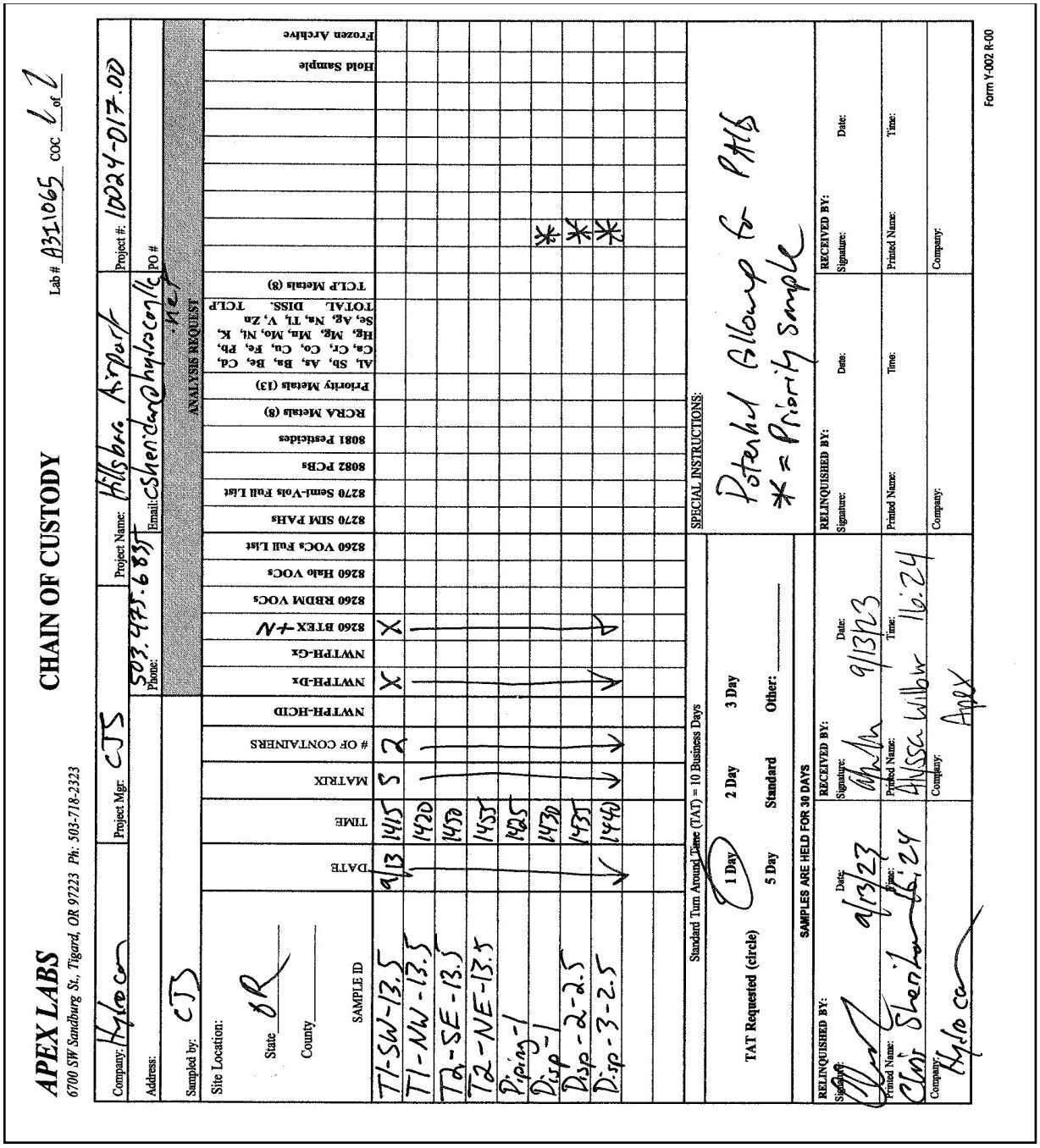

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A31065 COC 1 of 1

Company: Hydrocon | Project Mgr: CJS | Project Name: Hillsboro Airport | Project #: 10024-017.00
Address: | Phone: 503.445.6851 | Email: csheridan@hydrocon.net | PO #
Sampled by: CJS

Site Location: State OR County

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX +N	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
T1-SW-13.5	9/13	1415	S	2		X															
T1-NW-13.5	↓	1420		1																	
T2-SE-13.5		1450																			
T2-NE-13.5		1455																			
Piping-1		1425																			
Disp-2-2.5		1430						*													
Disp-3-2.5		1435						*													
Disp-3-2.5	↓	1440	↓	↓		↓		*													

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
Potential Chlorinated Solvents
* = Priority Sample

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: | Date: 9/13/23 | Time: 1600 | Printed Name: Chris Sheridan | Company: Hydrocon
RECEIVED BY: Signature: | Date: 9/13/23 | Time: 1624 | Printed Name: Alyssa Wilbur | Company: Apex
RELINQUISHED BY: Signature: | Date: | Time: | Printed Name: | Company:
RECEIVED BY: Signature: | Date: | Time: | Printed Name: | Company:

Form Y-002 R-00

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APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A3I1065

Project/Project #: Hillsboro ~~Aero~~ Airport 10024-017.00 APW 9/13

Delivery Info:

Date/time received: 9/13/23 @ 1624 By: APW

Delivered by: Apex____Client____ESS____FedEx____UPS____Swift____Senvoy____SDS____Other_____

Cooler Inspection Date/time inspected: 9/13/23 @ 1625 By: APW

Chain of Custody included? Yes X No _____ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No _____

Signed/dated by Apex? Yes X No _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	9.7						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	Out						

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

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 9/13/23 @ 1630 By: CM

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

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

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

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X Strip ID: A23A348 ☐

Comments: _____

Additional information: _____

Labeled by: DJS Witness: APW Cooler Inspected by: CM

Form Y-003 R-01

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

Monday, September 18, 2023

Chris Sheridan
HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

RE: A3I1105 - Hillsboro Airport - 10024-017.00

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

Enclosed are the results of analyses for work order A3I1105, which was received by the laboratory on 9/14/2023 at 1:45:00PM.

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

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

Cooler Receipt Information		
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.		
(See Cooler Receipt Form for details)		
Default Cooler	25.4	degC

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Disp-4-4.5	**A3I1105-01**	**Soil**	**09/14/23 12:45**	**09/14/23 13:45**
Disp-5-4.5	**A3I1105-02**	**Soil**	**09/14/23 12:50**	**09/14/23 13:45**

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0407**		**TEMP**
Diesel	**1820**	---	27.4	mg/kg dry	1	09/15/23 01:07	NWTPH-Dx	**F-13**
Oil	ND	---	54.9	mg/kg dry	1	09/15/23 01:07	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/15/23 01:07*	*NWTPH-Dx*	*Q-41*
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0407**		**CONT, TEMP**
Diesel	ND	---	25.3	mg/kg dry	1	09/15/23 01:28	NWTPH-Dx	
Oil	ND	---	50.6	mg/kg dry	1	09/15/23 01:28	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*	*1*	*09/15/23 01:28*	*NWTPH-Dx*	*Q-41*

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0479**		**TEMP, V-15**
Benzene	ND	---	0.149	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Toluene	ND	---	0.747	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Ethylbenzene	**0.829**	---	0.373	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Xylenes, total	**14.7**	---	1.12	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Naphthalene	**3.08**	---	1.49	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*93 %*	*79-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0479**		**TEMP, V-15**
Benzene	ND	---	0.0159	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Toluene	ND	---	0.0793	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Ethylbenzene	ND	---	0.0396	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Xylenes, total	ND	---	0.119	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Naphthalene	ND	---	0.159	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*79-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	

Apex Laboratories

Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0426**		**TEMP**
% Solids	**72.6**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0426**		**CONT, TEMP**
% Solids	**75.7**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0407 - EPA 3546 (Fuels)							Soil					
Blank (23I0407-BLK1)		Prepared: 09/14/23 07:06 Analyzed: 09/14/23 22:01										
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 96 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (23I0407-BS1)		Prepared: 09/14/23 07:06 Analyzed: 09/14/23 22:21										
NWTPH-Dx												
Diesel	110	---	20.0	mg/kg wet	1	125	---	88	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							

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

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0479 - EPA 5035A							Soil					
Blank (23I0479-BLK1)		Prepared: 09/15/23 10:56 Analyzed: 09/15/23 12:46										
5035A/8260D												
Benzene	ND	---	0.0100	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0250	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0750	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.100	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*79-120 %*			*"*				
LCS (23I0479-BS1)		Prepared: 09/15/23 10:56 Analyzed: 09/15/23 11:50										
5035A/8260D												
Benzene	1.03	---	0.0100	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Toluene	1.04	---	0.0500	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
Ethylbenzene	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
Xylenes, total	3.10	---	0.0750	mg/kg wet	50	3.00	---	103	80 - 120%	---	---	
Naphthalene	0.870	---	0.100	mg/kg wet	50	1.00	---	87	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*79-120 %*			*"*				

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

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ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0426 - Total Solids (Dry Weight) - 2022							**Soil**					

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

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0407							
A3I1105-01	Soil	NWTPH-Dx	09/14/23 12:45	09/14/23 18:12	10.04g/5mL	10g/5mL	1.00
A3I1105-02	Soil	NWTPH-Dx	09/14/23 12:50	09/14/23 18:12	10.44g/5mL	10g/5mL	0.96

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0479							
A3I1105-01	Soil	5035A/8260D	09/14/23 12:45	09/14/23 14:27	6.17g/5mL	5g/5mL	0.81
A3I1105-02	Soil	5035A/8260D	09/14/23 12:50	09/14/23 14:27	5.22g/5mL	5g/5mL	0.96

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0426							
A3I1105-01	Soil	EPA 8000D	09/14/23 12:45	09/14/23 20:02			NA
A3I1105-02	Soil	EPA 8000D	09/14/23 12:50	09/14/23 20:02			NA

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QUALIFIER DEFINITIONS

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

Apex Laboratories

CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
TEMP	Sample was received outside of recommended temperature.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Apex Laboratories

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported.

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Cameron O'Brien, Project Manager

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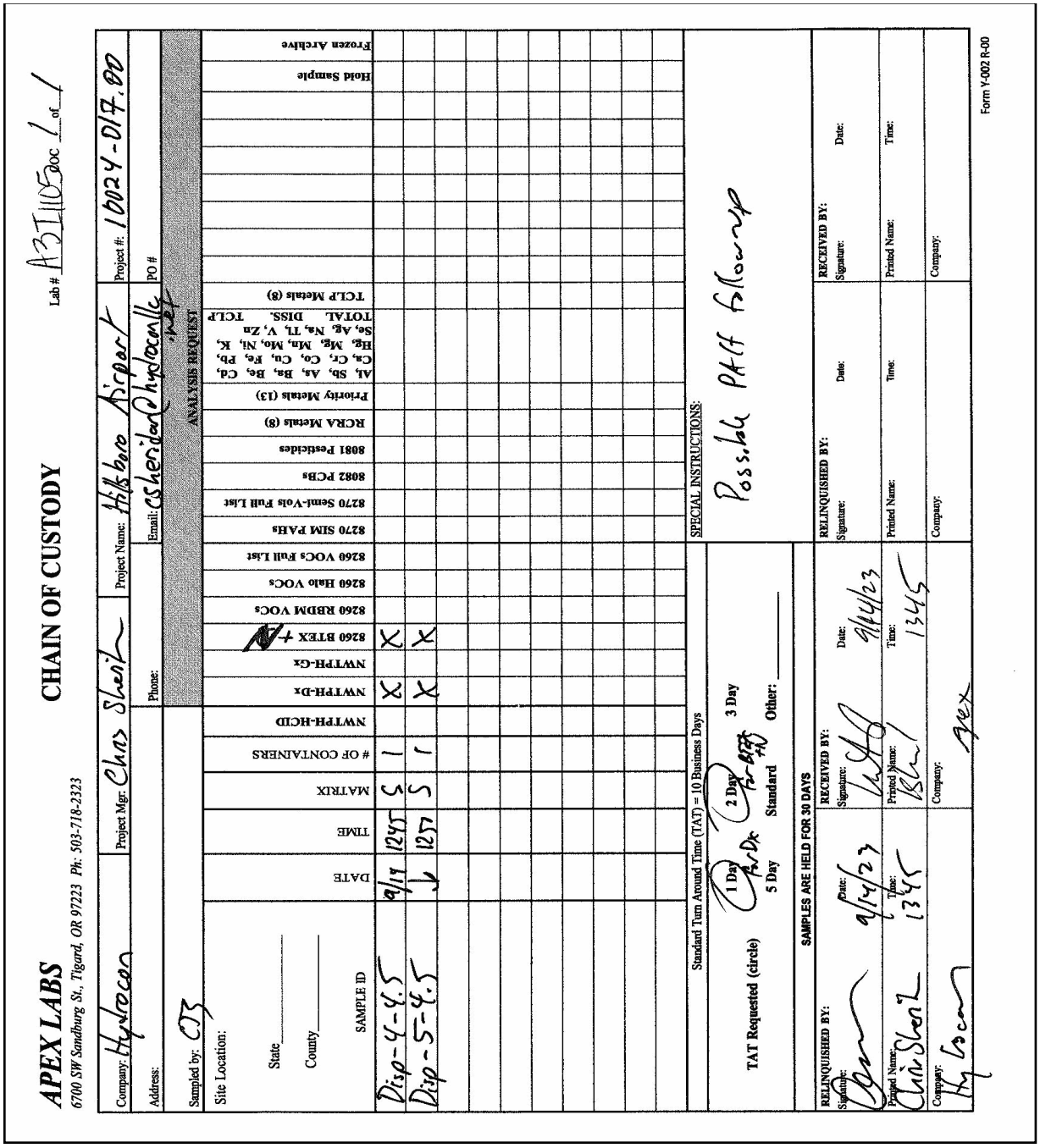


APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A3I1105 Doc 1 of 1

Company: Hydrocon | Project Mgr: Chris Sheridan | Project Name: Hillsboro Airport | Project #: 10024-017.00
Address: | Phone: | Email: csheridan@hydrocon.com | PO #
Sampled by: CJS

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX + N	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
Disp-4-4.5	9/14	1245	S	1		X		X													
Disp-5-4.5	↓	1257	S	1		X		X													

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
Possible PFAS followup

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 9/14/23	Date: 9/14/23	Date:	Date:
Time: 1345	Time: 1345	Time:	Time:
Printed Name: Chris Sheridan	Printed Name: Ben	Printed Name:	Printed Name:
Company: Hydrocon	Company: Apex	Company:	Company:

Form Y-002 R-00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

APEX LABS COOLER RECEIPT FORM

Client: HydroCon Element WO#: A3I1105

Project/Project #: Hillsboro Airport 10024-017.00

Delivery Info:

Date/time received: 9/14/23 @ 1345 By: MS

Delivered by: Apex___Client X ESS___FedEx___UPS___Swift___Senvoy___SDS___Other___

Cooler Inspection Date/time inspected: 9/14/23 @ 1345 By: MS

Chain of Custody included? Yes X No ___ Custody seals? Yes___ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	29.4						
Received on ice? (Y/N)	N						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	None						
Condition (In/Out):	Out						

Cooler out of temp? (Y/N) Possible reason why: No Cooler / No Ice

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 9/14/23 @ 1349 By: MS

All samples intact? Yes X No ___ Comments: ___

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

COC/container discrepancies form initiated? Yes ___ No X

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

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

Comments ___

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X Strip ID: A23A348 ☐

Comments: ___

Additional information: ___

Labeled by: JS Witness: RMP Cooler Inspected by: Client/No Cooler

Form Y-003 R-01

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Cameron O'Brien, Project Manager

APPENDIX C
PHOTOGRAPH DOCUMENTATION

Appendix C – Photograph Documentation

Teufel Hangar – Hillsboro Airport ▪ 3115 Cornell Road, Hillsboro, OR
Project No. 10024-017

Photo #1 Tank nest following removal of USTs from subsurface – looking north-northeast with Teufel Hangar to left.

Photo #2 6,000-gallon Jet-A UST after removing from tank nest.

Photo #3 Pea gravel overburden from tank nest during decommissioning by removal.

Photo #4 Tank nest excavation looking west southwest.

Photo #5 6,000-gallon Jet-A UST after removing from tank nest.

Photo #6 Pumps, risers, fill, and vent lines during decommissioning.

Photo #7 UST being lifted onto trailer for off-Site disposal.

Photo #8 UST being lifted onto trailer for off-Site disposal.

Photo #9 Start of excavation at former fueling area on northeast portion of property.

Photo #10 Excavation at former fueling area on northeast portion of property.

Photo #11 Excavation at former fueling area on northeast portion of property.

Photo #12 Stockpiled PCS prior to off-Site disposal.

APPENDIX D
DISPOSAL AND RECYCLING DOCUMENTATION

Invoice

Orrco™
The oil recycler.

Oil Re-Refining Company, Inc.

Date	Invoice #
9/18/2023	459645

Bill To
Anderson Environmental Contracting, LLC 705 Colorado St Kelso, WA 98626-5506

Ship To
Larry Teufel 1900 NE 25th Ave Hillsboro OR 97124

Resell Expires	12/31/2017

Option	P.O. Number	Terms	Due Date	Ship Date	Bill of Lading	Account #
Email - see notes		30 Days Net	10/18/2023	9/13/2023	R1230913002	9315

Item Code	Description	U/M	Quantity	Price Each	Amount
Truck Wash Out	Truck Wash Out	Ea	1	60.00	60.00
XRF Analysis T...	XRF Analysis Testing In House	Ea	1	25.00	25.00
Wastewater (fue...	For recycling, CDT test:	Gal	450	0.50	225.00
Oily Solids (gall...	For recycling, Flash Point > 200 F. CDT test:	Gal	50	2.25	112.50

Job #: 23-6009 PM: DW
GL Code: 5130.10 Approved
Cost Type: D Date
Voucher: 89100

Total $422.50

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

We accept all major credit cards.

Remit payment to: 4150 N Suttle Rd. Portland, OR 97217-7717
Unpaid invoices past 30 days will incure a 1.5% per month finance charge.

508

RECEIVED SEP 21 2023

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	1	503 252 6144	330445319

GENERATOR

5. Generator's Name and Mailing Address
Larry Teufel
Same as above
Generator's Phone: 208 761 2023

Generator's Site Address (if different than mailing address)
AEC
1900 NE Th av hillsboro OR 97125
(208) 827 6545

6. Transporter 1 Company Name: River City Environmental — U.S. EPA ID Number: CESQG.

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
ORRCO
4150 N. Suttle rd
Portland OR 97217
Facility's Phone: (503) 286 8352

U.S. EPA ID Number: ORD98975692

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	NON HAZARDOUS WASTE LIQUID	1	TT	500	g	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
(water and fuel)

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Sign for Larry Teufel Hyde Johnson — Signature — Month 09 Day 13 Year 23

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: S. Gomez — Signature: Santiago Gómez — Month 9 Day 13 Year 23

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: C. SALOMON CRUZ — Signature — Month 9 Day 13 Year 23

169-BLS-C 5 11979 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

INVOICE

RECEIVED OCT 10 2023

Customer ID: 3-87009-85005
Customer Name: ANDERSON ENVIRONMENTAL
Service Period: 09/01/23-09/30/23
Invoice Date: 10/01/2023
Invoice Number: 0111337-1515-8

How to Contact Us	Your Payment is Due	Your Total Due
Visit wmsolutions.com Log in to manage disposal records and tonnage reports. To pay a bill or explore other online tools, visit wm.com/MyWM. Have a question? Fill out the Contact Us Form at WMSolutions.com or contact Customer Service. Customer Service: (509) 662-4591	**10/31/2023** If full payment of the invoiced amount is not received within your contractual terms, you may be charged a monthly late charge of 2.5% of the unpaid amount, with a minimum monthly charge of $5, or such late charge allowed under applicable law, regulation or contract.	**$2,396.79**

Previous Balance	+	Payments	+	Adjustments	+	Current Invoice Charges	=	Total Account Balance Due
270.00		0.00		(270.00)		2,396.79		**2,396.79**

DETAILS OF SERVICE

Details for Service Location:
Anderson Environmental, 705 Colorado Street, Kelso WA 98626-5506

Customer ID: 3-87009-85005

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
Vehicle#: NONE	09/18/23	1696876				0.00
PO#:23-0009						0.00
PROFILE RUSH FEE $550			1.00	ECH	550.00	550.00
Profile # 141170OR						0.00
Generator TEUFEL HOLLY FARMS 3115 NE CORNELL RD						0.00
Ticket Total						**550.00**
Vehicle#: 4-SOLO	09/19/23	1697145				0.00
PO#:23-0009						0.00
Env Cleanup Commingle - Petroleum Contaminated Soi			10.65	TON	44.39	472.75
Energy Surcharge - Landfill			1.00	PCT	8.40	39.71

✂ ---------- *Please detach and send the lower portion with payment - - - (no cash or staples)* ----------

DO NOT SEND PAYMENTS HERE:
HILLSBORO LANDFILL INC.
PO BOX 3020
MONROE, WI 53566-8320
(509) 662-4591

Invoice Date	Invoice Number	Customer ID *(Include with your payment)*
10/01/2023	0111337-1515-8	**3-87009-85005**
Payment Terms	**Total Due**	**Amount**
Total Due by 10/31/2023	$2,396.79	

151500003870098500500111337000002396790000023967 9 5

0057851 01 AB 0.537 **AUTO T6 0 7275 98626-550605 -C04-P57908-I1 I1574L90

ANDERSON ENVIRONMENTAL
705 COLORADO STREET
KELSO WA 98626-5506

Remit To: **WM CORPORATE SERVICES, INC.**
AS PAYMENT AGENT
PO BOX 541065
LOS ANGELES, CA 90054-1065

Printed on recycled paper.

0057851-0000001-0074745

515-0011337-1515-0

DETAILS OF SERVICE - continued

Details for Service Location:
Anderson Environmental, 705 Colorado Street, Kelso WA 98626-5506

Customer ID: 3-87009-85005

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
Profile # 141170OR						0.00
Generator TEUFEL HOLLY FARMS 3115 NE CORNELL RD						0.00
Manifest#: NA						0.00
Ticket Total						**512.46**
Vehicle#: 4-SOLO	09/19/23	1697181				0.00
PO#:23-0009						0.00
Env Cleanup Commingle - Petroleum Contaminated Soi			14.85	TON	44.39	659.19

GREENER WAYS TO PAY

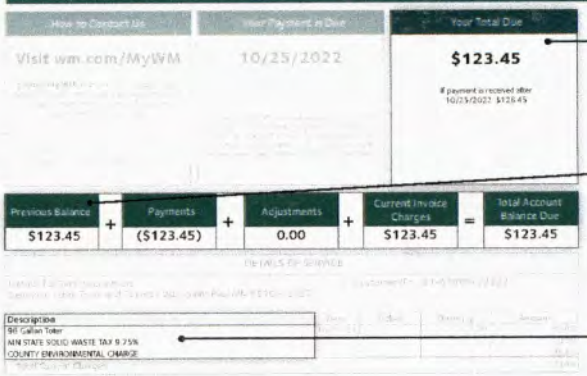
Please choose one of these sustainable payment options:

AutoPay
Set up recurring payments with us at **wm.com/myaccount**

Online
Use **wm.com** for quick and easy payments

By Phone
Pay 24/7 by calling 866-964-2729

HOW TO READ YOUR INVOICE



1. Your Total Due is the total amount of current charges and any previous unpaid Balances combined. This also states the date payment is due to WM, anything beyond that date may incur additional charges.
2. Previous balance is the total due from your previous invoice. We subtract any Payments Received/Adjustments and add your Current Charges from this billing cycle to get a Total Due on this invoice. If you have not paid all or a portion of your previous balance, please pay the entire Total Due to avoid a late charge or service interruption.
3. Service location details the total current charges of this invoice.

Prevent Truck & Facility Fires

Instead of placing these items in the garbage or recycling containers, visit your county or city website to find a household hazardous waste drop off location. You can also visit **call2recycle.org** to find a retailer who accepts batteries for proper recycling.

NO
- Propane tanks
- BBQ coals
- Lithium-ion batteries
- Other hazardous items

Hazardous household items that are improperly disposed of can cause **garbage truck and facility fires**. This includes lithium-ion batteries that can be found in many electronics and toys.

This summer, remember to:

- Allow coals to cool, after grilling
- Dispose of coals in a sealed metal container
- Take hazardous waste to your local hazardous waste drop location

If your service is suspended for non-payment, you may be charged a Resume charge to restart your service. For each returned check, a charge will be assessed on your next invoice equal to the maximum amount permitted by applicable state law.

☐ Check Here to Change Contact Info

List your new billing information below. For a change of service address, please contact **WM**.

Address 1	
Address 2	
City	
State	
Zip	
Email	
Date Valid	

☐ Check Here to Sign Up for Automatic Payment Enrollment

If I enroll in Automatic Payment services, I authorize **WM** to pay my invoice by electronically deducting money from my bank account. I can cancel authorization by notifying **WM** at **wm.com** or by calling the customer service number listed on my invoice. Your enrollment could take 1-2 billing cycles for Automatic Payments to take effect. Continue to submit payment until page one of your invoice reflects that your payment will be deducted.

Email	
Date	
Bank Account Holder Signature	

NOTICE: By sending your check, you are authorizing the Company to use information on your check to make a one-time electronic debit to your account at the financial institution indicated on your check. The electronic debit will be for the amount of your check and may occur as soon as the same day we receive your check.

In order for us to service your account or to collect any amounts you may owe (for non-marketing or solicitation purposes), we may contact you by telephone at any telephone number that you provided in connection with your account, including wireless telephone numbers, which could result in charges to you. Methods of contact may include text messages and using pre-recorded/artificial voice messages and/or use of an automatic dialing device, as applicable. We may also contact you by email or other methods as provided in our contract.

Please send all bankruptcy correspondence to RMCbankruptcy@wm.com or PO Box 43290 Phoenix, AZ 85080. Using the email option will expedite your request. (this language is in compliance with 11 USC 342(c)(2) of the Bankruptcy Code)

0057851-0000001-0074745

Customer ID: 3-87009-85005
Customer Name: ANDERSON ENVIRONMENTAL
Service Period: 09/01/23-09/30/23
Invoice Date: 10/01/2023
Invoice Number: 0111337-1515-8

DETAILS OF SERVICE - continued

Details for Service Location:
Anderson Environmental, 705 Colorado Street, Kelso WA 98626-5506

Customer ID: 3-87009-85005

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
Energy Surcharge - Landfill			1.00	PCT	8.40	55.37
Profile # 141170OR						0.00
Generator TEUFEL HOLLY FARMS 3115 NE CORNELL RD						0.00
Manifest#: NA						0.00
Ticket Total						**714.56**
Vehicle#: 4-SOLO	09/19/23	1697220				0.00
PO#:23-0009						0.00
Env Cleanup Commingle - Petroleum Contaminated Soi			12.88	TON	44.39	571.74
Energy Surcharge - Landfill			1.00	PCT	8.40	48.03
Profile # 141170OR						0.00
Generator TEUFEL HOLLY FARMS 3115 NE CORNELL RD						0.00
Manifest#: NA						0.00
Ticket Total						**619.77**
Total Current Charges						**2,396.79**

Job #: 23-0009 PM: DW
GL Code: 5130.10 Approved
Cost Type: D Date
Voucher:

0057851-0000002-0074746

Printed on recycled paper.

Invoice

RECEIVED OCT - 4 2023

Account #	Date	Invoice #
150	9/30/23	16148

Due Date
11/15/23

Remit payment to:
Cowlitz County Solid Waste
1600 - 13th Avenue South
Kelso, WA 98626
TEL (360) 577-3035
www.co.cowlitz.wa.us/publicworks

Please include account number and invoice number with payment.

Billing Address
ANDERSON ENVIRONMENTAL 705 Colorado Street Kelso, WA 98626

Tran #	Date	Site	Truck	PO	Description	Fee	Tax	Amount
653953	09-05-23	LF	75AEC		PCS - 45 : 3.64 TN 23-0010	$163.80	$5.90	$169.70
902908231	09-11-23	WC	94429RP X59		PUT - Public MSW Ton : 0.21 TN 23-0024	$11.72	$0.42	$12.14
902909797	09-14-23	WC	RP06160 } X75		PUT - Public MSW Ton : 0.96 TN } 23-0009	$53.58	$1.93	$55.51
902909900	09-14-23	WC	RP06160 }		PUT - Public MSW Ton : 1.24 TN }	$69.20	$2.49	$71.69
902914258	09-20-23	WC	99470RP X73		PUT - Public MSW Ton : 0.81 TN ~ Fuel	$45.21	$1.63	$46.84
902915720	09-22-23	WC	RP06160 X75		PUT - Public MSW Ton : 0.15 TN 23-0020	$8.37	$0.30	$8.67

Note

Original Amount
$364.55

Total Tons
7.01

Amount Due
$364.55

.10 23-0010 - 169.70 - DW

.10 23-0024 - 12.14 - KK

.10 23-0009 - 127.20 - DW

.10 23-0020 - 8.67 - DW

7540.40 - 46.84 - CE

Job #: Multi	PM: multi
GL Code: 5130.XX	Approved
Cost Type:	Date
Voucher:	

COWLITZ COUNTY DEPARTMENT OF PUBLIC WORKS
1600 13TH AVENUE SOUTH * KELSO, WA 98626
PHONE 577-3035 * LANDFILL SITE 274-6492
3434 SOUTH SILVER LAKE RD. * CASTLE ROCK, WA 98611
www.co.cowlitz.wa.us

R E C E I P T

Transaction # 653953

	Time	Date	Lane
In:	03:52 PM	09/05/23	01
Out:	04:10 PM	09/05/23	02

Truck/Card#: 75AEC
Fleet #:
Bill Acct: 150
Company: ANDERSON ENVIRONMENTAL

Vehicle: Truck Trailer
Origin: GRAYS HARBOR COUNTY
Destination: Not Specified

Material: PCS - 45

Gross:	12.50 tons	25000 lbs
Tare:	8.86 tons	17720 lbs
Net:	3.64 tons	7280 lbs

Billing Information:

Payment Type: 1 - Charge
Tip Fee: 163.80 @ 45.00/TN

Agency Fee:	0.00
Excise Tax:	0.00
Cleanup Fee:	0.00
Tax:	5.90
Total Fee:	169.70

Notes:

*****Reprint***Reprint*****

(1)

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2908231
Date: 9/11/2023
Time: 13:55:36 - 14:07:43

******** Reprinted Ticket ********

Gross:	11120 lb	In	Scale A
Tare:	10700 lb	Out	Scale OUT2
Net:	420 lb		

Truck: 94429RP
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	0.21	TON	$55.8100	$11.72

Refuse Tax: $0.42

Total Taxes: $0.42
Total Amount: $12.14

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2908231
Date: 9/11/2023
Time: 13:55:36 - 14:07:43

******** Reprinted Ticket ********

Gross: 11120 lb In Scale A
Tare: 10700 lb Out Scale OUT2
Net: 420 lb

Truck: 94429RP
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	0.21	TON	$55.8100	$11.72

Refuse Tax: $0.42

Total Taxes: $0.42
Total Amount: $12.14

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2909797
Date: 9/14/2023
Time: 07:42:08 - 08:33:19

******** Reprinted Ticket ********

Gross:	17780 lb	In	Scale A
Tare:	15860 lb	Out	Scale OUT1
Net:	1920 lb		

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

PO: 23-0009

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	0.96	TON	$55.8100	$53.58

Refuse Tax: $1.93

Total Taxes: $1.93
Total Amount: $55.51

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2909797
Date: 9/14/2023
Time: 07:42:08 - 08:33:19

******** Reprinted Ticket ********

Gross: 17780 lb In Scale A
Tare: 15860 lb Out Scale OUT1
Net: 1920 lb

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

PO: 23-0009

Comment:

Materials & Services | Quantity | Unit | Rate | Amount
Public MSW Ton | 0.96 | TON | $55.8100 | $53.58

Refuse Tax: $1.93

Total Taxes: $1.93
Total Amount: $55.51

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2909900
Date: 9/14/2023
Time: 09:55:04 - 10:22:19

******** Reprinted Ticket ********

Gross:	18700 lb	In	Scale A
Tare:	16220 lb	Out	Scale OUT1
Net:	2480 lb		

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	1.24	TON	$55.8100	$69.20

Refuse Tax: $2.49

Total Taxes: $2.49
Total Amount: $71.69

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2909900
Date: 9/14/2023
Time: 09:55:04 - 10:22:19

******** Reprinted Ticket ********

Gross: 18700 lb In Scale A
Tare: 16220 lb Out Scale OUT1
Net: 2480 lb

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services | Quantity | Unit | Rate | Amount
Public MSW Ton | 1.24 | TON | $55.8100 | $69.20

Refuse Tax: $2.49

Total Taxes: $2.49
Total Amount: $71.69

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2914258
Date: 9/20/2023
Time: 12:42:00 - 12:51:58

******** Reprinted Ticket ********

Gross:	19760 lb	In	Scale A
Tare:	18140 lb	Out	Scale OUT1
Net:	1620 lb		Scale

Truck: 99470RP
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	0.81	TON	$55.8100	$45.21

Refuse Tax: $1.63

Total Taxes: $1.63
Total Amount: $46.84

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2914258
Date: 9/20/2023
Time: 12:42:00 - 12:51:58

******** Reprinted Ticket ********

Gross: 19760 lb In Scale A
Tare: 18140 lb Out Scale OUT1
Net: 1620 lb
Scale

Truck: 99470RP
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services | Quantity | Unit | Rate | Amount
Public MSW Ton | 0.81 | TON | $55.8100 | $45.21

Refuse Tax: $1.63

Total Taxes: $1.63
Total Amount: $46.84

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2915720
Date: 9/22/2023
Time: 11:51:26 - 12:42:51

******** Reprinted Ticket ********

Gross:	16280 lb	In	Scale A
Tare:	15980 lb	Out	Scale OUT3
Net:	300 lb		

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services	Quantity	Unit	Rate	Amount
Public MSW Ton	0.15	TON	$55.8100	$8.37

Refuse Tax: $0.30

Total Taxes: $0.30
Total Amount: $8.67

Driver: _____

Waste Control
1150 3rd Ave / 425-4302
Open 7:30 am - 5:30
Tax = Refuse Tax @ 3.6%

Ticket: 2915720
Date: 9/22/2023
Time: 11:51:26 - 12:42:51

******** Reprinted Ticket ********

Gross: 16280 lb In Scale A
Tare: 15980 lb Out Scale OUT3
Net: 300 lb

Truck: RP06160
Customer: CA150/Anderson Environmenta
Truck Type: Public

Comment:

Materials & Services | Quantity | Unit | Rate | Amount
Public MSW Ton | 0.15 | TON | $55.8100 | $8.37

Refuse Tax: $0.30

Total Taxes: $0.30
Total Amount: $8.67

Driver: _____

APPENDIX E
LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

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

ANALYTICAL REPORT

AMENDED REPORT

Monday, September 18, 2023

Chris Sheridan
HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

RE: A3I1065 - Hillsboro Airport - 10024-017.00

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

Enclosed are the results of analyses for work order A3I1065, which was received by the laboratory on 9/13/2023 at 4:24:00PM.

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

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

Cooler Receipt Information		
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.		
(See Cooler Receipt Form for details)		
Default Cooler	9.7	degC

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

Apex Laboratories

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Cameron O'Brien, Project Manager

Apex Laboratories, LLC
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503-718-2323
ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T1-SW-13.5	A3I1065-01	Soil	09/13/23 14:15	09/13/23 16:24
T1-NW-13.5	A3I1065-02	Soil	09/13/23 14:20	09/13/23 16:24
T2-SE-13.5	A3I1065-03	Soil	09/13/23 14:50	09/13/23 16:24
T2-NE-13.5	A3I1065-04	Soil	09/13/23 14:55	09/13/23 16:24
Piping-1	A3I1065-05	Soil	09/13/23 14:25	09/13/23 16:24
Disp-1	A3I1065-06	Soil	09/13/23 14:30	09/13/23 16:24
Disp-2-2.5	A3I1065-07	Soil	09/13/23 14:35	09/13/23 16:24
Disp-3-2.5	A3I1065-08	Soil	09/13/23 14:40	09/13/23 16:24

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL CASE NARRATIVE

Work Order: A3I1065

Amended Report Revision 1

This report supersedes all previous reports.

The Final Report has been amended to include 8270 SIM PAH results for sample Disp-3-2.5 (Apex Lab WO A3I1065-08).

Cameron O'Brien
Project Manager
9/15/23

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

Project: **Hillsboro Airport**
Project Number: **10024-017.00**
Project Manager: **Chris Sheridan**

Report ID:
A3I1065 - 09 18 23 1521

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	26.8	mg/kg dry	1	09/15/23 02:10	NWTPH-Dx	
Oil	ND	---	53.5	mg/kg dry	1	09/15/23 02:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:10*	*NWTPH-Dx*	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	26.5	mg/kg dry	1	09/15/23 02:30	NWTPH-Dx	
Oil	ND	---	52.9	mg/kg dry	1	09/15/23 02:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 87 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:30*	*NWTPH-Dx*	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	20.3	mg/kg dry	1	09/15/23 02:51	NWTPH-Dx	
Oil	ND	---	40.5	mg/kg dry	1	09/15/23 02:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*09/15/23 02:51*	*NWTPH-Dx*	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	25.9	mg/kg dry	1	09/15/23 03:12	NWTPH-Dx	
Oil	ND	---	51.8	mg/kg dry	1	09/15/23 03:12	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*	*1*	*09/15/23 03:12*	*NWTPH-Dx*	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0407**		
Diesel	ND	---	25.4	mg/kg dry	1	09/15/23 03:33	NWTPH-Dx	
Oil	ND	---	50.7	mg/kg dry	1	09/15/23 03:33	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*	*1*	*09/15/23 03:33*	*NWTPH-Dx*	
Disp-1 (A3I1065-06RE1)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	**90.7**	---	20.5	mg/kg dry	1	09/14/23 10:11	NWTPH-Dx	**F-13**
Oil	**41.1**	---	41.0	mg/kg dry	1	09/14/23 10:11	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 69 %*		*Limits: 50-150 %*	*1*	*09/14/23 10:11*	*NWTPH-Dx*	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	ND	---	25.8	mg/kg dry	1	09/14/23 00:10	NWTPH-Dx	
Oil	ND	---	51.6	mg/kg dry	1	09/14/23 00:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 52 %*		*Limits: 50-150 %*	*1*	*09/14/23 00:10*	*NWTPH-Dx*	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0397**		

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0397**		
Diesel	**1730**	---	25.1	mg/kg dry	1	09/14/23 00:31	NWTPH-Dx	**F-13**
Oil	ND	---	50.2	mg/kg dry	1	09/14/23 00:31	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 69 %*		*Limits: 50-150 %*	*1*	*09/14/23 00:31*	*NWTPH-Dx*	

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0157	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Toluene	ND	---	0.0783	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Ethylbenzene	ND	---	0.0391	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Xylenes, total	ND	---	0.117	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Naphthalene	ND	---	0.157	mg/kg dry	50	09/14/23 16:32	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 16:32*	*5035A/8260D*	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0124	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Toluene	ND	---	0.0620	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Ethylbenzene	ND	---	0.0310	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Xylenes, total	ND	---	0.0930	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Naphthalene	ND	---	0.124	mg/kg dry	50	09/14/23 17:24	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 17:24*	*5035A/8260D*	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0120	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Toluene	ND	---	0.0600	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Ethylbenzene	ND	---	0.0300	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Xylenes, total	ND	---	0.0900	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Naphthalene	ND	---	0.120	mg/kg dry	50	09/14/23 17:50	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
Toluene-d8 (Surr)			*100 %*	*80-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*79-120 %*	*1*	*09/14/23 17:50*	*5035A/8260D*	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0121	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Toluene	ND	---	0.0603	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Ethylbenzene	ND	---	0.0301	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Xylenes, total	ND	---	0.0904	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Naphthalene	ND	---	0.121	mg/kg dry	50	09/14/23 18:16	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*100 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0427**		
Surrogate: Toluene-d8 (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 18:16*	*5035A/8260D*	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0128	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Toluene	ND	---	0.0641	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Ethylbenzene	ND	---	0.0320	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Xylenes, total	ND	---	0.0961	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Naphthalene	ND	---	0.128	mg/kg dry	50	09/14/23 18:41	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*	*1*	*09/14/23 18:41*	*5035A/8260D*	
Disp-1 (A3I1065-06)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.00766	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Toluene	ND	---	0.0383	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Ethylbenzene	ND	---	0.0191	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Xylenes, total	**0.0831**	---	0.0574	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Naphthalene	**0.0969**	---	0.0766	mg/kg dry	50	09/14/23 19:07	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
Toluene-d8 (Surr)			*99 %*	*80-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*98 %*	*79-120 %*	*1*	*09/14/23 19:07*	*5035A/8260D*	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	ND	---	0.0154	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Toluene	ND	---	0.0768	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Ethylbenzene	**0.0561**	---	0.0384	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Xylenes, total	**0.429**	---	0.115	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Naphthalene	ND	---	0.154	mg/kg dry	50	09/14/23 19:33	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
Toluene-d8 (Surr)			*98 %*	*80-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*99 %*	*79-120 %*	*1*	*09/14/23 19:33*	*5035A/8260D*	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0427**		
Benzene	**0.176**	---	0.136	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Toluene	**3.49**	---	0.679	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Ethylbenzene	**3.14**	---	0.339	mg/kg dry	500	09/14/23 19:59	5035A/8260D	

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0427**		
Xylenes, total	**20.8**	---	1.02	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Naphthalene	**4.33**	---	1.36	mg/kg dry	500	09/14/23 19:59	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*99 %*	*Limits: 80-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*96 %*	*79-120 %*	*1*	*09/14/23 19:59*	*5035A/8260D*	

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0457**		
Acenaphthene	ND	---	0.0720	mg/kg dry	10	09/15/23 19:40	EPA 8270E	R-02
Acenaphthylene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benz(a)anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(a)pyrene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(b)fluoranthene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(k)fluoranthene	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Benzo(g,h,i)perylene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Chrysene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Dibenz(a,h)anthracene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Fluoranthene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Fluorene	**0.0908**	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Phenanthrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Pyrene	ND	---	0.0350	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Carbazole	ND	---	0.0524	mg/kg dry	10	09/15/23 19:40	EPA 8270E	
Dibenzofuran	ND	---	0.0812	mg/kg dry	10	09/15/23 19:40	EPA 8270E	R-02
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*292 %*	*Limits:*	*37-122 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	*S-06*
2-Fluorobiphenyl (Surr)			*67 %*		*44-120 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
Phenol-d6 (Surr)			*73 %*		*33-122 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
p-Terphenyl-d14 (Surr)			*71 %*		*54-127 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
2-Fluorophenol (Surr)			*75 %*		*35-120 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
2,4,6-Tribromophenol (Surr)			*58 %*		*39-132 %*	*10*	*09/15/23 19:40*	*EPA 8270E*	
Disp-3-2.5 (A3I1065-08RE1)				**Matrix: Soil**		**Batch: 23I0457**		
1-Methylnaphthalene	**3.05**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	
2-Methylnaphthalene	**4.44**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	
Naphthalene	**2.21**	---	0.698	mg/kg dry	100	09/18/23 13:50	EPA 8270E	

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Cameron O'Brien, Project Manager

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T1-SW-13.5 (A3I1065-01)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**73.8**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T1-NW-13.5 (A3I1065-02)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**75.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T2-SE-13.5 (A3I1065-03)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**95.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
T2-NE-13.5 (A3I1065-04)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**75.1**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Piping-1 (A3I1065-05)				**Matrix: Soil**		**Batch: 23I0426**		
% Solids	**76.2**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Disp-1 (A3I1065-06)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**94.1**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	
Disp-2-2.5 (A3I1065-07)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**71.6**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	
Disp-3-2.5 (A3I1065-08)				**Matrix: Soil**		**Batch: 23I0369**		
% Solids	**74.8**	---	1.00	%	1	09/14/23 05:25	EPA 8000D	

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HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0397 - EPA 3546 (Fuels)							Soil					
Blank (23I0397-BLK1)		Prepared: 09/13/23 16:17		Analyzed: 09/13/23 21:07								
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 88 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (23I0397-BS1)		Prepared: 09/13/23 16:17		Analyzed: 09/13/23 21:27								
NWTPH-Dx												
Diesel	117	---	20.0	mg/kg wet	1	125	---	93	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0407 - EPA 3546 (Fuels)							Soil					
Blank (23I0407-BLK1)		Prepared: 09/14/23 07:06		Analyzed: 09/14/23 22:01								
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*			*Dilution: 1x*					
LCS (23I0407-BS1)		Prepared: 09/14/23 07:06		Analyzed: 09/14/23 22:21								
NWTPH-Dx												
Diesel	110	---	20.0	mg/kg wet	1	125	---	88	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*					

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

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Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0427 - EPA 5035A							**Soil**					
Blank (23I0427-BLK1)		Prepared: 09/14/23 11:48 Analyzed: 09/14/23 13:06										
5035A/8260D												
Benzene	ND	---	0.0100	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0250	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0750	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.100	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*100 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*99 %*		*79-120 %*			*"*					
LCS (23I0427-BS1)		Prepared: 09/14/23 11:48 Analyzed: 09/14/23 12:10										
5035A/8260D												
Benzene	1.01	---	0.0100	mg/kg wet	50	1.00	---	101	80 - 120%	---	---	
Toluene	1.02	---	0.0500	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
Ethylbenzene	0.990	---	0.0250	mg/kg wet	50	1.00	---	99	80 - 120%	---	---	
Xylenes, total	2.98	---	0.0750	mg/kg wet	50	3.00	---	100	80 - 120%	---	---	
Naphthalene	0.923	---	0.100	mg/kg wet	50	1.00	---	92	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*104 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*95 %*		*79-120 %*			*"*					
Duplicate (23I0427-DUP1)		Prepared: 09/13/23 14:15 Analyzed: 09/14/23 16:58										
QC Source Sample: T1-SW-13.5 (A3I1065-01)												
5035A/8260D												
Benzene	ND	---	0.0157	mg/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	0.0783	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0391	mg/kg dry	50	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.117	mg/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	---	0.157	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 99 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*101 %*		*79-120 %*			*"*					

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Cameron O'Brien, Project Manager

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ORELAP ID: **OR100062**

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0457 - EPA 3546							Soil					
Blank (23I0457-BLK1)		Prepared: 09/15/23 06:44	Analyzed: 09/15/23 13:20									
EPA 8270E												
Acenaphthene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Fluorene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
Naphthalene	ND	---	0.00533	mg/kg wet	1	---	---	---	---	---	---	
Phenanthrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Pyrene	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	---	0.00400	mg/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.00267	mg/kg wet	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery: 82 %*	*Limits: 37-122 %*		*Dilution: 1x*							
2-Fluorobiphenyl (Surr)		*83 %*	*44-120 %*		*"*							
Phenol-d6 (Surr)		*81 %*	*33-122 %*		*"*							
p-Terphenyl-d14 (Surr)		*89 %*	*54-127 %*		*"*							
2-Fluorophenol (Surr)		*84 %*	*35-120 %*		*"*							
2,4,6-Tribromophenol (Surr)		*88 %*	*39-132 %*		*"*							
LCS (23I0457-BS1)		Prepared: 09/15/23 06:44	Analyzed: 09/15/23 13:54									
EPA 8270E												
Acenaphthene	0.481	---	0.0107	mg/kg wet	4	0.533	---	90	40 - 123%	---	---	
Acenaphthylene	0.459	---	0.0107	mg/kg wet	4	0.533	---	86	32 - 132%	---	---	
Anthracene	0.486	---	0.0107	mg/kg wet	4	0.533	---	91	47 - 123%	---	---	
Benz(a)anthracene	0.476	---	0.0107	mg/kg wet	4	0.533	---	89	49 - 126%	---	---	

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Cameron O'Brien, Project Manager

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Selected Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0457 - EPA 3546							**Soil**					
LCS (23I0457-BS1)		Prepared: 09/15/23 06:44		Analyzed: 09/15/23 13:54								
Benzo(a)pyrene	0.535	---	0.0160	mg/kg wet	4	0.533	---	100	45 - 129%	---	---	
Benzo(b)fluoranthene	0.482	---	0.0160	mg/kg wet	4	0.533	---	90	45 - 132%	---	---	
Benzo(k)fluoranthene	0.508	---	0.0160	mg/kg wet	4	0.533	---	95	47 - 132%	---	---	
Benzo(g,h,i)perylene	0.496	---	0.0107	mg/kg wet	4	0.533	---	93	43 - 134%	---	---	
Chrysene	0.473	---	0.0107	mg/kg wet	4	0.533	---	89	50 - 124%	---	---	
Dibenz(a,h)anthracene	0.489	---	0.0107	mg/kg wet	4	0.533	---	92	45 - 134%	---	---	
Fluoranthene	0.516	---	0.0107	mg/kg wet	4	0.533	---	97	50 - 127%	---	---	
Fluorene	0.443	---	0.0107	mg/kg wet	4	0.533	---	83	43 - 125%	---	---	
Indeno(1,2,3-cd)pyrene	0.460	---	0.0107	mg/kg wet	4	0.533	---	86	45 - 133%	---	---	
1-Methylnaphthalene	0.480	---	0.0213	mg/kg wet	4	0.533	---	90	40 - 120%	---	---	
2-Methylnaphthalene	0.498	---	0.0213	mg/kg wet	4	0.533	---	93	38 - 122%	---	---	
Naphthalene	0.464	---	0.0213	mg/kg wet	4	0.533	---	87	35 - 123%	---	---	
Phenanthrene	0.461	---	0.0107	mg/kg wet	4	0.533	---	86	50 - 121%	---	---	
Pyrene	0.501	---	0.0107	mg/kg wet	4	0.533	---	94	47 - 127%	---	---	
Carbazole	0.469	---	0.0160	mg/kg wet	4	0.533	---	88	50 - 123%	---	---	
Dibenzofuran	0.460	---	0.0107	mg/kg wet	4	0.533	---	86	44 - 120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery: 80 %*		*Limits: 37-122 %*				*Dilution: 4x*				
2-Fluorobiphenyl (Surr)		*88 %*		*44-120 %*				*"*				
Phenol-d6 (Surr)		*83 %*		*33-122 %*				*"*				
p-Terphenyl-d14 (Surr)		*95 %*		*54-127 %*				*"*				
2-Fluorophenol (Surr)		*80 %*		*35-120 %*				*"*				
2,4,6-Tribromophenol (Surr)		*91 %*		*39-132 %*				*"*				

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

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ANALYTICAL REPORT

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0369 - Total Solids (Dry Weight) - 2022								Soil				
Duplicate (23I0369-DUP6)		Prepared: 09/13/23 19:18			Analyzed: 09/14/23 05:25							
QC Source Sample: Disp-1 (A3I1065-06)												
EPA 8000D												
% Solids	**90.7**	---	1.00	%	1	---	94.1	---	---	4	10%	

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0426 - Total Solids (Dry Weight) - 2022							**Soil**					

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

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0397							
A3I1065-06RE1	Soil	NWTPH-Dx	09/13/23 14:30	09/13/23 18:23	10.36g/5mL	10g/5mL	0.97
A3I1065-07	Soil	NWTPH-Dx	09/13/23 14:35	09/13/23 18:23	10.82g/5mL	10g/5mL	0.92
A3I1065-08	Soil	NWTPH-Dx	09/13/23 14:40	09/13/23 18:23	10.66g/5mL	10g/5mL	0.94
Batch: 23I0407							
A3I1065-01	Soil	NWTPH-Dx	09/13/23 14:15	09/14/23 07:06	10.12g/5mL	10g/5mL	0.99
A3I1065-02	Soil	NWTPH-Dx	09/13/23 14:20	09/14/23 07:06	10.05g/5mL	10g/5mL	1.00
A3I1065-03	Soil	NWTPH-Dx	09/13/23 14:50	09/14/23 07:06	10.37g/5mL	10g/5mL	0.96
A3I1065-04	Soil	NWTPH-Dx	09/13/23 14:55	09/14/23 07:06	10.28g/5mL	10g/5mL	0.97
A3I1065-05	Soil	NWTPH-Dx	09/13/23 14:25	09/14/23 07:06	10.35g/5mL	10g/5mL	0.97

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0427							
A3I1065-01	Soil	5035A/8260D	09/13/23 14:15	09/13/23 14:15	5.59g/5mL	5g/5mL	0.89
A3I1065-02	Soil	5035A/8260D	09/13/23 14:20	09/13/23 14:20	7.31g/5mL	5g/5mL	0.68
A3I1065-03	Soil	5035A/8260D	09/13/23 14:50	09/13/23 14:50	4.57g/5mL	5g/5mL	1.09
A3I1065-04	Soil	5035A/8260D	09/13/23 14:55	09/13/23 14:55	7.63g/5mL	5g/5mL	0.66
A3I1065-05	Soil	5035A/8260D	09/13/23 14:25	09/13/23 14:25	6.77g/5mL	5g/5mL	0.74
A3I1065-06	Soil	5035A/8260D	09/13/23 14:30	09/13/23 14:30	7.55g/5mL	5g/5mL	0.66
A3I1065-07	Soil	5035A/8260D	09/13/23 14:35	09/13/23 14:35	6.12g/5mL	5g/5mL	0.82
A3I1065-08	Soil	5035A/8260D	09/13/23 14:40	09/13/23 14:40	6.55g/5mL	5g/5mL	0.76

Selected Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0457							
A3I1065-08	Soil	EPA 8270E	09/13/23 14:40	09/15/23 15:15	15.31g/2mL	15g/2mL	0.98
A3I1065-08RE1	Soil	EPA 8270E	09/13/23 14:40	09/15/23 15:15	15.31g/2mL	15g/2mL	0.98

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

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

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0369							
A3I1065-06	Soil	EPA 8000D	09/13/23 14:30	09/13/23 19:18			NA
A3I1065-07	Soil	EPA 8000D	09/13/23 14:35	09/13/23 19:18			NA
A3I1065-08	Soil	EPA 8000D	09/13/23 14:40	09/13/23 19:18			NA
Batch: 23I0426							
A3I1065-01	Soil	EPA 8000D	09/13/23 14:15	09/14/23 10:21			NA
A3I1065-02	Soil	EPA 8000D	09/13/23 14:20	09/14/23 10:21			NA
A3I1065-03	Soil	EPA 8000D	09/13/23 14:50	09/14/23 10:21			NA
A3I1065-04	Soil	EPA 8000D	09/13/23 14:55	09/14/23 10:21			NA
A3I1065-05	Soil	EPA 8000D	09/13/23 14:25	09/14/23 10:21			NA

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

QUALIFIER DEFINITIONS

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

Apex Laboratories

F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
S-06	Surrogate recovery is outside of established control limits.

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported.

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

Apex Laboratories

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

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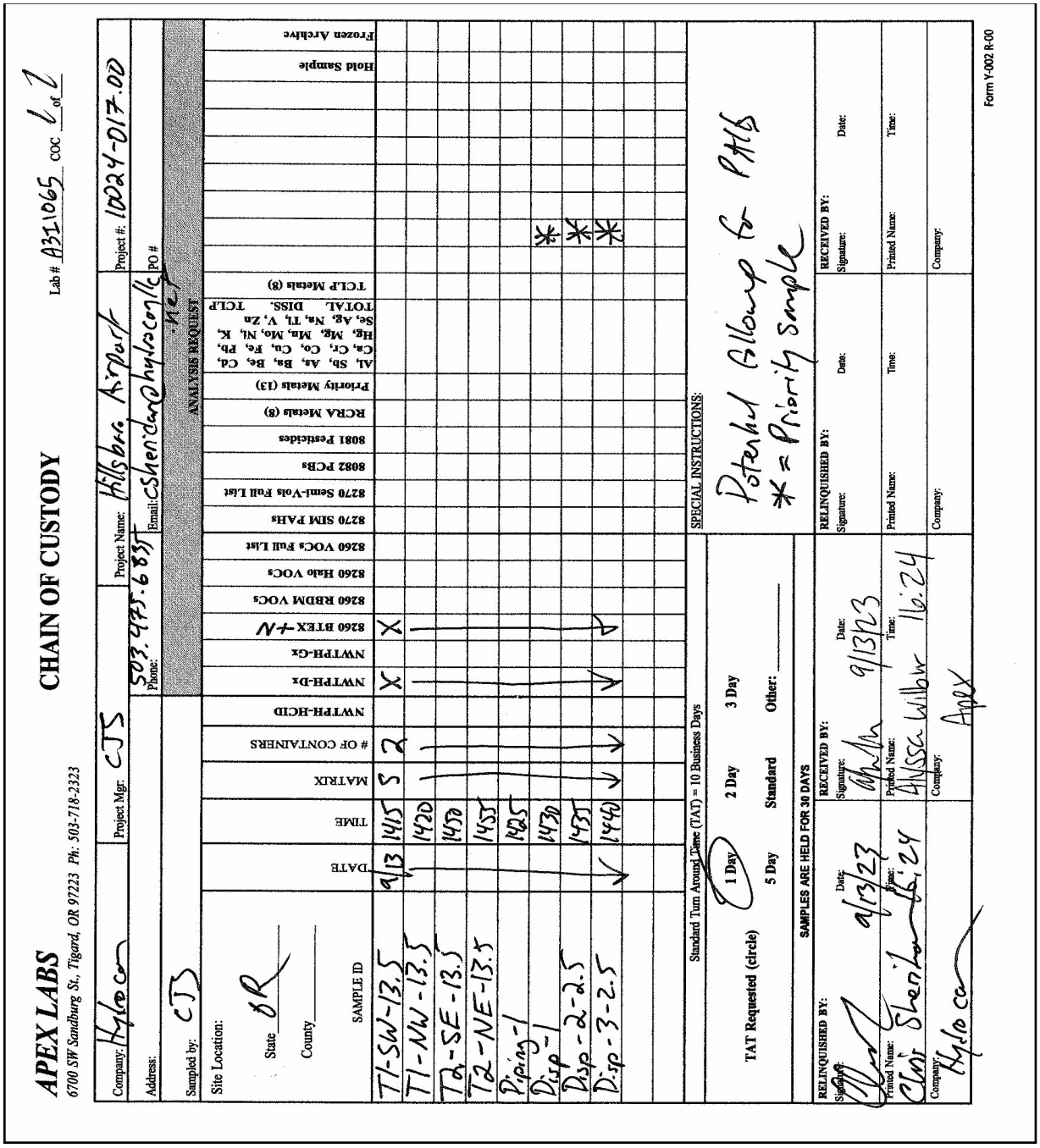
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**



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

CHAIN OF CUSTODY

Lab # A31065 COC 1 of 1

Company: Hydrocon | Project Mgr: CJS | Project Name: Hillsboro Airport | Project #: 10024-017.00
Address: | Phone: 503.445.6851 | Email: csheridan@hydrocon.net | PO #
Sampled by: CJS

Site Location: State OR County

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX +N	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
T1-SW-13.5	9/13	1415	S	2		X															
T1-NW-13.5	↓	1420		1																	
T2-SE-13.5		1450																			
T2-NE-13.5		1455																			
Piping-1		1425																			
Disp-2-2.5		1430						*													
Disp-3-2.5		1435						*													
Disp-3-2.5	↓	1440	↓	↓		↓		*													

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
Potential Chlorinated Solvents
* = Priority Sample

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: | Date: 9/13/23 | Time: 1600 | Printed Name: Chris Sheridan | Company: Hydrocon
RECEIVED BY: Signature: | Date: 9/13/23 | Time: 1624 | Printed Name: Alyssa Wilbur | Company: Apex
RELINQUISHED BY: Signature: | Date: | Time: | Printed Name: | Company:
RECEIVED BY: Signature: | Date: | Time: | Printed Name: | Company:

Form Y-002 R-00

Apex Laboratories

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1065 - 09 18 23 1521**

APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A3I1065

Project/Project #: Hillsboro ~~Aero~~ Airport 10024-017.00 APW 9/13

Delivery Info:

Date/time received: 9/13/23 @ 1624 By: APW

Delivered by: Apex____Client____ESS____FedEx____UPS____Swift____Senvoy____SDS____Other_____

Cooler Inspection Date/time inspected: 9/13/23 @ 1625 By: APW

Chain of Custody included? Yes X No _____ Custody seals? Yes_____ No X

Signed/dated by client? Yes X No _____

Signed/dated by Apex? Yes X No _____

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	9.7						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	Real						
Condition (In/Out):	Out						

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

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 9/13/23 @ 1630 By: CM

All samples intact? Yes X No ___ Comments: _____

Bottle labels/COCs agree? Yes X No ___ Comments: _____

COC/container discrepancies form initiated? Yes ___ No X

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

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

Comments _____

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X Strip ID: A23A348 ☐

Comments: _____

Additional information: _____

Labeled by: DJS Witness: APW Cooler Inspected by: CM

Form Y-003 R-01

Apex Laboratories

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

ANALYTICAL REPORT

Monday, September 18, 2023

Chris Sheridan
HydroCon LLC
3925 NE 72nd Ave. Suite 103
Vancouver, WA 98661

RE: A3I1105 - Hillsboro Airport - 10024-017.00

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

Enclosed are the results of analyses for work order A3I1105, which was received by the laboratory on 9/14/2023 at 1:45:00PM.

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

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

Cooler Receipt Information		
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.		
(See Cooler Receipt Form for details)		
Default Cooler	25.4	degC

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

Apex Laboratories

Cameron O'Brien, Project Manager

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ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Disp-4-4.5	**A3I1105-01**	**Soil**	**09/14/23 12:45**	**09/14/23 13:45**
Disp-5-4.5	**A3I1105-02**	**Soil**	**09/14/23 12:50**	**09/14/23 13:45**

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ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0407**		**TEMP**
Diesel	**1820**	---	27.4	mg/kg dry	1	09/15/23 01:07	NWTPH-Dx	**F-13**
Oil	ND	---	54.9	mg/kg dry	1	09/15/23 01:07	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 89 %*		*Limits: 50-150 %*	*1*	*09/15/23 01:07*	*NWTPH-Dx*	*Q-41*
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0407**		**CONT, TEMP**
Diesel	ND	---	25.3	mg/kg dry	1	09/15/23 01:28	NWTPH-Dx	
Oil	ND	---	50.6	mg/kg dry	1	09/15/23 01:28	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		*Recovery: 96 %*		*Limits: 50-150 %*	*1*	*09/15/23 01:28*	*NWTPH-Dx*	*Q-41*

Apex Laboratories

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ANALYTICAL REPORT

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3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0479**		**TEMP, V-15**
Benzene	ND	---	0.149	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Toluene	ND	---	0.747	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Ethylbenzene	**0.829**	---	0.373	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Xylenes, total	**14.7**	---	1.12	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Naphthalene	**3.08**	---	1.49	mg/kg dry	500	09/15/23 18:47	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
Toluene-d8 (Surr)			*101 %*	*80-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*93 %*	*79-120 %*	*1*	*09/15/23 18:47*	*5035A/8260D*	
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0479**		**TEMP, V-15**
Benzene	ND	---	0.0159	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Toluene	ND	---	0.0793	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Ethylbenzene	ND	---	0.0396	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Xylenes, total	ND	---	0.119	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Naphthalene	ND	---	0.159	mg/kg dry	50	09/15/23 18:21	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	
Toluene-d8 (Surr)			*102 %*	*80-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	
4-Bromofluorobenzene (Surr)			*97 %*	*79-120 %*	*1*	*09/15/23 18:21*	*5035A/8260D*	

Apex Laboratories

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ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Disp-4-4.5 (A3I1105-01)				**Matrix: Soil**		**Batch: 23I0426**		**TEMP**
% Solids	**72.6**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	
Disp-5-4.5 (A3I1105-02)				**Matrix: Soil**		**Batch: 23I0426**		**CONT, TEMP**
% Solids	**75.7**	---	1.00	%	1	09/15/23 06:49	EPA 8000D	

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Cameron O'Brien, Project Manager

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

ANALYTICAL REPORT

HydroCon LLC	Project: **Hillsboro Airport**	
3925 NE 72nd Ave. Suite 103	Project Number: **10024-017.00**	**Report ID:**
Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0407 - EPA 3546 (Fuels)							Soil					
Blank (23I0407-BLK1)		Prepared: 09/14/23 07:06 Analyzed: 09/14/23 22:01										
NWTPH-Dx												
Diesel	ND	---	20.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	40.0	mg/kg wet	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 96 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (23I0407-BS1)		Prepared: 09/14/23 07:06 Analyzed: 09/14/23 22:21										
NWTPH-Dx												
Diesel	110	---	20.0	mg/kg wet	1	125	---	88	38 - 132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 100 %*	*Limits: 50-150 %*		*Dilution: 1x*							

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

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QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX+N Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0479 - EPA 5035A							Soil					
Blank (23I0479-BLK1)		Prepared: 09/15/23 10:56 Analyzed: 09/15/23 12:46										
5035A/8260D												
Benzene	ND	---	0.0100	mg/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	0.0500	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0250	mg/kg wet	50	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0750	mg/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	---	0.100	mg/kg wet	50	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*104 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*97 %*		*79-120 %*			*"*				
LCS (23I0479-BS1)		Prepared: 09/15/23 10:56 Analyzed: 09/15/23 11:50										
5035A/8260D												
Benzene	1.03	---	0.0100	mg/kg wet	50	1.00	---	103	80 - 120%	---	---	
Toluene	1.04	---	0.0500	mg/kg wet	50	1.00	---	104	80 - 120%	---	---	
Ethylbenzene	1.02	---	0.0250	mg/kg wet	50	1.00	---	102	80 - 120%	---	---	
Xylenes, total	3.10	---	0.0750	mg/kg wet	50	3.00	---	103	80 - 120%	---	---	
Naphthalene	0.870	---	0.100	mg/kg wet	50	1.00	---	87	80 - 120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*103 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*95 %*		*79-120 %*			*"*				

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

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Vancouver, WA 98661	Project Manager: **Chris Sheridan**	**A3I1105 - 09 18 23 1613**

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23I0426 - Total Solids (Dry Weight) - 2022							**Soil**					

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

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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0407							
A3I1105-01	Soil	NWTPH-Dx	09/14/23 12:45	09/14/23 18:12	10.04g/5mL	10g/5mL	1.00
A3I1105-02	Soil	NWTPH-Dx	09/14/23 12:50	09/14/23 18:12	10.44g/5mL	10g/5mL	0.96

BTEX+N Compounds by EPA 8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0479							
A3I1105-01	Soil	5035A/8260D	09/14/23 12:45	09/14/23 14:27	6.17g/5mL	5g/5mL	0.81
A3I1105-02	Soil	5035A/8260D	09/14/23 12:50	09/14/23 14:27	5.22g/5mL	5g/5mL	0.96

Percent Dry Weight

Prep: Total Solids (Dry Weight) - 2022

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23I0426							
A3I1105-01	Soil	EPA 8000D	09/14/23 12:45	09/14/23 20:02			NA
A3I1105-02	Soil	EPA 8000D	09/14/23 12:50	09/14/23 20:02			NA

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QUALIFIER DEFINITIONS

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

Apex Laboratories

CONT	The Sample Container provided for this analysis was not provided by Apex Laboratories, and has not been verified as part of the Apex Quality System.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
TEMP	Sample was received outside of recommended temperature.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

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

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

NR Result Not Reported.

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

Detection Limits: Limit of Detection (LOD)

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

Reporting Limits: Limit of Quantitation (LOQ)

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

Reporting Conventions:

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

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

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

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

QC Source:

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

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

Miscellaneous Notes:

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

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

Blanks:

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

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

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

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

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

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

Soil and Sediment Samples:

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

Sampling and Preservation Notes:

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

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

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

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

Apex Laboratories

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LABORATORY ACCREDITATION INFORMATION

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

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

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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

Secondary Accreditations

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

Subcontract Laboratory Accreditations

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

Field Testing Parameters

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

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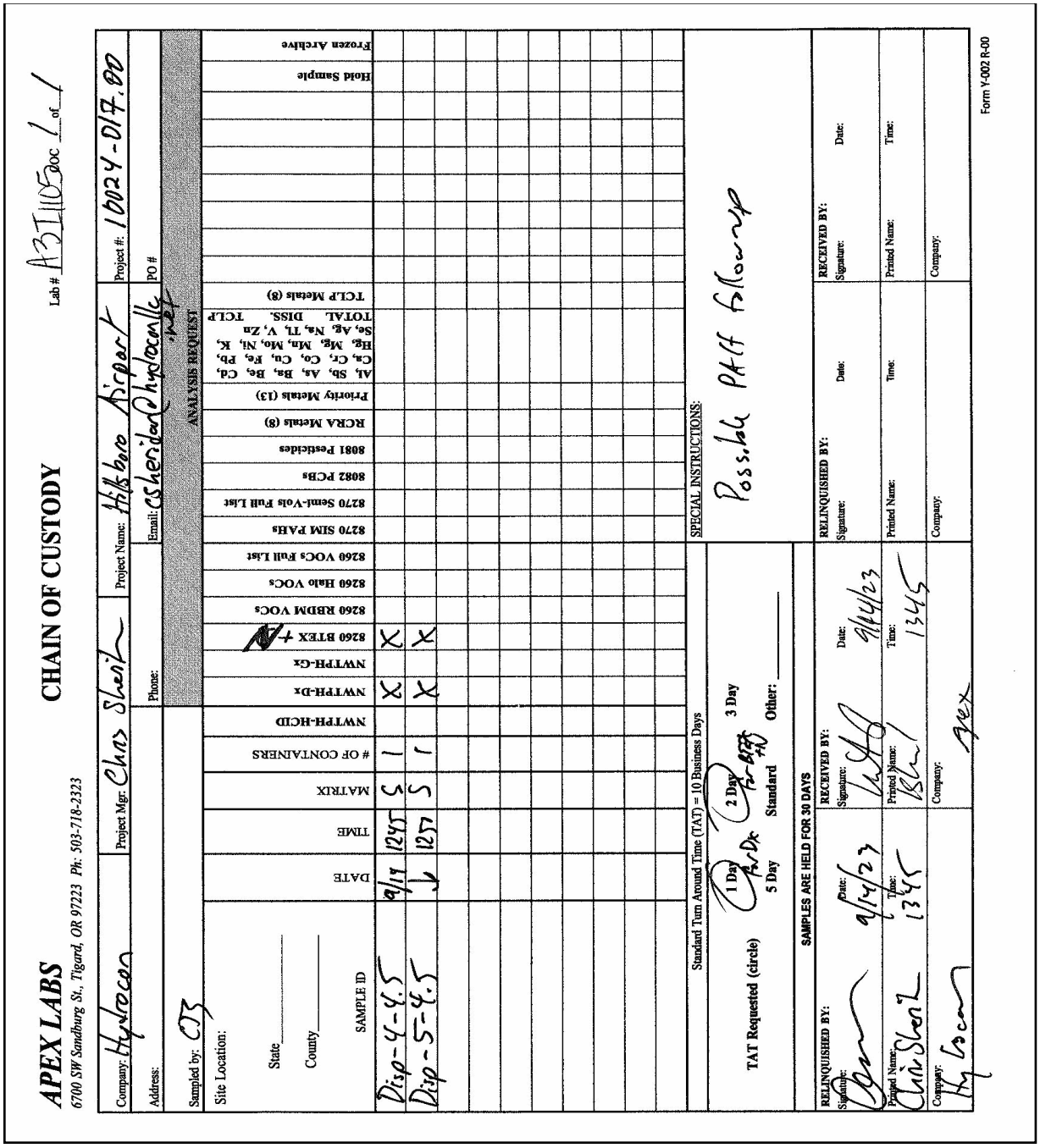

APEX LABS
6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323

CHAIN OF CUSTODY

Lab # A3I1105 Doc 1 of 1

Company: Hydrocon | Project Mgr: Chris Sheridan | Project Name: Hillsboro Airport | Project #: 10024-017.00
Address: | Phone: | Email: csheridan@hydrocon.com | PO #
Sampled by: CJS

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 BTEX + N	8260 RBDM VOCs	8260 Halo VOCs	8260 VOCs Full List	8270 SIM PAHs	8270 Semi-Vols Full List	8082 PCBs	8081 Pesticides	RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS. TCLP	TCLP Metals (8)	Hold Sample	Frozen Archive
Disp-4-4.5	9/14	1245	S	1		X		X													
Disp-5-4.5	↓	1257	S	1		X		X													

Standard Turn Around Time (TAT) = 10 Business Days

TAT Requested (circle): 1 Day | 2 Day | 3 Day | 5 Day | Standard | Other: _____

SPECIAL INSTRUCTIONS:
Possible PFAS followup

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature:	Signature:	Signature:	Signature:
Date: 9/14/23	Date: 9/14/23	Date:	Date:
Time: 1345	Time: 1345	Time:	Time:
Printed Name: Chris Sheridan	Printed Name: Ben	Printed Name:	Printed Name:
Company: Hydrocon	Company: Apex	Company:	Company:

Form Y-002 R-00

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APEX LABS COOLER RECEIPT FORM

Client: HydroCon Element WO#: A3I1105

Project/Project #: Hillsboro Airport 10024-017.00

Delivery Info:

Date/time received: 9/14/23 @ 1345 By: MS

Delivered by: Apex___Client X ESS___FedEx___UPS___Swift___Senvoy___SDS___Other___

Cooler Inspection Date/time inspected: 9/14/23 @ 1345 By: MS

Chain of Custody included? Yes X No ___ Custody seals? Yes___ No X

Signed/dated by client? Yes X No ___

Signed/dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	29.4						
Received on ice? (Y/N)	N						
Temp. blanks? (Y/N)	N						
Ice type: (Gel/Real/Other)	None						
Condition (In/Out):	Out						

Cooler out of temp? (Y/N) Possible reason why: No Cooler / No Ice

Green dots applied to out of temperature samples? Yes/No

Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 9/14/23 @ 1349 By: MS

All samples intact? Yes X No ___ Comments: ___

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

COC/container discrepancies form initiated? Yes ___ No X

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

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

Comments ___

Water samples: pH checked: Yes___No___NA X pH appropriate? Yes___No___NA X Strip ID: A23A348 ☐

Comments: ___

Additional information: ___

Labeled by: JS Witness: RMP Cooler Inspected by: Client/No Cooler

Form Y-003 R-01

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