



***Remedial Investigation Report
Dagmars Marina
1871 Ross Ave
Everett, WA***

**Prepared for:
1870 Ross Partners, LLC c/o Alterra Property Group, LLC**

**March 17, 2023
ALT021-0314032-22012832**



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A handwritten signature in black ink, appearing to read 'A Utter'.

Anders Utter
Project Manager



JOHN P. FOXWELL

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Senior Associate

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1.0 Introduction

This Remedial Investigation (RI) Report was prepared for the Dagmars Marina site located at 1870 Ross Ave, Everett, Snohomish County, Washington (Facility; Figure 1). Dagmars Marina currently operates a marina with on-land storage of marine vessels, including a fueling operation and a maintenance shop. Additional tenants include a boat repair facility, boat sales, and trailer sales. The Dagmars Marina “Site” includes the property and any area where a Site-related hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, placed, or otherwise come to be located. The Site includes several localized releases, each of limited extent, at different areas of the Facility. A site location map and site plan are provided in Figures 1 and 2, respectively.

Work is being completed following the Remedial Investigation Work Proposal (Apex Companies, LLC [Apex], 2022c) that was signed by 1870 Ross Partners, LLC on November 28, 2022. This RI Report was prepared following the requirements of the Washington Administrative Code (WAC)-340-350. Enrollment of the site in the Expedited Voluntary Cleanup Program will be completed with submittal of this report.

1.1 Purpose and Objectives of Investigation

The RI was completed to characterize four investigation areas identified based on the results of the 2022 Phase II Environmental Site Assessment (ESA; Apex, 2022b). A summary of investigation areas and findings are described below.

Current Above Ground Storage Tank (AST) Area. Apex identified a surface release associated with two 20,000-gallon ASTs near the Dagmars Marina Maintenance Shop in the northeast corner of the site.

Maintenance Shop Area. Apex identified a surface release associated with a 500-gallon used oil AST at the Dagmars Maintenance Shop.

Snohomish Marine. Apex identified subsurface contamination potentially associated with run-off to a catch-basin located 60 feet southeast from the tenant-run maintenance operation at Snohomish Marine.

Arsenic Characterization Area. The Confirmed and Suspected Contaminated Site List (CSCSL) listing at the Site refers to an area of elevated arsenic concentrations in groundwater identified during pre-construction activities for utilities in 2004.

Drainage Sediment Outfall and Slough Area. Extensive sampling was completed to characterize conditions at each stormwater outfall within the drainage system as part of the Phase II ESA. Impacts to sediments were not identified above applicable cleanup criteria. The results are incorporated into the findings of this Remedial Investigation.

Additionally, areas in the northern portion of the facility including a former AST area, relic piping, and an apparent cistern or manure vault system were also investigated. The 2022 ESA did not identify contamination sources associated with these features.

This RI was completed with the purposes of: 1) identifying/confirming contaminant source area(s); 2) evaluating the extent of contamination based on Washington State Model Toxics Control Act (MTCA) cleanup levels; and 3) evaluating risks and pathways to potential on-site and off-site receptors.

2.0 Site Background

This section presents a brief description of the Site, its history, and available physical and chemical data. Information in this section was obtained from previously completed site investigations, to include: 1) a Phase I ESA report dated July 12, 2022 (Apex, 2022a); and 2) a Phase II ESA report dated November 21, 2022 (Apex, 2022b).

2.1 General Site Information

The Site is located in an industrial setting in Everett, Washington (Figures 1 and 2). The City of Everett is located in Snohomish County, Washington approximately 30 miles north of Seattle, Washington. The Site is located approximately at sea level and is generally flat. Snohomish River is the closest body of water, located directly adjacent to the west of the Site and flowing approximately north to the Puget Sound.

The Site is comprised of two parcels adjacent to the Snohomish River and Interstate 5, totaling 37 acres. The Facility is used for on-land storage of marine vessels and includes a fueling operation and maintenance shop. Current tenants at Dagmars Marina include Snohomish Marine Maintenance, Boat Country Sales, Signal Trailer Sales, and a cellular data station. The cellular station sits several feet above the grade of the remainder of the Site. Based on the Phase I ESA (Apex, 2022a), the marina and associated buildings were developed in the 1970s, and the current operations (boat dock storage, marine maintenance, and equipment sales) have been present since the 1980s. Prior to the 1980s, the site was used for agricultural and dairy operations. The current layout of the Site is shown on Figures 3 and 4.

2.2 Site History

The following description of the Site and adjacent properties is based on review of historical information. The Dagmars Facility originally included agricultural and dairy operations in the 1950s, with no significant change in use other than the addition of log boom tie-ups along the shoreline of the Site. In the late 1970s, Dagmar's Marina was constructed and has been operating since then with expansion throughout the years.

Site Vicinity. Properties to the north, south, and east of the site were vacant until at least 1941. By 1952, increased agricultural usage was observed to the north of the Site and by 1968, Interstate 5 was constructed to the east and industrial development began to the north of the Site (Buse Mill Timber & Sales Inc). Between 1968 and the present, there have been a lumber mill and various industrial developments adjoining the Site to the north and agricultural land to the south of the Site. The Site is bound by the Snohomish River to the west, and the former Everett smelter is located further west across the river from the marina.

2.3 Arsenic Release History

The Site has a unique listing on the CSCSL related to arsenic contamination in a groundwater sample collected during pre-construction activities for utilities in 2004. The CSCSL database listing indicates that groundwater on a portion of the Site was above MTCA Method A cleanup levels for arsenic. The CSCSL listing indicates that groundwater samples were collected near the current communications tower on Site in 2004 during subsurface telecommunication line construction. A single groundwater sample detected arsenic at concentrations exceeding the MTCA Method A cleanup levels. Groundwater analytical results detected arsenic concentrations of 50 micrograms per liter ($\mu\text{g/L}$) compared to the MTCA Method A cleanup levels for arsenic of 5 $\mu\text{g/L}$. No information was available describing whether this was a filtered or unfiltered sample.

2.4 Prior Site Investigation Activities

The 2022 Phase II ESA included characterization of suspected upland sources as well as the site drainage system. A summary of findings is described below.

- **Current AST Area.** A petroleum hydrocarbon surface release was identified in soil to the north of the ASTs to depths of approximately 5 feet below ground surface (bgs).
- **Maintenance Shop Area.** A petroleum hydrocarbon surface release was identified in soil on the northern side of the maintenance shop to a depth of 5 feet bgs.
- **Snohomish Marine.** A petroleum hydrocarbon release was identified near a stormwater catch-basin at the Snohomish Marine area. The release has extended to groundwater with concentrations of diesel range petroleum hydrocarbons (DRO) and residual range petroleum hydrocarbons (RRO) in groundwater ranging between 30 and 148 times higher than the applicable MTCA Method A cleanup levels, respectively. Additional soil and groundwater characterization, including monitoring wells, will be required at the Snohomish Marine area. During Phase II ESA field activities, a small septic tank was identified behind the building which was reportedly installed to manage wastewater generated by Snohomish Marine. The Phase II ESA utility locates did not identify any piping entering or leaving the small septic tank. An unknown amount of petroleum was released to the subsurface reaching groundwater near the stormwater catch-basin area.
- **Arsenic Characterization Area.** Arsenic concentrations in groundwater were noticeably lower than the historical groundwater sample of 50 $\mu\text{g/L}$, ranging between 14 and 20 $\mu\text{g/L}$. However, these

concentrations exceeded the applicable MTCA Method A cleanup level of 5 µg/L for groundwater. In soil samples, concentrations of arsenic exceeded the Puget Sound Natural Background Concentration of 7 milligrams per kilogram (mg/kg) but were below the applicable MTCA Method A cleanup level of 20 mg/kg. The arsenic concentrations detected in groundwater appear to be caused by biologically-mediated or natural background concentrations of arsenic in soil at the Site.

- **Drainage and Sediment Samples.** Sixteen drainage sediment samples were collected at each stormwater outfall identified in the Site's Stormwater Pollution Prevention Plan (SWPPP, Figures 5 and 6) to characterize drainage sediment conditions connected to the Site's stormwater system. Samples from Outfall-10 and Outfall-14 could not be collected due to drain configuration (French drain). French drain configurations discharge to the ground from perforated piping, and do not connect to the drainage ditch system. The drainage sediment samples were analyzed for a range of contaminants of interest. Drainage sediment analytical results are shown in Tables 1 through 5 and described below.

Concentrations of polychlorinated biphenyls (PCBs), organochlorine pesticides, organophosphorus pesticides, and herbicides were not detected in drainage sediment samples collected from the northern surface drainage and each outfall location sampled. Petroleum hydrocarbons were detected in samples collected at outfall locations adjacent to Interstate 5 and the northern surface drainage area. Select metals were detected in all drainage sediment samples throughout the Site. Concentrations of PCBs were not detected in any drainage sample. Concentrations of herbicides and pesticides were largely not detected in the drainage samples, and none exceeded applicable MTCA Method A cleanup levels. Outfall-10 and Outfall-14 are in the upland area of the Site more than 500 feet from the Snohomish River and will not result in sediment impacts due to their proximity. Samples collected within the vicinity of Outfall-10 and Outfall-14 indicate no analytes were detected above MTCA Method A cleanup levels. See Figures 5 and 6 for drainage sediment results.

Cleanup screening levels (CSL) were applied consistent with WAC 173-204 Sediment Cleanup User's Manual (SCUM) and WAC 173-204 Sediment Management Standards. The CSLs are used to determine if Sites require additional remedial action. When the average of the three highest samples for any single chemical exceeds the CSLs, cleanup is required. Sediment cleanup objectives (SCOs) represent long-term cleanup levels used when concentrations are above CSLs (a no-effect concentration). Sediment cleanup levels are often established between the CSL and SCO. Detected concentrations of petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), and metals in each sample were below CSLs for freshwater sediment management.

Site investigation at the areas in the northern portion of the facility near the former AST area, relic piping by the barn, and apparent cistern or manure vault system did not identify releases associated with these features.

These findings form the basis for the RI field investigation.

3.0 RI Field Investigation

Field investigation activities were completed in general accordance with the RI Proposal (Apex, 2022) and Washington Department of Ecology (Ecology) Remedial Investigation (RI) guidance and cleanup rules. Subsurface investigations and groundwater monitoring events were completed during the weeks of January 2, January 9, and January 23, 2023. Field activities completed at each investigation area consisted of:

- **Current AST Area.** Five soil borings (AST-4 through AST-8) were completed at the AST area to depths ranging from 10 to 20 feet bgs. The RI and historical borings are shown on Figure 7.
- **Maintenance Shop Area.** Three soil borings (Shop-3 through Shop-5) were completed at the maintenance shop area to a depth of 10 feet bgs. Monitoring well MW-5 was constructed to evaluate if impacts to groundwater are present in this area. The RI and historical borings are shown on Figure 8.
- **Snohomish Marine.** Soil borings were completed at several areas of Snohomish Marine. During implementation of the RI, a Snohomish Marine employee described a former underground storage tank (UST) located west of Snohomish Marine. This area was included as an RI investigation area. Soil borings completed at Snohomish Marine are shown on Figures 9 and 10 and include:
 - Two soil borings (SB-11 and SB-12) completed to depths of 10 feet bgs to assess whether hazardous substances were present in association with the inactive septic tank behind Snohomish Marine.
 - Three soil borings (SB-15 through SB-17) completed to depths of 10 feet bgs to assess whether hazardous substances were present in association with the suspected UST on the southwest corner of Snohomish Marine identified during geophysical survey.
 - Four soil borings (SB-22 through SB-25) completed to depths ranging from 15 to 20 feet bgs to investigate the historical UST reportedly associated with a former owner of Snohomish Marine.
 - Fourteen soil borings (SB-5 through SB-10 and SB-13 through 21) completed to depths ranging from 10 to 25 feet bgs to characterize the area of Snohomish Marine and an area of petroleum contamination associated with a catch-basin located south of the site.
 - Three groundwater monitoring wells (MW-2 through MW-4) completed to characterize groundwater conditions.
- **Arsenic Characterization Area.** Four soil borings (ARS-1 through ARS-4) were completed at the arsenic characterization area to depths ranging from 10 to 20 feet bgs. The RI and historical borings are shown on Figure 11.

3.1 Pre-Investigation Field Activities

Health and Safety Plan. A Site-specific health and safety plan (HASP) was prepared for the field activities. The HASP was prepared in general accordance with the Occupational Safety and Health Administration

(OSHA) requirements in Code of Federal Regulations (CFR) 1910.120. A copy of the HASP was maintained on-site during the field activities.

Subcontracting. Apex utilized the following subcontractors to complete portions of this work:

- ACT Environmental of Spokane, Washington completed the investigation-derived waste (IDW) removal services;
- Cascade Drilling Services of Woodinville, Washington completed the drilling services;
- Fremont Analytical of Seattle, Washington completed soil and groundwater analyses;
- Geophysical Survey LLC of Kennewick, Washington completed the geophysical survey; and
- CNI Locates of Bonney Lake, Washington completed the private utility locating services.

Geophysical Survey. On January 7, 2023, a geophysical survey was conducted throughout the entire exterior of Snohomish Marine and accessible interior areas. Survey methods included a ground penetrating radar (GPR) survey using a Geophysical Survey Systems, Inc (GSSI) G1 control unit, 350-megahertz (MHz) antenna, Geonics EM61MK2 metal detector. A Trimble Pro6H global positioning system (GPS) with sub-foot accuracy (less than 12 inches) was used to map site features. The geophysical survey mapped subsurface features such as buried utilities and a drain line that runs northeast to southwest in the interior of the building linking the storm drains. A septic tank with associated piping entering Snohomish Marine was delineated to the west of the building. A hyperbolic anomaly was detected in the southeast corner of the building. The anomaly in a single pass of GPR data is typical of the short axis of a UST; however, the area was blocked by multiple objects on the surface and the data is partially obscured by pooling water on the surface. The geophysical survey report is included in Appendix A.

Underground Utility Locates. Underground utilities were located and marked prior to beginning the field investigation work. This included contacting the Washington Utility Notification Center, who in turn notified the various utilities in the area to mark any underground installations. Private underground utility locates were completed by CNI Locates prior to subsurface work.

3.2 Soil Investigation

During the weeks of January 2, January 9, and January 23, 2023, 41 soil borings were completed at the Site (Figure 4). Soil borings were completed with direct-push equipment operated by Cascade Drilling of Woodinville, Washington. An Apex field scientist documented the soil borings and collected soil samples.

Direct-push soil borings were completed using a Geoprobe 7720DT drill rig to advance 5-foot macro-core soil samplers. Soil lithology was logged and screened continuously to the total depth of each boring, ranging from 10 to 20 feet bgs. Lithologic logs are included in Appendix B. Soil encountered in the explorations consisted of surface fill underlain by unconsolidated fine-grained material (silts, silty sands, and silty clay mixtures).

Depth to groundwater was variable, occurring at depths between 4 and 15 feet bgs throughout the Site during soil borings. Sampling methodology and standard operating procedures (SOPs) are discussed in Appendix D.

Soils from each exploration were field-screened with a photoionization detector (PID) and sheen test. PID readings and sheen tests were negative at all boring locations except as summarized below:

- **Current AST Area**
 - PID readings were logged at soil boring AST-4, located approximately 5 feet from the northwest corner of the AST structure. The highest PID reading was 8 parts per million (ppm) at a depth of 2.5 feet bgs and quickly decreased to 5 ppm by 5 feet bgs. Slight staining and a strong hydrocarbon odor were observed in these intervals.
 - PID readings were logged at soil boring AST-6, located approximately 5 feet from the northeast corner of the AST area. The highest PID reading was 228 ppm at a depth of 10 feet bgs and quickly decreased to 6ppm by 15 feet bgs. Slight staining and a strong hydrocarbon odor were observed in these intervals.
- **Maintenance Shop Area**
 - PID readings were logged at soil boring Shop-4, located approximately 5 feet from the northwest corner of the maintenance shop. The highest PID reading was 368 ppm at a depth of 2.5 feet bgs and decreased to less than 5 ppm at 8 feet bgs. Heavy staining and a strong hydrocarbon odor were observed in these intervals.
- **Snohomish Marine**
 - PID readings were logged at soil boring SB-7, located approximately 5 feet west of the downgradient storm drain at Snohomish marine. The highest PID reading was 17 ppm at a depth of 12 feet bgs and decreased to less than 5 ppm by 18 feet bgs. Slight petroleum staining was also observed in these intervals.
 - PID readings were logged at soil boring SB-8, located approximately 5 feet south of the downgradient storm drain at Snohomish marine. The highest PID reading was 47 ppm at a depth of 11.5 feet bgs and decreased to 6 ppm by 15 feet bgs. Slight petroleum staining and hydrocarbon odor were also observed in these intervals.
 - PID readings were logged at soil boring SB-9, located approximately 5 feet east of the downgradient storm drain at Snohomish Marine. The highest PID reading was 33 ppm at a depth of 11 feet bgs and decreased to less than 5 ppm by 16 feet bgs. Slight petroleum staining was observed in these intervals.

Soil samples were collected based on field screening results. Samples from borings with elevated field screening were collected from the interval with the highest PID reading as well as the bottom of the boring.

In remaining borings where field screening was negative, soil samples were analyzed from depths of 10 or 15 feet bgs. Soil samples from the arsenic characterization area were collected based on the presence of organic material observed (peat) or changes in stratigraphy.

3.3 Groundwater Investigation

Following soil sampling and field screening of soil borings, groundwater monitoring wells MW-2 through MW-5 were constructed to characterize and monitor groundwater conditions related to the impacted soils at the maintenance shop and Snohomish Marine investigation areas. Monitoring well locations are shown on Figures 3, 4, and 8 through 12. In summary:

- Monitoring well MW-5 was constructed near soil boring Shop-4 at the maintenance shop area; and
- Monitoring wells MW-2 through MW-4 were constructed at the Snohomish Marine building to evaluate conditions associated with petroleum detected at the catch-basin.

Borings for MW-2 through MW-5 were advanced using direct-push methods (Geoprobe TM) to the depth of groundwater, varying from 2.5 to 15 feet bgs depending on the investigation area. The monitoring wells were installed in accordance with WAC Chapter 173-630, constructed using 2-inch diameter polyvinyl chloride (PVC) casing with 10-to-15-foot screens depending on the monitoring well location. Monitoring wells were finished with a flush-mount, traffic-rated monument. The boring log and well construction details are included in Appendix B.

Following construction, monitoring well development was completed to remove deleterious well construction materials and stabilize the well filter pack. Development was considered complete when the purge water was visually clear and after electrical conductivity, temperature, and pH had stabilized for three successive casing measurements.

Groundwater monitoring was completed during the week of January 23, 2023. Depth to groundwater during the event varied from 2.49 feet to 4.90 feet bgs based on investigation area. Groundwater samples were collected from the monitoring wells using a peristaltic pump with new tubing for each sample collected.

3.4 Investigation-Derived Waste

Investigation-derived waste (IDW) consisted of soil cuttings and purge water. IDW soil was placed in three 55-gallon Department of Transportation (DOT)-approved drums, and IDW water was placed in two 55-gallon DOT-approved drums. IDW is temporarily stored in a designated area on the Site. The drums are labeled with the project name, generator name, contact number, general contents, and date. Waste disposal is pending.

4.0 Analytical Results

Laboratory analyses were completed by Fremont Analytical of Seattle, Washington. Analytical results for soil and groundwater samples are summarized in Tables 6 through 13. Soil samples were analyzed using one or more of the following methods:

- Gasoline-range organics (GRO) using Northwest Method TPH-Gx;
- DRO and RRO using Northwest Method TPH-Dx;
- Volatile organic compounds (VOCs) using Environmental Protection Agency (EPA) Method 8260 with EPA 5035 preservation;
- Metals (arsenic, barium, cadmium, lead, mercury, selenium, silver, copper, nickel, and zinc) using EPA 6020B and 7471B;
- PAHs by Method 8270 SIM;
- PCBs by EPA Method 8082A; and
- Total organic carbon (TOC) by EPA Method 9060.

Groundwater samples were analyzed using one or more of the following methods:

- GRO using Northwest Method TPH-Gx;
- DRO and RRO using Northwest Method TPH-Dx;
- VOCs using EPA Method 8260 with EPA 5035 preservation;
- Metals (arsenic, barium, cadmium, lead, mercury, selenium, silver, copper, nickel, and zinc) using EPA 6020B and 7471B;
- PAHs by Method 8270 SIM; and
- PCBs by EPA Method 8082A.

A majority of the samples were analyzed on standard turnaround time. Samples collected during the week of January 23, 2023 were analyzed on 48-hour turnaround time. Copies of the laboratory reports are included in Appendix C.

4.1 Soil Analysis and Results

Soil sampling results are summarized in this section. Soil analytical results and Washington MTCA Method A cleanup levels are summarized in Tables 6 through 10 and Figures 7 through 11. Soil boring logs are included in Appendix B.

Soil sampling results confirmed petroleum hydrocarbons and constituents were present at the current AST area, the maintenance shop area, and Snohomish Marine. The soil results at each investigation are summarized below.

Current AST Area. GRO and constituents (benzene, ethylbenzene, naphthalene, toluene, xylenes, and/or PAHs) were detected adjacent to the north side of the AST containment (AST-2, AST-4B, and AST-6) from the surface to depths of approximately 10 feet bgs. Higher relative concentrations of petroleum hydrocarbons were detected in AST-6 at the west end of the containment area. Gasoline-range total petroleum hydrocarbons (TPH-g) and constituents were detected to depths of 10 feet bgs in this area. Concentrations of halogenated volatile organic compounds (HVOCs) were not detected. The data set indicates a limited area of petroleum hydrocarbons is present in the area adjacent to the northeast corner of the AST containment.

Maintenance Shop Area. DRO and RRO were detected in soil boring Shop-4 and historical soil boring Shop-2. Petroleum constituents, HVOCs, PAHs, and PCBs were not detected. Petroleum hydrocarbons were not detected in borings completed to delineate Shop-2 and Shop-4. Higher relative concentrations of petroleum hydrocarbons were detected in the sample from the 2.5-foot interval, with DRO and RRO extending to depths of 6 feet bgs in Shop-4. The data set indicates a limited area of petroleum hydrocarbons is present in the northwest portion of the maintenance shop area.

Snohomish Marine. Petroleum hydrocarbons, VOCs, PAHs, and PCBs were mostly not detected in the soil borings completed around Snohomish Marine. This included borings near the Snohomish Marine Shop, the possible UST, the historical UST area, and a former septic tank.

Petroleum hydrocarbons, principally RRO, were detected in the soil boring for MW-5 and historical boring SB-04, apparently in association with the on-site catch-basin. Soil borings SB-7, SB-8, SB-9, SB-14, and SB-18 were completed to delineate this area. Samples were collected from intervals in these borings with positive field screening; however, RRO was not detected.

Arsenic Characterization Area. Concentrations of arsenic in soil borings ARS-1 through ARS-4 ranged from 2.33 to 13.9 mg/kg. Higher relative concentrations of arsenic and TOC were detected in the deeper intervals (10 to 20 feet bgs) compared to the shallower intervals (2 to 5 feet bgs). Natural organic matter (NOM) including peat and organic debris were observed in the soil borings completed in this area.

4.2 Groundwater Analysis and Results

One round of groundwater monitoring was completed at the site. The event was completed the week of January 23, 2023. Groundwater analytical results are summarized in Tables 11 through 13 and shown on Figures 8, 11, and 12.

Maintenance Area. One groundwater sample was collected from soil boring Shop-4 to characterize elevated field screening results encountered near the water table. The groundwater sample was analyzed for total petroleum hydrocarbons (TPH). Concentrations of DRO were detected, while all other petroleum hydrocarbons were not detected above the method reporting limit (MRL). Following installation of monitoring well MW-5, one groundwater sample was collected from MW-5. Concentrations of DRO were detected while all other petroleum hydrocarbons were not detected above the MRL.

Snohomish Marine. One groundwater sample was collected from soil boring SB-07 to investigate elevated field screening results encountered near the water table. The groundwater sample was analyzed for TPH, PAHs, VOCs, and total metals. Concentrations of DRO, naphthalene, arsenic, barium, chromium, and lead were detected. All other petroleum hydrocarbons, VOCs, PAHs, and metals were not detected above MRLs. Following installation of monitoring wells MW-2, MW-3, and MW-4, one groundwater sample was collected for each monitoring well and analyzed for TPH and VOCs. Concentrations of DRO were detected at MW-3, and to a lesser extent at MW-4 and MW-2. Concentrations of all other petroleum hydrocarbons and VOCs were not detected above MRLs.

5.0 Conceptual Site Model

A conceptual site model (CSM) requires identifying potential exposure pathways and receptors at the site based on the site characteristics, the nature and extent of contamination, and land use.

5.1 Site Geology

The Site is located at Everett, Washington, which is in the central part of the Puget Sound Lowland. The geologic unit for this Site is Qyal, a Holocene-aged younger alluvial and estuarine deposit (Minard, 1985). These deposits lie in and along the present streams near the water table. The sediment is largely sand, silt, and clay with considerable amounts of organic matter. Thicknesses of the younger alluvial and estuarine deposits probably exceed 30 meters. The alluvium overlies deposits from the last Pleistocene glaciation. Soils encountered during work at the Site included surface fill underlain by unconsolidated fine-grained alluvium. Areas of peat or organic materials were variably encountered in borings across the site.

5.2 Site Hydrogeology

The Site is located adjacent and east of the Snohomish River. Groundwater was encountered at variable depths across the site. Depth to groundwater during the January monitoring event varied from 2.49 to 4.90 feet bgs. Groundwater appears to result from locally perched conditions in the low permeability soils at Dagmars Marina. Regional groundwater flow direction is expected to be westward towards the Snohomish River and Possession Sound. Survey of monitoring wells is pending.

There are no potable, irrigation, or production use water wells located on the Site. The City of Everett maintains a reservoir that is located approximately 16 miles east of Everett, and the Site is served by the municipal water source. Water wells were identified within a mile of the Site; however, the exact location and use are not known at this time.

5.3 Nature and Extent of Contamination

The results of the 2022 and 2023 field investigations are summarized below for each investigation area.

Current AST Area. A limited area of petroleum hydrocarbons and constituents is present in soil beneath gravel surfaces at depths ranging from 2 to 10 feet bgs. Groundwater impacts from the area of petroleum contamination were not encountered. Separate-phase hydrocarbons (SPH) are not present.

Maintenance Shop Area. A limited area of petroleum hydrocarbons is present in soil beneath gravel surfaces at depths of 1 to 3 feet bgs. Groundwater impacts from the area of petroleum contamination are limited to the immediate area where petroleum hydrocarbons were detected in soil and do not extend offsite. Separate-phase hydrocarbons are not present.

Snohomish Marine Area. An area of petroleum hydrocarbons in soil and groundwater is present in the immediate area of a drainage catch-basin. The area of contamination extends horizontally 10 to 15 feet from the catch-basin. Separate-phase hydrocarbons are not present.

Groundwater data from the monitoring well network indicates there are isolated areas of petroleum hydrocarbons and constituents in groundwater at the maintenance shop and Snohomish Marine investigation areas. Groundwater data indicate impacts are isolated to the upland area and located at least 400 feet from the Snohomish River.

Arsenic Characterization Area. Arsenic concentrations in soil borings at the arsenic characterization area ranged from 2.33 to 13.9 mg/kg, with several of the detected concentrations exceeding the Puget Sound Natural Background Concentration of 7 mg/kg (Ecology, 1994) but below the MTCA Method A cleanup level of 20 mg/kg. Higher relative concentrations of arsenic and TOC were detected in the deeper intervals (10 to 20 feet bgs) compared to the shallower intervals (2 to 5 feet bgs). NOM, including peat and organic debris, were observed in the soil borings completed in this area.

5.4 Exposure Pathway Identification

Potential Receptors. Potential receptors include occupational workers. The Site is exclusively used for commercial uses, with no daycare centers, child educational facilities, or similar uses that could be considered residential in nature. Residential uses are not present adjacent to the Site.

Exposure Pathways for Soil. Exposure pathways for soil include construction/excavation worker direct contact and vapor intrusion. Soil contamination is located at depths from 1 to 10 feet bgs depending on investigation area. Leaching to groundwater is not considered a complete exposure pathway because the limited area of contamination is confined to the Site and there are no wells for potable, production, or irrigation uses of groundwater at the Site, which is supplied with municipal water.

Exposure Pathways in Groundwater. Exposure pathways for groundwater include vapor intrusion and construction worker contact with groundwater in an excavation. Depth to groundwater ranges between approximately 4 and 15 feet bgs, within feasible trenching depths. Groundwater ingestion is not considered a complete exposure pathway (there are no potable or production wells on-site). The extent of petroleum hydrocarbons and constituents in groundwater is limited to the three localized areas identified (AST, maintenance shop, and Snohomish Marine).

Based on the exposure pathways identified above and Ecology's guidance, the following cleanup levels were used to evaluate the soil and groundwater data:

- For soil, the depth to groundwater ranges between 4 and 15 feet bgs, and petroleum hydrocarbon impacts have affected groundwater. MTCA Method A cleanup levels account for direct contact and leaching to groundwater. Therefore, Ecology MTCA Method A cleanup levels will be used for soil.
- Groundwater is not used at the Site; however, cleanup standards are required to be based on the highest beneficial use and maximum exposure (WAC 173-340-720). Therefore, Ecology's MTCA Method A cleanup levels will be used for groundwater.
- For soil vapor, concentrations of VOCs were largely not detected throughout all investigation areas in soil and groundwater. VOC concentrations that were detected in soil or groundwater were either below MTCA Method A cleanup levels, or isolated away from any structures on site. Therefore, no further soil vapor assessments were conducted.

5.5 Preliminary Ecological Evaluation

Preliminary evaluation of potential ecological risks to terrestrial and aquatic receptors was completed following the process for Terrestrial Ecological Evaluation in WAC 173-340-7490 and sediment cleanup evaluation in WAC 173-204.

Terrestrial Ecological Evaluation (TEE). WAC 173-340-7490 requires that contaminated sites be evaluated to assess whether contamination may have a potential effect on terrestrial ecological species and, if so, develop cleanup levels to address the ecological risk. Concentrations of petroleum hydrocarbons (GRO, DRO, and RRO) were only detected at three isolated locations. Cleanup will be completed to remove the petroleum hydrocarbons to concentrations acceptable for unrestricted land use, which will exempt the site from the TEE process. Final TEE will be completed as part of the future Cleanup Action Plan (CAP).

Upland-Surface Water Pathway. As described in Section 2.4, primary evaluation of the upland-surface water pathway was completed by comparing outfall sediment data to CSLs, consistent with the WAC 173-204 SCUM and WAC 173-204 Sediment Management Standards. Detected concentrations of petroleum hydrocarbons, PAHs, and metals in each sample were below CSLs for freshwater sediment management.

Additionally, groundwater contamination was found to be limited to isolated areas with corresponding soil contamination. The extent of each of these areas was determined to be greater than 250 feet from surface water bodies. The available data indicate groundwater contamination is not migrating to surface water and drainage sediment concentrations at stormwater outfalls do not constitute sediment impacts under WAC 173-240.

6.0 Risk Screening

Soil and groundwater data were screened using the cleanup levels described in Section 5.4.

6.1 Current AST Area

Soil. Soil samples from the Current AST area were analyzed for petroleum hydrocarbons, VOCs, metals, and PAHs. The following concentrations were observed.

- Concentrations of GRO, DRO, and RRO were detected in soil borings AST-2 and AST-4 through AST-8 from depths of 2 to 10 feet bgs. Concentrations of GRO in soil samples AST-2, AST-4B, and AST-6, collected from the northern side of the ASTs, exceeded MTCA Method A cleanup levels. Several VOC constituents were also detected at concentrations above MTCA Method A cleanup levels.
- All other samples analyzed were either not detected or detected at concentrations well below the MTCA Method A cleanup levels. Groundwater samples were not collected because impacts did not reach groundwater.

6.2 Maintenance Shop Area

Soil. Soil samples from the maintenance shop area were analyzed for petroleum hydrocarbons, VOCs, metals, PCBs, and PAHs. The following concentrations were reported:.

- Concentrations of GRO, DRO, and RRO were detected in soil borings Shop-2 through Shop-5 from depths of 2 to 5 feet bgs. At soil boring Shop-2, concentrations of DRO and RRO exceeded MTCA Method A cleanup levels in sample Shop-2 (2-2.5). In soil boring Shop-4, samples Shop-4 (2.5-3) and Shop-4 (5-6) exceeded MTCA Method A cleanup levels for GRO. The GRO concentrations of 475 mg/kg and 176 mg/kg, respectively, exceeded the MTCA Method A cleanup level (100 mg/kg).

-
- Contaminant concentrations at all other samples analyzed were either non-detect or well below the MTCA Method A cleanup levels.

Groundwater. Groundwater samples from the maintenance shop were analyzed for petroleum hydrocarbons and VOCs. Concentrations of DRO were detected in groundwater samples Shop-4 and MW-5. Groundwater sample Shop-4 was a discrete sample collected during soil boring installation to investigate elevated PID readings. The DRO concentration from Shop-4 of 1,730 µg/L exceeded the MTCA Method A cleanup level of 500 µg/L. Petroleum hydrocarbons and VOCs were either not detected or detected well below MTCA Method A cleanup levels for sample MW-5. Shop-4 was a discrete sample from a temporary well and should be considered useful for screening purposes only. Additional groundwater data is pending from MW-5.

6.3 Snohomish Marine

Soil. Soil samples from Snohomish Marine were analyzed for petroleum hydrocarbons, VOCs, metals, and PCBs. Soil sample results were either non-detect or showed concentrations well below MTCA Method A cleanup levels.

Groundwater. Groundwater samples from the Snohomish Marine area were analyzed for petroleum hydrocarbons, VOCs, metals, and PAHs. Concentrations of DRO were detected in samples GW-7, MW-2, MW-3, and MW-4. The following concentrations were observed.

- Groundwater samples GW-7 and MW-3 exceeded MTCA Method A cleanup levels for DRO. The DRO concentrations of 1,100 µg/L and 573 µg/L, respectively, exceed the MTCA Method A cleanup level of 500 µg/L.

Concentrations of arsenic were detected in sample GW-7. An arsenic concentration of 41.8 µg/L from sample GW-7 exceeded the MTCA Method A cleanup level of 5 µg/L. Because GW-7 was a discrete sample from a temporary well, it is considered useful for screening purposes only. Future data from monitoring well MW-3 will be used to evaluate groundwater quality in this area. All other samples analyzed were either non-detect or showed concentrations well below MTCA Method A cleanup levels.

6.4 Arsenic Characterization Area

Soil. Concentrations of arsenic at the arsenic characterization area ranged from 2.33 to 13.9 mg/kg, all below the MTCA Method A cleanup level. Site-wide, only one soil sample exceeded the MTCA Method A cleanup level for arsenic.

Groundwater. Samples from MW-1 ranged between 14.7 and 20.4 µg/L, above the 5 µg/L MTCA Method A cleanup level. The leaching to groundwater Method B cleanup level for arsenic is 0.15 mg/kg, reflecting higher relative arsenic solubility. The combination of higher relative soil concentrations, organic material at depth,

and higher relative arsenic solubility point to natural conditions resulting in the elevated arsenic concentrations in groundwater.

7.0 Summary and Conclusions

The RI field activities consisted of a Site-wide geophysical survey, soil borings, and groundwater characterization. The investigation results indicate that limited areas of petroleum hydrocarbons are present in soils at the current AST area, the maintenance shop, and Snohomish Marine at depths ranging from 2 to 10 feet bgs. Groundwater impacts are limited to the area of soil impacts at the maintenance shop area and Snohomish Marine, and do not extend offsite or impact freshwater sediments related to the Snohomish River.

The data support remedial action at the current AST area, the maintenance shop, and Snohomish Marine. The detected contamination includes petroleum hydrocarbons and related constituents, present at depths of 10 feet or less. Preliminary remedial action areas were designated based on the results of the data evaluation in Section 4.0. These include:

- Petroleum at the AST area: an area of approximately 400 square feet of petroleum hydrocarbons in soil (see Figure 7), to a depth of 10 feet bgs.
- Petroleum at the maintenance shop area: an area of approximately 250 square feet of petroleum hydrocarbons in soil (see Figure 8), to a depth of 6 feet bgs.
- Petroleum at the Snohomish Marine area: an area of approximately 600 square feet of petroleum hydrocarbons in soil (see Figures 9 and 10), to a depth of 10 feet bgs.

Results of sampling and analysis at the arsenic characterization area suggest the elevated arsenic concentrations are the results of locally elevated background concentrations and subsurface organic materials. Additional monitoring at MW-1 is planned to evaluate seasonal trends and collect a consistent groundwater data set. Remedial activities are not proposed at this time.

8.0 References

Apex Companies, LLC (Apex), 2022a. *Phase I Environmental Site Assessment, 1871 Ross Ave, Everett, Washington*. July 12, 2022.

Apex, 2022b. *Phase II Environmental Site Assessment, 1871 Ross Ave, Everett, Washington*. November 21, 2022.

Apex, 2022c. *Proposal for Remedial Investigation. Dagmars Marina Facility – 1871 Ross Avenue Everett, Washington*. November 23, 2022.

Minard, J.P., 1985. U.S. Geological Survey Miscellaneous Field Studies Map MF-1743, scale 1:24,000. Geologic map of the Marysville quadrangle, Snohomish County, Washington. 1985.

Washington Department of Ecology (Ecology), 1994. *Natural Background Soil Metals Concentrations in Washington State*. October 1994.

Table 1 - Drainage Sediment Results: TPH, PCBs, and PAHs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	OUTFALL-1	OUTFALL-2	OUTFALL-3	OUTFALL-4	OUTFALL-5	OUTFALL-6	OUTFALL-7	OUTFALL-8	OUTFALL-9	Freshwater Sediment Management Standards (Benthic)		
Date:	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/27/2022	09/27/2022	09/27/2022	09/14/2022	Cleanup Screening Level	Sediment Cleanup Objective	
Total Petroleum Hydrocarbons (TPH) by NWTPH in mg/kg												
Diesel Range Organics	<2.62	<2.41	<3.04	<3.09	<2.36	5.79	16.9	16.5	21.7	510	340	
Residual Range Organics	12.0 J	<6.03	<7.61	19.9 J	<5.92	16.7	125	105	95.8	4,400	3,600	
Polychlorinated Biphenyls (PCBs) by EPA Method 8082A in mg/kg												
Aroclor 1016	<0.0233	<0.0214	<0.0270	<0.0274	<0.0210	<0.0160	<0.0121	<0.0170	<0.0173	--	--	
Aroclor 1221	<0.0233	<0.0214	<0.0270	<0.0274	<0.0210	<0.0160	<0.0121	<0.0170	<0.0173	--	--	
Aroclor 1232	<0.0233	<0.0214	<0.0270	<0.0274	<0.0210	<0.0160	<0.0121	<0.0170	<0.0173	--	--	
Aroclor 1242	<0.0233	<0.0214	<0.0270	<0.0274	<0.0210	<0.0160	<0.0121	<0.0170	<0.0173	--	--	
Aroclor 1248	<0.0146	<0.0134	<0.0169	<0.0172	<0.0131	<0.0100	<0.00757	<0.0107	<0.0108	--	--	
Aroclor 1254	<0.0146	<0.0134	<0.0169	<0.0172	<0.0131	<0.0100	<0.00757	<0.0107	<0.0108	--	--	
Aroclor 1260	<0.0146	<0.0134	<0.0169	<0.0172	<0.0131	<0.0100	<0.00757	<0.0107	<0.0108	--	--	
Total PCBs	<0.0233	<0.0214	<0.0270	<0.0274	<0.0210	<0.0160	<0.0121	<0.0170	<0.0173	2.5	0.11	
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM in mg/kg												
Anthracene	<0.00454	<0.00416	<0.00526	<0.00535	<0.00409	<0.00312	<0.00236	<0.00332	0.00495 J	--	--	
Acenaphthene	<0.00412	<0.00378	<0.00478	<0.00486	<0.00372	<0.00284	<0.00215	<0.00302	0.0141	--	--	
Acenaphthylene	<0.00426	<0.00391	<0.00494	<0.00502	<0.00384	<0.00293	<0.00222	<0.00312	0.0219	--	--	
Benzo(a)anthracene	<0.00341	<0.00313	<0.00396	<0.00402	<0.00308	<0.00235	0.00262 J	<0.00250	0.0133	--	--	
Benzo(a)pyrene	<0.00353	<0.00324	<0.00409	<0.00416	<0.00318	<0.00243	0.00341 J	<0.00259	0.0236	--	--	
Benzo(b)fluoranthene	<0.00302	<0.00277	<0.00350	<0.00356	<0.00272	<0.00208	0.0057 J	0.00615 J	0.0335	--	--	
Benzo(g,h,i)perylene	<0.00349	<0.00320	<0.00405	<0.00412	<0.00315	<0.00240	0.00413 J	0.00422 J	0.0349	--	--	
Benzo(k)fluoranthene	<0.00424	<0.00389	<0.00492	<0.00500	<0.00382	<0.00292	<0.00221	<0.00311	0.00666 J	--	--	
Chrysene	<0.00458	<0.00420	<0.00530	<0.00540	<0.00412	<0.00315	0.00335 J	0.00404 J	0.0175	--	--	
Dibenz(a,h)anthracene	<0.00339	<0.00311	<0.00393	<0.00400	<0.00306	<0.00233	<0.00177	<0.00248	0.0091	--	--	
Fluoranthene	<0.00448	<0.00411	<0.00519	<0.00528	<0.00404	<0.00308	0.00604 J	0.0126	0.0338	--	--	
Fluorene	<0.00404	<0.00371	<0.00469	<0.00477	<0.00364	<0.00278	<0.00210	<0.00296	0.0188	--	--	
Indeno(1,2,3-cd)pyrene	<0.00357	<0.00328	<0.00414	<0.00421	<0.00322	<0.00246	0.0032 J	0.00371 J	0.0157	--	--	
Naphthalene	<0.00805	<0.00738	<0.00933	<0.00949	<0.00725	<0.00553	<0.00419	0.0108 J	0.0358 J+	--	--	
Phenanthrene	<0.00456	<0.00418	<0.00528	<0.00537	<0.00411	<0.00313	0.00301 J	0.0127	0.0213 J+	--	--	
Pyrene	<0.00395	<0.00362	<0.00457	<0.00465	<0.00356	<0.00271	0.00569 J	0.00628 J	0.0401	--	--	
1-Methylnaphthalene	<0.00886	<0.00812	<0.0103	<0.0104	<0.00798	<0.00609	<0.00461	<0.00648	0.0348	--	--	
2-Methylnaphthalene	<0.00842	<0.00773	<0.00976	<0.00993	<0.00759	<0.00579	<0.00438	<0.00617	<0.00627	--	--	
2-Chloronaphthalene	<0.00919	<0.00843	<0.0107	<0.0108	<0.00828	<0.00632	<0.00478	<0.00673	<0.00684	--	--	
Total PAHs	<0.00886	<0.00812	<0.0103	<0.0104	<0.00798	<0.00609	0.0372 J	0.0605	0.345	30	17	

See Notes at the End of Table

Table 1 - Drainage Sediment Results: TPH, PCBs, and PAHs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	OUTFALL-11	OUTFALL-12	OUTFALL-13	SLOUGH-1	SLOUGH-2	SLOUGH-3	SLOUGH-4	Freshwater Sediment Management Standards (Benthic)	
Date:	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	Cleanup Screening Level	Sediment Cleanup Objective
Total Petroleum Hydrocarbons (TPH) by NWTPH in mg/kg									
Diesel Range Organics	<1.97	<2.04	12.5	7.79 J	8.31 J	7.64 J	6.37 J	510	340
Residual Range Organics	<4.92	<5.11	82.0	20.7 J	24.7 J	25.9	21.1 J	4,400	3,600
Polychlorinated Biphenyls (PCBs) by EPA Method 8082A in mg/kg									
Aroclor 1016	<0.0174	<0.0181	<0.0329	<0.0270	<0.0299	<0.0288	<0.0271	--	--
Aroclor 1221	<0.0174	<0.0181	<0.0329	<0.0270	<0.0299	<0.0288	<0.0271	--	--
Aroclor 1232	<0.0174	<0.0181	<0.0329	<0.0270	<0.0299	<0.0288	<0.0271	--	--
Aroclor 1242	<0.0174	<0.0181	<0.0329	<0.0270	<0.0299	<0.0288	<0.0271	--	--
Aroclor 1248	<0.0109	<0.0113	<0.0206	<0.0169	<0.0187	<0.0180	<0.0170	--	--
Aroclor 1254	<0.0109	<0.0113	<0.0206	<0.0169	<0.0187	<0.0180	<0.0170	--	--
Aroclor 1260	<0.0109	<0.0113	<0.0206	<0.0169	<0.0187	<0.0180	<0.0170	--	--
Total PCBs	<0.0174	<0.0181	<0.0329	<0.0270	<0.0299	<0.0288	<0.0271	2.5	0.11
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM in mg/kg									
Anthracene	<0.00340	<0.00353	<0.00642	<0.00527	<0.00582	<0.00562	<0.00529	--	--
Acenaphthene	<0.00309	<0.00321	<0.00583	<0.00479	<0.00529	<0.00510	<0.00480	--	--
Acenaphthylene	<0.00319	<0.00332	<0.00603	<0.00495	<0.00547	<0.00527	<0.00496	--	--
Benzo(a)anthracene	<0.00256	<0.00266	<0.00483	<0.00397	<0.00438	<0.00422	<0.00398	--	--
Benzo(a)pyrene	<0.00265	<0.00275	<0.00499	<0.00410	<0.00453	<0.00437	0.00430 J	--	--
Benzo(b)fluoranthene	<0.00226	<0.00235	<0.00427	<0.00351	<0.00387	<0.00374	<0.00352	--	--
Benzo(g,h,i)perylene	<0.00262	<0.00272	<0.00494	<0.00406	<0.00448	<0.00432	<0.00407	--	--
Benzo(k)fluoranthene	<0.00318	<0.00330	<0.00600	<0.00493	<0.00544	<0.00525	<0.00494	--	--
Chrysene	<0.00343	<0.00356	<0.00647	<0.00532	<0.00588	<0.00566	<0.00533	--	--
Dibenz(a,h)anthracene	<0.00254	<0.00264	<0.00480	<0.00394	<0.00436	<0.00420	<0.00395	--	--
Fluoranthene	<0.00336	<0.00349	<0.00633	<0.00520	<0.00575	<0.00554	0.00747 J	--	--
Fluorene	<0.00303	<0.00315	<0.00572	<0.00470	<0.00519	<0.00501	<0.00471	--	--
Indeno(1,2,3-cd)pyrene	<0.00268	<0.00278	<0.00505	<0.00415	<0.00458	<0.00442	<0.00416	--	--
Naphthalene	<0.00603	<0.00627	<0.0114	0.0201 J	0.0135 J	0.0184 J	0.0138 J	--	--
Phenanthrene	<0.00341	<0.00355	<0.00644	0.00568 J	<0.00585	<0.00564	0.00692 J	--	--
Pyrene	<0.00296	<0.00307	<0.00558	0.00477 J	<0.00506	<0.00488	0.00802 J	--	--
1-Methylnaphthalene	<0.00664	<0.00690	<0.0125	<0.0103	<0.0114	<0.0110	<0.0103	--	--
2-Methylnaphthalene	<0.00631	<0.00656	<0.0119	<0.00979	<0.0108	<0.0104	<0.00981	--	--
2-Chloronaphthalene	<0.00689	<0.00716	<0.0130	<0.0107	<0.0118	<0.0114	<0.0107	--	--
Total PAHs	<0.00664	<0.00690	<0.0125	0.0306 J	0.0135 J	0.0184 J	0.0330 J	30	17

Notes:

1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Sediment Management Standards from WAC 173-204 and Washington Ecology's *Sediment Cleanup User's Manual* (December 2019 update).
5. -- = Value not available.
6. J = Result is estimated.
7. J+ = Result is estimated and may be biased high.

Table 2 - Drainage Sediment Results: Metals
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	OUTFALL-1	OUTFALL-2	OUTFALL-3	OUTFALL-4	OUTFALL-5	OUTFALL-6	OUTFALL-7	OUTFALL-8	OUTFALL-9	OUTFALL-11	OUTFALL-12	OUTFALL-13	SLOUGH-1	SLOUGH-2	SLOUGH-3	SLOUGH-4	Puget Sound Natural Background Concentrations	Freshwater Sediment Management Standards (Benthic)	
Date:	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/27/2022	09/27/2022	09/27/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	09/14/2022	Cleanup Screening Level	Sediment Cleanup Objective
Metals by EPA Method 6020B and 7471B in mg/kg																			
Arsenic	10.6	18.1	11.5	21.6	13.2	13.7	5.94	18.0	18.8	6.06	12.7	13.6	21.7	22.9	19.5	15.9	11	120	14
Barium	35.0	54.1	66.5	51.5	52.3	57.3	32.3	61.5	41.0	15.3	32.0	37.7	51.4	54.9	45.3	49.6	--	--	--
Cadmium	<0.169	<0.155	0.254 J	<0.199	<0.152	0.120 J	0.129 J	0.208 J	0.232 J	<0.126	<0.131	<0.238	0.307 J	0.334 J	0.322 J	0.358	0.8	5.4	2.1
Chromium	47.8	68.3	78.4	65.3	55.8	57.9	23.0	64.6	26.8	17.2	42.5	44.4	43.3	48.0	39.3	53.7	62	88	72
Copper	41.1	49.4	60.9	49.9	47.6	36.2	17.6	41.2	38.2	16.8	39.6	39.5	73.4	81.4	66.9	74.6	45	1200	400
Lead	6.41	8.28	9.44	7.57	7.03	10.4	27.6	22.6	8.98	2.62 J	6.58	10.2	20.0	22.0	20.3	21.5	21	1,300	360
Nickel	45.5	62.5	65.2	60.3	49.8	40.0	23.9	42.4	31.4	17.8	40.7	38.4	48.4	56.2	47.6	58.5	50	110	26
Selenium	0.479 J	0.953 J	0.872 J	0.619 J	0.613 J	0.570 J	<0.185	0.831 J	0.304 J	<0.266	0.626 J	0.732 J	0.780 J	0.932 J	0.710 J	0.686	--	20	11
Silver	<0.171	<0.157	<0.198	<0.201	<0.154	<0.117	<0.0888	<0.125	<0.127	<0.128	<0.133	<0.241	0.213 J	0.244 J	<0.211	0.220	0.24	1.7	0.57
Zinc	61.6	84.8	91.1	75.3	74.7	85.1	181	74.2	95.0	24.1 J	57.9	68.1 J	86.7	102	90.8	108	93	4,200	3200
Mercury	0.0664 J	<0.0326	<0.0412	0.0740 J	0.130	0.0693	0.0189 J	0.0859	<0.0264	0.0809	0.0361 J	0.0592 J	0.154	0.132	0.123	0.119	0.2	0.8	0.66

- Notes:
- mg/kg = Milligrams per kilogram.
 - Bold values indicate the compound was detected above method detection limits
 - < = Analyte was not detected above the detection limit shown
 - Shaded results exceed the Cleanup Screening Level and the natural background concentration.
 - Natural Background Concentrations and Sediment Management Standards from WAC 173-204 and Washington Ecology's*Sediment Cleanup User's Manual* (December 2019 update).
 - = Value not available.
 - J = Result is estimated.

Table 3 - Drainage Sediment Results: Organochlorine Pesticides
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	Slough 1-4	Barn 2	Outfall 8	Freshwater Sediment Management Standards (Benthic)		MTCA Method B Cleanup Level
				Cleanup Screening Level	Sediment Cleanup Objective	
Date:	9/14/2022	10/6/2022	10/6/2022			
Organochlorine Pesticides by EPA Method 8081B in µg/kg						
Aldrin	<4.79	<2.58	<2.66 UJ	--	--	59
alpha-BHC	<4.79	<2.58	<2.66	--	--	160
beta-BHC	<10.3	<2.58	<2.66 UJ	11	7.2	560
delta-BHC	<5.99	<2.58	<2.66	--	--	--
gamma-BHC (Lindane)	<4.79	<2.58	<2.66 UJ	--	--	910
cis-Chlordane	<4.79	<2.58	<2.66	--	--	40,000
trans-Chlordane	<4.79	<2.58	<2.66	--	--	40,000
4,4'-DDD	<4.79	<2.84	<2.66	860	310	2,400
4,4'-DDE	<4.79	4.83	<2.66	33	21	2,900
4,4'-DDT	<4.79	4.38 J	<2.66	8,100	100	2,900
Dieldrin	<4.79	<2.58	<2.66	9.3	4.9	63
Endosulfan I	<4.79	<2.58	<2.66	--	--	--
Endosulfan II	<4.79	<2.58	<2.66	--	--	--
Endosulfan sulfate	<4.79	<2.58	<2.66 UJ	--	--	480,000
Endrin	<4.79	<2.58	<2.66	--	--	24,000
Endrin Aldehyde	<4.79	<2.58	<2.66	--	--	--
Endrin ketone	<4.79	<2.58	<2.66	>8.5	8.50	--
Heptachlor	<4.79	<2.58	<2.66 UJ	--	--	220
Heptachlor epoxide	<4.79	<2.58	<2.66	--	--	110
Methoxychlor	<14.4	<7.75	<7.97	--	--	400,000
Chlordane (Technical)	<144	<77.5	<79.7	--	--	2,900
Toxaphene (Total)	<144	<77.5	<79.7	--	--	910

Notes:

1. µg/kg = Micrograms per kilogram.
2. Bold values indicate the compound was detected above minimum reporting limits.
3. < = Analyte was not detected above the reporting limit shown.
4. Soil cleanup levels from the MTCA Method B 173-340 WAC (July 2022 update).
5. Sediment Management Standards from WAC 173-204 and Washington Ecology's *Sediment Cleanup User's Manual* (December 2019 update).
6. -- = Value not available.
7. J = Result is estimated.
8. UJ = The not detected result is estimated.

Table 4 - Drainage Sediment Results: Organophosphorus Pesticides
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	Slough 1-4	Barn 2	Outfall 8	MTCA Method B
Date:	9/14/2022	10/6/2022	10/6/2022	Cleanup Level
Organophosphorus Pesticides by EPA Method 8270E in µg/kg				
Azinphos methyl (Guthion)	<1180	<66.2	<63.5	--
Chlorpyrifos	<118	<66.2	<63.5	80,000
Coumaphos	<118	<66.2	<137	--
Demeton O	<118	<66.2	<63.5 UJ	--
Demeton S	<118	<66.2	<63.5	--
Diazinon	<118	<66.2	<63.5	56,000
Dichlorvos	<118	<66.2	<63.5	3,400
Dimethoate	<118	<66.2	<63.5	180,000
Disulfoton	<118	<66.2	<63.5	3,200
EPN	<118	<66.2	<63.5	800
Ethoprop	<118	<66.2	<63.5	--
Fensulfothion	<118	<66.2	<63.5	--
Fenthion	<118	<66.2	<63.5	--
Malathion	<118	<66.2	<63.5	1,600,000
Merphos	<175	<176	<268	2,400
Methyl parathion	<118	<66.2	<76.2	20,000
Mevinphos (Phosdrin)	<118	<66.2	<63.5	--
Monocrotophos	<118	<66.2	<63.5	--
Naled (Dibrom)	<118	<66.2	<63.5 UJ	160,000
Parathion, ethyl	<187	<66.2	<63.5	480,000
Phorate	<118	<66.2	<63.5	16,000
Ronnel (Fenchlorphos)	<118	<66.2	<63.5	4,000,000
Sulfotep	<118	<66.2	<63.5	40,000
Sulprofos (Bolstar)	<118	<66.2	<63.5	--
TEPP	<473	<265	<254	--
Tetrachlorvinphos (Rabon)	<118	<66.2	<63.5	42,000
Tokuthion (Prothiofos)	<118	<66.2	<63.5	--
Trichloronate	<118	<66.2	<63.5	--

Notes:

1. µg/kg = Micrograms per kilogram.
2. < = Analyte was not detected above the reporting limit shown.
3. Soil cleanup levels from the MTCA Method B 173-340 WAC (July 2022 update).
4. -- = Value not available.
5. UJ = The not detected result is estimated.

Table 5 - Drainage Sediment Results: Herbicides
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	Slough 1-4	Barn 2	Outfall 8	MTCA Method B
Date:	9/14/2022	10/6/2022	10/6/2022	Cleanup Level
<i>Herbicides by EPA Method 8151A in µg/kg</i>				
2,4,5-T	<20	<4.7	<5.3	800,000
2,4,5-TP (Silvex)	<40	<9.6	<11	640,000
2,4-D	<260	<62	<69	800,000
2,4-DB	<540	<130	<140	--
Dicamba	<25	<6.0	<6.7	2,400,000
Dichlorprop	<260	<63	<70	--
Dinoseb	<320	<75	<84	80,000
MCPA	<26000	<6200	<6900	40,000
Dalapon	<390	<93	<100	2,400,000
MCPP	<35000	<8400	<9400	80,000

Notes:

1. µg/kg = Micrograms per kilogram.
2. < = Analyte was not detected above the detection limit shown.
3. Soil cleanup levels from the MTCA Method B 173-340 WAC (July 2022 update).
4. -- = Value not available.

Table 6 - Soil Results: TPH
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID	Depth (feet bgs)	Date	Total Petroleum Hydrocarbons (TPH) by NWTPH		
			Gasoline Range Organics	Diesel Range Organics	Residual Range Organics
			Concentrations in mg/kg		
MTCA Method A Cleanup Level			30/100	2,000	2,000
AST-1-5'	5	09/15/2022	<1.72	6.73	18.9
AST-1-10'	10	09/15/2022	<1.66	3.57 J	23.9
AST-2-3'	3	09/15/2022	163	173	109
AST-2-10'	10	09/15/2022	6.83	5.34 J	17.9
AST-3-5'	5	09/15/2022	<1.64	5.43 J	17.2
AST-3-10'	10	09/15/2022	<2.79	5.51 J	35.7
AST-4 (2.5-3)	3	01/03/2023	<6.07	<60.3	178
AST-4 (14-15)	15	01/03/2023	38.1	<63.6	<127
AST-4A (4-4.5)	4	01/03/2023	28.6	<56.9	469
AST-4A (9.5-10)	10	01/03/2023	<7.12	<77.6	160
AST-4B (5-5.5)	5	01/06/2023	171	762	<127
AST-4B (9.5-10)	10	01/06/2023	<10.3	<72.2	<144
AST-5 (3-4)	3	01/03/2023	<5.16	<52.4	134
AST-5 (9.5-10)	10	01/03/2023	<7.53	<79.4	167
AST-6 (2.5-3)	3	01/03/2023	414	<53.5	<107
AST-6 (10-11)	10	01/03/2023	713	<46.7	<93.4
AST-6 (14.5-15)	15	01/03/2023	<7.31	<62.7	<125
AST-6A (10-11)	10	01/03/2023	9.73	<68.6	175
AST-6A (14.5-15)	15	01/03/2023	<7.66	<72.4	<145
AST-6B (9.5-10)	10	01/03/2023	<13.2	<94.3	491
AST-7 (9.5-10)	10	01/03/2023	<8.53	<78.6	<157
AST-8 (9.5-10)	10	01/03/2023	<11.9	<87.1	<174
BARN-1-3.5'	3.5	09/15/2022	--	7.39 J	51.4
MW-3 (4-6")	5	01/05/2023	2.76	<52.8	1860
SB-01 (9.5-10)	10	09/28/2022	<1.62	2.68 J	11.6 J
SB-01 (14.5-15)	15	09/28/2022	5.97	<1.66	4.83 J
SB-02 (4.5-5)	5	09/28/2022	25.3	25.1	144
SB-02 (14.5-15)	15	09/28/2022	<1.44	2.50 J	11.5 J
SB-03 (4.5-5)	5	09/28/2022	<1.60	10.3	58.4
SB-03 (13-13.5)	13	09/28/2022	<1.96	4.57 J	49.4
SB-04 (4.5-5)	5	09/28/2022	<1.47	<1.82	11.7 J
SB-04 (9.5-10)	10	09/28/2022	<2.50	<2.41	8.73 J
SB-04 (13-14)	13	09/28/2022	<2.34	4.20 J	46.4
SB-05 (4.5-5)	5	09/28/2022	1.33 J	<1.60	4.94 J
SB-05 (9-10)	10	09/28/2022	<1.99	<2.21	17.1
SB-05 (14.5-15)	15	01/04/2023	<9.24	<80.7	<161
SB-06 (4.5-5)	5	09/28/2022	3.72 J	5.95	19.8
SB-06 (9-10)	10	09/28/2022	<1.96	<2.20	<5.51
SB-06 (14.5-15)	15	01/04/2023	<7.73	<69	<138
SB-07 (12.5-13)	13	01/04/2023	<9.92	<79.4	<159
SB-07 (24.5-25)	25	01/04/2023	<6.46	<65.2	<130
SB-08 (13.5-14)	14	01/04/2023	<11.1	<89.6	<179
SB-08 (24.5-25)	25	01/04/2023	<6.08	<64.5	<129
SB-08 A (14.5-15)	15	01/05/2023	<10.9	<87.9	<176
SB-09 (13-13.5)	13	01/04/2023	<8.31	<69.2	<138
SB-09 (24.5-25)	25	01/04/2023	<5.74	<62.7	<125
SB-10 (12.5-13)	13	01/05/2023	<11.8	<78.6	<157
SB-11 (14-14.5)	14	01/05/2023	<5.94	<59.4	<119
SB-12 (14-14.5)	14	01/05/2023	<9.05	<63.5	<127
SB-13 (13-13.5)	13	01/09/2023	<13.8	<99.9	<200
SB-13 (24.5-25)	25	01/09/2023	<5.71	<60.9	<122
SB-14 (14-14.5)	14	01/09/2023	<14.7	<93.5	<187
SB-14 (24.5-25)	25	01/09/2023	<6.69	<64.3	<129
SB-14A (14-14.5)	14	01/09/2023	<13.2	<111	<222
SB-15 (12.5-13)	13	01/09/2023	<6.69	<68.9	<138
SB-16 (14.5-15)	15	01/09/2023	<5.23	<59.4	<119
SB-17 (14.5-15)	15	01/10/2023	<8.24	<76.4	<153
SB-18 (14.5-15)	15	01/10/2023	<8.19	<65.8	<132
SB-19 (13-13.5)	13	01/10/2023	<13.7	<98.6	<197
SB-20 (14.5-15)	15	01/10/2023	<16.9	<95.2	<190
SB-20 (20-24.5)	20	01/10/2023	<7.47	<64.8	<130
SB-21 (14-14.5)	14	01/10/2023	<10.9	<98.2	<196
SB-21 (19.5-20)	20	01/10/2023	<6.29	<65.7	<131
SB-22-17	17	01/25/2023	<6.56	<62.5	<125
SB-23-12	12	01/25/2023	<6.18	<57.5	<115
SB-24-11	11	01/25/2023	<6.23	<59.6	<119
SB-25-6	6	01/25/2023	<6.1	<56.6	<113
SHOP-1-2.5'	2.5	09/15/2022	--	3.56 J	8.49 J
SHOP-1-5'	5	09/15/2022	--	2.26 J	<5.23
SHOP-2-2.5'	2.5	09/15/2022	--	2,720 J	4,380 J
SHOP-2-5'	5	09/15/2022	--	2.41 J	<5.03
SHOP-3 (9.5-10)	10	01/03/2023	<9.56	<74.1	203
SHOP-4 (2.5-3)	3	01/05/2023	475	141	481
SHOP-4 (5-6)	5	01/03/2023	176	<61.9	712
SHOP-4 (9.5-10)	10	01/03/2023	<10.4	<80	<160
SHOP-4A (9.5-10)	10	01/04/2023	<7.28	<63.3	<127
SHOP-4B (13-14)	13	01/06/2023	--	<70.5	<141
SHOP-4B (19-20)	20	01/06/2023	--	<63.6	<127
SHOP-5 (9.5-10)	10	01/04/2023	<8.62	<69.1	<138
VAULT-1-7'	7	09/15/2022	--	5.03 J	60.6
VAULT-1-15'	15	09/15/2022	--	2.82 J	16.9
VAULT-2-7'	7	09/15/2022	--	3.57 J	20.9
VAULT-2-15'	15	09/15/2022	--	2.79 J	35.6

Notes:

1. mg/kg = Milligrams per kilogram
2. Bold values indicate the compound was detected above method detection limits
3. < = Analyte was not detected above the reporting limit shown
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A soil cleanup level for unrestricted land use.
5. Soil cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update)
6. -- = Value not available.
7. The MTCA Method A Cleanup Level for TPH as gasoline range organics is 30 mg/kg when benzene is detected, and 100 mg/kg when benzene is not detected.
8. bgs = Below ground surface.
9. J = Result is estimated

Table 7 - Soil Results: VOCs
 Dagmar Marina Facility - 1871 Ross Avenue
 Everett, Washington

Boring ID:	AST-06		SB-04			SB-07	SB-08	SB-22-17	SB-23-12	SB-24-11	SB-25-6	SHOP-4		MTCA Method A Cleanup Level
Sample Location ID:	AST-6 (2.5-3)	AST-6 (10-11)	SB-04 (4.5-5)	SB-04 (9.5-10)	SB-04 (13-14)	SB-07 (12.5-13)	SB-08 (13.5-14)	SB-22-17	SB-23-12	SB-24-11	SB-25-6	SHOP-4 (2.5-3)	SHOP-4 (5-6)	
Sample Depth (feet bgs):	3	10	5	10	14	13	14	17	12	11	6	3	5	
Date:	01/03/2023	01/03/2023	09/28/2022	09/28/2022	09/28/2022	01/04/2023	01/04/2023	01/25/2023	01/25/2023	01/25/2023	01/25/2023	01/05/2023	01/03/2023	
Volatile Organic Compounds (VOCs) by EPA Method 8260D in mg/kg														
Acetone	<0.237	<0.19	<0.0632	<0.108	<0.101	<0.496	<0.557	<0.328	<0.309	<0.311	<0.305	<0.294	<0.326	--
Acrylonitrile	--	--	<0.00625	<0.0107	<0.00998	--	--	--	--	--	--	--	--	--
Benzene	0.373	1.59	<0.00809	<0.00138	<0.00129	<0.0347	<0.039	<0.023	<0.0216	<0.0218	<0.0213	<0.0206	<0.0228	0.03
Bromobenzene	<0.0118	<0.00949	<0.00156	<0.00265	<0.00249	<0.0248	<0.0278	<0.0164	<0.0154	<0.0156	<0.0152	<0.0147	<0.0163	--
Bromodichloromethane	<0.019	<0.0237	<0.00126	<0.00214	<0.00200	<0.0496	<0.0557	<0.0328	<0.0309	<0.0309	<0.0305	<0.0294	<0.0326	--
Bromochloromethane	<0.0142	<0.0114	<0.00203	<0.00345	<0.00323	<0.0298	<0.0334	<0.0187	<0.0185	<0.0183	<0.0176	<0.0196	<0.0196	--
Bromomethane	<0.0237	<0.019	<0.00341 UJ	<0.00580 UJ	<0.00545 UJ	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	--
n-Butylbenzene	1.51	1.62	<0.00909	<0.0155	<0.0145	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
sec-Butylbenzene	0.266	0.339	<0.00499	<0.00850	<0.00796	<0.0298	<0.0334	<0.0197	<0.185	<0.187	<0.183	<0.176	<0.196	--
tert-Butylbenzene	<0.0142	<0.0114	<0.00338	<0.00575	<0.00539	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
Carbon Tetrachloride	<0.0237	<0.019	<0.00156	<0.00265	<0.00248	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	--
Chlorobenzene	<0.0142	<0.0114	<0.000364	<0.000620	<0.000580	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
Chlorodibromomethane	<0.0142	<0.0114	<0.00106	<0.00181	<0.00169	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
Chloroethane	<0.0711	<0.0569	<0.00294	<0.00503	<0.00470	<0.149	<0.167	<0.0984	<0.0927	<0.0934	<0.0915	<0.0882	<0.0978	--
Chloroform	<0.0166	<0.0133	<0.00178	<0.00305	<0.00285	<0.0347	<0.039	<0.023	<0.0216	<0.0218	<0.0213	<0.0206	<0.0228	--
Chloromethane	<0.0474	<0.038	<0.00753 UJ	<0.0128 UJ	<0.0120 UJ	<0.0992	<0.111	<0.0656	<0.0618	<0.0623	<0.061	<0.0588	<0.0652	--
2-Chlorotoluene	<0.0156	<0.0125	<0.00150	<0.00255	<0.00239	<0.0327	<0.0367	<0.0216	<0.0207	<0.0206	<0.0201	<0.0194	<0.0215	--
4-Chlorotoluene	0.392	0.631	<0.00779	<0.00133	<0.00124	<0.0327	<0.0367	<0.0216	<0.0204	<0.0206	<0.0201	<0.0194	<0.0215	--
1,2-Dibromo-3-Chloropropane	<0.0284	<0.0228	<0.00675	<0.0115	<0.0108	<0.0595	<0.0668	<0.0394	<0.0371	<0.0374	<0.0366	<0.0353	<0.0391	--
1,2-Dichloroethane	<0.00759	<0.00948	<0.00112	<0.00191	<0.00179	<0.0198	<0.0223	<0.0131	<0.0124	<0.0125	<0.0122	<0.0118	<0.013	0.005
Dibromomethane	<0.0118	<0.00949	<0.00130	<0.00221	<0.00207	<0.0248	<0.0278	<0.0164	<0.0154	<0.0156	<0.0152	<0.0147	<0.0163	--
1,2-Dichlorobenzene	<0.019	<0.0152	<0.000736	<0.00126	<0.00117	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
1,3-Dichlorobenzene	<0.019	<0.0152	<0.00104	<0.00177	<0.00166	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
1,4-Dichlorobenzene	<0.0142	<0.0114	<0.00121	<0.00207	<0.00193	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
Dichlorodifluoromethane	<0.0114	<0.0142	<0.00279 UJ	<0.00475 UJ	<0.00445 UJ	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
1,1-Dichloroethane	<0.114	<0.019	<0.000850	<0.00145	<0.00136	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	--
1,2-Dichloroethane	<0.019	<0.0152	<0.00112	<0.00192	<0.00179	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
1,1-Dichloroethene	<0.0948	<0.0759	<0.00105	<0.00179	<0.00168	<0.198	<0.223	<0.131	<0.124	<0.125	<0.122	<0.118	<0.13	--
cis-1,2-Dichloroethene	<0.0142	<0.0114	<0.00127	<0.00217	<0.00203	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
trans-1,2-Dichloroethene	<0.00948	<0.00759	<0.00180	<0.00308	<0.00287	<0.0198	<0.0223	<0.0131	<0.0124	<0.0125	<0.0122	<0.0118	<0.013	--
1,2-Dichloropropane	<0.0237	<0.019	<0.00246	<0.00420	<0.00393	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	--
1,1-Dichloropropane	<0.019	<0.0152	<0.00140	<0.00239	<0.00224	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
1,3-Dichloropropane	<0.00948	<0.00759	<0.000868	<0.00148	<0.00138	<0.0198	<0.0223	<0.0131	<0.0124	<0.0125	<0.0122	<0.0118	<0.013	--
cis-1,3-Dichloropropane	<0.0142	<0.0114	<0.00131	<0.00223	<0.00209	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
trans-1,3-Dichloropropane	<0.019	<0.0152	<0.00197	<0.00338	<0.00315	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	--
2,2-Dichloropropane	--	--	<0.00239	<0.00408	<0.00381	--	--	--	--	--	--	--	--	--
Di-Isopropyl Ether	--	--	<0.000710	<0.00121	<0.00113	--	--	--	--	--	--	--	--	--
Ethylbenzene	2.67	10.9	<0.00128	<0.00218	<0.00204	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	6
Hexachloro-1,3-Butadiene	<0.0379	<0.0304	<0.0104	<0.0177	<0.0166	<0.0794	<0.089	<0.0525	<0.0494	<0.0498	<0.0471	<0.0522	<0.0522	--
Isopropylbenzene	0.462	0.979	<0.000736	<0.00126	<0.00117	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	--
p-Isopropyltoluene	<0.19	0.207	<0.00442	<0.00753	<0.00705	<0.397	<0.445	<0.262	<0.247	<0.249	<0.244	<0.235	<0.261	--
2-Butanone (MEK)	<0.284	<0.228	<0.110	<0.187	<0.176	<0.595	<0.668	<0.394	<0.371	<0.374	<0.366	<0.353	<0.391	--
Methylene Chloride	<0.0332	<0.0266	<0.0115	0.104	0.0777	<0.0695	<0.0779	<0.0459	<0.0432	<0.0436	<0.0427	<0.0412	<0.0457	0.02
4-Methyl-2-Pentanone (MIBK)	<0.0456	<0.0569	<0.00395	<0.00673	<0.00630	<0.119	<0.134	<0.0787	<0.0741	<0.0747	<0.0732	<0.0706	<0.0783	--
Methyl tert-Butyl Ether (MTBE)	<0.019	<0.0152	<0.000606	<0.00103	<0.000967	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	0.1
Naphthalene	1.61	682	<0.00845	<0.0144	<0.0135	<0.312	<0.36	<0.131	<0.124	<0.125	<0.122	<0.118	<0.13	5
n-Propylbenzene	1.7	3.52	<0.00165	<0.00280	<0.00263	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	0.0211	--
Styrene	<0.00948	<0.00759	0.00303 J+	<0.000675	<0.000633	<0.0198	<0.0223	<0.0131	<0.0124	<0.0125	<0.0122	<0.0118	<0.013	--
1,1,1,2-Tetrachloroethane	<0.0237	<0.019	<0.00164	<0.00280	<0.00262	<0.0496	<0.0557	<0.0328	<0.0309	<0.0311	<0.0305	<0.0294	<0.0326	--
1,1,2,2-Tetrachloroethane	<0.19	<0.152	<0.00120	<0.00205	<0.00192	<0.397	<0.445	<0.262	<0.247	<0.249	<0.244	<0.235	0.407	--
1,1,2-Trichlorotrifluoroethane	--	--	<0.00131	<0.00223	<0.00208	--	--	--	--	--	--	--	--	--
Tetrachloroethene	<0.0142	<0.0114	<0.00155	<0.00265	<0.00248	<0.0298	<0.0334	<0.0197	<0.0185	<0.0187	<0.0183	<0.0176	<0.0196	0.05
Toluene	6.13	45	0.00234 J	0.0445	0.00918 J	<0.0595	<0.0668	<0.0394	<0.0371	<0.0374	<0.0366	<0.0353	<0.0391	7
1,2,3-Trichlorobenzene	<0.0569	<0.0456	<0.0127	<0.0216	<0.0203	<0.119	<0.134	<0.0787	<0.0741	<0.0747	<0.0732	<0.0706	<0.0783	--
1,2,4-Trichlorobenzene	<0.0569	<0.0456	<0.00762	<0.0130	<0.0122	<0.119	<0.134	<0.0787	<0.0741	<0.0747	<0.0732	<0.0706	<0.0783	--
1,1,1-Trichloroethane	<0.019	<0.152	<0.00160	<0.00273	<0.00255	<0.0397	<0.0445	<0.0262	<0.0247	<0.0249	<0.0244	<0.0235	<0.0261	2
1,1,2-Trichloroethane	<0.0118	<0.00949	<0.00103	<0.00176	<0.00165	<0.0248	<							

Table 8 - Soil Results: Metals
Daguerre Marina Facility - 1871 Ross Avenue
Everett, Washington

Boring ID	ARS-1		ARS-2		ARS-3		ARS-4		ARS-4B		AST-6		MW-1		MW-3		SB-01		SB-04		SB-07		SB-08		SHOP-4		SHOP-4B		Puget Sound Natural Background Concentrations	MTCA Method A Cleanup Level
Sample Location ID	ARS-1 (0-3)	ARS-1 (3-6)	ARS-2 (0-5)	ARS-2 (5.5-12)	ARS-2 (12-15)	ARS-2 (15-17)	ARS-2 (17-20)	ARS-3 (0-4)	ARS-3 (4-8)	ARS-3 (8-14)	ARS-3 (14-20)	ARS-4 (10-15)	ARS-4B (5-5.5)	ARS-4B (9.5-10)	AST-6 (10-11)	MW-1 (10')	MW-3 (4-6')	SB-01 (9.5-10)	SB-01 (14.5-15)	SB-04 (9.5-10)	SB-07 (12.5-13)	SB-08 (13.5-14)	SHOP-4 (2.5-3)	SHOP-4 (5-6)	SHOP-4B (15-14)	SHOP-4B (19-20)				
Sample Depth (feet bgs)	3	6	5	12	15	17	20	4	9	14	20	15	5	10	10-11	10	5	9.5-10	14.5-15	9.5-10	12.5-13	13.5-13	13.5-13	2.5	5	14	20			
Date	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023	09/15/2022	01/05/2023	06/28/2022	09/28/2022	09/30/2022	01/04/2023	01/04/2023	01/05/2023	01/06/2023	01/06/2023	01/06/2023	01/06/2023			
Metals by EPA Method 8208 and 7472B in mg/kg																														
Arsenic	4.03	8.89	4.48	5.93	10.3	9.53	11.4	2.33	10.2	9.23	7.5	<10.5	13.0	13.9	21.5	19.1	2.71	14.6	5.26	11.2	12.9	14.3	5.74	5.39	9.71	6.08	7	20		
Barium	31.5	36.5	20.4	28.2	24.7	25.2	29.4	40.0	26.0	15.1	22.7	--	40.2	38.2	32.7	46.0	30.2	54.0	31.5	60.0	28.0	34.5	23.7	24.2	36.0	23.9	--	--		
Cadmium	0.0484	0.139	0.0471	0.0665	0.0732	0.113	0.0759	0.0511	0.045	0.0966	0.0925	--	0.193	0.059	0.321	0.169 J	0.518	0.218 J	<0.107	<0.155	0.102	0.114	0.0495	0.163	0.121	0.0675	1	2		
Chromium	19.6	19.3	17.1	19.9	27.7	33.2	34.4	19.3	30.8	20.8	26.4	--	35.6	46.8	8.88	33.4	16.9	52.7	22.6	72.9	38.5	44.4	19.2	20.4	40.7	25	48	2000		
Copper	13.2	17.6	11.1	14.2	22	28.2	27.4	9.8	20.5	20.0	22.7	--	39.3	32.9	24	26.8	679	49.8	15.3	35.9	27.8	29.7	12.6	23.5	33.7	18.8	36	--		
Lead	3.62	12.4	3.06	4.81	6.69	4.45	6.07	2.43	5.6	2.96	3.97	--	12.9	6.81	21.8	12.9	16.2	9.71	3.58	6.27	5.97	6.27	7.38	16	6.1	3.19	24	250		
Nickel	25	20.5	16.8	20.7	21.5	21.8	31	26.1	20.4	21.4	24.7	--	27.4	36.4	8.18	20.4	15.4	40.6	24.7	34.1	39	43.2	20	30.7	30.7	21.1	48	--		
Selenium	<0.905	<1.22	<0.833	<0.964	<1.13	<1.25	<1.09	<0.859	<1.18	<1.31	<1.12	--	<1.03	<1.18	<0.864	<0.310	<0.803	0.480 J	<0.225	0.656 J	<1.22	<1.4	<0.868	<0.976	<1.14	<0.957	--	--		
Silver	0.0244	0.0324	<0.0167	0.0231	0.058	0.0686	0.0655	0.0266	0.0355	0.0451	0.0578	--	0.0827	0.0749	0.107	<0.149	0.0622	<0.125	<0.108	<0.157	0.0629	0.0699	0.0208	0.0229	0.103	0.0388	--	--		
Zinc	31.2	64.3	32.4	37.5	37.4	34.8	49.1	23.8	34.1	25.9	39.5	--	65	62.8	107	65.7	78.5	69.5	37.4	75.0	50.7	57.7	34.4	41.8	61.2	38.7	85	--		
Mercury	<0.21	<0.311	<0.218	<0.225	<0.261	<0.305	<0.28	<0.222	<0.301	<0.324	<0.263	--	<0.242	<0.289	<0.2	0.0333 J	<0.214	0.0623 J	<0.0225	0.0546 J	<0.299	<0.367	<0.224	<0.273	<0.236	0.07	2	--		
Total Organic Carbon by EPA Method 9060																														
Total Organic Carbon	0.214	1.76	<0.15	0.259	1.35	3.19	3.25	0.279	2.65	7.25	1.44	<4.73	1.38	1.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Table 9 - Soil Results: PCBs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Boring ID:	SHOP-2	SHOP-4	MTCA Method A Cleanup Level
Sample Location ID:	SHOP-2-2.5'	SHOP-4 (5-6)	
Sample Depth (feet bgs):	2.5	5	
Date:	09/15/2022	01/03/2023	
Polychlorinated Biphenyls (PCBs) by EPA Method 8082A in mg/kg			
Aroclor 1016	<0.0143	<0.0224	--
Aroclor 1221	<0.0143	<0.0224	--
Aroclor 1232	<0.0143	<0.0224	--
Aroclor 1242	<0.0143	<0.0224	--
Aroclor 1248	<0.00893	<0.0224	--
Aroclor 1254	<0.00893	<0.0224	--
Aroclor 1260	<0.00893	<0.0224	--
Aroclor 1262	--	<0.0224	--
Aroclor 1268	--	<0.0224	--
Total PCBs	<0.0143	<0.0224	1

Notes:

1. mg/kg = Milligrams per kilogram.
2. < = Analyte was not detected above the detection limit shown.
3. Soil cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update).
4. -- = Value not available.
5. bgs = Below ground surface.

Table 10 - Soil Results: PAHs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Boring ID:	AST-6	SB-07	SB-08	SHOP-4		MTCA Method A Cleanup Level
Sample Location ID:	AST-6 (10-11)	SB-07 (12.5-13)	SB-08 (13.5-14)	SHOP-4 (2.5-3)	SHOP-4 (5-6)	
Sample Depth (feet bgs):	11	13	14	3	5	
Date:	01/03/2023	01/04/2023	01/04/2023	01/05/2023	01/03/2023	
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270 SIM in mg/kg						
Acenaphthene	<20.5	<31.2	<36	<20.6	<24.3	--
Acenaphthylene	<20.5	<31.2	<36	<20.6	<24.3	--
Anthracene	<20.5	<31.2	<36	<20.6	<24.3	--
Benzo(a)anthracene	<20.5	<31.2	<36	<20.6	<24.3	--
Benzo(a)pyrene	<30.8	<46.8	<54	<30.8	<36.5	2
Benzo(b)fluoranthene	<25.6	<39	<45	<25.7	<30.4	--
Benzo(g,h,i)perylene	<51.3	<78	<90	<51.4	<60.9	--
Benzo(k)fluoranthene	<25.6	<39	<45	<25.7	<30.4	--
Chrysene	<20.5	<31.2	<36	<20.6	<24.3	--
Dibenzo(a,h)anthracene	<51.3	<78	<90	<51.4	<60.9	--
Fluoranthene	<20.5	<31.2	<36	<20.6	<24.3	--
Fluorene	<20.5	<31.2	<36	<20.6	<24.3	--
Indeno(1,2,3-cd)pyrene	<41	<62.4	<72	<41.1	<48.7	--
1-Methylnaphthalene	418	<31.2	<36	<20.6	<24.3	--
2-Methylnaphthalene	790	<31.2	<36	<20.6	<24.3	--
Naphthalene	2.63	<0.198	<0.223	<0.118	<0.13	5
Phenanthrene	<20.5	<31.2	<36	<20.6	<24.3	--
Pyrene	<41	<62.4	<72	<41.1	<48.7	--

Notes:

1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
5. Soil cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update).
6. -- = Value not available.
7. bgs = Below ground surface.

Table 11 - Groundwater Results: TPH and VOCs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	Direct Push Sample Collection			Monitoring Well Sample Collection				MTCA Method A Cleanup Level
	GW4	GW-7	SHOP-4	MW-2	MW-3	MW-4	MW-5	
Date:	09/28/2022	01/04/2023	01/03/2023	01/27/2023	01/26/2023	01/26/2023	01/26/2023	
Total Petroleum Hydrocarbons (TPH) by NWTPH-Gx in µg/L								
Gasoline Range Organics	180	<50	<50	<50.0	<50.0	<50.0	<50.0	800/1000 ⁷
Diesel Range Organics	15,400 J	1,100	1,730	191	573	465	345	500
Residual Range Organics	74,100 J	<94.4	<98.4	<93.9	<95.5	<93.0	<94.1	500
Volatile Organic Compounds (VOCs) by EPA Method 8260D in µg/L								
Acetone	114	6.61	--	266	19.7	32.4	15.3	--
Acrylonitrile	<0.0760	--	--	--	--	--	--	--
Benzene	32.3	<0.44	--	<0.440	<0.440	<0.440	<0.4400	5
Bromobenzene	<0.0420	<0.5	--	<0.500	<0.500	<0.500	<0.500	--
Bromodichloromethane	0.194	<0.25	--	<0.250	<0.250	<0.250	<0.250	--
Bromoform	<0.239	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
Bromomethane	<0.148	<3.00	--	<3.00	<3.00	<3.00	<3.00	--
n-Butylbenzene	<0.153	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
sec-Butylbenzene	<0.101	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
tert-Butylbenzene	<0.0620	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Carbon Tetrachloride	<0.0432	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
Chlorobenzene	<0.0229	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Chlorodibromomethane	<0.0180	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
Chloroethane	<0.0432	<1.00	--	<1.00	<1.00	<1.00	<1.00	--
Chloroform	2.54	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Chloromethane	<0.0556 UJ	<0.750	--	<0.750	<0.750	<0.750	<0.750	--
2-Chlorotoluene	<0.0368	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
4-Chlorotoluene	<0.0452	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,2-Dibromo-3-Chloropropane	<0.204 UJ	<1.00	--	<1.00	<1.00	<1.00	<1.00	--
1,2-Dibromoethane	<0.0210	<0.200	--	<0.200	<0.200	<0.200	<0.200	0.01
Dibromomethane	<0.0400	<0.250	--	<0.250	<0.250	<0.250	<0.250	--
1,2-Dichlorobenzene	<0.0580	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,3-Dichlorobenzene	<0.0680	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,4-Dichlorobenzene	<0.0788	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Dichlorodifluoromethane	<0.0327	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,1-Dichloroethane	<0.0230	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,2-Dichloroethane	<0.0190	<0.500	--	<0.500	<0.500	<0.500	<0.500	5
1,1-Dichloroethene	<0.0200	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
cis-1,2-Dichloroethene	<0.0276	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
trans-1,2-Dichloroethene	<0.0572	<0.350	--	<0.350	<0.350	<0.350	<0.350	--
1,2-Dichloropropane	<0.0508	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
1,1-Dichloropropane	<0.0280	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,3-Dichloropropane	<0.0700	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
cis-1,3-Dichloropropene	<0.0271	<0.350	--	<0.350	<0.350	<0.350	<0.350	--
trans-1,3-Dichloropropene	<0.0612	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
2,2-Dichloropropane	<0.0317	--	--	--	--	--	--	--
Di-Isopropyl Ether	<0.0140	--	--	--	--	--	--	--
Ethylbenzene	3.44	<0.200	--	<0.400	<0.400	<0.400	<0.400	700
Hexachloro-1,3-Butadiene	<0.508	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Isopropylbenzene	0.118	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
p-Isopropyltoluene	0.250	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
2-Butanone (MEK)	10.8	<1.50	--	<1.50	3.67	3.23	3.96	--
Methylene Chloride	<0.265	<0.750	--	<0.750	<0.750	<0.750	<0.750	5
Please see notes at end of table.								
4-Methyl-2-Pentanone (MIBK)	<0.400	<1.00	--	<1.00	<1.00	<1.00	<1.00	--
Methyl tert-Butyl Ether	<0.0118	<0.350	--	<0.350	<0.350	<0.350	<0.350	20
Naphthalene	13.8	0.277	--	<1.25	<1.25	<1.25	<1.25	160
n-Propylbenzene	0.279	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Styrene	2.10	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
1,1,1,2-Tetrachloroethane	<0.0200	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
1,1,2,2-Tetrachloroethane	<0.0156	<0.200	--	<0.200	<0.200	<0.200	<0.200	--
1,1,2-Trichlorotrifluoroethane	<0.0270	--	--	--	--	--	--	--
Tetrachloroethene	<0.0280	<0.350	--	<0.350	<0.350	<0.350	<0.350	5
Toluene	37.2	<1.00	--	<1.00	<1.00	<1.00	<1.00	1000
1,2,3-Trichlorobenzene	<0.0250	<0.700	--	<0.700	<0.700	<0.700	<0.700	--
1,2,4-Trichlorobenzene	<0.193	<0.750	--	<0.750	<0.750	<0.750	<0.750	--
1,1,1-Trichloroethane	<0.0110 UJ	<0.300	--	<0.300	<0.300	<0.300	<0.300	200
1,1,2-Trichloroethane	<0.0353	<0.250	--	<0.250	<0.250	<0.250	<0.250	--
Trichloroethene	<0.0160	<0.400	--	<0.400	<0.400	<0.400	<0.400	5
Trichlorofluoromethane	<0.0200	<0.300	--	<0.300	<0.300	<0.300	<0.300	--
1,2,3-Trichloropropane	<0.204 UJ	<0.400	--	<0.400	<0.400	<0.400	<0.400	--
1,2,4-Trimethylbenzene	4.17	<0.500	--	<0.500	<0.500	<0.500	0.619	--
1,2,3-Trimethylbenzene	5.22	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene	0.962	<0.500	--	<0.500	<0.500	<0.500	<0.500	--
Vinyl Chloride	<0.0273	<0.200	--	<0.200	<0.200	<0.200	<0.200	0.2
Xylenes, Total	22.8	<1.50	--	<1.50	<1.50	<1.50	<1.50	1000
Bromochloromethane	<0.0452	--	--	--	--	--	--	--
Carbon Disulfide	0.435 J	--	--	--	--	--	--	--
trans-1,4-Dichloro-2-Butene	<0.0560	--	--	--	--	--	--	--
2-Hexanone	<0.400	--	--	<1.25	<1.25	<1.25	<1.25	--
n-Hexane	<0.0424	--	--	--	--	--	--	--
Iodomethane	<0.242 UJ	--	--	--	--	--	--	--
Vinyl Acetate	<0.141	--	--	--	--	--	--	--

Notes:

1. µg/L = Micrograms per liter.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A groundwater cleanup level.
5. Groundwater cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update).
6. -- = Value not available.
7. The MTCA Method A Cleanup Level for TPH as gasoline range organics is 800 µg/L when benzene is detected, and 1,000 µg/L when benzene is not detected.
8. J = Result is estimated.
9. UJ = The not detected result is estimated.

Table 12 - Groundwater Results: PAHs
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

		Direct Push Sample Collection
Boring ID:	GW-07 ⁵	MTCA Method A Cleanup Level
Sample Location ID:	GW-07-0123	
Date:	01/04/2023	
Polycyclic Aromatic Hydrocarbons (PAH) by 8270 SIM in µg/L		
Acenaphthene	<0.0995	--
Acenaphthylene	<0.0995	--
Anthracene	<0.0995	--
Benzo(a)anthracene	<0.0995	--
Benzo(a)pyrene	<0.0995	0.1
Benzo(b)fluoranthene	<0.0995	--
Benzo(g,h,i)perylene	<0.0995	--
Benzo(k)fluoranthene	<0.0995	--
Chrysene	<0.0995	--
Dibenzo(a,h)anthracene	<0.0995	--
Fluoranthene	<0.0995	--
Fluorene	<0.0995	--
Indeno(1,2,3-cd)pyrene	<0.0995	--
1-Methylnaphthalene	<0.0995	--
2-Methylnaphthalene	<0.0995	--
Phenanthrene	<0.0995	--
Pyrene	<0.199	--

Notes:

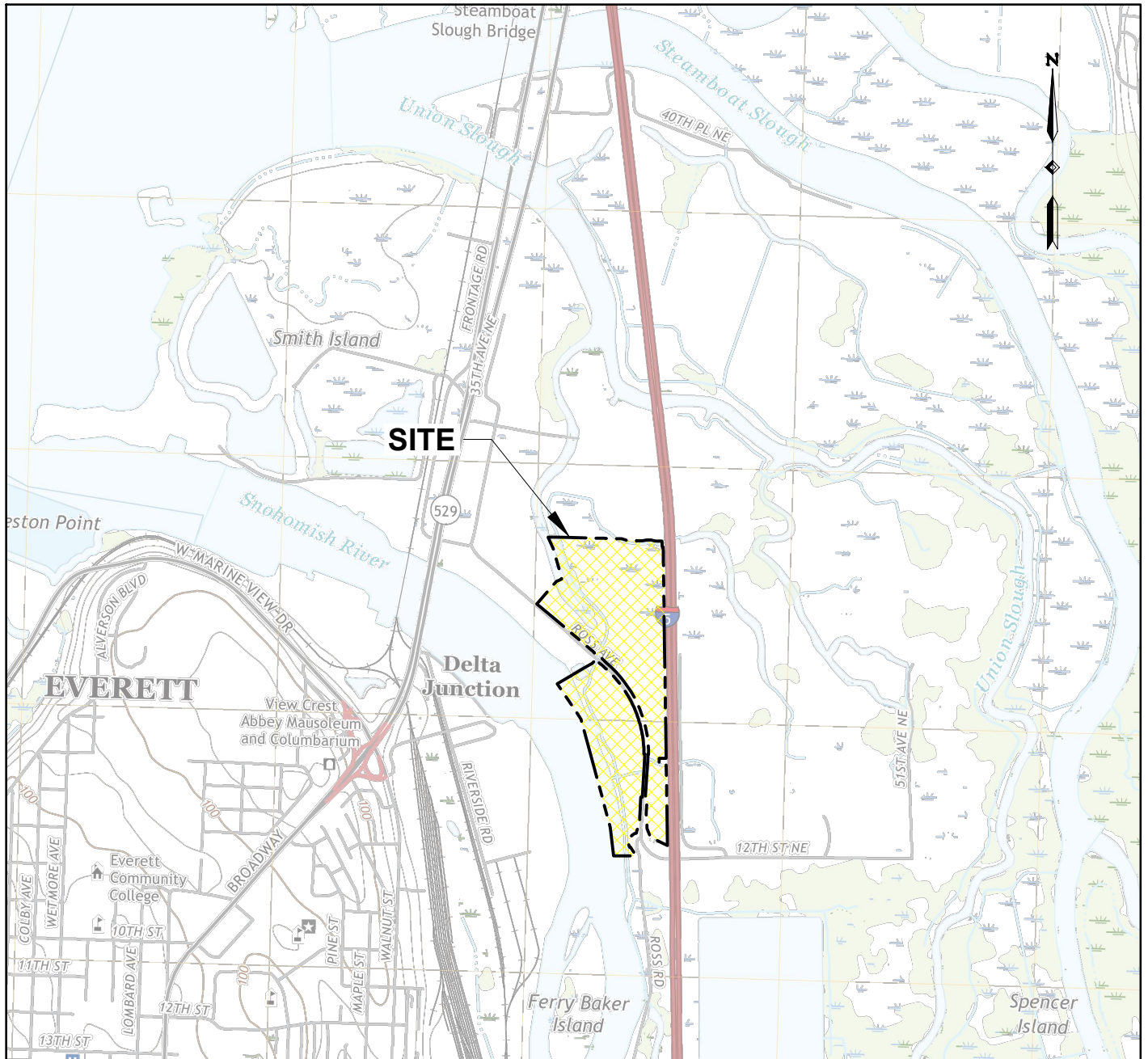
1. mg/kg = Milligrams per kilogram.
2. < = Analyte was not detected above the detection limit shown.
3. Soil cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update).
4. -- = Value not available.

Table 13 - Groundwater Results: Metals
Dagmar Marina Facility - 1871 Ross Avenue
Everett, Washington

	Monitoring Well Sample Collection		Direct Push Sample Collection	
Sample Location ID:	MW-1-UF	MW-1-F	GW-7	MTCA Method A Cleanup Level
Date:	10/06/2022	10/06/2022	01/04/2023	
Metals by EPA Method 6020B in µg/L				
Arsenic	14.7	20.4	41.8	5
Barium	--	--	157	--
Cadmium	--	--	<0.500	5
Chromium	--	--	24.0	50
Copper	--	--	--	--
Lead	--	--	2.66	15
Nickel	--	--	--	--
Selenium	--	--	<1.25	--
Silver	--	--	<1.00	--
Zinc	--	--	--	--
Mercury	--	--	<0.100	2

Notes:

1. µg/L = Micrograms per liter.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Shaded results exceed the Model Toxics Control Act (MTCA) Method A groundwater cleanup level.
5. Groundwater cleanup levels from the MTCA Method A 173-340 WAC (July 2022 update).
6. -- = Value not available.



Marysville, Washington

United States Geological Survey
7.5 Minute Series Topographic Map
Contour Interval: 20 feet
Scale: 1 inch = 24,000 feet
Date: 2020

0 2,000 4,000
Scale in Feet



WASHINGTON

Site Location Map

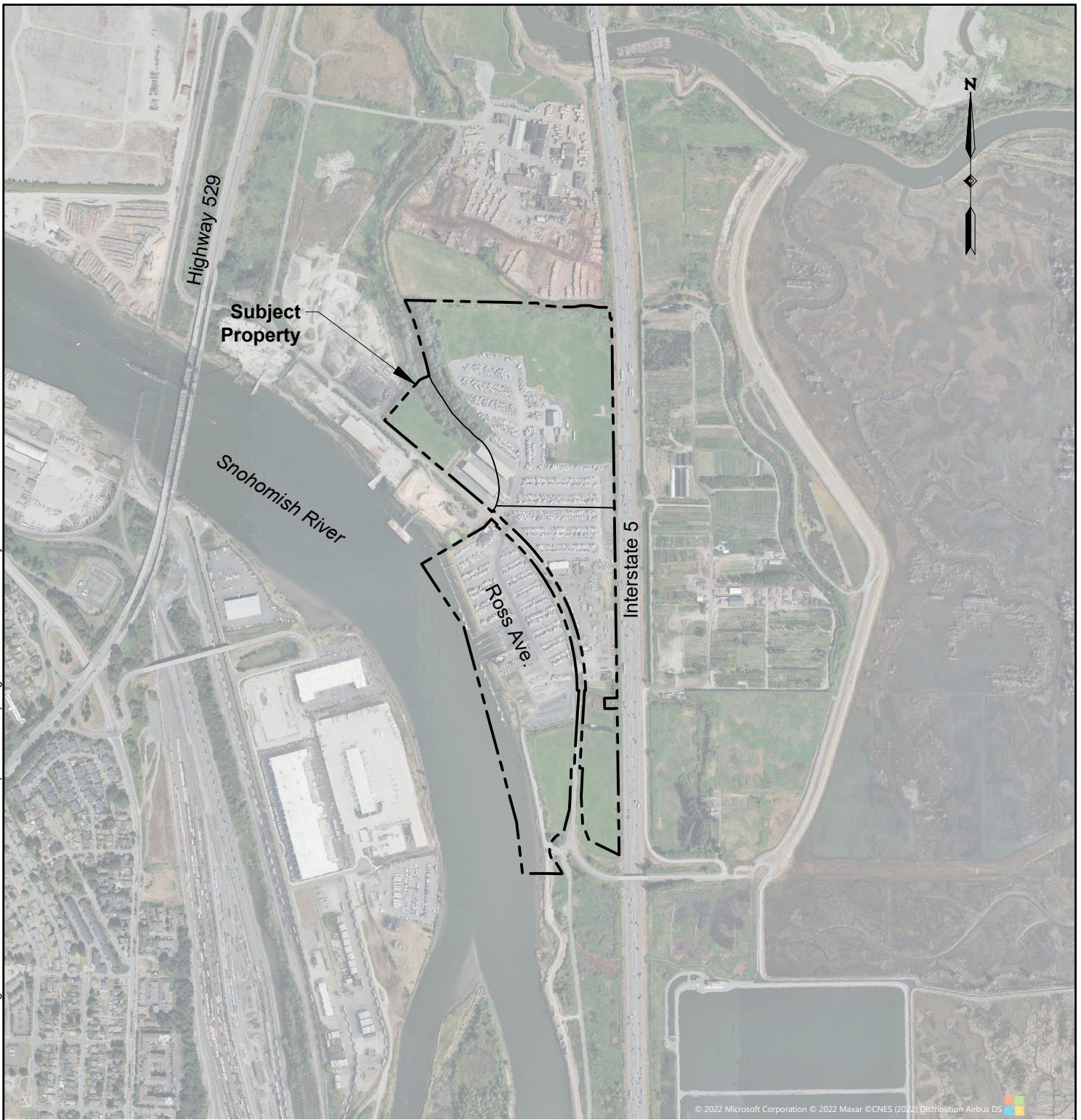
Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
APEX Seattle, Washington 98107

Project Number: 32-22012832	Drawn: JP	Approved: AU
March 2023		

Figure
1

I:\Client\Alterra Property Group LLC\32-22008149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans R).dwg Modified 2/21/2023 by JPoore



NOTE: Base map prepared from Microsoft Bing imagery (2022).
Parcel information from Snohomish County
(<ftp://ftp.snoco.org/assessor>).

0 1,000 2,000
Scale in Feet

Site Vicinity Plan

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

 Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832	Drawn: JP	Approved: AU
March 2023		

Figure
2

I:\Client\Alterra Property Group LLC\32-22008149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans R)\dwg Modified 2/21/2023 by JPoore



Legend:

 Monitoring Well Location

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

Site Layout

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

 Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832	Drawn: JP	Approved: AU
--------------------------------	--------------	-----------------

March 2023

Figure
3



Legend:

- ⊕ Monitoring Well Location
- Soil Boring Location (Phase II)
- ⊖ Soil Boring Location (Remedial Investigation)
- ⊙ Drainage Sediment Location

0 300 600
Scale in Feet

Site Layout (North Side)

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County (<ftp://ftp.snoco.org/assessor>).

Apex Companies, LLC
801 NW 42nd Street, #204
APEX Seattle, Washington 98107

Project Number: 32-22012832	Drawn: JP	Approved: AU
March 2023		

Figure
4

I:\Client\Alterra Property Group LLC\32-22008149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans R).dwg Modified 3/15/2023 by JPoore

Freshwater Sediment Management Standards (Benthic) Cleanup Screening Level in Milligrams per Kilogram (mg/kg)		
DRO	Diesel-Range Organics	510
RRO	Residual-Range Organics	4,400
tPAHs	Total Polycyclic Aromatic Hydrocarbons	30
As	Arsenic	120
Cr	Chromium	88
Ni	Nickel	110

OUTFALL-6	
9/14/2022	
DRO	5.79
RRO	16.7
tPAHs	<0.00609
As	13.7
Cr	57.9
Ni	40.0

OUTFALL-12	
9/14/2022	
DRO	<2.04
RRO	<5.11
tPAHs	<0.00690
As	12.7
Cr	42.5
Ni	40.7

OUTFALL-13	
9/14/2022	
DRO	12.5
RRO	82.0
tPAHs	<0.0125
As	13.6
Cr	44.4
Ni	38.4

OUTFALL-11	
9/14/2022	
DRO	<1.97
RRO	<4.92
tPAHs	<0.00664
As	6.06
Cr	17.2
Ni	17.8

OUTFALL-4	
9/14/2022	
DRO	<3.09
RRO	19.9
tPAHs	<0.0104
As	21.6
Cr	65.3
Ni	60.3

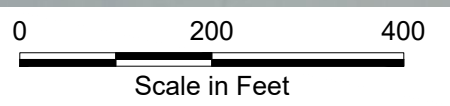
OUTFALL-3	
9/14/2022	
DRO	<3.04
RRO	<7.61
tPAHs	<0.0103
As	11.5
Cr	78.4
Ni	65.2

OUTFALL-2	
9/14/2022	
DRO	<2.41
RRO	<6.03
tPAHs	<0.00812
As	18.1
Cr	68.3
Ni	62.5

OUTFALL-1	
9/14/2022	
DRO	<2.62
RRO	12.0
tPAHs	<0.00886
As	10.6
Cr	47.8
Ni	45.5

OUTFALL-5	
9/14/2022	
DRO	<2.36
RRO	<5.92
tPAHs	<0.00798
As	13.2
Cr	55.8
Ni	49.8

OUTFALL-14
(French Drain)



Legend:

- Drainage Sediment Location
- Approximate Drain Line and Direction
- Approximate Catch Basin Location

Sample Identification: **OUTFALL-1**

9/14/2022		Date Sampled
DRO	<2.62	
RRO	12.0	
tPAHs	<0.00886	
As	10.6	
Cr	47.8	
Ni	45.5	

Analyte Sampled

Concentration in mg/kg
(**Bold** Indicates Result Above Detection Limit)

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

Southern Area of Site: Drainage Sediment Results

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

I:\Client\Alterra Property Group LLC\32-22008149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans R1).dwg Modified 3/15/2023 by JPoore

Freshwater Sediment Management Standards (Benthic) Cleanup Screening Level in Milligrams per Kilogram (mg/kg)		
DRO	Diesel-Range Organics	510
RRO	Residual-Range Organics	4,400
tPAHs	Total Polycyclic Aromatic Hydrocarbons	30
As	Arsenic	120
Cr	Chromium	88
Ni	Nickel	110

SLOUGH-1	
9/14/2022	
DRO	7.79
RRO	20.7
tPAHs	0.0306
As	21.7
Cr	43.3
Ni	48.4

SLOUGH-2	
9/14/2022	
DRO	8.31
RRO	24.7
tPAHs	0.0135
As	22.9
Cr	48.0
Ni	56.2

OUTFALL-8	
9/14/2022	
DRO	16.5
RRO	105
tPAHs	0.0605
As	18.0
Cr	64.6
Ni	42.4

OUTFALL-9	
9/14/2022	
DRO	21.7
RRO	95.8
tPAHs	0.345
As	18.8
Cr	26.8
Ni	31.4

SLOUGH-3	
9/14/2022	
DRO	7.64
RRO	25.9
tPAHs	0.0184
As	19.5
Cr	39.3
Ni	47.6

SLOUGH-4	
9/14/2022	
DRO	6.37
RRO	21.1
tPAHs	0.0330
As	15.9
Cr	53.7
Ni	58.5

OUTFALL-7	
9/14/2022	
DRO	16.9
RRO	125
tPAHs	0.0372
As	5.94
Cr	23.0
Ni	23.9

OUTFALL-10
(French Drain)

Legend:

-  Drainage Sediment Location
-  Approximate Drain Line and Direction
-  Approximate Catch Basin Location

Sample Identification	SLOUGH-1		Date Sampled
	9/14/2022		
Analyte Sampled	DRO	7.79	Concentration in mg/kg (Bold Indicates Result Above Detection Limit)
	RRO	20.7	
	tPAHs	0.0306	
	As	21.7	
	Cr	43.3	
	Ni	48.4	

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

0 200 400
Scale in Feet

Northern Area of Site: Drainage Sediment Results

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

 Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

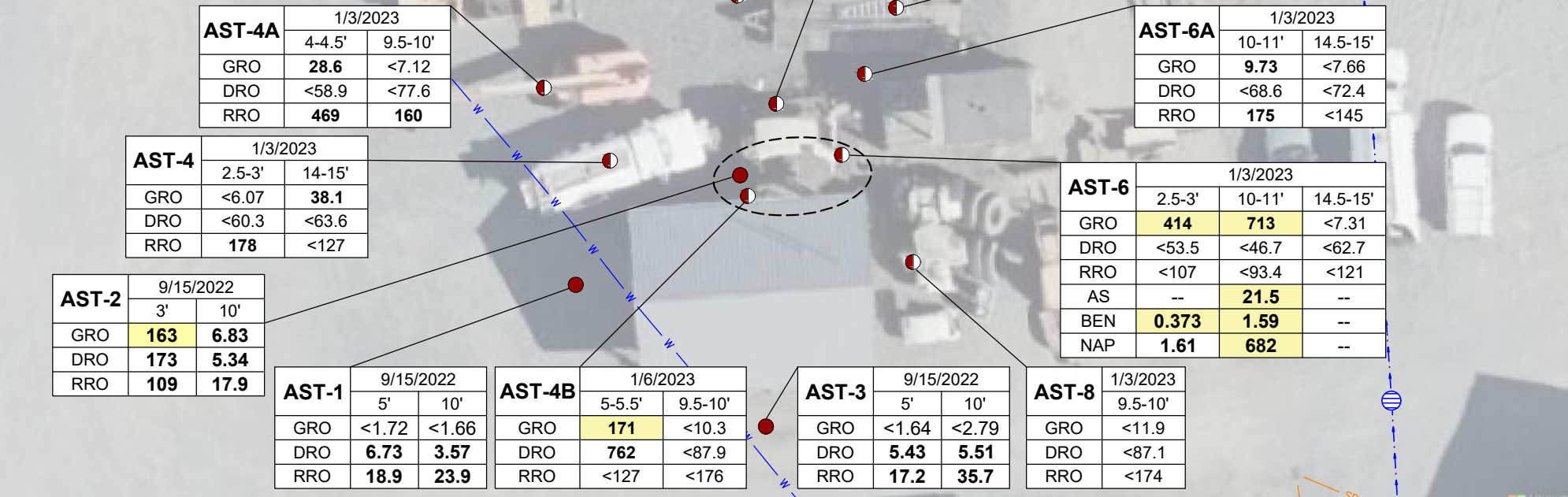
Project Number: 32-22012832	Drawn: JP	Approved: AU
March 2023		

Figure
6

I:\Client\Alterra Property Group LLC\32-22008\149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans RI).dwg Modified 2/21/2023 by JPoore

Soil MTCA Method A Cleanup Level in Milligrams per Kilogram (mg/kg)		
GRO	Gasoline-Range Organics	30/100 ¹
DRO	Diesel-Range Organics	2,000
RRO	Residual-Range Organics	2,000
AS	Arsenic	20
BEN	Benzene	0.03
NAP	Naphthalene	5

¹ The MTCA Method A Cleanup Level for TPH as gasoline-range organics is 30 mg/kg when benzene is detected, and 100 mg/kg when benzene is not detected.



Legend:

- Monitoring Well Location
- Soil Boring Location (Phase II)
- Soil Boring Location (Remedial Investigation)

Sample Identification		Date Sampled
AST-4B		1/6/2023
		5-5.5'
Analyte Sampled	GRO	171
	DRO	762
	RRO	<127

(**Bold** Indicates Result Above Detection Limit)
(**Highlight** = Cleanup Level Exceedance)

- Approximate Drain Line and Direction
- Approximate Storm Drain Line
- Approximate Water Line
- Area of Contamination over MTCA Method A Cleanup Levels

0 20 40
Scale in Feet

Soil Results (AST Area)

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832
Drawn: JP
Approved: AU
March 2023
Figure **7**

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

Soil MTCA Method A Cleanup Level in Milligrams per Kilogram (mg/kg)		
GRO	Gasoline-Range Organics	30/100 ¹
DRO	Diesel-Range Organics	2,000
RRO	Residual-Range Organics	2,000
¹ The MTCA Method A Cleanup Level for TPH as gasoline-range organics is 30 mg/kg when benzene is detected, and 100 mg/kg when benzene is not detected.		

Groundwater MTCA Method A Cleanup Level in Micrograms per Liter (µg/L)		
GRO	Gasoline-Range Organics	800/1,000 ¹
DRO	Diesel-Range Organics	500
RRO	Residual-Range Organics	500
¹ The MTCA Method A Cleanup Level for TPH as gasoline-range organics is 800 µg/L when benzene is detected, and 1,000 µg/L when benzene is not detected.		

Soil (mg/kg)	SHOP-4A		1/4/2023
	GRO	<7.28	
	DRO	<63.3	
	RRO	<127	

Soil (mg/kg)	SHOP-4B		1/6/2023
		13-14"	19-20"
	DRO	<70.5	<63.6
	RRO	<141	<127

Soil (mg/kg)	SHOP-3		1/3/2023
		9.5-10'	
	GRO	<9.56	
	DRO	<74.1	
	RRO	203	

Soil (mg/kg)	SHOP-5		1/4/2023
		9.5-10'	
	GRO	<8.62	
	DRO	<69.1	
	RRO	<138	

Soil (mg/kg)	SHOP-2		9/15/2022
		2.5'	5'
	DRO	2,720	2.41
	RRO	4,380	<5.03

Soil (mg/kg)	SHOP-1		9/15/2022
		2.5'	5'
	DRO	3.56	2.26
	RRO	8.49	<5.23

Soil (mg/kg)	SHOP-4	1/3/2023		
		2.5-3'	5-6'	9.5-10'
	GRO	475	176	<10.4
	DRO	141	<61.9	<80.0
	RRO	481	712	<160

Groundwater (µg/L)	SHOP-4GW*		1/3/2023
	DRO	1,730	
	RRO	<98.4	
	*SHOP-4GW sample was collected via temporary well from soil boring SHOP-4.		
Groundwater (µg/L)	MW-5		1/26/2023
	GRO	<50.0	
	DRO	345	
	RRO	<94.1	

Legend:

-  Monitoring Well Location
-  Soil Boring Location (Phase II)
-  Soil Boring Location (Remedial Investigation)

Sample Identification	Result Type	Analyte Sampled	Soil (mg/kg)	SHOP-4		Date Sampled
					2.5-3'	
				GRO	475	
				DRO	141	
				RRO	481	

(**Bold** Indicates Result Above Detection Limit)
(**Highlight** = Cleanup Level Exceedance)

-  Approximate Drain Line and Direction
-  Approximate Storm Drain Line
-  Approximate Water Line

-  Area of Contamination over MTCA Method A Cleanup Levels

NOTE: Base map prepared from Microsoft Bing Imagery (2022). Parcel information from Snohomish County (<ftp://ftp.snoco.org/assessor>).

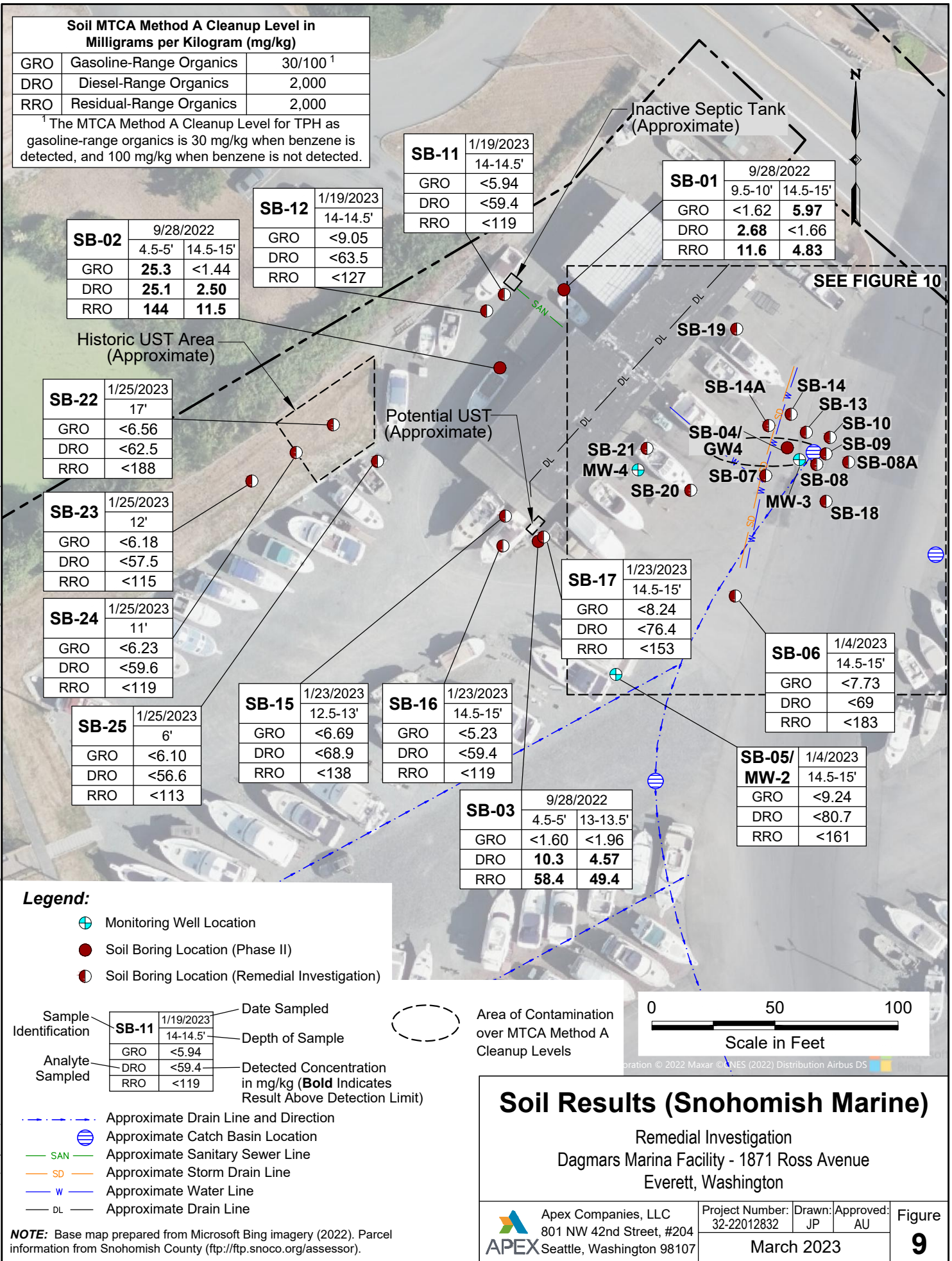
Soil and Groundwater Results (Maintenance Shop)

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832	Drawn: JP	Approved: AU	Figure 8
March 2023			

I:\Client\Alterra Property Group LLC\32-22008149 1871 Ross Ave\Remedial Investigation\ALT021-0313032-22008149 02-12 (Site Plans R).dwg Modified 2/21/2023 by JPoore



Soil MTCA Method A Cleanup Level in Milligrams per Kilogram (mg/kg)		
GRO	Gasoline-Range Organics	30/100 ¹
DRO	Diesel-Range Organics	2,000
RRO	Residual-Range Organics	2,000

¹ The MTCA Method A Cleanup Level for TPH as gasoline-range organics is 30 mg/kg when benzene is detected, and 100 mg/kg when benzene is not detected.

Project Number: 32-22012832	Drawn: JP	Approved: AU	Figure 10
March 2023			

**Soil Puget Sound Natural Background Concentration
in Milligrams per Kilogram (mg/kg)**

AS	Arsenic	7
----	---------	---

**Soil MTCA Method A Cleanup Level in
Milligrams per Kilogram (mg/kg)**

AS	Arsenic	20
TOC	Total Organic Carbon	--

**Groundwater MTCA Method A Cleanup Level in
Micrograms per Liter (µg/L)**

Arsenic	5
---------	---

Soil (mg/kg)	ARS-2	1/6/2023				
		0-5'	5.5-12'	12-15'	15-17'	17-20'
AS		4.45	5.93	10.3	9.53	11.4
TOC		<0.150	0.259	1.35	3.19	3.25

Soil (mg/kg)	ARS-4	1/10/2023
		10-15'
AS		10.5
TOC		4.73

Soil (mg/kg)	MW-1	9/15/2022
		10'
Arsenic		19.1
Groundwater (µg/L)	MW-1	10/6/2022
		Arsenic (Field Filtered)
		20.4
Groundwater (µg/L)	MW-1	Arsenic (Unfiltered)
		14.7

Soil (mg/kg)	ARS-3	1/6/2023			
		0-4'	4-9'	9-14'	14-20'
AS		2.33	10.2	9.23	7.50
TOC		0.279	2.65	7.25	1.44

Soil (mg/kg)	ARS-1	1/6/2023	
		0-3'	3-6'
AS		4.03	8.89
TOC		0.214	1.76

Legend:

-  Monitoring Well Location
-  Historic 2008 Sample Location
-  Soil Boring Location (Remedial Investigation)

Sample Identification	Result Type	Analyte Sampled	Date Sampled	Depth of Sample (Soil Results Only)	Detected Concentration (Bold Indicates Result Above Detection Limit) (Highlight = Cleanup Level Exceedance)
Soil (mg/kg)	MW-1	Arsenic	9/15/2022	10'	19.1

NOTE: Base map prepared from Microsoft Bing imagery (2022). Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

**Soil and Groundwater Results
(Arsenic Area)**

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832
March 2023
Drawn: JP
Approved: AU
Figure 11

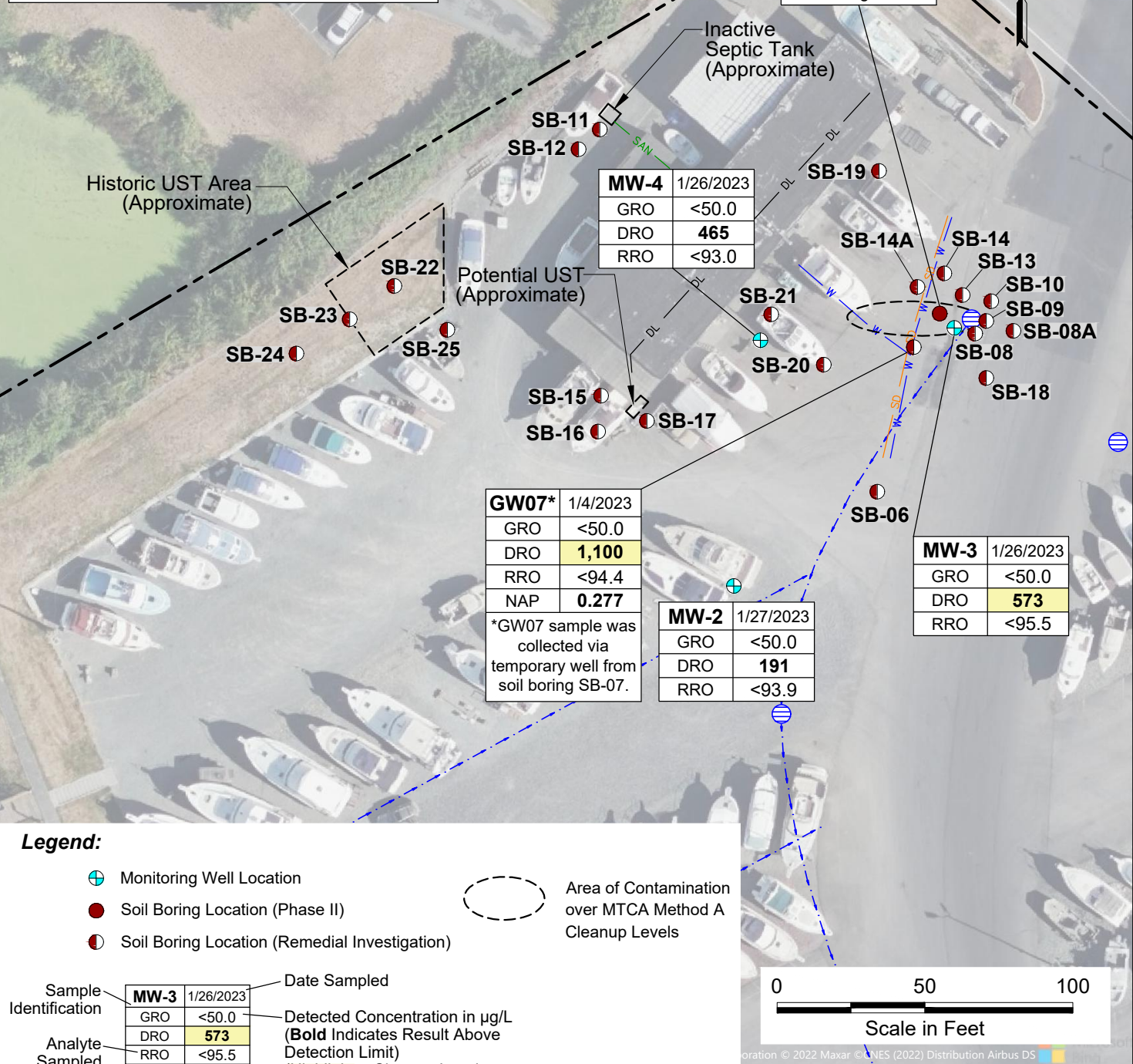
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Groundwater MTCA Method A Cleanup Level in Micrograms per Liter (µg/L)		
GRO	Gasoline-Range Organics	800/1,000 ¹
DRO	Diesel-Range Organics	500
RRO	Residual-Range Organics	500
NAP	Naphthalene	5

¹ The MTCA Method A Cleanup Level for TPH as gasoline-range organics is 800 µg/L when benzene is detected, and 1,000 µg/L when benzene is not detected.

GW4*	9/28/2022
GRO	180
DRO	15,400
RRO	74,100
BEN	32.3

*GW4 sample was collected via temporary well from soil boring SB-04.



Groundwater Results (Snohomish Marine)

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number:	32-22012832	Drawn:	JP	Approved:	AU
March 2023					

Figure
12

Appendix A

Geophysical Survey

Geophysical Survey LLC
711 S Tacoma Street
Kennewick, Washington 99336

January 7, 2023

Anders Utter
Apex Companies, LLC
801 NW 42nd Street, Suite 204
Seattle, WA 98107

Re: *Geophysical Investigation
Dagmars Marina
Everett, Washington*

Mr. Utter:

Geophysical Survey LLC conducted a geophysical investigation at Dagmars Marina in Everett, Washington on January 7, 2023. The objective of the investigation was to detect and delineate underground storage tanks (USTs) and subsurface utilities.

Methodology

Ground-Penetrating Radar

Ground-penetrating radar (GPR) uses a transducer to transmit FM frequency electromagnetic energy into the ground. Interfaces in the ground, defined by contrasts in dielectric constants, magnetic susceptibility, and to some extent, electrical conductivity, reflect the transmitted energy. The GPR system then measures the travel time between transmitted pulses and arrival of reflected energy. Buried objects such as pipes, barrels, foundations, and buried wires can cause all or a portion of the transmitted energy to be reflected back towards a receiving antenna. Geologic features such as cross-bedding, lateral and vertical changes in soil properties, and rock interfaces can also cause reflections of a portion of the EM energy.

The dielectric constant and magnetic susceptibility of the medium primarily control the velocity of the EM energy. Values of EM velocities, for depth calculations, are determined by measurement, experience in an area, by ties to known buried reflectors, and from knowledge of the subsurface medium.

The depth of investigation is a function of the transmit power, receiver sensitivity, frequency of the antenna, and attenuation of the transmitted energy due to the geologic medium. The maximum depth of investigation may vary significantly as a result of the changing soil conditions. High attenuation, and consequent smaller penetration depths, of the EM energy typically occurs where the soil conductivity is greater than 25 millisiemens per meter and/or in areas with numerous reflective interfaces. Depth of investigation is also affected by highly conductive material, such as metal drums and pipes that essentially reflect all the energy. The method cannot “see” directly below areas of highly reflective material because all of the energy is reflected.

FIELD SURVEY

Mapping Control

A Trimble Pro6H GPS with sub-foot accuracy (<12in) was used to map site features.

GPR Data Acquisition

GPR data were acquired with a Geophysical Survey Systems, Inc. (GSSI) G1 control unit and a 350 MHz antenna. GPR data were collected at 36 scans/foot with a 60 nano-second window (depth of investigation of approximately 9 feet). Gains were adjusted manually across the site to match local conditions.

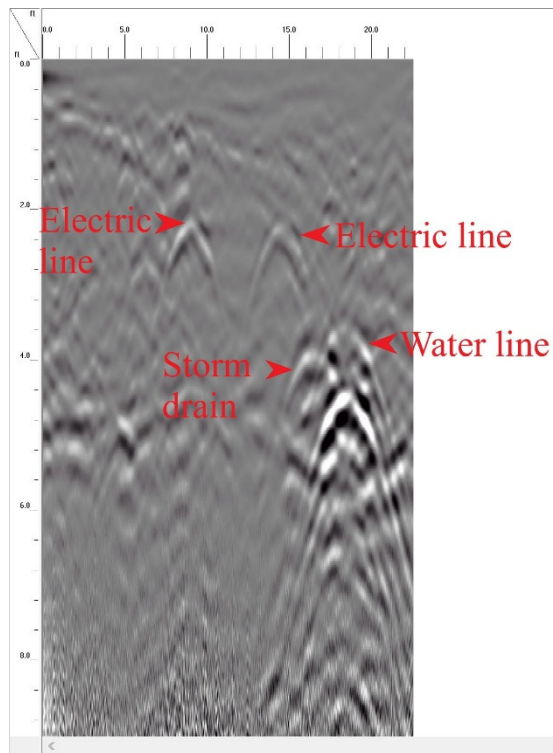
DATA PROCESSING

GPR Data Processing

GPR data were processed using Radan 7 from GSSI. Processing included a background filter and deconvolution. Anomalies were digitized to CAD format.

RESULTS AND INTERPRETATION

A drain line runs northeast to southwest in the interior of the building linking the storm drains. A septic tank was delineated to the west of the building and multiple subsurface utilities were detected.

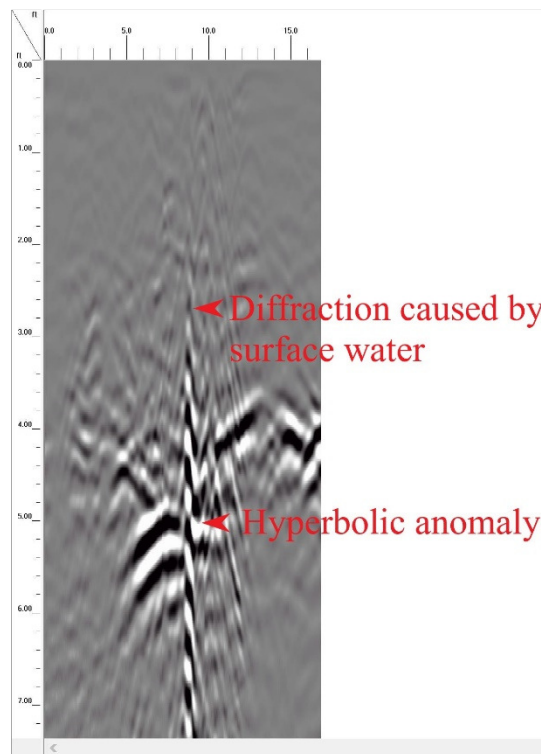


GPR Data 1

A hyperbolic anomaly was detected in the southeast corner of the building. The anomaly in a single pass of GPR data is typical of the short axis of a UST however the area was blocked by multiple objects on the surface and the data is partially obscured by the puddle of water at the surface.



LOCATION 1



GPR Data 2

CLOSURE

Geophysical surveys performed as part of this survey may or may not successfully detect or delineate any or all subsurface objects or features present. Locations, depths and scale of buried objects or subsurface features mapped as a result of this survey are a result of geophysical interpretation, and should be considered as confirmed, actual, or accurate only where recovered by excavation or drilling.

Geophysical Survey LLC performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of the study described within.

Respectfully,

Geophysical Survey LLC

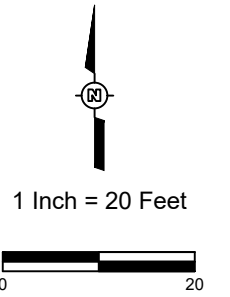
A handwritten signature in purple ink, appearing to read "Mark Villa L.G.", is positioned below the company name.

Mark Villa L.G.

**Geophysical Investigation
Dagmars Marina
Everett, Washington**

LIST OF FIGURES

Figure 1 Geophysical Interpretation



Legend

- 2.0 Depth to top in feet
- Unidentified utility
- E Electrical line
- GAS Gas line
- W Water line
- SAN Sanitary sewer
- SD Storm drain
- COM Communication line
- Septic tank
- UST

FIGURE 1
Utility Map
Dagmars Marina
Everett, WA

Appendix B

Boring Logs

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:

MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and push probe explorations is estimated based on visual observation and is presented parenthetically on test pit and push probe exploration logs.

SAND and GRAVEL	Standard Penetration Resistance in Blows/Foot	SILT or CLAY	Standard Penetration Resistance in Blows/Foot	Approximate Shear Strength in TSF
<u>Density</u>		<u>Density</u>		
Very loose	0 - 4	Very soft	0 - 2	<0.125
Loose	4 - 10	Soft	2 - 4	0.125 - 0.25
Medium dense	10 - 30	Medium stiff	4 - 8	0.25 - 0.5
Dense	30 - 50	Stiff	8 - 15	0.5 - 1.0
Very dense	>50	Very Stiff	15 - 30	1.0 - 2.0
		Hard	>30	>2.0

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

Minor Constituents	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

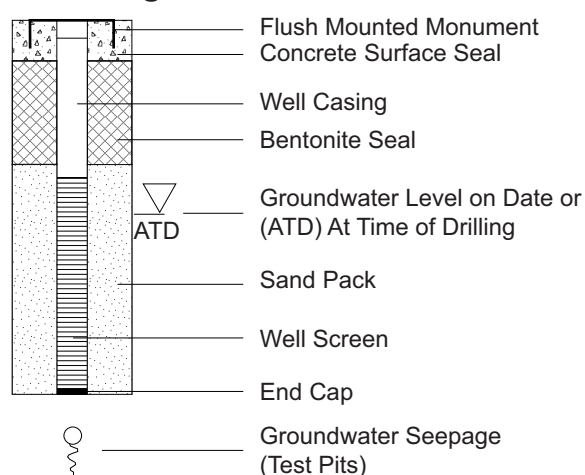
BORING AND PUSH-PROBE SYMBOLS

	Recovery
	No Recovery
	Temporarily Screened Interval
PID	Photoionization Detector Reading
W	Water Sample
	Sample Submitted for Chemical Analysis
NS	No Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen
BF	Biogenic Film

TEST PIT SOIL SAMPLES

	Grab (Jar)
	Bag
	Shelby Tube

Groundwater Observations and Monitoring Well Construction



Key to Exploration Logs

Remedial Investigation
Dagmars Marina Facility - 1871 Ross Avenue
Everett, Washington

Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Project Number: 32-22012832
Drawn: JP
Approved: AU

February 2023

Figure
Key



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-05/MW-2**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 5'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	
			<5		Landscape gravel (5") over sandy CLAY (CL); medium gray, medium plasticity. No odor, no staining. Perched water (1-2').
			NS		Becomes moist (2-4').
5			<5		Silty CLAY (CL); medium brown, moist, high plasticity. No odor, no staining. Becomes wet.
		SB-05 (5.5-6')			Becomes medium gray.
			<5	NS	
10			<5		Sandy Clay (CL); medium gray, wet, high plasticity. No odor, no staining.
					Silty Clay (CL); medium gray, moist, high plasticity. No odor, no staining.
			<5	NS	
15		SB-05 (14.5-15')			Bottom of Boring at 15.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-06**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Asphalt (6") over sandy SILT (SM); dark gray, dry, very stiff.
No odor, no staining.

Silty Clay (CL); dark gray, moist, low plasticity.
No odor, no staining.

Bottom of Boring at 15.0' BGS.





Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-07**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over sandy SILT (SM); dark gray, dry, stiff.
No odor, no staining.

<5

<5

5

<5

Silty Clay (CL); dark brown, wet, high plasticity.
No odor, no staining.

<5

10

Sandy Silt (SM); dark gray, wet, soft.

17

NS

Silty Clay (CL); medium brown to gray, moist, high plasticity.
No odor. Light staining observed.

SB-07 (12.5-13')

15

15

NS

Sandy Silt (SM); dark grey, wet, medium stiff.
No odor, no staining.

10

Silty Clay (CL); medium grey, moist, high plasticity.

<5

<5

NS



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-07**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

25

30

35

<5

<5

SB-07 (24.5-25')

Bottom of Boring at 25.0' BGS.

25

30

35



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-08**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (5") over sandy CLAY (ML); medium gray, wet, high plasticity. No odor, no staining.

<5

<5

<5

Silty Sand (SM); medium gray, moist, dense. No odor, no staining.

<5

<5

NS

Silty Clay (CL); medium gray, moist, high plasticity. Hydrocarbon-like odor. Slight staining.

49

NS

22

Silty Clay (OL); light gray, moist, low plasticity. No odor, no staining.

6

<5

SB-08 (13.5-14')

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: SB-08 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 4, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 6' Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	
25		SB-08 (24.5-25')	<5	NS	Bottom of Boring at 25.0' BGS.	
30						
35						



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-08A**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 5, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over sandy CLAY (CL); medium gray, wet, medium plasticity. No odor, no staining.

<5

<5

5

<5

<5

10

<5

Silty Clay (CL); medium gray and brown, moist, high plasticity. No odor, no staining.

SB-08A (13-13.5')

<5

NS

15

SB-08A (14.5-15')

<5

NS

Bottom of Boring at 15.0' BGS.

5

10

15





Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-09**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over sandy CLAY (CL); medium gray, wet, high plasticity. No odor, no staining.

Silty Sand (SM), medium brown to gray, moist, dense. No odor.

Light staining observed.

Silty Clay (CL); light gray, moist, low plasticity. No odor, no staining.

5

10

15

<5

<5

<5

13

33

13

5

<5

NS

5

10

15



SB-09 (13-13.5)



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-09**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

25

30

35

SB-09 (24.5-25')

<5

<5

NS

Bottom of Boring at 25.0' BGS.

25

30

35



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-10**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 5, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	
			<5		Asphalt (3") over sandy SILT (SM); dark brown to gray, dry, very stiff. No odor, no staining.
			<5	NS	
5			<5		Sandy Clay (CL); medium brown, moist, high plasticity. No odor, no staining.
			<5		
			<5		
10			<5		
			<5		Silty Clay (CL); medium brown, moist, high plasticity. With organic odor. No staining.
		SB-10 (12.5-13')	<5		
			<5	NS	
15		SB-10 (14.5-15')	<5		Bottom of Boring at 15.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-11**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 5, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (5") over poorly graded SAND (SP);
light brown, moist, dense. No odor, no staining.

<5

<5

NS

5

SB-11 (5-5.5')

<5

NS

Silty CLAY (CL); light gray, moist, medium plasticity.
No odor, no staining.

<5

<5

10

<5

Silty SAND (SM); medium gray, moist, stiff.
No odor, no staining.

10

15

SB-11 (14-14.5')

<5

NS

Organic debris.

Bottom of Boring at 15.0' BGS.

15



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-12**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 5, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over poorly graded SAND (SP);
light brown, moist, dense. No odor, no staining.

<5

<5

5

SB-12 (6.5-7)

<5

NS

Silty CLAY (CL); medium gray, moist, medium plasticity.
No odor, no staining.

<5

10

<5

Silty SAND (SM); medium gray, moist, stiff.
No odor, no staining.

15

SB-12 (14-14.5)

<5

NS

Organic debris.

Bottom of Boring at 15.0' BGS.

5

10

15



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-13**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 9, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 10'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over silty CLAY (CL); medium gray to brown, moist, high plasticity, with trace organic debris. No odor, no staining.

<5

<5

5

<5

<5

10

Becomes wet.

<5

26

NS

Silty CLAY (CL); medium gray to brown, moist, high plasticity, with trace organic material. Strong organic odor. No staining.

15

SB-13 (13-13.5')

Silty CLAY (CL); medium gray, wet, medium plasticity. No odor, no staining.

18

8

7

5

10

15



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-13**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 9, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 10'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

25

30

35

SB-13 (24.5-25')

Bottom of Boring at 25.0' BGS.

25

30

35



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-14**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 9, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over over silty CLAY (CL); medium brown, moist, high plasticity. No odor, no staining.

<5

<5

5

<5

Sandy CLAY (CL); medium to dark gray, moist, high plasticity. No odor, no staining.

10

<5

10

15

25

NS

Silty CLAY (CL), medium gray to brown, moist, high plasticity, with trace organic debris. Slight organic odor. Light staining.

SB-14 (14-14.5')

9

15

8

Silty CLAY (CL); medium gray, moist, high plasticity. Light organic odor. No staining.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-14**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 9, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

25

30

35

<5

<5

NS

SB-14 (24.5-25)

Bottom of Boring at 25.0' BGS.

25

30

35

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington		Boring Number: SB-14A Project Number: 32-22012832 Logged By: H. Hiscox Date: January 9, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 5' Surface Elevation: Not Measured	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		Boring Details and Notes:	
5			<5		Asphalt (5") over sandy CLAY (CL); medium gray, moist, high plasticity. No odor, no staining.			
			<5		Becomes wet.	5	▽	
10			<5		Sandy CLAY (CL); medium gray, wet, high plasticity, with trace organic debris. Slight organic odor. No staining.	10		
15	SB-14A (14-14.5')		5	NS	Silty CLAY (CL); medium gray, moist, high plasticity. Slight organic odor. No staining.	15		
	SB-14A (19.5-20')		<5	NS				
Bottom of Boring at 20.0' BGS.								

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: SB-15 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 9, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 4' Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	
5 10 15	Air Knife/Hand Auger SB-15 (8-8.5') SB-15 (12.5-13')	<5 <5 <5 <5 <5	NS NS	Asphalt (3") over well-graded SAND (SP); brown to gray, moist, dense. No odor, no staining. Becomes wet. Silty CLAY (CL); gray, wet, high plasticity. No odor, no staining.	5 10 15 ▽	
Bottom of Boring at 20.0' BGS.					Page 1/1	

APEX Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: SB-16 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 9, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 4' Surface Elevation: Not Measured Boring Details and Notes:									
Depth, feet Core Interval/Recovery Laboratory Sample ID PID Sheen Lithologic Description																			
5 10 15 Air Knife/Hand Auger SB-16 (8-8.5') SB-16 (14.5-15') <5 <5 <5 <5 <5 Landscape gravel (5") over well-graded SAND (SP); dark gray, moist, dense. No odor, no staining. Becomes wet. Silty CLAY with trace organic debris (CL); medium gray, wet, high plasticity. No odor, no staining. Bottom of Boring at 15.0' BGS. 5 10 15 ▽																			
Page 1/1																			



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-17**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 10, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 4'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over well-graded SAND (SP); medium gray, moist, dense. No odor, no staining.

<5

<5

<5

Becomes wet.

<5

NS

Sandy CLAY (CL); medium brown, wet, high plasticity. No odor, no staining.

<5

Silty CLAY (CL); medium brown, wet, high plasticity, with trace organic debris. Slight organic odor. No staining.

<5

NS

Bottom of Boring at 15.0' BGS.

Air Knife/Hand Auger

SB-17 (6.5-7')

SB-17 (14.5-15')

APEX Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107				Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington				Boring Number: SB-18 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 10, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 7' Surface Elevation: Not Measured			
				Lithologic Description				Boring Details and Notes:			
				Asphalt (3") over sandy CLAY (CL); medium gray, moist, high plasticity. No odor, no staining.							
				<5							
				<5							
5								5			
				<5				▽			
				Becomes wet.							
10								10			
				<5							
				5							
				SB-18 (14.5-15')				Silty CLAY (CL); medium brown, moist, high plasticity, with trace organic debris. Slight organic odor. Slight staining.			
15				6				15			
				NS				Silty CLAY (CL); medium gray, wet, high plasticity. No odor, no staining.			
				SB-18 (19.5-20')							
				<5							
				NS							
Bottom of Boring at 20.0' BGS.											

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Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-19**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 10, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over sandy CLAY (CL); medium gray, moist, high plasticity. No odor, no staining.

<5

<5

Becomes wet.

<5

Silty CLAY (CL); medium gray, wet, high plasticity. No odor, no staining.

5

NS

<5

Silty CLAY (CL); medium gray, moist, high plasticity. No odor, no staining.

<5

<5

NS

SB-19 (13-13.5')

SB-19 (19-20')

Bottom of Boring at 20.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-20**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 10, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Asphalt (3") over sandy SILT (SM); medium gray, moist, stiff. No odor, no staining.

Becomes wet.

Silty CLAY (CL); medium gray, high plasticity, with trace organic debris. Slight organic odor. No staining.

Silty CLAY (CL); medium gray, high plasticity. Slight organic odor. No staining.

5

10

15

SB-20 (14.5-15')

SB-20 (19.5-20')

<5

<5

6

11

9

NS

NS

5

10

15

▽



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-20**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 10, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

25

30

35

SB-20 (24.5-25')

<5

NS

Bottom of Boring at 25.0' BGS.

25

30

35

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: SB-21 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 10, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 7' Surface Elevation: Not Measured Boring Details and Notes:		
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		
5			<5		Asphalt (3") over sandy SILT (SM); medium gray, moist, stiff. No odor, no staining.	5	
			<5		Becomes wet.		▽
10						10	
15		SB-21 (14-14.5')	7	NS	Silty CLAY (CL); medium gray, moist, high plasticity, with trace organic debris. Slight organic odor. No staining.	15	
		SB-21 (19.5-20')	13	NS	Strong sulfur-like odor.		

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: SB-21 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 10, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 7' Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	
25		SB-21 (24.5-25)	<5	NS	Bottom of Boring at 25.0' BGS.	
30						
35						



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-22**

Project Number: **32-22012832**

Logged By: R. Schettler

Date: January 25, 2023

Site Conditions: Elevated Berm

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 2822DT

Sampler Type: Direct Push

Depth to Water (ATD): 17'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	
5			5	NS	Topsoil (2") over well-graded SAND (SW); brown-gray, dry. No odor, no staining.
			5	NS	Silty SAND (SM), brown-gray, moist, loose. No odor, no staining.
			5	NS	
			5	NS	
			5	NS	
			5	NS	Becomes dark gray.
			5	NS	
			5	NS	Well-graded SAND (SW) with gravel; black, moist, with silty sand laminates. No odor, no staining.
			5	NS	
			5	NS	SILT (ML) with trace sand; dark gray with black and white sand grains, moist. No odor, no staining.
			5	NS	
			5	NS	
			5	NS	
			5	NS	

Bottom of Boring at 20.0' BGS.

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 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107				Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington		Boring Number: SB-23 Project Number: 32-22012832 Logged By: R. Schettler Date: January 25, 2023	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	Site Conditions: Elevated Berm Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 2822DT Sampler Type: Direct Push Depth to Water (ATD): 12' Surface Elevation: Not Measured Boring Details and Notes:	
5			5	NS	Topsoil (3") over well-graded SAND (SW); brown-tan, dry, with trace organic debris. No odor, no staining.		
			5	NS			
			5	NS			
5					Well-graded SAND (SW); brown-tan, moist, loose, with trace gravel. No odor, no staining.	5	
			5	NS			
			5	NS	Becomes dark gray.		
10			5	NS		10	
			5	NS	SILT (ML); dark gray with black and white sand grains, moist, with trace organic debris and trace fine sand. No odor, no staining.		▽
			5	NS	Silty SAND (SM); dark gray with black and white sand grains, moist. No odor, no staining.		
15			5	NS		15	
			5	NS			
			5	NS			
			5	NS			
			5	NS			
Bottom of Boring at 20.0' BGS.							



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-24**

Project Number: **32-22012832**

Logged By: R. Schettler

Date: January 25, 2023

Site Conditions: Elevated Berm

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 2822DT

Sampler Type: Direct Push

Depth to Water (ATD): 11'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	
5			5	NS	Topsoil (2") over well-graded SAND (SW); brown with black and white sand grains, moist, with trace gravel. No odor, no staining.
			5	NS	
			5	NS	
			5	NS	
			5	NS	Oxidized laminates.
10			5	NS	Silty SAND (SM); dark gray with black and white sand grains, moist. No odor, no staining.
			5	NS	Silt laminates.
			5	NS	
			5	NS	
			5	NS	
			5	NS	
			5	NS	
			5	NS	

Bottom of Boring at 20.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SB-25**

Project Number: **32-22012832**

Logged By: R. Schettler

Date: January 25, 2023

Site Conditions: Parking Lot

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 2822DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		
			5	NS	Landscape gravel (4") over sandy GRAVEL (GM); brown, moist. No odor, no staining.		
					Silty SAND (SM); dark gray, moist. No odor, no staining.		
			5	NS			
			5	NS			
5						5	
			5	NS	Silty SAND (SM); dark gray, moist, with trace gravel. No odor, no staining. Black and white laminates from 5-8'.		▽
			5	NS	Becomes saturated.		
10			5	NS	Sandy SILT (ML) grading to silty SAND (SM); dark gray with trace black and white sand grains, wet. No odor, no staining.	10	
			5	NS			
			5	NS			
15						15	
			5	NS			
			5	NS			
			5	NS			
			5	NS			

Bottom of Boring at 20.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **AST-4**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 10'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over silty GRAVEL (GM); gray with intermittent oxidation, dry, low plasticity. No odor, no staining.

<5

Slight staining. Strong hydrocarbon-like odor.

8

NS

Silty CLAY (CL); medium gray, moist, medium plasticity. No odor, no staining.

8

5

<5

<5

10

Becomes wet.

<5

<5

<5

NS

Bottom of Boring at 15.0' BGS.

15

5

10

15



 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: AST-4A Project Number: 32-22012832 Logged By: H. Hiscox Date: January 3, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): Not Encountered Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	
			<5	NS	Landscape gravel (5") over silty GRAVEL (GM); medium gray, dry, dense. No odor, no staining.	
5		AST-4A (4.4-5')	<5		Sandy CLAY (CL); medium gray, dry, high plasticity. No odor, slight staining. Becomes low plasticity. No staining.	5
			<5			
10		AST-4A (9.5-10')	<5		Bottom of Boring at 10.0' BGS.	10
15						15

APEX Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: AST-4B Project Number: 32-22012832 Logged By: H. Hiscox Date: January 4, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): Not Encountered Surface Elevation: Not Measured Boring Details and Notes:		
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description							
					Landscape gravel (5") over poorly graded GRAVEL with trace cobbles (GP); medium brown to light gray, dry, medium dense. No odor, no staining.							
5		AST-4B (5.5-5')	<5	NS	Silty CLAY (CL); medium gray, dry, high plasticity. No odor, slight staining.			5				
			<5									
			<5									
10		AST-4B (9.5-10')	<5	NS	Bottom of Boring at 10.0' BGS.			10				
15								15				

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APEX Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington					Boring Number: AST-5 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 3, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): Not Encountered Surface Elevation: Not Measured Boring Details and Notes:																																																											
Depth, feet										Core Interval/Recovery										Laboratory Sample ID										PID										Sheen										Lithologic Description																			
5										AST-5 (3.5-4')										<5										NS										Landscape gravel (5") over gravelly CLAY (GC); dark gray, dry, low plasticity. No odor, no staining.										5																			
10										AST-5 (9.5-10')										<5										NS										Silty CLAY (CL); medium gray, moist, low plasticity. No odor, no staining.										10																			
15																																								Bottom of Boring at 10.0' BGS.										15																			

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 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington		Boring Number: AST-6 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 3, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): Not Encountered Surface Elevation: Not Measured	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		Boring Details and Notes:	
5		AST-6 (2.5-3')	19	NS	SS	Landscape gravel (5") over gravelly CLAY (GC); brown with intermittent oxidation, dry, high plasticity. Strong hydrocarbon-like odor. Slight staining.		
10			10					
5			8			Silty CLAY (CL); medium gray, moist, medium plasticity, with trace organic debris. No odor, no staining.	5	
			<5	NS				
10		AST-6 (10-11')	5					
			228	SS		Gravelly SILT (GM); light gray, dry, stiff. Strong hydrocarbon-like odor. Slight staining.	10	
						Silty CLAY (CL); medium gray, moist, medium plasticity, with trace organic debris. No odor, no staining.		
15		AST-6 (14.5-15')	<5	NS			15	
						Bottom of Boring at 15.0' BGS.		



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **AST-6A**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Landscape gravel (5") over gravelly CLAY (GC); dark gray to brown, dry, low plasticity. Slight hydrocarbon-like odor. No staining.

Silty CLAY (CL); medium gray, moist, low plasticity, with trace organic debris. No odor, no staining.

Trace gravel.

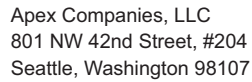
Bottom of Boring at 15.0' BGS.

AST-6A (2-2.5')

AST-6A (10-11')

AST-6A (14.5-15')

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107				Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington		Boring Number: AST-6B Project Number: 32-22012832 Logged By: H. Hiscox Date: January 3, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): Not Encountered Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		
5		AST-6B (1.5-2')	<5		Landscape gravel (5") over gravelly CLAY (GC); medium brown, dry, low plasticity. No odor, no staining.		
					Silty CLAY (CL); medium brown, moist, medium plasticity. No odor, no staining.		
10		AST-6B (9.5-10')	<5	NS	Bottom of Boring at 10.0' BGS.		
15							



Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **AST-7**

Project Number: 32-22012832

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 6'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description	Site Conditions: Overcast/Rain																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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5			<5	NS	Landscape gravel (5") over gravelly CLAY (GC); brown, dry, low plasticity. No odor, no staining.			<5	NS	Silty CLAY (CL); medium brown, moist, high plasticity. No odor, no staining.			<5	NS	Becomes wet.			<5	NS	Bottom of Boring at 10.0' BGS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Landscape gravel (5") over gravelly CLAY (GC); brown, dry, low plasticity. No odor, no staining.

Silty CLAY (CL); medium brown, moist, high plasticity.
No odor, no staining.

- Becomes wet.

Bottom of Boring at 10.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **AST-8**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over sandy GRAVEL (GP); dark brown, moist, dense. No odor, no staining.

Silty CLAY (CL); medium brown, moist, medium plasticity. No odor, no staining.

Bottom of Boring at 10.0' BGS.

5

<5

10

15

AST-8 (3-4')

AST-8 (9.5-10')

<5

NS

<5

NS

<5

NS

5

10

15



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SHOP-3**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

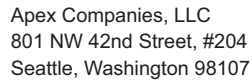
Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	
			<5	NS	Landscape gravel (5") over poorly graded GRAVEL (GP); medium to dark brown, dry. No odor, no staining.
			<5		
					Silty CLAY (CL); medium brown, moist, low plasticity. No odor, no staining.
5			5	NS	Sandy SILT (SM); medium brown, dry. No odor, no staining.
		SHOP-3 (5-6")			Silty CLAY (CL); medium brown, moist, high plasticity. No odor, no staining.
10			<5	NS	Bottom of Boring at 10.0' BGS.
		SHOP-3 (9.5-10')			
15					



Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SHOP-4**

Project Number: 32-22012832

Logged By: H. Hiscox

Date: January 3, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 5'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Landscape gravel (5") over sandy CLAY (CL); medium brown to tan, moist, medium plasticity. No odor, no staining.

Sandy SILT (SM); dark brown, moist, very stiff. Strong hydrocarbon-like odor. Heavy staining.

Silty CLAY (CL); medium brown, moist, medium plasticity.
No odor, no staining.

- Becomes wet.

Silty SAND (SM); brown, wet. Strong hydrocarbon-like odor. Heavy staining.

Silty CLAY (CL); medium brown, moist, medium plasticity.
No odor, no staining.

Bottom of Boring at 10.0' BGS.

Sample: SHOP-4-GW



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SHOP-4A**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 4, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 5'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over clayey GRAVEL (GC); medium brown with intermittent oxidation, dry, medium plasticity. No odor, no staining.

Silty SAND (SM); dark brown, dry, stiff. Strong hydrocarbon-like odor. Heavy staining.

Becomes wet.

Silty CLAY (CL); medium brown, saturated, medium plasticity. Organic sulfur-like odor. No staining.

Bottom of Boring at 10.0' BGS.

<5

<5

NS

<5

<5

NS

SHOP-4A (2.5-3')

SHOP-4A (9.5-10')

5

10

15





Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **SHOP-4B**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 6, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over sandy CLAY (CL); medium brown, dry, high plasticity. No odor, no staining.

5

<5

5

<5

10

<5

10

SHOP-4B (13-14')

<5

NS

Silty CLAY (CL); medium gray, moist, high plasticity.
No odor, no staining.

15

<5

<5

NS

15

Bottom of Boring at 20.0' BGS.

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107					Alterra Property Group, LLC 1871 Ross Avenue Everett, Washington		Boring Number: SHOP-5 Project Number: 32-22012832 Logged By: H. Hiscox Date: January 4, 2023 Site Conditions: Overcast/Rain Drilling Contractor: Cascade Drilling Drilling Equipment: Geoprobe 7720DT Sampler Type: Direct Push Depth to Water (ATD): 5' Surface Elevation: Not Measured Boring Details and Notes:	
Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description			
					Landscape gravel (5") over sandy GRAVEL (GP); dark brown with intermittent oxidation, loose. No odor, no staining.			
					Sandy CLAY (CL); medium brown to dark gray, moist, high plasticity. No odor, no staining.			
5			<5		Becomes wet.	5	▽	
					Silty CLAY (CL); medium brown, moist, high plasticity, with trace organic debris. Organic sulfur-like odor. No staining.			
10			<5			10		
					Bottom of Boring at 10.0' BGS.			
15						15		



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **ARS-1**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 6, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Landscape gravel (5") over poorly graded SAND (SP);
tan, moist, loose. No odor, no staining.

<5 NS

Peat (PT) with sandy SILT (SM); light gray, medium dense.
No odor, no staining.

<5 NS

<5 NS

Boring Refusal on Concrete at 7.0' BGS.

5

5

10

10

15

15



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **ARS-2**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 6, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 7'

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over poorly graded SAND (SP);
light brown, dry, loose. No odor, no staining.

Silty SAND (SM); medium gray, wet, medium dense.
No odor, no staining.

Silty CLAY (CL); medium gray, wet, medium plasticity.
No odor, no staining.

Clayey GRAVEL (GC); medium grey, wet. No odor, no staining.

Silty CLAY (CL); medium grey, wet, medium plasticity, with trace
organic material. No odor, no staining.



Sample: GW-ARS-2



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **ARS-3**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 6, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): Not Encountered

Surface Elevation: Not Measured

Boring Details and Notes:

Depth, feet

Core Interval/Recovery

Laboratory Sample ID

PID

Sheen

Lithologic Description

Landscape gravel (5") over poorly graded SAND FILL (SP);
light brown, dry, loose. No odor, no staining.

Silty CLAY (CL); medium gray, moist, medium plasticity.
No odor, no staining.

Silty CLAY (CL); medium brown, moist, medium plasticity, with
trace organic material. Slight organic odor. No staining.

Becomes dark gray.

Bottom of Boring at 20.0' BGS.



Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

Alterra Property Group, LLC
1871 Ross Avenue
Everett, Washington

Boring Number: **ARS-4**

Project Number: **32-22012832**

Logged By: H. Hiscox

Date: January 10, 2023

Site Conditions: Overcast/Rain

Drilling Contractor: Cascade Drilling

Drilling Equipment: Geoprobe 7720DT

Sampler Type: Direct Push

Depth to Water (ATD): 3'

Surface Elevation: Not Measured

Boring Details and Notes:

Lithologic Description

Depth, feet	Core Interval/Recovery	Laboratory Sample ID	PID	Sheen	Lithologic Description		
					Asphalt (3") over poorly graded SAND (SP); dark gray, wet, dense. No odor, no staining.		
		ARS-4 (1-3)					
					Sandy CLAY (CL); dark gray, wet, high plasticity. No odor, no staining.		▽
5		ARS-4 (3-7)		NS	Silty CLAY (CL); medium gray, wet, high plasticity. No odor, no staining.	5	
		ARS-4 (7-10)					
10		ARS-4 (10-15)			Silty CLAY (CL); medium brown, wet, high plasticity, with trace organic debris. Slight organic odor. No staining.	10	
		ARS-4 (15-17)					
15		ARS-4 (17-20)			Sandy GRAVEL (GM); medium gray, dense. No odor, no staining.	15	
					Silty CLAY (CL); medium gray, wet, high plasticity. No odor, no staining.		

Bottom of Boring at 20.0' BGS.

Appendix C

Laboratory Data Reports and Quality Assurance Review

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

1.0 Introduction

This appendix documents the results of a quality assurance (QA) review of the analytical data for soil and groundwater samples, that were collected during the 2023 Remedial Investigation activities performed at Dagmars Marina in Everett, Washington.

Report	Report Date	Sampling Event
Rpt_2301086	January 19, 2023	Subsurface Investigation (Soil & GW)
Rpt_2301108	January 19, 2023	Subsurface Investigation (Soil & GW)
Rpt_2301194	January 23, 2023	Subsurface Investigation (Soil & GW)
Rpt_2301517	January 31, 2023	Subsurface Investigation (Soil)

The data reviewed herein are representative of soil and groundwater samples collected from the Dagmars Marina property. The samples were analyzed by Fremont Analytical of Seattle Washington. This QA results summary did not include a review of the calibration or raw data.

2.0 Data Validation

The QA review outlines the applicable quality control criteria utilized during the data review process, as well as any deviations from those criteria. Examination and validation of the laboratory summary reports include:

- Analytical preparation and quantitation methods;
- Analytical method holding times;
- Sample handling;
- Chain of custody handling;
- Detection and reporting limits;
- Method blank detections;
- Laboratory control samples, matrix spikes, and surrogates to assess laboratory accuracy; and
- Laboratory control sample duplicates, matrix spike duplicates, and field duplicates to assess laboratory precision.

2.1 Data Qualifiers

Any data that is found to have possible bias or error were qualified and flagged. The flags used in the data table are below.

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

J	Result is an estimated value.
J+	Result is an estimated value and may be biased high.

3.0 Analytical Methods

Chemical analyses of water samples consisted of the following:

- Gasoline Range Organics (GRO) using Northwest Method TPH- Gx,
- Diesel Range Organics (DRO) and Residual Range Organics (RRO) using Northwest Method TPH-Dx,
- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method 8260D,
- Total Metals (Arsenic, Barium, Cadmium, Lead, Mercury, Selenium, Silver, Copper, Nickel, and Zinc) using EPA 6020B and 7471B
- Polycyclic Aromatic Hydrocarbons (PAHs) using EPA Method 8270C
- Polychlorinated Biphenyls (PCBs) using EPA Method 8082A

Chemical analyses of soil samples consisted of the following:

- Gasoline range organics (GRO) using Northwest Method TPH-Gx,
- Diesel range organics (DRO) and residual oil range organics (RRO) using Northwest Method TPH-Dx,
- VOCs using Environmental Protection Agency (EPA) method 8260, with EPA 5035 preservation'
- Metals (arsenic, barium, cadmium, lead, mercury, selenium, silver, copper, nickel, and zinc) using EPA 6020B and 7471B,
- Polycyclic Aromatic Hydrocarbons (PAHs) by Method 8270C,
- Polychlorinated biphenyls (PCBs) by EPA Method 8082A, and
- Total Organic Carbon by EPA Method 9060.

4.0 Quality Assurance Objectives and Review

The general QA objectives for this project were to develop and implement procedures for obtaining, evaluating, and confirming the usability of data of a specified quality for monitoring. To collect such information, analytical data must have an appropriate degree of accuracy and reproducibility, samples

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

collected must be representative of actual field conditions, and samples must be collected and analyzed using unbroken chain-of-custody procedures.

Reporting limits and analytical results were compared to action levels for each parameter in the matrix of concern. Precision, accuracy, representativeness, completeness, and comparability parameters used to indicate data quality are defined as follows.

4.1 Holding Times and Sample Integrity

Holding times are the length of time a sample can be stored after collection and prior to analysis or extraction without significantly affecting the analytical results. Holding times vary by analyte, sample matrix, and analytical methodology. The groundwater and vapor samples included in this QA/QC review were analyzed within the method recommended holding time.

Groundwater samples were shipped on wet ice below 6 degrees Celsius (°C) and were received without headspace in VOA sampling containers with appropriate preservative (pH<2 with hydrochloric acid [HCl]). Sampling containers generally arrived intact and unbroken to the laboratory.

Soil samples were shipped on wet ice below 6 degrees Celsius (°C) and were received in 4 ounce, unpreserved glass jars, or VOA sampling containers with appropriate preservative (pH < 8.3 with methanol [CH₃OH]) Sampling containers generally arrived intact and unbroken to the laboratory

Chain of custody (COC) documents were appropriately relinquished by the Apex Companies sampler and received by the laboratory. COCs were filled out with the correct sample ID, sampling date, sampling time, and analyses requested. There were no discrepancies found between container labels and the chain of custodies received.

4.2 Reporting Limits

Reporting limits are the lowest concentration an instrument is capable of accurately quantifying an analyte. They are determined by the laboratory and are based on instrumentation capabilities, the matrix of field samples, sample preparation procedures and suggested reporting limits by the EPA. In some cases, reporting limits for soil and groundwater exceeded the MTCA cleanup levels. To account for this difference, the laboratory reported results to the lowest method detection limits, which were below the MTCA cleanup levels. Method detection limits (MDL) are the lowest concentrations that the instrument can positively identify an analyte; however, concentrations reported between the MDL and reporting limit are estimated and are 'J' flagged as such.

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

For the Remedial Investigation, analysis of AST-6 (2.5-3), and AST-6 (10-11), dilutions were performed resulting in elevated reporting limits above the MTCA Method B Cleanup levels for air for Ethylbenzene. Lower reporting limits could not be obtained due to high levels of non-target analytes present in the sample.

4.3 Method Blanks

A method – or laboratory – blank is a quality control sample prepared by the laboratory from an analyte-free matrix and analyzed in an analytical batch along with environmental and other QC samples. It is used to assess laboratory contamination or background interferences.

No analytes were detected in the method blanks for analytical batch 2301086, 2301194, 2301517, and 2301108.

4.4 Accuracy

Accuracy compares the accepted reference concentration of an analyte to the concentration determined analytically. Accuracy is measured as a percent recovery. This recovery must be within a certain range – or control limit – for the data in an analytical batch to be considered acceptable. The analytical laboratory provides quality control samples and surrogates to help determine the accuracy and acceptability of the data reported. These quality control samples and surrogates are discussed below.

4.4.1 Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed by the laboratory to assess the accuracy of the analytical methods. One set of LCS and LCSDs were analyzed per analytical batch. The LCS and LCSDs are prepared from an analyte-free matrix that is spiked with known levels of compounds of concern. The concentrations are measured and compared to the known spiked levels; expressed as a percent recovery. Analyte recoveries were within control limits for LCS and LCSDs for analytical batch 2301086, 2301194, 2301517, and 2301108.

4.4.2 Surrogates

Surrogates are organic compounds that are similar in chemical composition to the analytes of interest but are not likely to be found in the environment. They are spiked at a known concentration into environmental and batch QC samples prior to sample preparation and analysis. Surrogate recoveries for environmental samples are used to evaluate matrix interference, sample preparation efficiency, and analysis performance on a sample-specific basis. Surrogate recoveries were within control limits with the following exceptions.

One of the surrogates used for polyaromatic hydrocarbons (Terphenyl-d14) was recovered below its lower control limit for groundwater sample GW-07-0123. Associated data may be biased low. (2301086).

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

One of the surrogates used for polyaromatic hydrocarbons (Terphenyl-d14) was recovered below its lower control limit for the matrix spike of groundwater sample GW-07-0123. Associated data may be biased low. (2301086).

The surrogates used for total petroleum hydrocarbons-diesel range organics (o-Terphenyl and 2-Fluorobiphenyl) were recovered below their lower control limits for soil sample SB-07 (12.5-13). A duplicate analysis was performed with similar results indicating a possible matrix effect. Associated data may be biased low. (2301086).

The surrogates used for total petroleum hydrocarbons-diesel range organics (o-Terphenyl and 2-Fluorobiphenyl) were recovered below their lower control limits for soil sample Shop-4 (9.5-10). A duplicate analysis was performed with similar results indicating a possible matrix effect. Associated data may be biased low. (2301086).

A surrogate used for total petroleum hydrocarbons-diesel range organics (o-Terphenyl) was recovered below its lower control limit for soil sample Shop 4B (13-14). Associated data may be biased low. (2301108).

The surrogates used for total petroleum hydrocarbons-diesel range organics (o-Terphenyl and 2-Fluorobiphenyl) were recovered below their lower control limits for soil sample Shop 4B (19-20). Associated data may be biased low. (2301108).

A surrogate used for total petroleum hydrocarbons-diesel range organics (2-Fluorobiphenyl) was recovered below its lower control limit for soil sample AST 4B(5.0-5.5). Associated data may be biased low. (2301108).

A surrogate used for total petroleum hydrocarbons-gasoline range organics (4-Bromofluorobenzene) was recovered below its lower control limit for soil sample Shop-4 (5-6). However, associated data may be biased high due to overlap with diesel range material. (2301086).

A surrogate used for total petroleum hydrocarbons-gasoline range organics (toluene-d8) was recovered below its lower control limit for soil sample Shop-4 (2.5-3). However, associated data may be biased high due to overlap with diesel range material. (2301086).

4.4.3 Matrix Samples

A matrix spike QC sample is used to assess the performance of the analytical method by determining potential matrix interferences. Matrix spike (MS) and matrix spike duplicate (MSD) analyses are performed on one environmental sample per analytical batch. A matrix spike sample uses an environmental sample that is spiked with known concentrations of analytes of interest. The matrix spike is then prepared and analyzed with the same analytical procedures as environmental samples in the analytical batch. The resulting concentration of the matrix spike is then compared to the known – or true – values added to the non-spiked

Appendix C – Laboratory Analytical Reports and Quality Assurance/Quality Control Results Summary

environmental sample concentration. This comparison is expressed as a percent recovery. Matrix spike recoveries were within control limits for analytical batch 2301086, 2301194, 2301517, and 2301108.

4.4.4 Continuing Calibration Verification

Calibration verification samples are analyzed at method-specified intervals to assess the performance and accuracy of the instrumentation.

4.5 Precision

Precision is measured by how close values of duplicate analyses are to each other. These duplicate analyses are prepared from separate aliquots of the same sample and are analyzed at the same (or similar) time. Precision in the field ensures that samples taken are representative of field concentrations; this is demonstrated by field duplicates. Analytical precision is the ability of the laboratory to reproduce results that are similar to each other; this is measured through the duplicate analysis of environmental and batch QC samples. Precision is estimated by the relative percent difference (RPD) between the original analysis and the duplicate analysis.

4.5.1 Laboratory Control Sample Duplicates

The analytical batch LCS concentration of an analyte is compared to the LCSD concentration of the same analyte. The RPD is calculated from these two concentrations; which must be below a certain percentage to be considered acceptable. RPDs were within control limits for analytical batch 2301086, 2301194, 2301517, and 2301108.

4.5.2 Matrix Spike Duplicate

Similar to the LCS/LCSD, the analytical batch MS/MSD analyte concentrations are also compared to each other and expressed as an RPD. Analytical batch MS/MSD RPDs were within control limits for analytical batch 2301086, 2301194, 2301517, and 2301108.

5.0 Conclusion

In conclusion, the QA objectives have been met and the data are of sufficient quality for use in this project.



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Companies, LLC
Anders Utter
3015 SW 1st Ave.
Portland, OR 97201

RE: Dagmars Marina RI
Work Order Number: 2301086

January 19, 2023

Attention Anders Utter:

Fremont Analytical, Inc. received 48 sample(s) on 1/5/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Mercury by EPA Method 245.1
Mercury by EPA Method 7471B
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
Polychlorinated Biphenyls (PCB) by EPA 8082
Sample Moisture (Percent Moisture)
Total Metals by EPA Method 200.8
Total Metals by EPA Method 6020B
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

www.fremontanalytical.com



Brianna Barnes
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI
Work Order: 2301086

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2301086-001	AST-4 (2.5-3)	01/03/2023 9:00 AM	01/05/2023 5:16 PM
2301086-002	AST-4 (14-15)	01/03/2023 9:20 AM	01/05/2023 5:16 PM
2301086-003	AST-4A (4-4.5)	01/03/2023 9:35 AM	01/05/2023 5:16 PM
2301086-004	AST-4A (9.5-10)	01/03/2023 9:40 AM	01/05/2023 5:16 PM
2301086-005	AST-5 (3-4)	01/03/2023 10:20 AM	01/05/2023 5:16 PM
2301086-006	AST-5 (9.5-10)	01/03/2023 10:25 AM	01/05/2023 5:16 PM
2301086-007	AST-6 (2.5-3)	01/03/2023 10:45 AM	01/05/2023 5:16 PM
2301086-008	AST-6 (10-11)	01/03/2023 10:50 AM	01/05/2023 5:16 PM
2301086-009	AST-6 (14.5-15)	01/03/2023 10:55 AM	01/05/2023 5:16 PM
2301086-010	AST-6A (2-2.5)	01/03/2023 11:20 AM	01/05/2023 5:16 PM
2301086-011	AST-6A (10-11)	01/03/2023 11:25 AM	01/05/2023 5:16 PM
2301086-012	AST-6A (14.5-15)	01/03/2023 11:30 AM	01/05/2023 5:16 PM
2301086-013	AST-6B (1.5-2)	01/03/2023 12:00 PM	01/05/2023 5:16 PM
2301086-014	AST-6B (9.5-10)	01/03/2023 12:05 PM	01/05/2023 5:16 PM
2301086-015	AST-7 (2-2.5)	01/03/2023 12:40 PM	01/05/2023 5:16 PM
2301086-016	AST-7 (9.5-10)	01/03/2023 12:48 PM	01/05/2023 5:16 PM
2301086-017	AST-8 (3-4)	01/03/2023 1:20 PM	01/05/2023 5:16 PM
2301086-018	AST-8 (9.5-10)	01/03/2023 1:28 PM	01/05/2023 5:16 PM
2301086-019	SHOP-3 (5-6)	01/03/2023 1:40 PM	01/05/2023 5:16 PM
2301086-020	SHOP-3 (9.5-10)	01/03/2023 1:45 PM	01/05/2023 5:16 PM
2301086-021	SHOP-4 (2.5-3)	01/03/2023 2:00 PM	01/05/2023 5:16 PM
2301086-022	SHOP-4 (5-6)	01/03/2023 2:10 PM	01/05/2023 5:16 PM
2301086-023	SHOP-4 (9.5-10)	01/03/2023 2:20 PM	01/05/2023 5:16 PM
2301086-024	SHOP-4 GW	01/03/2023 2:45 PM	01/05/2023 5:16 PM
2301086-025	SHOP-4A (2.5-3)	01/04/2023 8:45 AM	01/05/2023 5:16 PM
2301086-026	SHOP-4A (9.5-10)	01/04/2023 8:50 AM	01/05/2023 5:16 PM
2301086-027	SHOP 5 (3.5-4)	01/04/2023 9:10 AM	01/05/2023 5:16 PM
2301086-028	SHOP 5 (9.5-10)	01/04/2023 9:15 AM	01/05/2023 5:16 PM
2301086-029	SB-09 (13-13.5)	01/04/2023 2:45 PM	01/05/2023 5:16 PM
2301086-030	SB-09 (24.5-25)	01/04/2023 3:05 PM	01/05/2023 5:16 PM
2301086-031	SB-08 (13.5-14)	01/04/2023 1:50 PM	01/05/2023 5:16 PM
2301086-032	SB-08 (24.5-25)	01/04/2023 2:10 PM	01/05/2023 5:16 PM
2301086-033	SB-06 (6-7)	01/04/2023 11:00 AM	01/05/2023 5:16 PM
2301086-034	SB-06 (14.5-15)	01/04/2023 11:10 AM	01/05/2023 5:16 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI
Work Order: 2301086

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2301086-035	SB-07 (12.5-13)	01/04/2023 12:45 PM	01/05/2023 5:16 PM
2301086-036	SB-07 (24.5-25)	01/04/2023 1:20 PM	01/05/2023 5:16 PM
2301086-037	SB-05 (5.5-6)	01/04/2023 10:40 AM	01/05/2023 5:16 PM
2301086-038	SB-05 (14.5-15)	01/04/2023 10:50 AM	01/05/2023 5:16 PM
2301086-039	GW-07-0123	01/04/2023 2:00 PM	01/05/2023 5:16 PM
2301086-040	SB-08A (13-13.5)	01/05/2023 11:10 AM	01/05/2023 5:16 PM
2301086-041	SB-08A (14.5-15)	01/05/2023 11:20 AM	01/05/2023 5:16 PM
2301086-042	SB-11 (5-5.5)	01/05/2023 10:09 AM	01/05/2023 5:16 PM
2301086-043	SB-11 (14-14.5)	01/05/2023 10:05 AM	01/05/2023 5:16 PM
2301086-044	SB-12 (6.5-7)	01/05/2023 10:25 AM	01/05/2023 5:16 PM
2301086-045	SB-12 (14-14.5)	01/05/2023 10:30 AM	01/05/2023 5:16 PM
2301086-046	SB-10 (12.5-13)	01/05/2023 9:10 AM	01/05/2023 5:16 PM
2301086-047	SB-10 (14.5-15)	01/05/2023 9:15 AM	01/05/2023 5:16 PM
2301086-048	SHOP-4 (2.5-3)	01/05/2023 2:00 PM	01/05/2023 5:16 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Companies, LLC**Project:** Dagmars Marina RI

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 9:00:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-001

Matrix: Soil

Client Sample ID: AST-4 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	60.3		mg/Kg-dry	1	1/12/2023 12:25:43 PM
Heavy Oil	178	121		mg/Kg-dry	1	1/12/2023 12:25:43 PM
Total Petroleum Hydrocarbons	201	181		mg/Kg-dry	1	1/12/2023 12:25:43 PM
Surr: 2-Fluorobiphenyl	74.4	50 - 150		%Rec	1	1/12/2023 12:25:43 PM
Surr: o-Terphenyl	74.9	50 - 150		%Rec	1	1/12/2023 12:25:43 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	6.07		mg/Kg-dry	1	1/12/2023 12:51:30 AM
Surr: Toluene-d8	101	65 - 135		%Rec	1	1/12/2023 12:51:30 AM
Surr: 4-Bromofluorobenzene	96.2	65 - 135		%Rec	1	1/12/2023 12:51:30 AM

Sample Moisture (Percent Moisture)

Batch ID: R81038

Analyst: ALB

Percent Moisture	22.1	0.500		wt%	1	1/11/2023 9:26:36 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 9:20:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-002

Matrix: Soil

Client Sample ID: AST-4 (14-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	63.6		mg/Kg-dry	1	1/12/2023 12:47:38 PM
Heavy Oil	ND	127		mg/Kg-dry	1	1/12/2023 12:47:38 PM
Total Petroleum Hydrocarbons	ND	191		mg/Kg-dry	1	1/12/2023 12:47:38 PM
Surr: 2-Fluorobiphenyl	93.3	50 - 150		%Rec	1	1/12/2023 12:47:38 PM
Surr: o-Terphenyl	94.5	50 - 150		%Rec	1	1/12/2023 12:47:38 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	38.1	5.86		mg/Kg-dry	1	1/12/2023 1:53:39 AM
Surr: Toluene-d8	100	65 - 135		%Rec	1	1/12/2023 1:53:39 AM
Surr: 4-Bromofluorobenzene	97.6	65 - 135		%Rec	1	1/12/2023 1:53:39 AM

Sample Moisture (Percent Moisture)

Batch ID: R81038

Analyst: ALB

Percent Moisture	33.6	0.500		wt%	1	1/11/2023 9:26:36 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 9:35:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-003

Matrix: Soil

Client Sample ID: AST-4A (4-4.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	56.9		mg/Kg-dry	1	1/12/2023 1:09:43 PM
Heavy Oil	469	114		mg/Kg-dry	1	1/12/2023 1:09:43 PM
Total Petroleum Hydrocarbons	469	171		mg/Kg-dry	1	1/12/2023 1:09:43 PM
Surr: 2-Fluorobiphenyl	94.6	50 - 150		%Rec	1	1/12/2023 1:09:43 PM
Surr: o-Terphenyl	95.7	50 - 150		%Rec	1	1/12/2023 1:09:43 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	28.6	5.64		mg/Kg-dry	1	1/12/2023 2:55:48 AM
Surr: Toluene-d8	99.9	65 - 135		%Rec	1	1/12/2023 2:55:48 AM
Surr: 4-Bromofluorobenzene	95.8	65 - 135		%Rec	1	1/12/2023 2:55:48 AM

Sample Moisture (Percent Moisture)

Batch ID: R81038

Analyst: ALB

Percent Moisture	20.9	0.500		wt%	1	1/11/2023 9:26:36 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 9:40:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-004

Matrix: Soil

Client Sample ID: AST-4A (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	77.6		mg/Kg-dry	1	1/12/2023 1:31:50 PM
Heavy Oil	160	155		mg/Kg-dry	1	1/12/2023 1:31:50 PM
Total Petroleum Hydrocarbons	ND	233		mg/Kg-dry	1	1/12/2023 1:31:50 PM
Surr: 2-Fluorobiphenyl	94.1	50 - 150		%Rec	1	1/12/2023 1:31:50 PM
Surr: o-Terphenyl	95.4	50 - 150		%Rec	1	1/12/2023 1:31:50 PM

NOTES:

Chromatographic pattern is not consistent with a petroleum standard

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	7.12		mg/Kg-dry	1	1/12/2023 3:27:00 AM
Surr: Toluene-d8	99.2	65 - 135		%Rec	1	1/12/2023 3:27:00 AM
Surr: 4-Bromofluorobenzene	95.8	65 - 135		%Rec	1	1/12/2023 3:27:00 AM

Sample Moisture (Percent Moisture)

Batch ID: R81038

Analyst: ALB

Percent Moisture	37.6	0.500		wt%	1	1/11/2023 9:26:36 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:20:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-005

Matrix: Soil

Client Sample ID: AST-5 (3-4)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	52.4		mg/Kg-dry	1	1/12/2023 1:42:53 PM
Heavy Oil	134	105		mg/Kg-dry	1	1/12/2023 1:42:53 PM
Total Petroleum Hydrocarbons	ND	157		mg/Kg-dry	1	1/12/2023 1:42:53 PM
Surr: 2-Fluorobiphenyl	85.9	50 - 150		%Rec	1	1/12/2023 1:42:53 PM
Surr: o-Terphenyl	87.0	50 - 150		%Rec	1	1/12/2023 1:42:53 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	5.16		mg/Kg-dry	1	1/12/2023 3:58:07 AM
Surr: Toluene-d8	98.8	65 - 135		%Rec	1	1/12/2023 3:58:07 AM
Surr: 4-Bromofluorobenzene	96.2	65 - 135		%Rec	1	1/12/2023 3:58:07 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	16.3	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:25:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-006

Matrix: Soil

Client Sample ID: AST-5 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	79.4		mg/Kg-dry	1	1/12/2023 2:04:57 PM
Heavy Oil	167	159		mg/Kg-dry	1	1/12/2023 2:04:57 PM
Total Petroleum Hydrocarbons	ND	238		mg/Kg-dry	1	1/12/2023 2:04:57 PM
Surr: 2-Fluorobiphenyl	88.9	50 - 150		%Rec	1	1/12/2023 2:04:57 PM
Surr: o-Terphenyl	90.3	50 - 150		%Rec	1	1/12/2023 2:04:57 PM

NOTES:

Chromatographic pattern is not consistent with a petroleum standard

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	7.53		mg/Kg-dry	1	1/12/2023 4:29:13 AM
Surr: Toluene-d8	99.3	65 - 135		%Rec	1	1/12/2023 4:29:13 AM
Surr: 4-Bromofluorobenzene	95.6	65 - 135		%Rec	1	1/12/2023 4:29:13 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	41.1	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:45:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-007

Matrix: Soil

Client Sample ID: AST-6 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	53.5		mg/Kg-dry	1	1/12/2023 2:15:51 PM
Heavy Oil	ND	107		mg/Kg-dry	1	1/12/2023 2:15:51 PM
Total Petroleum Hydrocarbons	ND	160		mg/Kg-dry	1	1/12/2023 2:15:51 PM
Surr: 2-Fluorobiphenyl	78.7	50 - 150		%Rec	1	1/12/2023 2:15:51 PM
Surr: o-Terphenyl	79.3	50 - 150		%Rec	1	1/12/2023 2:15:51 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	414	47.4	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
Surr: Toluene-d8	98.1	65 - 135	D	%Rec	10	1/13/2023 5:24:53 AM
Surr: 4-Bromofluorobenzene	96.0	65 - 135	D	%Rec	10	1/13/2023 5:24:53 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081

Analyst: CC

Dichlorodifluoromethane (CFC-12)	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Chloromethane	ND	0.0474		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Vinyl chloride	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Bromomethane	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Trichlorofluoromethane (CFC-11)	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Chloroethane	ND	0.0711		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1-Dichloroethene	ND	0.0948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Acetone	ND	0.237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Methylene chloride	ND	0.0332		mg/Kg-dry	1	1/12/2023 5:00:18 AM
trans-1,2-Dichloroethene	ND	0.00948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Methyl tert-butyl ether (MTBE)	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1-Dichloroethane	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
cis-1,2-Dichloroethene	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
(MEK) 2-Butanone	ND	0.284		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Chloroform	ND	0.0166		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1,1-Trichloroethane (TCA)	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1-Dichloropropene	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Carbon tetrachloride	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2-Dichloroethane (EDC)	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Benzene	0.373	0.0166		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Trichloroethene (TCE)	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2-Dichloropropane	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Bromodichloromethane	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Dibromomethane	ND	0.0118		mg/Kg-dry	1	1/12/2023 5:00:18 AM
cis-1,3-Dichloropropene	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:45:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-007

Matrix: Soil

Client Sample ID: AST-6 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081

Analyst: CC

Toluene	6.13	0.284	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
Trans-1,3-Dichloropropylene	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0569		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1,2-Trichloroethane	ND	0.0118		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,3-Dichloropropane	ND	0.00948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Tetrachloroethene (PCE)	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Dibromochloromethane	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2-Dibromoethane (EDB)	ND	0.00948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
2-Hexanone (MBK)	ND	0.0592		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Chlorobenzene	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1,1,2-Tetrachloroethane	ND	0.0237		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Ethylbenzene	2.67	0.237	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
m,p-Xylene	16.5	0.474	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
o-Xylene	6.27	0.237	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
Styrene	ND	0.00948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Isopropylbenzene	0.462	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Bromoform	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,1,2,2-Tetrachloroethane	ND	0.190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
n-Propylbenzene	1.70	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Bromobenzene	ND	0.0118		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,3,5-Trimethylbenzene	4.26	0.142	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
2-Chlorotoluene	ND	0.0156		mg/Kg-dry	1	1/12/2023 5:00:18 AM
4-Chlorotoluene	0.392	0.0156		mg/Kg-dry	1	1/12/2023 5:00:18 AM
tert-Butylbenzene	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2,3-Trichloropropane	ND	0.0284		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2,4-Trichlorobenzene	ND	0.0569		mg/Kg-dry	1	1/12/2023 5:00:18 AM
sec-Butylbenzene	0.266	0.142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
4-Isopropyltoluene	ND	0.190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,3-Dichlorobenzene	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,4-Dichlorobenzene	ND	0.0142		mg/Kg-dry	1	1/12/2023 5:00:18 AM
n-Butylbenzene	1.51	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2-Dichlorobenzene	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2-Dibromo-3-chloropropane	ND	0.0284		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2,4-Trimethylbenzene	14.6	0.142	D	mg/Kg-dry	10	1/13/2023 5:24:53 AM
Hexachloro-1,3-butadiene	ND	0.0379		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Naphthalene	1.61	0.0948		mg/Kg-dry	1	1/12/2023 5:00:18 AM
1,2,3-Trichlorobenzene	ND	0.0569		mg/Kg-dry	1	1/12/2023 5:00:18 AM
Surr: Dibromofluoromethane	97.0	80 - 120		%Rec	1	1/12/2023 5:00:18 AM
Surr: Toluene-d8	96.7	80 - 120		%Rec	1	1/12/2023 5:00:18 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:45:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-007

Matrix: Soil

Client Sample ID: AST-6 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081 Analyst: CC

Surr: 1-Bromo-4-fluorobenzene	101	80 - 120	%Rec	1	1/12/2023 5:00:18 AM
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Sample Moisture (Percent Moisture)

Batch ID: R81045 Analyst: co

Percent Moisture	12.3	0.500	wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-008

Matrix: Soil

Client Sample ID: AST-6 (10-11)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	46.7		mg/Kg-dry	1	1/12/2023 2:37:45 PM
Heavy Oil	ND	93.4		mg/Kg-dry	1	1/12/2023 2:37:45 PM
Total Petroleum Hydrocarbons	ND	140		mg/Kg-dry	1	1/12/2023 2:37:45 PM
Surr: 2-Fluorobiphenyl	88.8	50 - 150		%Rec	1	1/12/2023 2:37:45 PM
Surr: o-Terphenyl	89.9	50 - 150		%Rec	1	1/12/2023 2:37:45 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39097

Analyst: CB

Naphthalene	682	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
2-Methylnaphthalene	790	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
1-Methylnaphthalene	418	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Acenaphthylene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Acenaphthene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Fluorene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Phenanthrene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Anthracene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Fluoranthene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Pyrene	ND	41.0		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Benz(a)anthracene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Chrysene	ND	20.5		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Benzo(b)fluoranthene	ND	25.6		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Benzo(k)fluoranthene	ND	25.6		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Benzo(a)pyrene	ND	30.8		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Indeno(1,2,3-cd)pyrene	ND	41.0		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Dibenz(a,h)anthracene	ND	51.3		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Benzo(g,h,i)perylene	ND	51.3		µg/Kg-dry	1	1/12/2023 10:39:02 PM
Surr: 2-Fluorobiphenyl	69.9	34.4 - 132		%Rec	1	1/12/2023 10:39:02 PM
Surr: Terphenyl-d14 (surr)	66.6	32.8 - 147		%Rec	1	1/12/2023 10:39:02 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	713	75.9	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
Surr: Toluene-d8	99.4	65 - 135	D	%Rec	20	1/13/2023 5:55:54 AM
Surr: 4-Bromofluorobenzene	96.2	65 - 135	D	%Rec	20	1/13/2023 5:55:54 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081

Analyst: CC

Dichlorodifluoromethane (CFC-12)	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Chloromethane	ND	0.0380		mg/Kg-dry	1	1/12/2023 5:31:20 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-008

Matrix: Soil

Client Sample ID: AST-6 (10-11)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081

Analyst: CC

Vinyl chloride	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Bromomethane	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Trichlorofluoromethane (CFC-11)	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Chloroethane	ND	0.0569		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1-Dichloroethene	ND	0.0759		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Acetone	ND	0.190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Methylene chloride	ND	0.0266		mg/Kg-dry	1	1/12/2023 5:31:20 AM
trans-1,2-Dichloroethene	ND	0.00759		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Methyl tert-butyl ether (MTBE)	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1-Dichloroethane	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
cis-1,2-Dichloroethene	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
(MEK) 2-Butanone	ND	0.228		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Chloroform	ND	0.0133		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1,1-Trichloroethane (TCA)	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1-Dichloropropene	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Carbon tetrachloride	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2-Dichloroethane (EDC)	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Benzene	1.59	0.266	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
Trichloroethene (TCE)	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2-Dichloropropane	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Bromodichloromethane	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Dibromomethane	ND	0.00949		mg/Kg-dry	1	1/12/2023 5:31:20 AM
cis-1,3-Dichloropropene	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Toluene	45.0	1.14	D	mg/Kg-dry	50	1/13/2023 6:27:00 AM
Trans-1,3-Dichloropropylene	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0456		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1,2-Trichloroethane	ND	0.00949		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,3-Dichloropropane	ND	0.00759		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Tetrachloroethene (PCE)	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Dibromochloromethane	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2-Dibromoethane (EDB)	ND	0.00759		mg/Kg-dry	1	1/12/2023 5:31:20 AM
2-Hexanone (MBK)	ND	0.0475		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Chlorobenzene	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1,1,2-Tetrachloroethane	ND	0.0190		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Ethylbenzene	10.9	0.380	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
m,p-Xylene	48.4	0.759	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
o-Xylene	18.6	0.380	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
Styrene	ND	0.00759		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Isopropylbenzene	0.979	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-008

Matrix: Soil

Client Sample ID: AST-6 (10-11)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39081

Analyst: CC

Bromoform	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,1,2,2-Tetrachloroethane	ND	0.152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
n-Propylbenzene	3.52	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Bromobenzene	ND	0.00949		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,3,5-Trimethylbenzene	6.28	0.228	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
2-Chlorotoluene	ND	0.0125		mg/Kg-dry	1	1/12/2023 5:31:20 AM
4-Chlorotoluene	0.631	0.0125		mg/Kg-dry	1	1/12/2023 5:31:20 AM
tert-Butylbenzene	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2,3-Trichloropropane	ND	0.0228		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2,4-Trichlorobenzene	ND	0.0456		mg/Kg-dry	1	1/12/2023 5:31:20 AM
sec-Butylbenzene	0.339	0.114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
4-Isopropyltoluene	0.207	0.152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,3-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,4-Dichlorobenzene	ND	0.0114		mg/Kg-dry	1	1/12/2023 5:31:20 AM
n-Butylbenzene	1.62	0.304	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
1,2-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2-Dibromo-3-chloropropane	ND	0.0228		mg/Kg-dry	1	1/12/2023 5:31:20 AM
1,2,4-Trimethylbenzene	22.3	0.228	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
Hexachloro-1,3-butadiene	ND	0.0304		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Naphthalene	2.63	1.52	D	mg/Kg-dry	20	1/13/2023 5:55:54 AM
1,2,3-Trichlorobenzene	ND	0.0456		mg/Kg-dry	1	1/12/2023 5:31:20 AM
Surr: Dibromofluoromethane	96.9	80 - 120		%Rec	1	1/12/2023 5:31:20 AM
Surr: Toluene-d8	93.5	80 - 120		%Rec	1	1/12/2023 5:31:20 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	1/12/2023 5:31:20 AM

Mercury by EPA Method 7471B

Batch ID: 39052

Analyst: SS

Mercury	ND	0.200		mg/Kg-dry	1	1/9/2023 5:34:33 PM
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Arsenic	21.5	0.216		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Barium	32.7	0.432		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Cadmium	0.521	0.0173		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Chromium	8.88	0.216		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Copper	24.0	0.648		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Lead	21.8	0.864		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Nickel	8.18	0.216		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Selenium	ND	0.864		mg/Kg-dry	1	1/12/2023 11:15:00 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-008

Matrix: Soil

Client Sample ID: AST-6 (10-11)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Silver	0.107	0.0173		mg/Kg-dry	1	1/12/2023 11:15:00 AM
Zinc	107	3.03		mg/Kg-dry	1	1/12/2023 11:15:00 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	7.44	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 10:55:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-009

Matrix: Soil

Client Sample ID: AST-6 (14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	62.7		mg/Kg-dry	1	1/12/2023 3:32:45 PM
Heavy Oil	ND	125		mg/Kg-dry	1	1/12/2023 3:32:45 PM
Total Petroleum Hydrocarbons	ND	188		mg/Kg-dry	1	1/12/2023 3:32:45 PM
Surr: 2-Fluorobiphenyl	78.7	50 - 150		%Rec	1	1/12/2023 3:32:45 PM
Surr: o-Terphenyl	80.3	50 - 150		%Rec	1	1/12/2023 3:32:45 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	7.31		mg/Kg-dry	1	1/13/2023 4:53:40 AM
Surr: Toluene-d8	97.7	65 - 135		%Rec	1	1/13/2023 4:53:40 AM
Surr: 4-Bromofluorobenzene	93.4	65 - 135		%Rec	1	1/13/2023 4:53:40 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	32.3	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 11:25:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-011

Matrix: Soil

Client Sample ID: AST-6A (10-11)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	68.6		mg/Kg-dry	1	1/12/2023 3:54:44 PM
Heavy Oil	175	137		mg/Kg-dry	1	1/12/2023 3:54:44 PM
Total Petroleum Hydrocarbons	208	206		mg/Kg-dry	1	1/12/2023 3:54:44 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	1/12/2023 3:54:44 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	1/12/2023 3:54:44 PM

NOTES:

Chromatographic pattern is not consistent with a petroleum standard

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	9.73	9.50		mg/Kg-dry	1	1/12/2023 6:33:35 AM
Surr: Toluene-d8	97.5	65 - 135		%Rec	1	1/12/2023 6:33:35 AM
Surr: 4-Bromofluorobenzene	97.5	65 - 135		%Rec	1	1/12/2023 6:33:35 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	32.5	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 11:30:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-012

Matrix: Soil

Client Sample ID: AST-6A (14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	72.4		mg/Kg-dry	1	1/12/2023 4:07:47 PM
Heavy Oil	ND	145		mg/Kg-dry	1	1/12/2023 4:07:47 PM
Total Petroleum Hydrocarbons	ND	217		mg/Kg-dry	1	1/12/2023 4:07:47 PM
Surr: 2-Fluorobiphenyl	85.2	50 - 150		%Rec	1	1/12/2023 4:07:47 PM
Surr: o-Terphenyl	87.0	50 - 150		%Rec	1	1/12/2023 4:07:47 PM

Gasoline by NWTPH-Gx

Batch ID: 39081

Analyst: CC

Gasoline Range Organics	ND	7.66		mg/Kg-dry	1	1/12/2023 7:04:46 AM
Surr: Toluene-d8	98.2	65 - 135		%Rec	1	1/12/2023 7:04:46 AM
Surr: 4-Bromofluorobenzene	97.8	65 - 135		%Rec	1	1/12/2023 7:04:46 AM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	35.3	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 12:05:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-014

Matrix: Soil

Client Sample ID: AST-6B (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	94.3		mg/Kg-dry	1	1/12/2023 4:29:57 PM
Heavy Oil	491	189		mg/Kg-dry	1	1/12/2023 4:29:57 PM
Total Petroleum Hydrocarbons	491	283		mg/Kg-dry	1	1/12/2023 4:29:57 PM
Surr: 2-Fluorobiphenyl	119	50 - 150		%Rec	1	1/12/2023 4:29:57 PM
Surr: o-Terphenyl	122	50 - 150		%Rec	1	1/12/2023 4:29:57 PM

NOTES:

Chromatographic pattern is not consistent with a petroleum standard

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	13.2		mg/Kg-dry	1	1/11/2023 5:04:05 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	1/11/2023 5:04:05 PM
Surr: 4-Bromofluorobenzene	96.1	65 - 135		%Rec	1	1/11/2023 5:04:05 PM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	50.8	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 12:48:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-016

Matrix: Soil

Client Sample ID: AST-7 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	78.6		mg/Kg-dry	1	1/12/2023 4:40:52 PM
Heavy Oil	ND	157		mg/Kg-dry	1	1/12/2023 4:40:52 PM
Total Petroleum Hydrocarbons	ND	236		mg/Kg-dry	1	1/12/2023 4:40:52 PM
Surr: 2-Fluorobiphenyl	83.4	50 - 150		%Rec	1	1/12/2023 4:40:52 PM
Surr: o-Terphenyl	85.2	50 - 150		%Rec	1	1/12/2023 4:40:52 PM

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	8.53		mg/Kg-dry	1	1/11/2023 5:35:16 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	1/11/2023 5:35:16 PM
Surr: 4-Bromofluorobenzene	95.5	65 - 135		%Rec	1	1/11/2023 5:35:16 PM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	37.6	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 1:28:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-018

Matrix: Soil

Client Sample ID: AST-8 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39080

Analyst: KJ

Diesel Range Organics	ND	87.1		mg/Kg-dry	1	1/12/2023 4:51:47 PM
Heavy Oil	ND	174		mg/Kg-dry	1	1/12/2023 4:51:47 PM
Total Petroleum Hydrocarbons	ND	261		mg/Kg-dry	1	1/12/2023 4:51:47 PM
Surr: 2-Fluorobiphenyl	81.4	50 - 150		%Rec	1	1/12/2023 4:51:47 PM
Surr: o-Terphenyl	83.8	50 - 150		%Rec	1	1/12/2023 4:51:47 PM

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	11.9		mg/Kg-dry	1	1/11/2023 6:06:29 PM
Surr: Toluene-d8	100	65 - 135		%Rec	1	1/11/2023 6:06:29 PM
Surr: 4-Bromofluorobenzene	95.9	65 - 135		%Rec	1	1/11/2023 6:06:29 PM

Sample Moisture (Percent Moisture)

Batch ID: R81045

Analyst: co

Percent Moisture	46.7	0.500		wt%	1	1/11/2023 11:38:39 AM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 1:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-020

Matrix: Soil

Client Sample ID: SHOP-3 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	74.1		mg/Kg-dry	1	1/13/2023 10:48:11 AM
Heavy Oil	203	148		mg/Kg-dry	1	1/13/2023 10:48:11 AM
Total Petroleum Hydrocarbons	ND	222		mg/Kg-dry	1	1/13/2023 10:48:11 AM
Surr: 2-Fluorobiphenyl	79.0	50 - 150		%Rec	1	1/13/2023 10:48:11 AM
Surr: o-Terphenyl	65.8	50 - 150		%Rec	1	1/13/2023 10:48:11 AM

NOTES:

Chromatographic pattern is not consistent with a petroleum standard

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	9.56		mg/Kg-dry	1	1/11/2023 6:37:35 PM
Surr: Toluene-d8	99.9	65 - 135		%Rec	1	1/11/2023 6:37:35 PM
Surr: 4-Bromofluorobenzene	95.6	65 - 135		%Rec	1	1/11/2023 6:37:35 PM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	32.8	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:10:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-022

Matrix: Soil

Client Sample ID: SHOP-4 (5-6)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Polychlorinated Biphenyls (PCB) by EPA 8082

Batch ID: 39077

Analyst: SK

Aroclor 1016	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1221	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1232	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1242	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1248	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1254	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1260	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1262	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Aroclor 1268	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Total PCBs	ND	0.0224		mg/Kg-dry	1	1/13/2023 10:48:46 AM
Surr: Decachlorobiphenyl	133	5 - 173		%Rec	1	1/13/2023 10:48:46 AM
Surr: Tetrachloro-m-xylene	96.7	42.6 - 136		%Rec	1	1/13/2023 10:48:46 AM

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	61.9		mg/Kg-dry	1	1/13/2023 11:10:24 AM
Heavy Oil	712	124		mg/Kg-dry	1	1/13/2023 11:10:24 AM
Total Petroleum Hydrocarbons	757	186		mg/Kg-dry	1	1/13/2023 11:10:24 AM
Surr: 2-Fluorobiphenyl	88.6	50 - 150		%Rec	1	1/13/2023 11:10:24 AM
Surr: o-Terphenyl	90.3	50 - 150		%Rec	1	1/13/2023 11:10:24 AM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39097

Analyst: CB

Naphthalene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
2-Methylnaphthalene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
1-Methylnaphthalene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Acenaphthylene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Acenaphthene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Fluorene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Phenanthrene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Anthracene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Fluoranthene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Pyrene	ND	48.7		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Benz(a)anthracene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Chrysene	ND	24.3		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Benzo(b)fluoranthene	ND	30.4		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Benzo(k)fluoranthene	ND	30.4		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Benzo(a)pyrene	ND	36.5		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Indeno(1,2,3-cd)pyrene	ND	48.7		µg/Kg-dry	1	1/12/2023 11:06:53 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:10:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-022

Matrix: Soil

Client Sample ID: SHOP-4 (5-6)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)</u>				Batch ID: 39097	Analyst: CB	
Dibenz(a,h)anthracene	ND	60.9		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Benzo(g,h,i)perylene	ND	60.9		µg/Kg-dry	1	1/12/2023 11:06:53 PM
Surr: 2-Fluorobiphenyl	66.9	34.4 - 132		%Rec	1	1/12/2023 11:06:53 PM
Surr: Terphenyl-d14 (surr)	67.6	32.8 - 147		%Rec	1	1/12/2023 11:06:53 PM

Gasoline by NWTPH-Gx

Batch ID: 39083 Analyst: CC

Gasoline Range Organics	176	65.2	D	mg/Kg-dry	10	1/19/2023 1:40:39 PM
Surr: Toluene-d8	98.5	65 - 135	D	%Rec	10	1/19/2023 1:40:39 PM
Surr: 4-Bromofluorobenzene	0.257	65 - 135	DS	%Rec	10	1/19/2023 1:40:39 PM

NOTES:

Detection is biased high by overlap with diesel-range material

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39083 Analyst: CC

Dichlorodifluoromethane (CFC-12)	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Chloromethane	ND	0.0652		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Vinyl chloride	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Bromomethane	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Trichlorofluoromethane (CFC-11)	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Chloroethane	ND	0.0978		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1-Dichloroethene	ND	0.130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Acetone	ND	0.326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Methylene chloride	ND	0.0457		mg/Kg-dry	1	1/11/2023 7:08:52 PM
trans-1,2-Dichloroethene	ND	0.0130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1-Dichloroethane	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
cis-1,2-Dichloroethene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
(MEK) 2-Butanone	ND	0.391		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Chloroform	ND	0.0228		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1,1-Trichloroethane (TCA)	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1-Dichloropropene	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Carbon tetrachloride	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2-Dichloroethane (EDC)	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Benzene	ND	0.0228		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Trichloroethene (TCE)	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2-Dichloropropane	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Bromodichloromethane	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Dibromomethane	ND	0.0163		mg/Kg-dry	1	1/11/2023 7:08:52 PM



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:10:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-022

Matrix: Soil

Client Sample ID: SHOP-4 (5-6)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39083

Analyst: CC

cis-1,3-Dichloropropene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Toluene	ND	0.0391		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Trans-1,3-Dichloropropylene	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0783		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1,2-Trichloroethane	ND	0.0163		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,3-Dichloropropane	ND	0.0130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Tetrachloroethene (PCE)	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Dibromochloromethane	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2-Dibromoethane (EDB)	ND	0.0130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
2-Hexanone (MBK)	ND	0.0815		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Chlorobenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1,1,2-Tetrachloroethane	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Ethylbenzene	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
m,p-Xylene	ND	0.0652		mg/Kg-dry	1	1/11/2023 7:08:52 PM
o-Xylene	ND	0.0326		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Styrene	ND	0.0130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Isopropylbenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Bromoform	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,1,2,2-Tetrachloroethane	0.407	0.261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
n-Propylbenzene	0.0211	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Bromobenzene	ND	0.0163		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,3,5-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
2-Chlorotoluene	ND	0.0215		mg/Kg-dry	1	1/11/2023 7:08:52 PM
4-Chlorotoluene	ND	0.0215		mg/Kg-dry	1	1/11/2023 7:08:52 PM
tert-Butylbenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2,3-Trichloropropane	ND	0.0391		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2,4-Trichlorobenzene	ND	0.0783		mg/Kg-dry	1	1/11/2023 7:08:52 PM
sec-Butylbenzene	ND	0.196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
4-Isopropyltoluene	ND	0.261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,3-Dichlorobenzene	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,4-Dichlorobenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
n-Butylbenzene	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2-Dichlorobenzene	ND	0.0261		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2-Dibromo-3-chloropropane	ND	0.0391		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2,4-Trimethylbenzene	ND	0.0196		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Hexachloro-1,3-butadiene	ND	0.0522		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Naphthalene	ND	0.130		mg/Kg-dry	1	1/11/2023 7:08:52 PM
1,2,3-Trichlorobenzene	ND	0.0783		mg/Kg-dry	1	1/11/2023 7:08:52 PM
Surr: Dibromofluoromethane	99.4	80 - 120		%Rec	1	1/11/2023 7:08:52 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:10:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-022

Matrix: Soil

Client Sample ID: SHOP-4 (5-6)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39083

Analyst: CC

Surr: Toluene-d8	99.0	80 - 120	%Rec	1	1/11/2023 7:08:52 PM
Surr: 1-Bromo-4-fluorobenzene	100	80 - 120	%Rec	1	1/11/2023 7:08:52 PM

Mercury by EPA Method 7471B

Batch ID: 39052

Analyst: SS

Mercury	ND	0.229	mg/Kg-dry	1	1/9/2023 5:36:15 PM
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Arsenic	5.39	0.244	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Barium	24.2	0.488	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Cadmium	0.163	0.0195	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Chromium	20.4	0.244	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Copper	23.5	0.732	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Lead	16.0	0.976	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Nickel	20.7	0.244	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Selenium	ND	0.976	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Silver	0.0229	0.0195	mg/Kg-dry	1	1/12/2023 11:22:00 AM
Zinc	41.8	3.42	mg/Kg-dry	1	1/12/2023 11:22:00 AM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	20.6	0.500	wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:20:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-023

Matrix: Soil

Client Sample ID: SHOP-4 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39129

Analyst: KJ

Diesel Range Organics	ND	80.0		mg/Kg-dry	1	1/17/2023 9:34:23 PM
Heavy Oil	ND	160		mg/Kg-dry	1	1/17/2023 9:34:23 PM
Total Petroleum Hydrocarbons	ND	240		mg/Kg-dry	1	1/17/2023 9:34:23 PM
Surr: 2-Fluorobiphenyl	48.4	50 - 150	S	%Rec	1	1/17/2023 9:34:23 PM
Surr: o-Terphenyl	38.3	50 - 150	S	%Rec	1	1/17/2023 9:34:23 PM

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	10.4		mg/Kg-dry	1	1/13/2023 4:22:29 AM
Surr: Toluene-d8	97.8	65 - 135		%Rec	1	1/13/2023 4:22:29 AM
Surr: 4-Bromofluorobenzene	95.7	65 - 135		%Rec	1	1/13/2023 4:22:29 AM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	38.4	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/3/2023 2:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-024

Matrix: Groundwater

Client Sample ID: SHOP-4 GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39092

Analyst: KJ

Diesel Range Organics	1,730	98.4		µg/L	1	1/12/2023 4:07:47 PM
Heavy Oil	ND	98.4		µg/L	1	1/12/2023 4:07:47 PM
Total Petroleum Hydrocarbons	1,730	197		µg/L	1	1/12/2023 4:07:47 PM
Surr: 2-Fluorobiphenyl	90.8	50 - 150		%Rec	1	1/12/2023 4:07:47 PM
Surr: o-Terphenyl	65.6	50 - 150		%Rec	1	1/12/2023 4:07:47 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 8:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-026

Matrix: Soil

Client Sample ID: SHOP-4A (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	63.3		mg/Kg-dry	1	1/13/2023 12:05:17 PM
Heavy Oil	ND	127		mg/Kg-dry	1	1/13/2023 12:05:17 PM
Total Petroleum Hydrocarbons	ND	190		mg/Kg-dry	1	1/13/2023 12:05:17 PM
Surr: 2-Fluorobiphenyl	82.1	50 - 150		%Rec	1	1/13/2023 12:05:17 PM
Surr: o-Terphenyl	83.8	50 - 150		%Rec	1	1/13/2023 12:05:17 PM

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	7.28		mg/Kg-dry	1	1/11/2023 8:11:16 PM
Surr: Toluene-d8	98.5	65 - 135		%Rec	1	1/11/2023 8:11:16 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	1/11/2023 8:11:16 PM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	21.1	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 9:15:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-028

Matrix: Soil

Client Sample ID: SHOP 5 (9.5-10)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	69.1		mg/Kg-dry	1	1/13/2023 12:16:22 PM
Heavy Oil	ND	138		mg/Kg-dry	1	1/13/2023 12:16:22 PM
Total Petroleum Hydrocarbons	ND	207		mg/Kg-dry	1	1/13/2023 12:16:22 PM
Surr: 2-Fluorobiphenyl	75.4	50 - 150		%Rec	1	1/13/2023 12:16:22 PM
Surr: o-Terphenyl	63.9	50 - 150		%Rec	1	1/13/2023 12:16:22 PM

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	8.62		mg/Kg-dry	1	1/11/2023 8:42:32 PM
Surr: Toluene-d8	99.6	65 - 135		%Rec	1	1/11/2023 8:42:32 PM
Surr: 4-Bromofluorobenzene	97.1	65 - 135		%Rec	1	1/11/2023 8:42:32 PM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	28.8	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 2:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-029

Matrix: Soil

Client Sample ID: SB-09 (13-13.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	69.2		mg/Kg-dry	1	1/17/2023 9:54:30 AM
Heavy Oil	ND	138		mg/Kg-dry	1	1/17/2023 9:54:30 AM
Total Petroleum Hydrocarbons	ND	207		mg/Kg-dry	1	1/17/2023 9:54:30 AM
Surr: 2-Fluorobiphenyl	52.4	50 - 150		%Rec	1	1/17/2023 9:54:30 AM
Surr: o-Terphenyl	55.7	50 - 150		%Rec	1	1/17/2023 9:54:30 AM

Gasoline by NWTPH-Gx

Batch ID: 39083

Analyst: CC

Gasoline Range Organics	ND	8.31		mg/Kg-dry	1	1/11/2023 9:13:55 PM
Surr: Toluene-d8	99.2	65 - 135		%Rec	1	1/11/2023 9:13:55 PM
Surr: 4-Bromofluorobenzene	94.9	65 - 135		%Rec	1	1/11/2023 9:13:55 PM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	28.2	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 3:05:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-030

Matrix: Soil

Client Sample ID: SB-09 (24.5-25)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	62.7		mg/Kg-dry	1	1/13/2023 12:38:20 PM
Heavy Oil	ND	125		mg/Kg-dry	1	1/13/2023 12:38:20 PM
Total Petroleum Hydrocarbons	ND	188		mg/Kg-dry	1	1/13/2023 12:38:20 PM
Surr: 2-Fluorobiphenyl	75.3	50 - 150		%Rec	1	1/13/2023 12:38:20 PM
Surr: o-Terphenyl	76.6	50 - 150		%Rec	1	1/13/2023 12:38:20 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	5.74		mg/Kg-dry	1	1/12/2023 11:45:09 AM
Surr: Toluene-d8	99.3	65 - 135		%Rec	1	1/12/2023 11:45:09 AM
Surr: 4-Bromofluorobenzene	96.8	65 - 135		%Rec	1	1/12/2023 11:45:09 AM

Sample Moisture (Percent Moisture)

Batch ID: R81053

Analyst: ME

Percent Moisture	21.3	0.500		wt%	1	1/11/2023 2:43:06 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 1:50:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-031

Matrix: Soil

Client Sample ID: SB-08 (13.5-14)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39099		Analyst: KJ
Diesel Range Organics	ND	89.6		mg/Kg-dry	1	1/13/2023 12:49:21 PM
Heavy Oil	ND	179		mg/Kg-dry	1	1/13/2023 12:49:21 PM
Total Petroleum Hydrocarbons	ND	269		mg/Kg-dry	1	1/13/2023 12:49:21 PM
Surr: 2-Fluorobiphenyl	64.8	50 - 150		%Rec	1	1/13/2023 12:49:21 PM
Surr: o-Terphenyl	62.0	50 - 150		%Rec	1	1/13/2023 12:49:21 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39097 Analyst: CB

Naphthalene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
2-Methylnaphthalene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
1-Methylnaphthalene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Acenaphthylene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Acenaphthene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Fluorene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Phenanthrene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Anthracene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Fluoranthene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Pyrene	ND	72.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Benz(a)anthracene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Chrysene	ND	36.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Benzo(b)fluoranthene	ND	45.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Benzo(k)fluoranthene	ND	45.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Benzo(a)pyrene	ND	54.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Indeno(1,2,3-cd)pyrene	ND	72.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Dibenz(a,h)anthracene	ND	90.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Benzo(g,h,i)perylene	ND	90.0		µg/Kg-dry	1	1/12/2023 11:34:52 PM
Surr: 2-Fluorobiphenyl	54.6	34.4 - 132		%Rec	1	1/12/2023 11:34:52 PM
Surr: Terphenyl-d14 (surr)	52.6	32.8 - 147		%Rec	1	1/12/2023 11:34:52 PM

Gasoline by NWTPH-Gx

Batch ID: 39085 Analyst: LAC

Gasoline Range Organics	ND	11.1		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Surr: Toluene-d8	98.5	65 - 135		%Rec	1	1/12/2023 12:47:34 PM
Surr: 4-Bromofluorobenzene	95.0	65 - 135		%Rec	1	1/12/2023 12:47:34 PM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085 Analyst: LAC

Dichlorodifluoromethane (CFC-12)	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Chloromethane	ND	0.111	Q	mg/Kg-dry	1	1/12/2023 12:47:34 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 1:50:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-031

Matrix: Soil

Client Sample ID: SB-08 (13.5-14)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Vinyl chloride	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Bromomethane	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Trichlorofluoromethane (CFC-11)	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Chloroethane	ND	0.167		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1-Dichloroethene	ND	0.223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Acetone	ND	0.557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Methylene chloride	ND	0.0779		mg/Kg-dry	1	1/12/2023 12:47:34 PM
trans-1,2-Dichloroethene	ND	0.0223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1-Dichloroethane	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
cis-1,2-Dichloroethene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
(MEK) 2-Butanone	ND	0.668		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Chloroform	ND	0.0390		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1,1-Trichloroethane (TCA)	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1-Dichloropropene	ND	0.0445	Q	mg/Kg-dry	1	1/12/2023 12:47:34 PM
Carbon tetrachloride	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2-Dichloroethane (EDC)	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Benzene	ND	0.0390		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Trichloroethene (TCE)	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2-Dichloropropane	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Bromodichloromethane	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Dibromomethane	ND	0.0278		mg/Kg-dry	1	1/12/2023 12:47:34 PM
cis-1,3-Dichloropropene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Toluene	ND	0.0668		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Trans-1,3-Dichloropropylene	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.134		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1,2-Trichloroethane	ND	0.0278		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,3-Dichloropropane	ND	0.0223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Tetrachloroethene (PCE)	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Dibromochloromethane	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2-Dibromoethane (EDB)	ND	0.0223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
2-Hexanone (MBK)	ND	0.139		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Chlorobenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1,1,2-Tetrachloroethane	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Ethylbenzene	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
m,p-Xylene	ND	0.111		mg/Kg-dry	1	1/12/2023 12:47:34 PM
o-Xylene	ND	0.0557		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Styrene	ND	0.0223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Isopropylbenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 1:50:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-031

Matrix: Soil

Client Sample ID: SB-08 (13.5-14)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Bromoform	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,1,2,2-Tetrachloroethane	ND	0.445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
n-Propylbenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Bromobenzene	ND	0.0278		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,3,5-Trimethylbenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
2-Chlorotoluene	ND	0.0367		mg/Kg-dry	1	1/12/2023 12:47:34 PM
4-Chlorotoluene	ND	0.0367		mg/Kg-dry	1	1/12/2023 12:47:34 PM
tert-Butylbenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2,3-Trichloropropane	ND	0.0668		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2,4-Trichlorobenzene	ND	0.134		mg/Kg-dry	1	1/12/2023 12:47:34 PM
sec-Butylbenzene	ND	0.334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
4-Isopropyltoluene	ND	0.445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,3-Dichlorobenzene	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,4-Dichlorobenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
n-Butylbenzene	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2-Dichlorobenzene	ND	0.0445		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2-Dibromo-3-chloropropane	ND	0.0668		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2,4-Trimethylbenzene	ND	0.0334		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Hexachloro-1,3-butadiene	ND	0.0890		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Naphthalene	ND	0.223		mg/Kg-dry	1	1/12/2023 12:47:34 PM
1,2,3-Trichlorobenzene	ND	0.134		mg/Kg-dry	1	1/12/2023 12:47:34 PM
Surr: Dibromofluoromethane	101	80 - 120		%Rec	1	1/12/2023 12:47:34 PM
Surr: Toluene-d8	96.7	80 - 120		%Rec	1	1/12/2023 12:47:34 PM
Surr: 1-Bromo-4-fluorobenzene	96.8	80 - 120		%Rec	1	1/12/2023 12:47:34 PM

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury by EPA Method 7471B

Batch ID: 39052

Analyst: SS

Mercury	ND	0.367		mg/Kg-dry	1	1/9/2023 5:37:56 PM
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Arsenic	14.3	0.350		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Barium	34.5	0.699		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Cadmium	0.114	0.0280		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Chromium	44.4	0.350		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Copper	29.7	1.05		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Lead	6.27	1.40		mg/Kg-dry	1	1/12/2023 11:24:00 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC
Project: Dagmars Marina RI
Lab ID: 2301086-031
Client Sample ID: SB-08 (13.5-14)

Collection Date: 1/4/2023 1:50:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Nickel	43.2	0.350		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Selenium	ND	1.40		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Silver	0.0699	0.0280		mg/Kg-dry	1	1/12/2023 11:24:00 AM
Zinc	57.7	4.89		mg/Kg-dry	1	1/12/2023 11:24:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81197		Analyst: MP
Percent Moisture	46.6	0.500		wt%	1	1/18/2023 1:41:45 PM



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 2:10:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-032

Matrix: Soil

Client Sample ID: SB-08 (24.5-25)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	64.5		mg/Kg-dry	1	1/13/2023 1:00:19 PM
Heavy Oil	ND	129		mg/Kg-dry	1	1/13/2023 1:00:19 PM
Total Petroleum Hydrocarbons	ND	193		mg/Kg-dry	1	1/13/2023 1:00:19 PM
Surr: 2-Fluorobiphenyl	81.5	50 - 150		%Rec	1	1/13/2023 1:00:19 PM
Surr: o-Terphenyl	82.7	50 - 150		%Rec	1	1/13/2023 1:00:19 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	6.08		mg/Kg-dry	1	1/12/2023 1:49:42 PM
Surr: Toluene-d8	99.5	65 - 135		%Rec	1	1/12/2023 1:49:42 PM
Surr: 4-Bromofluorobenzene	95.8	65 - 135		%Rec	1	1/12/2023 1:49:42 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	22.8	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 11:10:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-034

Matrix: Soil

Client Sample ID: SB-06 (14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	69.0		mg/Kg-dry	1	1/13/2023 2:17:11 PM
Heavy Oil	ND	138		mg/Kg-dry	1	1/13/2023 2:17:11 PM
Total Petroleum Hydrocarbons	ND	207		mg/Kg-dry	1	1/13/2023 2:17:11 PM
Surr: 2-Fluorobiphenyl	59.8	50 - 150		%Rec	1	1/13/2023 2:17:11 PM
Surr: o-Terphenyl	55.6	50 - 150		%Rec	1	1/13/2023 2:17:11 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	7.73		mg/Kg-dry	1	1/12/2023 2:20:49 PM
Surr: Toluene-d8	99.1	65 - 135		%Rec	1	1/12/2023 2:20:49 PM
Surr: 4-Bromofluorobenzene	95.8	65 - 135		%Rec	1	1/12/2023 2:20:49 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	29.8	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 12:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-035

Matrix: Soil

Client Sample ID: SB-07 (12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39129

Analyst: KJ

Diesel Range Organics	ND	79.4		mg/Kg-dry	1	1/17/2023 9:45:09 PM
Heavy Oil	ND	159		mg/Kg-dry	1	1/17/2023 9:45:09 PM
Total Petroleum Hydrocarbons	ND	238		mg/Kg-dry	1	1/17/2023 9:45:09 PM
Surr: 2-Fluorobiphenyl	31.4	50 - 150	S	%Rec	1	1/17/2023 9:45:09 PM
Surr: o-Terphenyl	29.5	50 - 150	S	%Rec	1	1/17/2023 9:45:09 PM

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39097

Analyst: CB

Naphthalene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
2-Methylnaphthalene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
1-Methylnaphthalene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Acenaphthylene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Acenaphthene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Fluorene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Phenanthrene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Anthracene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Fluoranthene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Pyrene	ND	62.4		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Benz(a)anthracene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Chrysene	ND	31.2		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Benzo(b)fluoranthene	ND	39.0		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Benzo(k)fluoranthene	ND	39.0		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Benzo(a)pyrene	ND	46.8		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Indeno(1,2,3-cd)pyrene	ND	62.4		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Dibenz(a,h)anthracene	ND	78.0		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Benzo(g,h,i)perylene	ND	78.0		µg/Kg-dry	1	1/13/2023 12:02:45 AM
Surr: 2-Fluorobiphenyl	52.0	34.4 - 132		%Rec	1	1/13/2023 12:02:45 AM
Surr: Terphenyl-d14 (surr)	51.0	32.8 - 147		%Rec	1	1/13/2023 12:02:45 AM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	9.92		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Surr: Toluene-d8	99.2	65 - 135		%Rec	1	1/12/2023 2:51:55 PM
Surr: 4-Bromofluorobenzene	96.5	65 - 135		%Rec	1	1/12/2023 2:51:55 PM



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 12:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-035

Matrix: Soil

Client Sample ID: SB-07 (12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Dichlorodifluoromethane (CFC-12)	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Chloromethane	ND	0.0992	Q	mg/Kg-dry	1	1/12/2023 2:51:55 PM
Vinyl chloride	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Bromomethane	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Trichlorofluoromethane (CFC-11)	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Chloroethane	ND	0.149		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1-Dichloroethene	ND	0.198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Acetone	ND	0.496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Methylene chloride	ND	0.0695		mg/Kg-dry	1	1/12/2023 2:51:55 PM
trans-1,2-Dichloroethene	ND	0.0198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Methyl tert-butyl ether (MTBE)	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1-Dichloroethane	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
cis-1,2-Dichloroethene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
(MEK) 2-Butanone	ND	0.595		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Chloroform	ND	0.0347		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1,1-Trichloroethane (TCA)	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1-Dichloropropene	ND	0.0397	Q	mg/Kg-dry	1	1/12/2023 2:51:55 PM
Carbon tetrachloride	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2-Dichloroethane (EDC)	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Benzene	ND	0.0347		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Trichloroethene (TCE)	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2-Dichloropropane	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Bromodichloromethane	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Dibromomethane	ND	0.0248		mg/Kg-dry	1	1/12/2023 2:51:55 PM
cis-1,3-Dichloropropene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Toluene	ND	0.0595		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Trans-1,3-Dichloropropylene	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.119		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1,2-Trichloroethane	ND	0.0248		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,3-Dichloropropane	ND	0.0198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Tetrachloroethene (PCE)	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Dibromochloromethane	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2-Dibromoethane (EDB)	ND	0.0198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
2-Hexanone (MBK)	ND	0.124		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Chlorobenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1,1,2-Tetrachloroethane	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Ethylbenzene	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM
m,p-Xylene	ND	0.0992		mg/Kg-dry	1	1/12/2023 2:51:55 PM
o-Xylene	ND	0.0496		mg/Kg-dry	1	1/12/2023 2:51:55 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 12:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-035

Matrix: Soil

Client Sample ID: SB-07 (12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Styrene	ND	0.0198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Isopropylbenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Bromoform	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,1,2,2-Tetrachloroethane	ND	0.397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
n-Propylbenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Bromobenzene	ND	0.0248		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,3,5-Trimethylbenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
2-Chlorotoluene	ND	0.0327		mg/Kg-dry	1	1/12/2023 2:51:55 PM
4-Chlorotoluene	ND	0.0327		mg/Kg-dry	1	1/12/2023 2:51:55 PM
tert-Butylbenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2,3-Trichloropropane	ND	0.0595		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2,4-Trichlorobenzene	ND	0.119		mg/Kg-dry	1	1/12/2023 2:51:55 PM
sec-Butylbenzene	ND	0.298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
4-Isopropyltoluene	ND	0.397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,3-Dichlorobenzene	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,4-Dichlorobenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
n-Butylbenzene	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2-Dichlorobenzene	ND	0.0397		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2-Dibromo-3-chloropropane	ND	0.0595		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2,4-Trimethylbenzene	ND	0.0298		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Hexachloro-1,3-butadiene	ND	0.0794		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Naphthalene	ND	0.198		mg/Kg-dry	1	1/12/2023 2:51:55 PM
1,2,3-Trichlorobenzene	ND	0.119		mg/Kg-dry	1	1/12/2023 2:51:55 PM
Surr: Dibromofluoromethane	99.0	80 - 120		%Rec	1	1/12/2023 2:51:55 PM
Surr: Toluene-d8	97.3	80 - 120		%Rec	1	1/12/2023 2:51:55 PM
Surr: 1-Bromo-4-fluorobenzene	98.3	80 - 120		%Rec	1	1/12/2023 2:51:55 PM

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury by EPA Method 7471B

Batch ID: 39052

Analyst: SS

Mercury	ND	0.299		mg/Kg-dry	1	1/9/2023 5:39:44 PM
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Arsenic	12.9	0.305		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Barium	28.0	0.611		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Cadmium	0.102	0.0244		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Chromium	38.5	0.305		mg/Kg-dry	1	1/12/2023 11:27:00 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 12:45:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-035

Matrix: Soil

Client Sample ID: SB-07 (12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Copper	27.8	0.916		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Lead	5.97	1.22		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Nickel	39.0	0.305		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Selenium	ND	1.22		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Silver	0.0629	0.0244		mg/Kg-dry	1	1/12/2023 11:27:00 AM
Zinc	50.7	4.28		mg/Kg-dry	1	1/12/2023 11:27:00 AM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	38.0	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 1:20:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-036

Matrix: Soil

Client Sample ID: SB-07 (24.5-25)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	65.2		mg/Kg-dry	1	1/13/2023 2:50:21 PM
Heavy Oil	ND	130		mg/Kg-dry	1	1/13/2023 2:50:21 PM
Total Petroleum Hydrocarbons	ND	195		mg/Kg-dry	1	1/13/2023 2:50:21 PM
Surr: 2-Fluorobiphenyl	66.0	50 - 150		%Rec	1	1/13/2023 2:50:21 PM
Surr: o-Terphenyl	65.4	50 - 150		%Rec	1	1/13/2023 2:50:21 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	6.46		mg/Kg-dry	1	1/12/2023 3:23:08 PM
Surr: Toluene-d8	99.1	65 - 135		%Rec	1	1/12/2023 3:23:08 PM
Surr: 4-Bromofluorobenzene	95.8	65 - 135		%Rec	1	1/12/2023 3:23:08 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	24.2	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 10:50:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-038

Matrix: Soil

Client Sample ID: SB-05 (14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	80.7		mg/Kg-dry	1	1/17/2023 10:16:32 AM
Heavy Oil	ND	161		mg/Kg-dry	1	1/17/2023 10:16:32 AM
Total Petroleum Hydrocarbons	ND	242		mg/Kg-dry	1	1/17/2023 10:16:32 AM
Surr: 2-Fluorobiphenyl	79.0	50 - 150		%Rec	1	1/17/2023 10:16:32 AM
Surr: o-Terphenyl	72.2	50 - 150		%Rec	1	1/17/2023 10:16:32 AM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	9.24		mg/Kg-dry	1	1/12/2023 3:54:13 PM
Surr: Toluene-d8	98.8	65 - 135		%Rec	1	1/12/2023 3:54:13 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	1/12/2023 3:54:13 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	38.2	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC
Project: Dagmars Marina RI
Lab ID: 2301086-039
Client Sample ID: GW-07-0123

Collection Date: 1/4/2023 2:00:00 PM

Matrix: Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39092

Analyst: KJ

Diesel Range Organics	1,100	94.4		µg/L	1	1/12/2023 4:18:57 PM
Heavy Oil	ND	94.4		µg/L	1	1/12/2023 4:18:57 PM
Total Petroleum Hydrocarbons	1,100	189		µg/L	1	1/12/2023 4:18:57 PM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	1/12/2023 4:18:57 PM
Surr: o-Terphenyl	58.9	50 - 150		%Rec	1	1/12/2023 4:18:57 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39088

Analyst: CB

Naphthalene	0.277	0.0995		µg/L	1	1/13/2023 10:08:16 AM
2-Methylnaphthalene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
1-Methylnaphthalene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Acenaphthene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Acenaphthylene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Fluorene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Phenanthrene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Anthracene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Fluoranthene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Pyrene	ND	0.199		µg/L	1	1/13/2023 10:08:16 AM
Benz(a)anthracene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Chrysene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Benzo(b)fluoranthene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Benzo(k)fluoranthene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Benzo(a)pyrene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Dibenz(a,h)anthracene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Benzo(g,h,i)perylene	ND	0.0995		µg/L	1	1/13/2023 10:08:16 AM
Surr: 2-Fluorobiphenyl	53.8	28.9 - 123		%Rec	1	1/13/2023 10:08:16 AM
Surr: Terphenyl-d14	28.9	36.4 - 133	S	%Rec	1	1/13/2023 10:08:16 AM

NOTES:

S - Outlying surrogate recovery(ies) observed.

Gasoline by NWTPH-Gx

Batch ID: 39054

Analyst: LAC

Gasoline Range Organics	ND	50.0		µg/L	1	1/10/2023 11:35:07 PM
Surr: Toluene-d8	95.9	65 - 135		%Rec	1	1/10/2023 11:35:07 PM
Surr: 4-Bromofluorobenzene	90.9	65 - 135		%Rec	1	1/10/2023 11:35:07 PM



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-039

Matrix: Water

Client Sample ID: GW-07-0123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39054

Analyst: LAC

Dichlorodifluoromethane (CFC-12)	ND	0.500	Q	µg/L	1	1/18/2023 12:32:43 PM
Chloromethane	ND	0.750	Q	µg/L	1	1/18/2023 12:32:43 PM
Vinyl chloride	ND	0.200		µg/L	1	1/18/2023 12:32:43 PM
Bromomethane	ND	3.00		µg/L	1	1/18/2023 12:32:43 PM
Trichlorofluoromethane (CFC-11)	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
Chloroethane	ND	1.00		µg/L	1	1/18/2023 12:32:43 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Acetone	6.61	5.00		µg/L	1	1/18/2023 12:32:43 PM
Methylene chloride	ND	0.750		µg/L	1	1/18/2023 12:32:43 PM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	1/18/2023 12:32:43 PM
Methyl tert-butyl ether (MTBE)	ND	0.350		µg/L	1	1/18/2023 12:32:43 PM
1,1-Dichloroethane	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
2-Butanone (MEK)	ND	1.50		µg/L	1	1/18/2023 12:32:43 PM
Chloroform	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,1,1-Trichloroethane (TCA)	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
1,1-Dichloropropene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Carbon tetrachloride	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
1,2-Dichloroethane (EDC)	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Benzene	ND	0.440		µg/L	1	1/18/2023 12:32:43 PM
Trichloroethene (TCE)	ND	0.400		µg/L	1	1/18/2023 12:32:43 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
Bromodichloromethane	ND	0.250		µg/L	1	1/18/2023 12:32:43 PM
Dibromomethane	ND	0.250		µg/L	1	1/18/2023 12:32:43 PM
cis-1,3-Dichloropropene	ND	0.350		µg/L	1	1/18/2023 12:32:43 PM
Toluene	ND	1.00		µg/L	1	1/18/2023 12:32:43 PM
trans-1,3-Dichloropropylene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		µg/L	1	1/18/2023 12:32:43 PM
1,1,2-Trichloroethane	ND	0.250		µg/L	1	1/18/2023 12:32:43 PM
1,3-Dichloropropane	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	1/18/2023 12:32:43 PM
Dibromochloromethane	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
1,2-Dibromoethane (EDB)	ND	0.200		µg/L	1	1/18/2023 12:32:43 PM
2-Hexanone (MBK)	ND	1.25		µg/L	1	1/18/2023 12:32:43 PM
Chlorobenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,1,1,2-Tetrachloroethane	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
Ethylbenzene	ND	0.400		µg/L	1	1/18/2023 12:32:43 PM
m,p-Xylene	ND	1.00		µg/L	1	1/18/2023 12:32:43 PM
o-Xylene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-039

Matrix: Water

Client Sample ID: GW-07-0123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39054

Analyst: LAC

Styrene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Isopropylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Bromoform	ND	0.300		µg/L	1	1/18/2023 12:32:43 PM
1,1,2,2-Tetrachloroethane	ND	0.200		µg/L	1	1/18/2023 12:32:43 PM
n-Propylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Bromobenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
2-Chlorotoluene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
4-Chlorotoluene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
tert-Butylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,2,3-Trichloropropane	ND	0.400		µg/L	1	1/18/2023 12:32:43 PM
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	1/18/2023 12:32:43 PM
sec-Butylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,4-Dichlorobenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
n-Butylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,2-Dichlorobenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	1/18/2023 12:32:43 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Hexachloro-1,3-butadiene	ND	0.500		µg/L	1	1/18/2023 12:32:43 PM
Naphthalene	ND	1.25		µg/L	1	1/18/2023 12:32:43 PM
1,2,3-Trichlorobenzene	ND	0.700		µg/L	1	1/18/2023 12:32:43 PM
Surr: Dibromofluoromethane	106	80 - 120		%Rec	1	1/18/2023 12:32:43 PM
Surr: Toluene-d8	97.0	80 - 120		%Rec	1	1/18/2023 12:32:43 PM
Surr: 1-Bromo-4-fluorobenzene	95.7	80 - 120		%Rec	1	1/18/2023 12:32:43 PM

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury by EPA Method 245.1

Batch ID: 39086

Analyst: SS

Mercury	ND	0.100		µg/L	1	1/11/2023 3:50:36 PM
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Total Metals by EPA Method 200.8

Batch ID: 39093

Analyst: SLL

Arsenic	41.8	2.50	D	µg/L	5	1/12/2023 2:58:00 PM
Barium	157	10.0	D	µg/L	5	1/12/2023 2:58:00 PM
Cadmium	ND	0.500	D	µg/L	5	1/12/2023 2:58:00 PM
Chromium	24.0	3.75	D	µg/L	5	1/12/2023 2:58:00 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/4/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-039

Matrix: Water

Client Sample ID: GW-07-0123

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 200.8

Batch ID: 39093

Analyst: SLL

Lead	2.66	2.50	D	µg/L	5	1/12/2023 2:58:00 PM
Selenium	ND	1.25	D	µg/L	5	1/12/2023 2:58:00 PM
Silver	ND	1.00	D	µg/L	5	1/12/2023 2:58:00 PM

NOTES:

Diluted due to matrix.



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 11:20:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-041

Matrix: Soil

Client Sample ID: SB-08A (14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	87.9		mg/Kg-dry	1	1/17/2023 9:10:24 AM
Heavy Oil	ND	176		mg/Kg-dry	1	1/17/2023 9:10:24 AM
Total Petroleum Hydrocarbons	ND	264		mg/Kg-dry	1	1/17/2023 9:10:24 AM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	1/17/2023 9:10:24 AM
Surr: o-Terphenyl	94.7	50 - 150		%Rec	1	1/17/2023 9:10:24 AM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	10.9		mg/Kg-dry	1	1/12/2023 4:25:26 PM
Surr: Toluene-d8	99.2	65 - 135		%Rec	1	1/12/2023 4:25:26 PM
Surr: 4-Bromofluorobenzene	95.4	65 - 135		%Rec	1	1/12/2023 4:25:26 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	43.2	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 10:05:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-043

Matrix: Soil

Client Sample ID: SB-11 (14-14.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	59.4		mg/Kg-dry	1	1/13/2023 3:35:52 PM
Heavy Oil	ND	119		mg/Kg-dry	1	1/13/2023 3:35:52 PM
Total Petroleum Hydrocarbons	ND	178		mg/Kg-dry	1	1/13/2023 3:35:52 PM
Surr: 2-Fluorobiphenyl	63.7	50 - 150		%Rec	1	1/13/2023 3:35:52 PM
Surr: o-Terphenyl	65.1	50 - 150		%Rec	1	1/13/2023 3:35:52 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	5.94		mg/Kg-dry	1	1/12/2023 4:56:38 PM
Surr: Toluene-d8	98.9	65 - 135		%Rec	1	1/12/2023 4:56:38 PM
Surr: 4-Bromofluorobenzene	96.6	65 - 135		%Rec	1	1/12/2023 4:56:38 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	16.8	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 10:30:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-045

Matrix: Soil

Client Sample ID: SB-12 (14-14.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	63.5		mg/Kg-dry	1	1/17/2023 9:21:25 AM
Heavy Oil	ND	127		mg/Kg-dry	1	1/17/2023 9:21:25 AM
Total Petroleum Hydrocarbons	ND	191		mg/Kg-dry	1	1/17/2023 9:21:25 AM
Surr: 2-Fluorobiphenyl	104	50 - 150		%Rec	1	1/17/2023 9:21:25 AM
Surr: o-Terphenyl	105	50 - 150		%Rec	1	1/17/2023 9:21:25 AM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	9.05		mg/Kg-dry	1	1/12/2023 5:27:49 PM
Surr: Toluene-d8	99.1	65 - 135		%Rec	1	1/12/2023 5:27:49 PM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	1/12/2023 5:27:49 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	24.4	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 9:10:00 AM

Project: Dagmars Marina RI

Lab ID: 2301086-046

Matrix: Soil

Client Sample ID: SB-10 (12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39099

Analyst: KJ

Diesel Range Organics	ND	78.6		mg/Kg-dry	1	1/13/2023 4:09:00 PM
Heavy Oil	ND	157		mg/Kg-dry	1	1/13/2023 4:09:00 PM
Total Petroleum Hydrocarbons	ND	236		mg/Kg-dry	1	1/13/2023 4:09:00 PM
Surr: 2-Fluorobiphenyl	55.3	50 - 150		%Rec	1	1/13/2023 4:09:00 PM
Surr: o-Terphenyl	54.4	50 - 150		%Rec	1	1/13/2023 4:09:00 PM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	ND	11.8		mg/Kg-dry	1	1/12/2023 5:59:00 PM
Surr: Toluene-d8	98.2	65 - 135		%Rec	1	1/12/2023 5:59:00 PM
Surr: 4-Bromofluorobenzene	96.7	65 - 135		%Rec	1	1/12/2023 5:59:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	36.8	0.500		wt%	1	1/18/2023 1:41:45 PM
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Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-048

Matrix: Soil

Client Sample ID: SHOP-4 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39129

Analyst: KJ

Diesel Range Organics	141	57.6		mg/Kg-dry	1	1/17/2023 3:36:46 PM
Heavy Oil	481	115		mg/Kg-dry	1	1/17/2023 3:36:46 PM
Total Petroleum Hydrocarbons	622	173		mg/Kg-dry	1	1/17/2023 3:36:46 PM
Surr: 2-Fluorobiphenyl	70.0	50 - 150		%Rec	1	1/17/2023 3:36:46 PM
Surr: o-Terphenyl	70.9	50 - 150		%Rec	1	1/17/2023 3:36:46 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 39097

Analyst: CB

Naphthalene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
2-Methylnaphthalene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
1-Methylnaphthalene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Acenaphthylene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Acenaphthene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Fluorene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Phenanthrene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Anthracene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Fluoranthene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Pyrene	ND	41.1		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Benz(a)anthracene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Chrysene	ND	20.6		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Benzo(b)fluoranthene	ND	25.7		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Benzo(k)fluoranthene	ND	25.7		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Benzo(a)pyrene	ND	30.8		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Indeno(1,2,3-cd)pyrene	ND	41.1		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Dibenz(a,h)anthracene	ND	51.4		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Benzo(g,h,i)perylene	ND	51.4		µg/Kg-dry	1	1/13/2023 12:30:37 AM
Surr: 2-Fluorobiphenyl	68.5	34.4 - 132		%Rec	1	1/13/2023 12:30:37 AM
Surr: Terphenyl-d14 (surr)	66.4	32.8 - 147		%Rec	1	1/13/2023 12:30:37 AM

Gasoline by NWTPH-Gx

Batch ID: 39085

Analyst: LAC

Gasoline Range Organics	475	58.8	D	mg/Kg-dry	10	1/13/2023 1:34:28 PM
Surr: Toluene-d8	9.75	65 - 135	DS	%Rec	10	1/13/2023 1:34:28 PM
Surr: 4-Bromofluorobenzene	97.0	65 - 135	D	%Rec	10	1/13/2023 1:34:28 PM

NOTES:

Detection is biased high by overlap with diesel-range material



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-048

Matrix: Soil

Client Sample ID: SHOP-4 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Dichlorodifluoromethane (CFC-12)	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Chloromethane	ND	0.0588	Q	mg/Kg-dry	1	1/12/2023 6:30:13 PM
Vinyl chloride	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Bromomethane	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Trichlorofluoromethane (CFC-11)	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Chloroethane	ND	0.0882		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1-Dichloroethene	ND	0.118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Acetone	ND	0.294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Methylene chloride	ND	0.0412		mg/Kg-dry	1	1/12/2023 6:30:13 PM
trans-1,2-Dichloroethene	ND	0.0118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Methyl tert-butyl ether (MTBE)	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1-Dichloroethane	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
cis-1,2-Dichloroethene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
(MEK) 2-Butanone	ND	0.353		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Chloroform	ND	0.0206		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1,1-Trichloroethane (TCA)	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1-Dichloropropene	ND	0.0235	Q	mg/Kg-dry	1	1/12/2023 6:30:13 PM
Carbon tetrachloride	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2-Dichloroethane (EDC)	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Benzene	ND	0.0206		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Trichloroethene (TCE)	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2-Dichloropropane	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Bromodichloromethane	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Dibromomethane	ND	0.0147		mg/Kg-dry	1	1/12/2023 6:30:13 PM
cis-1,3-Dichloropropene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Toluene	ND	0.0353		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Trans-1,3-Dichloropropylene	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0706		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1,2-Trichloroethane	ND	0.0147		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,3-Dichloropropane	ND	0.0118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Tetrachloroethene (PCE)	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Dibromochloromethane	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2-Dibromoethane (EDB)	ND	0.0118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
2-Hexanone (MBK)	1.50	0.0735		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Chlorobenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1,1,2-Tetrachloroethane	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Ethylbenzene	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM
m,p-Xylene	ND	0.0588		mg/Kg-dry	1	1/12/2023 6:30:13 PM
o-Xylene	ND	0.0294		mg/Kg-dry	1	1/12/2023 6:30:13 PM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-048

Matrix: Soil

Client Sample ID: SHOP-4 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39085

Analyst: LAC

Styrene	ND	0.0118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Isopropylbenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Bromoform	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,1,2,2-Tetrachloroethane	ND	0.235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
n-Propylbenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Bromobenzene	ND	0.0147		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,3,5-Trimethylbenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
2-Chlorotoluene	ND	0.0194		mg/Kg-dry	1	1/12/2023 6:30:13 PM
4-Chlorotoluene	ND	0.0194		mg/Kg-dry	1	1/12/2023 6:30:13 PM
tert-Butylbenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2,3-Trichloropropane	ND	0.0353		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2,4-Trichlorobenzene	ND	0.0706		mg/Kg-dry	1	1/12/2023 6:30:13 PM
sec-Butylbenzene	ND	0.176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
4-Isopropyltoluene	ND	0.235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,3-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,4-Dichlorobenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
n-Butylbenzene	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2-Dichlorobenzene	ND	0.0235		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2-Dibromo-3-chloropropane	ND	0.0353		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2,4-Trimethylbenzene	ND	0.0176		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Hexachloro-1,3-butadiene	ND	0.0471		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Naphthalene	ND	0.118		mg/Kg-dry	1	1/12/2023 6:30:13 PM
1,2,3-Trichlorobenzene	ND	0.0706		mg/Kg-dry	1	1/12/2023 6:30:13 PM
Surr: Dibromofluoromethane	98.6	80 - 120		%Rec	1	1/12/2023 6:30:13 PM
Surr: Toluene-d8	98.3	80 - 120		%Rec	1	1/12/2023 6:30:13 PM
Surr: 1-Bromo-4-fluorobenzene	100	80 - 120		%Rec	1	1/12/2023 6:30:13 PM

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury by EPA Method 7471B

Batch ID: 39105

Analyst: SS

Mercury	ND	0.224		mg/Kg-dry	1	1/12/2023 5:26:05 PM
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Arsenic	5.74	0.217		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Barium	23.7	0.434		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Cadmium	0.0495	0.0174		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Chromium	19.2	0.217		mg/Kg-dry	1	1/12/2023 11:29:00 AM

Original



Analytical Report

Work Order: 2301086
Date Reported: 1/19/2023

Client: Apex Companies, LLC

Collection Date: 1/5/2023 2:00:00 PM

Project: Dagmars Marina RI

Lab ID: 2301086-048

Matrix: Soil

Client Sample ID: SHOP-4 (2.5-3)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 39082

Analyst: SLL

Copper	12.6	0.651		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Lead	7.38	0.868		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Nickel	20.0	0.217		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Selenium	ND	0.868		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Silver	0.0208	0.0174		mg/Kg-dry	1	1/12/2023 11:29:00 AM
Zinc	34.4	3.04		mg/Kg-dry	1	1/12/2023 11:29:00 AM

Sample Moisture (Percent Moisture)

Batch ID: R81197

Analyst: MP

Percent Moisture	14.1	0.500		wt%	1	1/18/2023 1:41:45 PM
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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39080		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81077		
Client ID: MBLKS		Batch ID: 39080			Analysis Date: 1/12/2023					SeqNo: 1678176		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	9.20		10.00		92.0	50	150				
Surr: o-Terphenyl	9.19		10.00		91.9	50	150				

Sample ID: LCS-39080		SampType: LCS			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81077		
Client ID: LCSS		Batch ID: 39080			Analysis Date: 1/12/2023					SeqNo: 1678177		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	585	150	500.0	0	117	74.5	125				
Surr: 2-Fluorobiphenyl	10.3		10.00		103	50	150				
Surr: o-Terphenyl	12.9		10.00		129	50	150				

Sample ID: 2212352-025AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81077		
Client ID: BATCH		Batch ID: 39080			Analysis Date: 1/12/2023				SeqNo: 1678179		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	473	144	479.4	0	98.6	50.3	140				H
Surr: 2-Fluorobiphenyl	7.59		9.588		79.2	50	150				H
Surr: o-Terphenyl	9.75		9.588		102	50	150				H

Sample ID: 2212352-025AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81077		
Client ID: BATCH		Batch ID: 39080					Analysis Date: 1/12/2023			SeqNo: 1678180	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	471	144	480.3	0	98.0	50.3	140	472.7	0.456	30	H
Surr: 2-Fluorobiphenyl	8.42		9.605		87.7	50	150		0		H
Surr: o-Terphenyl	9.84		9.605		102	50	150		0		H



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2212352-025AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81077		
Client ID: BATCH		Batch ID: 39080			Analysis Date: 1/12/2023					SeqNo: 1678180		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39092		SampType: MBLK			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81117		
Client ID: MBLKW		Batch ID: 39092			Analysis Date: 1/12/2023			SeqNo: 1678905				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	95.1									
Heavy Oil	ND	95.1									
Total Petroleum Hydrocarbons	ND	190									
Surr: 2-Fluorobiphenyl	21.5		23.78		90.4	50	150				
Surr: o-Terphenyl	23.9		23.78		100	50	150				

Sample ID: LCS-39092		SampType: LCS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81117		
Client ID: LCSW		Batch ID: 39092			Analysis Date: 1/12/2023					SeqNo: 1678906		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	991	192	1,201	0	82.5	45.7	115				
Surr: 2-Fluorobiphenyl	18.6		24.02		77.5	50	150				
Surr: o-Terphenyl	27.2		24.02		113	50	150				

Sample ID: LCSD-39092		SampType: LCSD			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81117		
Client ID: LCSW02		Batch ID: 39092			Analysis Date: 1/12/2023					SeqNo: 1678907		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	989	193	1,209	0	81.8	45.7	115	990.6	0.163	30	
Surr: 2-Fluorobiphenyl	18.4		24.18		75.9	50	150		0		
Surr: o-Terphenyl	25.2		24.18		104	50	150		0		

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39099		SampType: MBLK		Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81150			
Client ID: MBLKS		Batch ID: 39099					Analysis Date: 1/13/2023			SeqNo: 1679591		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	8.89		10.00		88.9	50	150				
Surr: o-Terphenyl	9.09		10.00		90.9	50	150				

Sample ID: LCS-39099		SampType: LCS			Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81150		
Client ID: LCSS		Batch ID: 39099			Analysis Date: 1/13/2023			SeqNo: 1679592				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	485	150	500.0	0	97.0	74.5	125				
Surr: 2-Fluorobiphenyl	7.88		10.00		78.8	50	150				
Surr: o-Terphenyl	10.2		10.00		102	50	150				

Sample ID: 2301086-022AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/12/2023		RunNo: 81150		
Client ID: SHOP-4 (5-6)		Batch ID: 39099			Analysis Date: 1/13/2023				SeqNo: 1679595		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	1,100	186	621.3	757.2	54.8	50.3	140				
Surr: 2-Fluorobiphenyl	8.57		12.43		69.0	50	150				
Surr: o-Terphenyl	11.0		12.43		88.8	50	150				

Sample ID: 2301086-022AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81150		
Client ID: SHOP-4 (5-6)		Batch ID: 39099			Analysis Date: 1/13/2023			SeqNo: 1679596				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	1,170	185	618.3	757.2	66.9	50.3	140	1,098	6.47	30	
Surr: 2-Fluorobiphenyl	9.22		12.37		74.6	50	150		0		
Surr: o-Terphenyl	12.2		12.37		98.8	50	150		0		



Date: 1/19/2023

Work Order: 2301086
 CLIENT: Apex Companies, LLC
 Project: Dagmars Marina RI

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2301086-022AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81150			
Client ID: SHOP-4 (5-6)		Batch ID: 39099					Analysis Date: 1/13/2023			SeqNo: 1679596		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Sample ID: 2301086-043ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81150		
Client ID: SB-11 (14-14.5)		Batch ID: 39099			Analysis Date: 1/13/2023			SeqNo: 1679621				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	59.2						0		30	
Heavy Oil	ND	118						0		30	
Total Petroleum Hydrocarbons	ND	178						0		30	
Surr: 2-Fluorobiphenyl	7.69		11.85		64.9	50	150		0		
Surr: o-Terphenyl	7.83		11.85		66.1	50	150		0		



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Project: Dagmars Marina RI

QC SUMMARY REPORT
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39129	SampType: MBLK	Units: mg/Kg		Prep Date: 1/17/2023	RunNo: 81187
Client ID: MBLKS	Batch ID: 39129	Analysis Date: 1/17/2023		SeqNo: 1680550	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	9.67		10.00		96.7	50	150				
Surr: o-Terphenyl	9.66		10.00		96.6	50	150				

Sample ID: LCS-39129	SampType: LCS	Units: mg/Kg		Prep Date: 1/17/2023	RunNo: 81187
Client ID: LCSS	Batch ID: 39129	Analysis Date: 1/17/2023		SeqNo: 1680551	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Petroleum Hydrocarbons	497	150	500.0	0	99.5	74.5	125				
Surr: 2-Fluorobiphenyl	9.51		10.00		95.1	50	150				
Surr: o-Terphenyl	10.6		10.00		106	50	150				

Sample ID: 2301290-003ADUP	SampType: DUP	Units: mg/Kg-dry		Prep Date: 1/17/2023	RunNo: 81187
Client ID: BATCH	Batch ID: 39129	Analysis Date: 1/18/2023		SeqNo: 1680582	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Diesel Range Organics	ND	58.4						0		30	
Heavy Oil	ND	117						0		30	
Total Petroleum Hydrocarbons	ND	175						0		30	
Surr: 2-Fluorobiphenyl	6.63		11.69		56.7	50	150		0		
Surr: o-Terphenyl	7.22		11.69		61.8	50	150		0		

Sample ID: 2301108-001AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 1/17/2023	RunNo: 81187
Client ID: BATCH	Batch ID: 39129	Analysis Date: 1/18/2023		SeqNo: 1680704	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Total Petroleum Hydrocarbons	1,930	158	525.5	1,860	14.1	50.3	140				S
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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2301108-001AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/17/2023			RunNo: 81187		
Client ID: BATCH		Batch ID: 39129			Analysis Date: 1/18/2023			SeqNo: 1680704				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: 2-Fluorobiphenyl	8.34		10.51		79.4	50	150				
Surr: o-Terphenyl	10.9		10.51		104	50	150				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2301108-001AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/17/2023			RunNo: 81187		
Client ID: BATCH		Batch ID: 39129			Analysis Date: 1/18/2023			SeqNo: 1680705				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	1,960	158	528.1	1,860	19.6	50.3	140	1,935	1.51	30	S
Surr: 2-Fluorobiphenyl	9.18		10.56		86.9	50	150		0		
Surr: o-Terphenyl	11.8		10.56		111	50	150		0		

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39085		SampType: LCS			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81240		
Client ID: LCSS		Batch ID: 39085			Analysis Date: 1/12/2023			SeqNo: 1682004				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	25.6	5.00	25.00	0	102	65	135				
Surr: Toluene-d8	1.23		1.250		98.6	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.7	65	135				

Sample ID: MB-39085		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81240		
Client ID: MBLKS		Batch ID: 39085			Analysis Date: 1/12/2023			SeqNo: 1682003				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.22		1.250		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.21		1.250		96.9	65	135				

Sample ID: 2301086-030BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81240		
Client ID: SB-09 (24.5-25)		Batch ID: 39085			Analysis Date: 1/12/2023			SeqNo: 1681985				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.74						0		30	
Surr: Toluene-d8	1.42		1.436		99.1	65	135		0		
Surr: 4-Bromofluorobenzene	1.38		1.436		96.0	65	135		0		

Sample ID: 2301086-031BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81240		
Client ID: SB-08 (13.5-14)		Batch ID: 39085			Analysis Date: 1/12/2023			SeqNo: 1681987				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	11.1						0		30	
Surr: Toluene-d8	2.77		2.783		99.5	65	135		0		
Surr: 4-Bromofluorobenzene	2.67		2.783		95.9	65	135		0		



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QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301086-034BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81240			
Client ID: SB-06 (14.5-15)		Batch ID: 39085				Analysis Date: 1/12/2023		SeqNo: 1681990			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	36.7	7.73	38.64	0	95.0	65	135				
Surr: Toluene-d8	1.89		1.932		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.90		1.932		98.2	65	135				



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QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39054		SampType: LCS			Units: µg/L		Prep Date: 1/9/2023			RunNo: 81009		
Client ID: LCSW		Batch ID: 39054			Analysis Date: 1/9/2023			SeqNo: 1676388				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	523	50.0	500.0	0	105	65	135
Surr: Toluene-d8	24.9		25.00		99.7	65	135
Surr: 4-Bromofluorobenzene	26.6		25.00		107	65	135

Sample ID: MB-39054		SampType: MBLK			Units: µg/L		Prep Date: 1/9/2023			RunNo: 81009		
Client ID: MBLKW		Batch ID: 39054			Analysis Date: 1/9/2023			SeqNo: 1676386				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	50.0					
Surr: Toluene-d8	24.4		25.00		97.5	65	135
Surr: 4-Bromofluorobenzene	21.9		25.00		87.7	65	135

Sample ID: 2301109-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/9/2023			RunNo: 81009		
Client ID: BATCH		Batch ID: 39054			Analysis Date: 1/9/2023			SeqNo: 1676383				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	65.6	50.0						53.94	19.5	30
Surr: Toluene-d8	24.8		25.00		99.2	65	135		0	
Surr: 4-Bromofluorobenzene	22.1		25.00		88.4	65	135		0	

Sample ID: 2301102-004ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/9/2023			RunNo: 81009		
Client ID: BATCH		Batch ID: 39054			Analysis Date: 1/10/2023			SeqNo: 1676737				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	50.0						0		30
Surr: Toluene-d8	24.5		25.00		97.9	65	135		0	
Surr: 4-Bromofluorobenzene	21.1		25.00		84.6	65	135		0	



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CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301102-003AMS	SampType: MS	Units: µg/L				Prep Date: 1/9/2023			RunNo: 81009		
Client ID: BATCH	Batch ID: 39054	Analysis Date: 1/10/2023						SeqNo: 1676735			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	462	50.0	500.0	22.74	87.8	65	135				
Surr: Toluene-d8	25.1		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	27.1		25.00		109	65	135				

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QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39081		SampType: LCS			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81070		
Client ID: LCSS		Batch ID: 39081			Analysis Date: 1/11/2023			SeqNo: 1678055				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	26.6	5.00	25.00	0	106	65	135				
Surr: Toluene-d8	1.24		1.250		98.9	65	135				
Surr: 4-Bromofluorobenzene	1.22		1.250		97.2	65	135				

Sample ID: MB-39081		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81070		
Client ID: MBLKS		Batch ID: 39081			Analysis Date: 1/12/2023					SeqNo: 1678032		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.25		1.250		100	65	135				
Surr: 4-Bromofluorobenzene	1.19		1.250		95.0	65	135				

Sample ID: 2301086-001BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81070		
Client ID: AST-4 (2.5-3)		Batch ID: 39081			Analysis Date: 1/12/2023			SeqNo: 1678015				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	6.07						0		30	
Surr: Toluene-d8	1.52		1.517		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.46		1.517		96.1	65	135		0		

Sample ID: 2301086-002BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81070		
Client ID: AST-4 (14-15)		Batch ID: 39081			Analysis Date: 1/12/2023			SeqNo: 1678017				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	41.2	5.86						38.05	7.93	30	
Surr: Toluene-d8	1.47		1.464		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.43		1.464		97.9	65	135		0		



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301086-004BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81070		
Client ID: AST-4A (9.5-10)		Batch ID: 39081					Analysis Date: 1/12/2023			SeqNo: 1678020	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	35.8	7.12	35.59	3.910	89.6	65	135				
Surr: Toluene-d8	1.75		1.780		98.2	65	135				
Surr: 4-Bromofluorobenzene	1.75		1.780		98.2	65	135				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39083		SampType: LCS			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81075		
Client ID: LCSS		Batch ID: 39083			Analysis Date: 1/11/2023			SeqNo: 1678111				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	29.7	5.00	25.00	0	119	65	135				
Surr: Toluene-d8	1.31		1.250		105	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.4	65	135				

Sample ID: MB-39083		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81075		
Client ID: MBLKS		Batch ID: 39083			Analysis Date: 1/11/2023			SeqNo: 1678112				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.33		1.250		106	65	135				
Surr: 4-Bromofluorobenzene	1.19		1.250		95.4	65	135				

Sample ID: 2301054-004BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81075		
Client ID: BATCH		Batch ID: 39083			Analysis Date: 1/11/2023					SeqNo: 1678100		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	4.35						0		30	
Surr: Toluene-d8	1.12		1.088		103	65	135		0		
Surr: 4-Bromofluorobenzene	1.03		1.088		94.5	65	135		0		



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Mercury by EPA Method 245.1

Sample ID: MB-39086		SampType: MBLK			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81059		
Client ID: MBLKW		Batch ID: 39086						Analysis Date: 1/11/2023			SeqNo: 1677767	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.100

Sample ID: LCS-39086		SampType: LCS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81059		
Client ID: LCSW		Batch ID: 39086			Analysis Date: 1/11/2023			SeqNo: 1677768				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.969 0.100 1.000 0 96.9 85 115

Sample ID: 2301104-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81059		
Client ID: BATCH		Batch ID: 39086			Analysis Date: 1/11/2023			SeqNo: 1677779				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.100 0 20

Sample ID: 2301104-001AMS		SampType: MS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81059		
Client ID: BATCH		Batch ID: 39086			Analysis Date: 1/11/2023			SeqNo: 1677780				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 1.14 0.100 1.000 0 114 70 130

Sample ID: 2301104-001AMSD		SampType: MSD			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81059		
Client ID: BATCH		Batch ID: 39086			Analysis Date: 1/11/2023			SeqNo: 1677781				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 1.09 0.100 1.000 0 109 70 130 1.140 4.48 20

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Mercury by EPA Method 7471B

Sample ID: MB-39052		SampType: MBLK		Units: mg/Kg		Prep Date: 1/9/2023			RunNo: 81015			
Client ID: MBLKS		Batch ID: 39052					Analysis Date: 1/9/2023			SeqNo: 1676506		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.200

Sample ID: LCS-39052		SampType: LCS			Units: mg/Kg		Prep Date: 1/9/2023			RunNo: 81015		
Client ID: LCSS		Batch ID: 39052			Analysis Date: 1/9/2023			SeqNo: 1676507				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.241 0.200 0.2500 0 96.4 80 120

Sample ID: 2301035-004ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/9/2023			RunNo: 81015		
Client ID: BATCH		Batch ID: 39052			Analysis Date: 1/9/2023			SeqNo: 1676516				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.238 0 20

Sample ID: 2301035-004AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/9/2023			RunNo: 81015		
Client ID: BATCH		Batch ID: 39052			Analysis Date: 1/9/2023			SeqNo: 1676517				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.304 0.252 0.3152 0.01929 90.3 70 130

Sample ID: 2301035-004AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/9/2023			RunNo: 81015		
Client ID: BATCH		Batch ID: 39052			Analysis Date: 1/9/2023			SeqNo: 1676518				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.310 0.234 0.2923 0.01929 99.4 70 130 0.3039 1.94 20

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Mercury by EPA Method 7471B

Sample ID: MB-39105		SampType: MBLK		Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81106			
Client ID: MBLKS		Batch ID: 39105					Analysis Date: 1/12/2023			SeqNo: 1678687		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.200

Sample ID: LCS-39105		SampType: LCS			Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: LCSS		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678688				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.253 0.200 0.2500 0 101 80 120

Sample ID: 2301086-048ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: SHOP-4 (2.5-3)		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678690				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.228 0 20

Sample ID: 2301086-048AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: SHOP-4 (2.5-3)		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678691				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.313 0.228 0.2852 0.01499 104 70 130

Sample ID: 2301086-048AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: SHOP-4 (2.5-3)		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678692				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.314 0.228 0.2852 0.01499 105 70 130 0.3126 0.364 20

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-39097	SampType: MBLK	Units: µg/Kg			Prep Date: 1/12/2023			RunNo: 81116			
Client ID: MBLKS	Batch ID: 39097	Analysis Date: 1/12/2023						SeqNo: 1678929			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Acenaphthene	ND	20.0									
Acenaphthylene	ND	20.0									
Phenanthrene	ND	20.0									
Fluorene	ND	20.0									
Anthracene	ND	20.0									
Fluoranthene	ND	20.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Benzo(g,h,i)perylene	ND	50.0									
Surr: 2-Fluorobiphenyl	609		1,000		60.9	34.4	132				
Surr: Terphenyl-d14 (surr)	576		1,000		57.6	32.8	147				

Sample ID: LCS-39097	SampType: LCS	Units: µg/Kg				Prep Date: 1/12/2023			RunNo: 81116		
Client ID: LCSS	Batch ID: 39097					Analysis Date: 1/12/2023			SeqNo: 1678930		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,520	20.0	2,000	0	75.9	64.3	115				
2-Methylnaphthalene	1,520	20.0	2,000	0	75.9	58.9	122				
1-Methylnaphthalene	1,510	20.0	2,000	0	75.6	57.4	122				
Acenaphthene	1,500	20.0	2,000	0	75.1	61.1	119				
Acenaphthylene	1,530	20.0	2,000	0	76.5	52.9	120				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-39097	SampType: LCS	Units: µg/Kg				Prep Date: 1/12/2023			RunNo: 81116		
Client ID: LCSS	Batch ID: 39097	Analysis Date: 1/12/2023						SeqNo: 1678930			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenanthrene	1,520	20.0	2,000	0	76.2	60	118				
Fluorene	1,530	20.0	2,000	0	76.7	63.6	120				
Anthracene	1,510	20.0	2,000	0	75.3	59.5	119				
Fluoranthene	1,490	20.0	2,000	0	74.5	62.3	120				
Pyrene	1,510	40.0	2,000	0	75.4	61.1	120				
Benz(a)anthracene	1,560	20.0	2,000	0	78.0	61.5	123				
Chrysene	1,450	20.0	2,000	0	72.6	58.6	120				
Benzo(b)fluoranthene	1,480	25.0	2,000	0	74.1	62.1	124				
Benzo(k)fluoranthene	1,480	25.0	2,000	0	73.8	60.3	116				
Benzo(a)pyrene	1,500	30.0	2,000	0	75.0	51.6	115				
Indeno(1,2,3-cd)pyrene	1,480	40.0	2,000	0	73.9	53.8	127				
Dibenz(a,h)anthracene	1,480	50.0	2,000	0	73.9	53.3	127				
Benzo(g,h,i)perylene	1,480	50.0	2,000	0	73.8	48.6	122				
Surr: 2-Fluorobiphenyl	643		1,000		64.3	34.4	132				
Surr: Terphenyl-d14 (surr)	619		1,000		61.9	32.8	147				

Sample ID: 2301204-007AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81116		
Client ID: BATCH		Batch ID: 39097		Analysis Date: 1/12/2023						SeqNo: 1678933	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,840	23.5	2,350	0	78.1	55.7	105				
2-Methylnaphthalene	1,830	23.5	2,350	0	78.0	56.6	103				
1-Methylnaphthalene	1,830	23.5	2,350	0	77.9	56.1	101				
Acenaphthene	1,860	23.5	2,350	0	79.1	55.9	107				
Acenaphthylene	1,870	23.5	2,350	0	79.4	53.8	100				
Phenanthrene	1,860	23.5	2,350	0	79.1	49.1	109				
Fluorene	1,890	23.5	2,350	0	80.5	55.7	107				
Anthracene	1,840	23.5	2,350	0	78.3	52.4	107				
Fluoranthene	1,810	23.5	2,350	0	77.1	53.1	110				
Pyrene	1,840	47.0	2,350	0	78.3	52.5	109				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2301204-007AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81116		
Client ID: BATCH		Batch ID: 39097					Analysis Date: 1/12/2023			SeqNo: 1678933	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	1,920	23.5	2,350	0	81.5	53.4	112				
Chrysene	1,790	23.5	2,350	4.303	76.0	52	105				
Benzo(b)fluoranthene	1,760	29.4	2,350	0	75.1	51.3	119				
Benzo(k)fluoranthene	1,860	29.4	2,350	0	79.2	50.3	108				
Benzo(a)pyrene	1,840	35.3	2,350	0	78.1	48.5	106				
Indeno(1,2,3-cd)pyrene	1,800	47.0	2,350	0	76.5	42.1	113				
Dibenz(a,h)anthracene	1,800	58.8	2,350	0	76.5	40.4	114				
Benzo(g,h,i)perylene	1,800	58.8	2,350	0	76.4	34.7	105				
Surr: 2-Fluorobiphenyl	771		1,175		65.6	34.4	132				
Surr: Terphenyl-d14 (surr)	746		1,175		63.5	32.8	147				

Sample ID: 2301204-007AMSD		SampType: MSD		Units: µg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81116		
Client ID: BATCH		Batch ID: 39097		Analysis Date: 1/12/2023					SeqNo: 1678934		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,600	23.3	2,334	0	68.7	55.7	105	1,835	13.4	30	
2-Methylnaphthalene	1,600	23.3	2,334	0	68.5	56.6	103	1,833	13.7	30	
1-Methylnaphthalene	1,590	23.3	2,334	0	68.2	56.1	101	1,832	13.9	30	
Acenaphthene	1,610	23.3	2,334	0	68.8	55.9	107	1,859	14.7	30	
Acenaphthylene	1,620	23.3	2,334	0	69.5	53.8	100	1,867	13.9	30	
Phenanthrene	1,600	23.3	2,334	0	68.7	49.1	109	1,859	14.7	30	
Fluorene	1,630	23.3	2,334	0	69.9	55.7	107	1,893	14.9	30	
Anthracene	1,590	23.3	2,334	0	68.1	52.4	107	1,840	14.6	30	
Fluoranthene	1,580	23.3	2,334	0	67.5	53.1	110	1,813	14.0	30	
Pyrene	1,600	46.7	2,334	0	68.4	52.5	109	1,840	14.2	30	
Benz(a)anthracene	1,640	23.3	2,334	0	70.3	53.4	112	1,915	15.4	30	
Chrysene	1,540	23.3	2,334	4.303	65.9	52	105	1,792	14.9	30	
Benzo(b)fluoranthene	1,550	29.2	2,334	0	66.4	51.3	119	1,764	13.0	30	
Benzo(k)fluoranthene	1,570	29.2	2,334	0	67.4	50.3	108	1,862	16.8	30	
Benzo(a)pyrene	1,580	35.0	2,334	0	67.8	48.5	106	1,837	14.8	30	

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2301204-007AMSD		SampType: MSD		Units: µg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81116		
Client ID: BATCH		Batch ID: 39097				Analysis Date: 1/12/2023			SeqNo: 1678934		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Indeno(1,2,3-cd)pyrene	1,570	46.7	2,334	0	67.0	42.1	113	1,799	13.9	30	
Dibenz(a,h)anthracene	1,560	58.4	2,334	0	66.7	40.4	114	1,797	14.3	30	
Benzo(g,h,i)perylene	1,550	58.4	2,334	0	66.3	34.7	105	1,797	15.0	30	
Surr: 2-Fluorobiphenyl	695		1,167		59.5	34.4	132		0		
Surr: Terphenyl-d14 (surr)	667		1,167		57.2	32.8	147		0		

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-39088	SampType: MBLK	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81129			
Client ID: MBLKW	Batch ID: 39088	Analysis Date: 1/12/2023						SeqNo: 1679260			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0996									
2-Methylnaphthalene	ND	0.0996									
1-Methylnaphthalene	ND	0.0996									
Acenaphthene	ND	0.0996									
Acenaphthylene	ND	0.0996									
Fluorene	ND	0.0996									
Phenanthrene	ND	0.0996									
Anthracene	ND	0.0996									
Fluoranthene	ND	0.0996									
Pyrene	ND	0.199									
Benz(a)anthracene	ND	0.0996									
Chrysene	ND	0.0996									
Benzo(b)fluoranthene	ND	0.0996									
Benzo(k)fluoranthene	ND	0.0996									
Benzo(a)pyrene	ND	0.0996									
Indeno(1,2,3-cd)pyrene	ND	0.0996									
Dibenz(a,h)anthracene	ND	0.0996									
Benzo(g,h,i)perylene	ND	0.0996									
Surr: 2,4,6-Tribromophenol	2.36		3.984		59.1	33.7	137				
Surr: 2-Fluorobiphenyl	1.34		1.992		67.2	28.9	123				
Surr: Terphenyl-d14	1.28		1.992		64.3	36.4	133				

Sample ID: LCS-39088		SampType: LCS		Units: µg/L		Prep Date: 1/11/2023			RunNo: 81129		
Client ID: LCSW		Batch ID: 39088					Analysis Date: 1/12/2023			SeqNo: 1679261	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	3.01	0.0990	3.958	0	76.1	43	103				
2-Methylnaphthalene	3.02	0.0990	3.958	0	76.4	42.3	106				
1-Methylnaphthalene	3.03	0.0990	3.958	0	76.6	45.4	103				
Acenaphthene	3.13	0.0990	3.958	0	79.2	46.8	108				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-39088	SampType: LCS	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81129			
Client ID: LCSW	Batch ID: 39088				Analysis Date: 1/12/2023			SeqNo: 1679261			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	3.19	0.0990	3.958	0	80.7	48.6	105				
Fluorene	3.26	0.0990	3.958	0	82.3	53.6	109				
Phenanthrene	3.18	0.0990	3.958	0	80.4	52.6	111				
Anthracene	3.12	0.0990	3.958	0	78.8	46.2	115				
Fluoranthene	3.11	0.0990	3.958	0	78.7	53.5	120				
Pyrene	3.10	0.198	3.958	0	78.3	51.1	122				
Benz(a)anthracene	3.18	0.0990	3.958	0	80.3	51.9	121				
Chrysene	3.08	0.0990	3.958	0	77.9	47.1	119				
Benzo(b)fluoranthene	3.11	0.0990	3.958	0	78.5	47.6	130				
Benzo(k)fluoranthene	3.06	0.0990	3.958	0	77.2	39.3	127				
Benzo(a)pyrene	3.05	0.0990	3.958	0	77.1	37.8	119				
Indeno(1,2,3-cd)pyrene	3.08	0.0990	3.958	0	77.9	43.1	126				
Dibenz(a,h)anthracene	3.06	0.0990	3.958	0	77.2	43.2	118				
Benzo(g,h,i)perylene	3.06	0.0990	3.958	0	77.3	42.1	116				
Surr: 2,4,6-Tribromophenol	2.63		3.958		66.4	33.7	137				
Surr: 2-Fluorobiphenyl	1.28		1.979		64.6	28.9	123				
Surr: Terphenyl-d14	1.26		1.979		63.5	36.4	133				

Sample ID: 2301086-039CMS		SampType: MS		Units: µg/L		Prep Date: 1/11/2023			RunNo: 81129		
Client ID: GW-07-0123		Batch ID: 39088		Analysis Date: 1/13/2023						SeqNo: 1679247	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.66	0.0995	3.979	0.2771	59.9	40.8	109				
2-Methylnaphthalene	2.42	0.0995	3.979	0.07393	59.0	40.1	113				
1-Methylnaphthalene	2.42	0.0995	3.979	0.06976	59.1	40.2	110				
Acenaphthene	2.28	0.0995	3.979	0	57.3	40.4	111				
Acenaphthylene	2.12	0.0995	3.979	0	53.2	37.7	115				
Fluorene	2.24	0.0995	3.979	0.01983	55.8	46.9	113				
Phenanthrene	1.91	0.0995	3.979	0.08341	46.0	47	113				S
Anthracene	1.84	0.0995	3.979	0.01717	45.8	39.1	121				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2301086-039CMS	SampType: MS	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81129			
Client ID: GW-07-0123	Batch ID: 39088				Analysis Date: 1/13/2023			SeqNo: 1679247			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoranthene	1.58	0.0995	3.979	0.09006	37.4	49.1	120				S
Pyrene	1.52	0.199	3.979	0.08874	35.9	39.6	124				S
Benz(a)anthracene	1.21	0.0995	3.979	0.04185	29.4	50.7	120				S
Chrysene	1.07	0.0995	3.979	0.05389	25.6	41.6	120				S
Benzo(b)fluoranthene	0.990	0.0995	3.979	0.05082	23.6	42	130				S
Benzo(k)fluoranthene	1.00	0.0995	3.979	0.01003	25.0	45.1	121				S
Benzo(a)pyrene	1.03	0.0995	3.979	0.03963	24.9	29	121				S
Indeno(1,2,3-cd)pyrene	0.771	0.0995	3.979	0.01707	18.9	30.5	126				S
Dibenz(a,h)anthracene	0.791	0.0995	3.979	0	19.9	26.5	121				S
Benzo(g,h,i)perylene	0.657	0.0995	3.979	0	16.5	18.9	123				S
Surr: 2-Fluorobiphenyl	0.962		1.989		48.3	28.9	123				
Surr: Terphenyl-d14	0.518		1.989		26.1	36.4	133				S

NOTES:

S - Outlying spike recoveries were associated with this sample.

S - Outlying surrogate recovery(ies) observed.

Sample ID: 2301124-001DDUP		SampType: DUP		Units: µg/L		Prep Date: 1/11/2023			RunNo: 81129		
Client ID: BATCH		Batch ID: 39088					Analysis Date: 1/13/2023			SeqNo: 1679249	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0997						0		30	
2-Methylnaphthalene	ND	0.0997						0		30	
1-Methylnaphthalene	ND	0.0997						0		30	
Acenaphthene	ND	0.0997						0		30	
Acenaphthylene	ND	0.0997						0		30	
Fluorene	ND	0.0997						0		30	
Phenanthrene	ND	0.0997						0		30	
Anthracene	ND	0.0997						0		30	
Fluoranthene	ND	0.0997						0		30	
Pyrene	ND	0.199						0		30	
Benz(a)anthracene	ND	0.0997						0		30	

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2301124-001DDUP		SampType: DUP		Units: µg/L		Prep Date: 1/11/2023			RunNo: 81129		
Client ID: BATCH		Batch ID: 39088					Analysis Date: 1/13/2023			SeqNo: 1679249	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	ND	0.0997						0		30	
Benzo(b)fluoranthene	ND	0.0997						0		30	
Benzo(k)fluoranthene	ND	0.0997						0		30	
Benzo(a)pyrene	ND	0.0997						0		30	
Indeno(1,2,3-cd)pyrene	ND	0.0997						0		30	
Dibenz(a,h)anthracene	ND	0.0997						0		30	
Benzo(g,h,i)perylene	ND	0.0997						0		30	
Surr: 2,4,6-Tribromophenol	2.66		3.988		66.8	33.7	137		0		
Surr: 2-Fluorobiphenyl	1.26		1.994		63.3	28.9	123		0		
Surr: Terphenyl-d14	1.29		1.994		64.4	36.4	133		0		



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: MB-39077	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81133			
Client ID: MBLKS	Batch ID: 39077	Analysis Date: 1/13/2023						SeqNo: 1679318			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0200									
Aroclor 1221	ND	0.0200									
Aroclor 1232	ND	0.0200									
Aroclor 1242	ND	0.0200									
Aroclor 1248	ND	0.0200									
Aroclor 1254	ND	0.0200									
Aroclor 1260	ND	0.0200									
Aroclor 1262	ND	0.0200									
Aroclor 1268	ND	0.0200									
Total PCBs	ND	0.0200									
Surr: Decachlorobiphenyl	285		200.0		142	5	173				
Surr: Tetrachloro-m-xylene	233		200.0		116	42.6	136				

Sample ID: LCS1-39077	SampType: LCS	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81133			
Client ID: LCSS	Batch ID: 39077				Analysis Date: 1/13/2023			SeqNo: 1679319			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.19	0.0200	1.000	0	119	60.7	130				
Aroclor 1260	1.37	0.0200	1.000	0	137	58.4	122				S
Surr: Decachlorobiphenyl	285		200.0		142	5	173				
Surr: Tetrachloro-m-xylene	236		200.0		118	42.6	136				

NOTES:

S - Outlying spike recovery observed (high bias). Samples are non-detect; result meets QC requirements.

Sample ID: 2301053-011AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81133			
Client ID: BATCH		Batch ID: 39077				Analysis Date: 1/13/2023		SeqNo: 1679321			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.22	0.0219	1.093	0	111	48.3	136				
Aroclor 1260	1.36	0.0219	1.093	0	124	47.9	127				
Surr: Decachlorobiphenyl	290		218.7		133	5	173				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Polychlorinated Biphenyls (PCB) by EPA 8082

Sample ID: 2301053-011AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81133		
Client ID: BATCH		Batch ID: 39077			Analysis Date: 1/13/2023			SeqNo: 1679321				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Tetrachloro-m-xylene	237		218.7		108	42.6	136				
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Sample ID: 2301053-011AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81133		
Client ID: BATCH		Batch ID: 39077			Analysis Date: 1/13/2023			SeqNo: 1679322				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Aroclor 1016	1.26	0.0220	1.101	0	114	48.3	136	1.216	3.32	30	
Aroclor 1260	1.35	0.0220	1.101	0	123	47.9	127	1.356	0.408	30	
Surr: Decachlorobiphenyl	317		220.2		144	5	173		0		
Surr: Tetrachloro-m-xylene	259		220.2		118	42.6	136		0		



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: MB-39093		SampType: MBLK		Units: µg/L		Prep Date: 1/12/2023			RunNo: 81099		
Client ID: MBLKW		Batch ID: 39093					Analysis Date: 1/12/2023			SeqNo: 1678515	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.500									
Barium	ND	2.00									
Cadmium	ND	0.100									
Chromium	ND	0.750									
Lead	ND	0.500									
Selenium	ND	0.250									
Silver	ND	0.200									

Sample ID: LCS-39093		SampType: LCS			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81099		
Client ID: LCSW		Batch ID: 39093			Analysis Date: 1/12/2023					SeqNo: 1678516		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	94.8	0.500	100.0	0	94.8	85	115				
Barium	98.0	2.00	100.0	0	98.0	85	115				
Cadmium	5.14	0.100	5.000	0	103	85	115				
Chromium	109	0.750	100.0	0	109	85	115				
Lead	50.2	0.500	50.00	0	100	85	115				
Selenium	9.68	0.250	10.00	0	96.9	85	115				
Silver	5.13	0.200	5.000	0	103	85	115				

Sample ID: 2301153-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81099		
Client ID: BATCH		Batch ID: 39093			Analysis Date: 1/12/2023					SeqNo: 1678518		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	2.50						0		30	D
Barium	ND	10.0						0		30	D
Cadmium	26.8	0.500						27.04	0.836	30	D
Chromium	1,780	3.75						1,713	4.02	30	D
Lead	ND	2.50						0		30	D
Selenium	ND	1.25						0		30	D



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Total Metals by EPA Method 200.8

Sample ID: 2301153-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/12/2023			RunNo: 81099			
Client ID: BATCH		Batch ID: 39093					Analysis Date: 1/12/2023			SeqNo: 1678518		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Silver	ND	1.00						0		30	D	

Sample ID: 2301153-001AMS		SampType: MS			Units: µg/L		Prep Date: 1/12/2023		RunNo: 81099		
Client ID: BATCH		Batch ID: 39093			Analysis Date: 1/12/2023				SeqNo: 1678519		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	98.0	2.50	100.0	0	98.0	70	130				D
Barium	105	10.0	100.0	3.930	101	70	130				D
Cadmium	30.6	0.500	5.000	27.04	70.3	70	130				D
Chromium	1,750	3.75	100.0	1,713	41.3	70	130				DS
Lead	54.0	2.50	50.00	0	108	70	130				D
Selenium	9.98	1.25	10.00	0	99.8	70	130				D
Silver	5.78	1.00	5.000	0.8250	99.1	70	130				D

NOTES:

S - Outlying spike recoveries were associated with this sample.

Sample ID: 2301131-001AMS		SampType: MS			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81099		
Client ID: BATCH		Batch ID: 39093			Analysis Date: 1/12/2023			SeqNo: 1678533				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	93.1	0.500	100.0	0.3920	92.7	70	130					
Barium	118	2.00	100.0	21.94	96.3	70	130					
Cadmium	5.45	0.100	5.000	0.4450	100	70	130					
Chromium	108	0.750	100.0	1.283	106	70	130					
Lead	50.7	0.500	50.00	1.308	98.9	70	130					
Selenium	9.23	0.250	10.00	0	92.3	70	130					
Silver	5.18	0.200	5.000	0.1200	101	70	130					

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Total Metals by EPA Method 6020B

Sample ID: MB-39082		SampType: MBLK		Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: MBLKS		Batch ID: 39082					Analysis Date: 1/12/2023			SeqNo: 1678263	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.250									
Barium	ND	0.500									
Cadmium	ND	0.0200									
Chromium	ND	0.250									
Copper	ND	0.750									
Lead	ND	1.00									
Nickel	ND	0.250									
Selenium	ND	1.00									
Silver	ND	0.0200									
Zinc	ND	3.50									

Sample ID: 2301085-012AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: BATCH		Batch ID: 39082		Analysis Date: 1/12/2023					SeqNo: 1678267		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	42.1	0.231	46.12	2.631	85.5	75	125				
Barium	81.3	0.461	46.12	29.29	113	75	125				
Cadmium	2.23	0.0184	2.306	0.03478	95.1	75	125				
Chromium	49.0	0.231	46.12	10.07	84.3	75	125				
Copper	47.6	0.692	46.12	12.36	76.5	75	125				
Lead	23.6	0.922	23.06	3.351	87.8	75	125				
Nickel	45.3	0.231	46.12	11.92	72.4	75	125				S
Selenium	4.09	0.922	4.612	0.2109	84.1	75	125				
Silver	2.14	0.0184	2.306	0.01510	92.1	75	125				
Zinc	65.3	3.23	46.12	27.47	82.1	75	125				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2301085-012AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: BATCH		Batch ID: 39082		Analysis Date: 1/12/2023					SeqNo: 1678268		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	38.2	0.215	43.05	2.631	82.5	75	125	42.05	9.71	20	
Barium	66.7	0.430	43.05	29.29	87.0	75	125	81.29	19.7	20	
Cadmium	2.02	0.0172	2.152	0.03478	92.2	75	125	2.228	9.85	20	
Chromium	46.0	0.215	43.05	10.07	83.4	75	125	48.95	6.31	20	
Copper	45.3	0.646	43.05	12.36	76.6	75	125	47.64	4.97	20	
Lead	21.5	0.861	21.52	3.351	84.3	75	125	23.59	9.30	20	
Nickel	43.2	0.215	43.05	11.92	72.6	75	125	45.31	4.81	20	S
Selenium	3.66	0.861	4.305	0.2109	80.1	75	125	4.092	11.2	20	
Silver	1.95	0.0172	2.152	0.01510	89.9	75	125	2.139	9.23	20	
Zinc	58.9	3.01	43.05	27.47	73.0	75	125	65.33	10.4	20	S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.
 S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2301085-012APDS		SampType: PDS		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81084			
Client ID: BATCH		Batch ID: 39082					Analysis Date: 1/12/2023			SeqNo: 1678271		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Nickel	52.1	0.229	45.8	11.9	87.7	75	125					

Sample ID: LCS-39082		SampType: LCS		Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81084			
Client ID: LCSS		Batch ID: 39082					Analysis Date: 1/12/2023			SeqNo: 1678299		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	47.8	0.250	50.00	0	95.6	80	120					
Barium	49.2	0.500	50.00	0	98.4	80	120					
Cadmium	2.52	0.0200	2.500	0	101	80	120					
Chromium	52.2	0.250	50.00	0	104	80	120					
Copper	52.8	0.750	50.00	0	106	80	120					
Lead	25.3	1.00	25.00	0	101	80	120					
Nickel	50.8	0.250	50.00	0	102	80	120					



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Total Metals by EPA Method 6020B

Sample ID: LCS-39082		SampType: LCS		Units: mg/Kg		Prep Date: 1/11/2023		RunNo: 81084			
Client ID: LCSS		Batch ID: 39082				Analysis Date: 1/12/2023		SeqNo: 1678299			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	4.74	1.00	5.000	0	94.8	80	120				
Silver	2.60	0.0200	2.500	0	104	80	120				
Zinc	48.3	3.50	50.00	0	96.6	80	120				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39054		SampType: MBLK		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: MBLKW		Batch ID: 39054		Analysis Date: 1/9/2023					SeqNo: 1676133		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500									Q
Chloromethane	ND	0.750									Q
Vinyl chloride	ND	0.200									Q
Bromomethane	ND	3.00									Q
Trichlorofluoromethane (CFC-11)	ND	0.300									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	0.500									
Acetone	ND	5.00									
Methylene chloride	ND	0.750									
trans-1,2-Dichloroethene	ND	0.350									Q
Methyl tert-butyl ether (MTBE)	ND	0.350									
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
2-Butanone (MEK)	ND	1.50									
Chloroform	ND	0.500									
1,1,1-Trichloroethane (TCA)	ND	0.300									
1,1-Dichloropropene	ND	0.500									
Carbon tetrachloride	ND	0.300									
1,2-Dichloroethane (EDC)	ND	0.500									
Benzene	ND	0.440									
Trichloroethene (TCE)	ND	0.400									
1,2-Dichloropropane	ND	0.300									
Bromodichloromethane	ND	0.250									
Dibromomethane	ND	0.250									
cis-1,3-Dichloropropene	ND	0.350									
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	0.500									
Methyl Isobutyl Ketone (MIBK)	ND	1.00									
1,1,2-Trichloroethane	ND	0.250									
1,3-Dichloropropane	ND	0.300									
Tetrachloroethene (PCE)	ND	0.350									



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39054	SampType: MBLK	Units: µg/L			Prep Date: 1/9/2023			RunNo: 81000			
Client ID: MBLKW	Batch ID: 39054	Analysis Date: 1/9/2023						SeqNo: 1676133			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	0.300									
1,2-Dibromoethane (EDB)	ND	0.200									
2-Hexanone (MBK)	ND	1.25									
Chlorobenzene	ND	0.500									
1,1,1,2-Tetrachloroethane	ND	0.300									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Styrene	ND	0.500									
Isopropylbenzene	ND	0.500									
Bromoform	ND	0.300									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.500									
Bromobenzene	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
2-Chlorotoluene	ND	0.500									
4-Chlorotoluene	ND	0.500									
tert-Butylbenzene	ND	0.500									
1,2,3-Trichloropropane	ND	0.400									
1,2,4-Trichlorobenzene	ND	0.750									
sec-Butylbenzene	ND	0.500									
4-Isopropyltoluene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
n-Butylbenzene	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.500									
Naphthalene	ND	1.25									
1,2,3-Trichlorobenzene	ND	0.700									



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-39054		SampType: MBLK		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000			
Client ID: MBLKW		Batch ID: 39054					Analysis Date: 1/9/2023			SeqNo: 1676133		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	26.3		25.00		105	80	120				
Surr: Toluene-d8	24.8		25.00		99.1	80	120				
Surr: 1-Bromo-4-fluorobenzene	22.2		25.00		88.7	80	120				

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2301109-001ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054			Analysis Date: 1/9/2023			SeqNo: 1676148				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.500						0		30	Q
Chloromethane	ND	0.750						0		30	Q
Vinyl chloride	ND	0.200						0		30	Q
Bromomethane	ND	3.00						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.300						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	46.9	5.00						59.39	23.5	30	
Methylene chloride	ND	0.750						0		30	
trans-1,2-Dichloroethene	ND	0.350						0		30	Q
Methyl tert-butyl ether (MTBE)	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	ND	0.500						0		30	
2-Butanone (MEK)	51.2	1.50						56.40	9.76	30	
Chloroform	ND	0.500						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.300						0		30	
1,1-Dichloropropene	ND	0.500						0		30	
Carbon tetrachloride	ND	0.300						0		30	
1,2-Dichloroethane (EDC)	ND	0.500						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301109-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054					Analysis Date: 1/9/2023			SeqNo: 1676148	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.300						0		30	
Bromodichloromethane	ND	0.250						0		30	
Dibromomethane	ND	0.250						0		30	
cis-1,3-Dichloropropene	ND	0.350						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	0.500						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	0.250						0		30	
1,3-Dichloropropane	ND	0.300						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Dibromochloromethane	ND	0.300						0		30	
1,2-Dibromoethane (EDB)	ND	0.200						0		30	
2-Hexanone (MBK)	ND	1.25						0		30	
Chlorobenzene	ND	0.500						0		30	
1,1,1,2-Tetrachloroethane	ND	0.300						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Styrene	ND	0.500						0		30	
Isopropylbenzene	ND	0.500						0		30	
Bromoform	ND	0.300						0		30	
1,1,2,2-Tetrachloroethane	ND	0.200						0		30	
n-Propylbenzene	ND	0.500						0		30	
Bromobenzene	ND	0.500						0		30	
1,3,5-Trimethylbenzene	ND	0.500						0		30	
2-Chlorotoluene	ND	0.500						0		30	
4-Chlorotoluene	ND	0.500						0		30	
tert-Butylbenzene	ND	0.500						0		30	
1,2,3-Trichloropropane	ND	0.400						0		30	
1,2,4-Trichlorobenzene	ND	0.750						0		30	
sec-Butylbenzene	ND	0.500						0		30	

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301109-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054					Analysis Date: 1/9/2023			SeqNo: 1676148	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Isopropyltoluene	ND	0.500						0		30	
1,3-Dichlorobenzene	ND	0.500						0		30	
1,4-Dichlorobenzene	ND	0.500						0		30	
n-Butylbenzene	ND	0.500						0		30	
1,2-Dichlorobenzene	ND	0.500						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Hexachloro-1,3-butadiene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
1,2,3-Trichlorobenzene	ND	0.700						0		30	
Surr: Dibromofluoromethane	23.8		25.00		95.4	80	120		0		
Surr: Toluene-d8	22.0		25.00		87.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	22.3		25.00		89.2	80	120		0		

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: LCS-39054		SampType: LCS		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: LCSW		Batch ID: 39054		Analysis Date: 1/10/2023					SeqNo: 1677090		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	44.2	0.500	20.00	0	221	80	120				S
Chloromethane	28.6	0.750	20.00	0	143	80	120				S
Vinyl chloride	23.9	0.200	20.00	0	119	80	120				
Bromomethane	23.7	3.00	20.00	0	119	80	120				
Trichlorofluoromethane (CFC-11)	23.6	0.300	20.00	0	118	80	120				
Chloroethane	21.9	1.00	20.00	0	109	80	120				
1,1-Dichloroethene	20.5	0.500	20.00	0	103	80	120				
Acetone	58.1	5.00	50.00	0	116	80	120				
Methylene chloride	22.2	0.750	20.00	0	111	80	120				
trans-1,2-Dichloroethene	17.3	0.350	20.00	0	86.6	80	120				
Methyl tert-butyl ether (MTBE)	18.9	0.350	20.00	0	94.5	80	120				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39054	SampType: LCS	Units: µg/L			Prep Date: 1/9/2023			RunNo: 81000			
Client ID: LCSW	Batch ID: 39054	Analysis Date: 1/10/2023						SeqNo: 1677090			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	20.1	0.500	20.00	0	100	80	120				
cis-1,2-Dichloroethene	22.0	0.500	20.00	0	110	80	120				
2-Butanone (MEK)	53.2	1.50	50.00	0	106	80	120				
Chloroform	20.2	0.500	20.00	0	101	80	120				
1,1,1-Trichloroethane (TCA)	21.4	0.300	20.00	0	107	80	120				
1,1-Dichloropropene	22.3	0.500	20.00	0	111	80	120				
Carbon tetrachloride	21.5	0.300	20.00	0	107	80	120				
1,2-Dichloroethane (EDC)	18.6	0.500	20.00	0	92.8	80	120				
Benzene	21.5	0.440	20.00	0	107	80	120				
Trichloroethene (TCE)	20.4	0.400	20.00	0	102	80	120				
1,2-Dichloropropane	19.9	0.300	20.00	0	99.7	80	120				
Bromodichloromethane	21.3	0.250	20.00	0	107	80	120				
Dibromomethane	20.4	0.250	20.00	0	102	80	120				
cis-1,3-Dichloropropene	19.5	0.350	20.00	0	97.4	80	120				
Toluene	19.9	1.00	20.00	0	99.3	80	120				
trans-1,3-Dichloropropylene	20.1	0.500	20.00	0	101	80	120				
Methyl Isobutyl Ketone (MIBK)	51.5	1.00	50.00	0	103	80	120				
1,1,2-Trichloroethane	20.4	0.250	20.00	0	102	80	120				
1,3-Dichloropropane	22.1	0.300	20.00	0	110	80	120				
Tetrachloroethene (PCE)	21.4	0.350	20.00	0	107	80	120				
Dibromochloromethane	21.9	0.300	20.00	0	109	80	120				
1,2-Dibromoethane (EDB)	20.3	0.200	20.00	0	102	80	120				
2-Hexanone (MBK)	53.3	1.25	50.00	0	107	80	120				
Chlorobenzene	21.9	0.500	20.00	0	109	80	120				
1,1,1,2-Tetrachloroethane	22.0	0.300	20.00	0	110	80	120				
Ethylbenzene	21.7	0.400	20.00	0	109	80	120				
m,p-Xylene	41.9	1.00	40.00	0	105	80	120				
o-Xylene	21.3	0.500	20.00	0	107	80	120				
Styrene	21.4	0.500	20.00	0	107	80	120				
Isopropylbenzene	21.8	0.500	20.00	0	109	80	120				
Bromoform	19.8	0.300	20.00	0	99.0	80	120				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39054	SampType: LCS	Units: µg/L			Prep Date: 1/9/2023			RunNo: 81000			
Client ID: LCSW	Batch ID: 39054				Analysis Date: 1/10/2023			SeqNo: 1677090			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	22.1	0.200	20.00	0	110	80	120				
n-Propylbenzene	22.4	0.500	20.00	0	112	80	120				
Bromobenzene	20.1	0.500	20.00	0	101	80	120				
1,3,5-Trimethylbenzene	21.7	0.500	20.00	0	108	80	120				
2-Chlorotoluene	20.6	0.500	20.00	0	103	80	120				
4-Chlorotoluene	20.7	0.500	20.00	0	104	80	120				
tert-Butylbenzene	21.5	0.500	20.00	0	107	80	120				
1,2,3-Trichloropropane	19.7	0.400	20.00	0	98.6	80	120				
1,2,4-Trichlorobenzene	20.1	0.750	20.00	0	100	80	120				
sec-Butylbenzene	21.0	0.500	20.00	0	105	80	120				
4-Isopropyltoluene	21.9	0.500	20.00	0	109	80	120				
1,3-Dichlorobenzene	21.9	0.500	20.00	0	110	80	120				
1,4-Dichlorobenzene	20.8	0.500	20.00	0	104	80	120				
n-Butylbenzene	21.6	0.500	20.00	0	108	80	120				
1,2-Dichlorobenzene	22.5	0.500	20.00	0	113	80	120				
1,2-Dibromo-3-chloropropane	21.5	1.00	20.00	0	108	80	120				
1,2,4-Trimethylbenzene	21.5	0.500	20.00	0	108	80	120				
Hexachloro-1,3-butadiene	20.2	0.500	20.00	0	101	80	120				
Naphthalene	21.4	1.25	20.00	0	107	80	120				
1,2,3-Trichlorobenzene	20.3	0.700	20.00	0	102	80	120				
Surr: Dibromofluoromethane	23.0		25.00		92.1	80	120				
Surr: Toluene-d8	25.7		25.00		103	80	120				
Surr: 1-Bromo-4-fluorobenzene	28.3		25.00		113	80	120				

Sample ID: 2301102-004ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054					Analysis Date: 1/10/2023			SeqNo: 1676950	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500						0		30	
Chloromethane	ND	0.750						0		30	



Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301102-004ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054		Analysis Date: 1/10/2023					SeqNo: 1676950		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	3.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.300						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	ND	5.00						0		30	
Methylene chloride	ND	0.750						0		30	
trans-1,2-Dichloroethene	ND	0.350						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	ND	0.500						0		30	
2-Butanone (MEK)	ND	1.50						0		30	
Chloroform	ND	0.500						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.300						0		30	
1,1-Dichloropropene	ND	0.500						0		30	
Carbon tetrachloride	ND	0.300						0		30	
1,2-Dichloroethane (EDC)	ND	0.500						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
1,2-Dichloropropane	ND	0.300						0		30	
Bromodichloromethane	ND	0.250						0		30	
Dibromomethane	ND	0.250						0		30	
cis-1,3-Dichloropropene	ND	0.350						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	0.500						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	0.250						0		30	
1,3-Dichloropropane	ND	0.300						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Dibromochloromethane	ND	0.300						0		30	
1,2-Dibromoethane (EDB)	ND	0.200						0		30	



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301102-004ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000		
Client ID: BATCH		Batch ID: 39054					Analysis Date: 1/10/2023			SeqNo: 1676950	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Hexanone (MBK)	ND	1.25						0		30	
Chlorobenzene	ND	0.500						0		30	
1,1,1,2-Tetrachloroethane	ND	0.300						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Styrene	ND	0.500						0		30	
Isopropylbenzene	ND	0.500						0		30	
Bromoform	ND	0.300						0		30	
1,1,2,2-Tetrachloroethane	ND	0.200						0		30	
n-Propylbenzene	ND	0.500						0		30	
Bromobenzene	ND	0.500						0		30	
1,3,5-Trimethylbenzene	ND	0.500						0		30	
2-Chlorotoluene	ND	0.500						0		30	
4-Chlorotoluene	ND	0.500						0		30	
tert-Butylbenzene	ND	0.500						0		30	
1,2,3-Trichloropropane	ND	0.400						0		30	
1,2,4-Trichlorobenzene	ND	0.750						0		30	
sec-Butylbenzene	ND	0.500						0		30	
4-Isopropyltoluene	ND	0.500						0		30	
1,3-Dichlorobenzene	ND	0.500						0		30	
1,4-Dichlorobenzene	ND	0.500						0		30	
n-Butylbenzene	ND	0.500						0		30	
1,2-Dichlorobenzene	ND	0.500						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Hexachloro-1,3-butadiene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
1,2,3-Trichlorobenzene	ND	0.700						0		30	
Surr: Dibromofluoromethane	25.9		25.00		104	80	120		0		
Surr: Toluene-d8	24.0		25.00		95.9	80	120		0		



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301102-004ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/9/2023			RunNo: 81000			
Client ID: BATCH		Batch ID: 39054					Analysis Date: 1/10/2023			SeqNo: 1676950		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 1-Bromo-4-fluorobenzene	21.1		25.00		84.5	80	120		0			

Sample ID: 2301121-001AMS		SampType: MS		Units: µg/L		Prep Date: 1/9/2023		RunNo: 81000			
Client ID: BATCH		Batch ID: 39054				Analysis Date: 1/10/2023		SeqNo: 1676951			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	25.7	0.500	20.00	0	128	1.35	172				
Chloromethane	23.9	0.750	20.00	0	120	27.2	164				
Vinyl chloride	22.7	0.200	20.00	0	113	52.3	147				
Bromomethane	17.9	3.00	20.00	0	89.7	24.2	186				
Trichlorofluoromethane (CFC-11)	18.5	0.300	20.00	0	92.3	71.2	137				
Chloroethane	15.0	1.00	20.00	0	74.9	62.9	141				
1,1-Dichloroethene	24.9	0.500	20.00	0	124	68	152				
Acetone	71.8	5.00	50.00	6.496	131	56.1	148				
Methylene chloride	22.8	0.750	20.00	0	114	73.7	132				
trans-1,2-Dichloroethene	22.7	0.350	20.00	0	113	79.1	131				
Methyl tert-butyl ether (MTBE)	23.8	0.350	20.00	0	119	60.2	140				
1,1-Dichloroethane	20.9	0.500	20.00	0	104	64.8	148				
cis-1,2-Dichloroethene	23.1	0.500	20.00	0	116	78.3	131				
2-Butanone (MEK)	58.6	1.50	50.00	0.9277	115	53.6	145				
Chloroform	22.0	0.500	20.00	1.224	104	78.9	131				
1,1,1-Trichloroethane (TCA)	23.0	0.300	20.00	0	115	76.6	143				
1,1-Dichloropropene	24.4	0.500	20.00	0	122	73.9	146				
Carbon tetrachloride	23.6	0.300	20.00	0	118	79.5	133				
1,2-Dichloroethane (EDC)	19.2	0.500	20.00	0	96.0	67.8	140				
Benzene	22.7	0.440	20.00	0	113	78.5	133				
Trichloroethene (TCE)	24.0	0.400	20.00	2.367	108	75	133				
1,2-Dichloropropane	21.0	0.300	20.00	0	105	71.4	139				
Bromodichloromethane	22.4	0.250	20.00	0	112	76.1	130				
Dibromomethane	21.6	0.250	20.00	0	108	75.5	130				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301121-001AMS		SampType: MS		Units: µg/L		Prep Date: 1/9/2023		RunNo: 81000			
Client ID: BATCH		Batch ID: 39054				Analysis Date: 1/10/2023		SeqNo: 1676951			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	20.8	0.350	20.00	0	104	68.4	128				
Toluene	21.3	1.00	20.00	0	107	77	133				
trans-1,3-Dichloropropylene	21.6	0.500	20.00	0	108	63.8	132				
Methyl Isobutyl Ketone (MIBK)	55.7	1.00	50.00	0	111	55.6	145				
1,1,2-Trichloroethane	21.5	0.250	20.00	0	108	70.1	138				
1,3-Dichloropropane	23.2	0.300	20.00	0	116	67.7	139				
Tetrachloroethene (PCE)	23.4	0.350	20.00	0	117	78	131				
Dibromochloromethane	22.9	0.300	20.00	0	115	72.6	129				
1,2-Dibromoethane (EDB)	21.2	0.200	20.00	0	106	67.7	137				
2-Hexanone (MBK)	55.7	1.25	50.00	0	111	48.5	148				
Chlorobenzene	23.1	0.500	20.00	0	115	80.9	124				
1,1,1,2-Tetrachloroethane	23.8	0.300	20.00	0	119	75	133				
Ethylbenzene	23.3	0.400	20.00	0	116	77.9	133				
m,p-Xylene	44.9	1.00	40.00	0.4289	111	74.8	133				
o-Xylene	22.6	0.500	20.00	0	113	81.2	126				
Styrene	22.8	0.500	20.00	0	114	75.7	126				
Isopropylbenzene	23.5	0.500	20.00	0	118	79.1	132				
Bromoform	21.6	0.300	20.00	0	108	68.3	132				
1,1,2,2-Tetrachloroethane	25.1	0.200	20.00	0	126	62.8	148				
n-Propylbenzene	24.2	0.500	20.00	0	121	77.2	137				
Bromobenzene	21.5	0.500	20.00	0	108	79.9	124				
1,3,5-Trimethylbenzene	23.1	0.500	20.00	0	115	73.9	142				
2-Chlorotoluene	22.0	0.500	20.00	0	110	73.5	140				
4-Chlorotoluene	22.2	0.500	20.00	0	111	73.5	140				
tert-Butylbenzene	23.1	0.500	20.00	0	116	79.5	131				
1,2,3-Trichloropropane	21.7	0.400	20.00	0	109	63.1	139				
1,2,4-Trichlorobenzene	20.8	0.750	20.00	0	104	60.4	135				
sec-Butylbenzene	23.0	0.500	20.00	0.4367	113	77.9	136				
4-Isopropyltoluene	23.7	0.500	20.00	0.1193	118	69.9	147				
1,3-Dichlorobenzene	23.0	0.500	20.00	0	115	79.3	131				
1,4-Dichlorobenzene	21.6	0.500	20.00	0	108	79.1	131				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301121-001AMS		SampType: MS			Units: µg/L		Prep Date: 1/9/2023		RunNo: 81000		
Client ID: BATCH		Batch ID: 39054			Analysis Date: 1/10/2023				SeqNo: 1676951		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Butylbenzene	23.0	0.500	20.00	0	115	76	137				
1,2-Dichlorobenzene	23.8	0.500	20.00	0	119	79.3	131				
1,2-Dibromo-3-chloropropane	22.7	1.00	20.00	0	114	47.7	153				
1,2,4-Trimethylbenzene	23.1	0.500	20.00	0	115	74.3	142				
Hexachloro-1,3-butadiene	22.5	0.500	20.00	0	112	68.5	136				
Naphthalene	21.2	1.25	20.00	0	106	51.6	149				
1,2,3-Trichlorobenzene	21.0	0.700	20.00	0	105	56.6	142				
Surr: Dibromofluoromethane	22.9		25.00		91.5	80	120				
Surr: Toluene-d8	25.6		25.00		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	29.0		25.00		116	80	120				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39081	SampType: LCS	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81057			
Client ID: LCSS	Batch ID: 39081	Analysis Date: 1/11/2023						SeqNo: 1677753			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.01	0.0150	1.000	0	101	80	120				
Chloromethane	0.893	0.0500	1.000	0	89.3	80	120				
Vinyl chloride	0.968	0.0250	1.000	0	96.8	80	120				
Bromomethane	1.07	0.0250	1.000	0	107	80	120				
Trichlorofluoromethane (CFC-11)	1.76	0.0200	1.000	0	176	80	120				S
Chloroethane	1.24	0.0750	1.000	0	124	80	120				S
1,1-Dichloroethene	1.18	0.100	1.000	0	118	80	120				
Acetone	2.13	0.250	2.500	0	85.2	80	120				
Methylene chloride	1.05	0.0350	1.000	0	105	80	120				
trans-1,2-Dichloroethene	1.04	0.0100	1.000	0	104	80	120				
Methyl tert-butyl ether (MTBE)	0.996	0.0200	1.000	0	99.6	80	120				
1,1-Dichloroethane	1.16	0.0250	1.000	0	116	80	120				
cis-1,2-Dichloroethene	1.08	0.0150	1.000	0	108	80	120				
(MEK) 2-Butanone	2.33	0.300	2.500	0	93.3	80	120				
Chloroform	1.01	0.0175	1.000	0	101	80	120				
1,1,1-Trichloroethane (TCA)	1.04	0.0200	1.000	0	104	80	120				
1,1-Dichloropropene	1.04	0.0200	1.000	0	104	80	120				
Carbon tetrachloride	1.10	0.0250	1.000	0	110	80	120				
1,2-Dichloroethane (EDC)	1.01	0.0200	1.000	0	101	80	120				
Benzene	1.06	0.0175	1.000	0	106	80	120				
Trichloroethene (TCE)	1.06	0.0150	1.000	0	106	80	120				
1,2-Dichloropropane	1.08	0.0250	1.000	0	108	80	120				
Bromodichloromethane	1.01	0.0250	1.000	0	101	80	120				
Dibromomethane	1.10	0.0125	1.000	0	110	80	120				
cis-1,3-Dichloropropene	0.991	0.0150	1.000	0	99.1	80	120				
Toluene	0.983	0.0300	1.000	0	98.3	80	120				
Trans-1,3-Dichloropropylene	1.05	0.0200	1.000	0	105	80	120				
Methyl Isobutyl Ketone (MIBK)	2.17	0.0600	2.500	0	86.7	80	120				
1,1,2-Trichloroethane	0.938	0.0125	1.000	0	93.8	80	120				
1,3-Dichloropropane	0.945	0.0100	1.000	0	94.5	80	120				
Tetrachloroethene (PCE)	1.01	0.0150	1.000	0	101	80	120				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39081	SampType: LCS	Units: µg/L				Prep Date: 1/11/2023			RunNo: 81057		
Client ID: LCSS	Batch ID: 39081	Analysis Date: 1/11/2023							SeqNo: 1677753		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	1.01	0.0150	1.000	0	101	80	120				
1,2-Dibromoethane (EDB)	0.938	0.0100	1.000	0	93.8	80	120				
2-Hexanone (MBK)	2.12	0.0625	2.500	0	84.6	80	120				
Chlorobenzene	0.979	0.0150	1.000	0	97.9	80	120				
1,1,1,2-Tetrachloroethane	1.00	0.0250	1.000	0	100	80	120				
Ethylbenzene	1.05	0.0250	1.000	0	105	80	120				
m,p-Xylene	2.07	0.0500	2.000	0	104	80	120				
o-Xylene	1.04	0.0250	1.000	0	104	80	120				
Styrene	1.02	0.0100	1.000	0	102	80	120				
Isopropylbenzene	1.07	0.0150	1.000	0	107	80	120				
Bromoform	1.02	0.0150	1.000	0	102	80	120				
1,1,2,2-Tetrachloroethane	0.907	0.200	1.000	0	90.7	80	120				
n-Propylbenzene	1.10	0.0150	1.000	0	110	80	120				
Bromobenzene	0.956	0.0125	1.000	0	95.6	80	120				
1,3,5-Trimethylbenzene	0.975	0.0150	1.000	0	97.5	80	120				
2-Chlorotoluene	0.976	0.0165	1.000	0	97.6	80	120				
4-Chlorotoluene	0.972	0.0165	1.000	0	97.2	80	120				
tert-Butylbenzene	0.989	0.0150	1.000	0	98.9	80	120				
1,2,3-Trichloropropane	0.932	0.0300	1.000	0	93.2	80	120				
1,2,4-Trichlorobenzene	1.03	0.0600	1.000	0	103	80	120				
sec-Butylbenzene	0.994	0.150	1.000	0	99.4	80	120				
4-Isopropyltoluene	1.11	0.200	1.000	0	111	80	120				
1,3-Dichlorobenzene	1.05	0.0200	1.000	0	105	80	120				
1,4-Dichlorobenzene	1.02	0.0150	1.000	0	102	80	120				
n-Butylbenzene	1.11	0.0200	1.000	0	111	80	120				
1,2-Dichlorobenzene	1.05	0.0200	1.000	0	105	80	120				
1,2-Dibromo-3-chloropropane	0.949	0.0300	1.000	0	94.9	80	120				
1,2,4-Trimethylbenzene	1.02	0.0150	1.000	0	102	80	120				
Hexachloro-1,3-butadiene	1.07	0.0400	1.000	0	107	80	120				
Naphthalene	0.861	0.100	1.000	0	86.1	80	120				
1,2,3-Trichlorobenzene	0.998	0.0600	1.000	0	99.8	80	120				

Work Order: 2301086
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39081		SampType: LCS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81057		
Client ID: LCSS		Batch ID: 39081			Analysis Date: 1/11/2023			SeqNo: 1677753				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	1.30		1.250		104	80	120				
Surr: Toluene-d8	1.26		1.250		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		98.9	80	120				

NOTES:

S - Outlying spike recovery observed (high bias). Detections will be qualified with a Q.

Sample ID: MB-39081		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81057		
Client ID: MBLKS		Batch ID: 39081			Analysis Date: 1/11/2023			SeqNo: 1677752				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0150
Chloromethane	ND	0.0500
Vinyl chloride	ND	0.0250
Bromomethane	ND	0.0250
Trichlorofluoromethane (CFC-11)	ND	0.0200
Chloroethane	ND	0.0750
1,1-Dichloroethene	ND	0.100
Acetone	ND	0.250
Methylene chloride	ND	0.0350
trans-1,2-Dichloroethene	ND	0.0100
Methyl tert-butyl ether (MTBE)	ND	0.0200
1,1-Dichloroethane	ND	0.0250
cis-1,2-Dichloroethene	ND	0.0150
(MEK) 2-Butanone	ND	0.300
Chloroform	ND	0.0175
1,1,1-Trichloroethane (TCA)	ND	0.0200
1,1-Dichloropropene	ND	0.0200
Carbon tetrachloride	ND	0.0250
1,2-Dichloroethane (EDC)	ND	0.0200
Benzene	ND	0.0175
Trichloroethene (TCE)	ND	0.0150



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39081	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81057			
Client ID: MBLKS	Batch ID: 39081	Analysis Date: 1/11/2023						SeqNo: 1677752			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-39081	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81057			
Client ID: MBLKS	Batch ID: 39081	Analysis Date: 1/11/2023						SeqNo: 1677752			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.24		1.250		99.6	80	120				
Surr: Toluene-d8	1.24		1.250		99.5	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.4	80	120				

Sample ID: 2301086-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (2.5-3)		Batch ID: 39081					Analysis Date: 1/12/2023			SeqNo: 1677949	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0182						0		30	
Chloromethane	ND	0.0607						0		30	
Vinyl chloride	ND	0.0303						0		30	
Bromomethane	ND	0.0303						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0243						0		30	
Chloroethane	ND	0.0910						0		30	
1,1-Dichloroethene	ND	0.121						0		30	
Acetone	ND	0.303						0		30	
Methylene chloride	ND	0.0425						0		30	
trans-1,2-Dichloroethene	ND	0.0121						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0243						0		30	
1,1-Dichloroethane	ND	0.0303						0		30	



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Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (2.5-3)		Batch ID: 39081		Analysis Date: 1/12/2023						SeqNo: 1677949	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,2-Dichloroethene	ND	0.0182						0		30	
(MEK) 2-Butanone	ND	0.364						0		30	
Chloroform	ND	0.0212						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0243						0		30	
1,1-Dichloropropene	ND	0.0243						0		30	
Carbon tetrachloride	ND	0.0303						0		30	
1,2-Dichloroethane (EDC)	ND	0.0243						0		30	
Benzene	ND	0.0212						0		30	
Trichloroethene (TCE)	ND	0.0182						0		30	
1,2-Dichloropropane	ND	0.0303						0		30	
Bromodichloromethane	ND	0.0303						0		30	
Dibromomethane	ND	0.0152						0		30	
cis-1,3-Dichloropropene	ND	0.0182						0		30	
Toluene	ND	0.0364						0		30	
Trans-1,3-Dichloropropylene	ND	0.0243						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0728						0		30	
1,1,2-Trichloroethane	ND	0.0152						0		30	
1,3-Dichloropropane	ND	0.0121						0		30	
Tetrachloroethene (PCE)	ND	0.0182						0		30	
Dibromochloromethane	ND	0.0182						0		30	
1,2-Dibromoethane (EDB)	ND	0.0121						0		30	
2-Hexanone (MBK)	ND	0.0758						0		30	
Chlorobenzene	ND	0.0182						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0303						0		30	
Ethylbenzene	ND	0.0303						0		30	
m,p-Xylene	ND	0.0607						0		30	
o-Xylene	ND	0.0303						0		30	
Styrene	ND	0.0121						0		30	
Isopropylbenzene	ND	0.0182						0		30	
Bromoform	ND	0.0182						0		30	
1,1,2,2-Tetrachloroethane	ND	0.243						0		30	



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (2.5-3)		Batch ID: 39081					Analysis Date: 1/12/2023			SeqNo: 1677949	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	0.0182						0		30	
Bromobenzene	ND	0.0152						0		30	
1,3,5-Trimethylbenzene	ND	0.0182						0		30	
2-Chlorotoluene	ND	0.0200						0		30	
4-Chlorotoluene	ND	0.0200						0		30	
tert-Butylbenzene	ND	0.0182						0		30	
1,2,3-Trichloropropane	ND	0.0364						0		30	
1,2,4-Trichlorobenzene	ND	0.0728						0		30	
sec-Butylbenzene	ND	0.182						0		30	
4-Isopropyltoluene	ND	0.243						0		30	
1,3-Dichlorobenzene	ND	0.0243						0		30	
1,4-Dichlorobenzene	ND	0.0182						0		30	
n-Butylbenzene	ND	0.0243						0		30	
1,2-Dichlorobenzene	ND	0.0243						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0364						0		30	
1,2,4-Trimethylbenzene	ND	0.0182						0		30	
Hexachloro-1,3-butadiene	ND	0.0485						0		30	
Naphthalene	ND	0.121						0		30	
1,2,3-Trichlorobenzene	ND	0.0728						0		30	
Surr: Dibromofluoromethane	1.56		1.517		103	80	120		0		
Surr: Toluene-d8	1.51		1.517		99.4	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.49		1.517		97.9	80	120		0		

Sample ID: 2301086-002BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (14-15)		Batch ID: 39081		Analysis Date: 1/12/2023						SeqNo: 1677951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0176						0		30	
Chloromethane	ND	0.0586						0		30	
Vinyl chloride	ND	0.0293						0		30	



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-002BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (14-15)		Batch ID: 39081		Analysis Date: 1/12/2023						SeqNo: 1677951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	ND	0.0293						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0234						0		30	
Chloroethane	ND	0.0878						0		30	
1,1-Dichloroethene	ND	0.117						0		30	
Acetone	ND	0.293						0		30	
Methylene chloride	ND	0.0410						0		30	
trans-1,2-Dichloroethene	ND	0.0117						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0234						0		30	
1,1-Dichloroethane	ND	0.0293						0		30	
cis-1,2-Dichloroethene	ND	0.0176						0		30	
(MEK) 2-Butanone	ND	0.351						0		30	
Chloroform	ND	0.0205						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0234						0		30	
1,1-Dichloropropene	ND	0.0234						0		30	
Carbon tetrachloride	ND	0.0293						0		30	
1,2-Dichloroethane (EDC)	ND	0.0234						0		30	
Benzene	ND	0.0205						0		30	
Trichloroethene (TCE)	ND	0.0176						0		30	
1,2-Dichloropropane	ND	0.0293						0		30	
Bromodichloromethane	ND	0.0293						0		30	
Dibromomethane	ND	0.0146						0		30	
cis-1,3-Dichloropropene	ND	0.0176						0		30	
Toluene	ND	0.0351						0		30	
Trans-1,3-Dichloropropylene	ND	0.0234						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0703						0		30	
1,1,2-Trichloroethane	ND	0.0146						0		30	
1,3-Dichloropropane	ND	0.0117						0		30	
Tetrachloroethene (PCE)	ND	0.0176						0		30	
Dibromochloromethane	ND	0.0176						0		30	
1,2-Dibromoethane (EDB)	ND	0.0117						0		30	
2-Hexanone (MBK)	ND	0.0732						0		30	



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-002BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (14-15)		Batch ID: 39081		Analysis Date: 1/12/2023						SeqNo: 1677951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.0176						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0293						0		30	
Ethylbenzene	ND	0.0293						0		30	
m,p-Xylene	0.158	0.0586						0.1534	3.16	30	
o-Xylene	0.115	0.0293						0.1108	3.59	30	
Styrene	ND	0.0117						0		30	
Isopropylbenzene	ND	0.0176						0		30	
Bromoform	ND	0.0176						0		30	
1,1,2,2-Tetrachloroethane	ND	0.234						0		30	
n-Propylbenzene	ND	0.0176						0		30	
Bromobenzene	ND	0.0146						0		30	
1,3,5-Trimethylbenzene	0.0785	0.0176						0.07595	3.36	30	
2-Chlorotoluene	ND	0.0193						0		30	
4-Chlorotoluene	ND	0.0193						0		30	
tert-Butylbenzene	ND	0.0176						0		30	
1,2,3-Trichloropropane	ND	0.0351						0		30	
1,2,4-Trichlorobenzene	ND	0.0703						0		30	
sec-Butylbenzene	ND	0.176						0		30	
4-Isopropyltoluene	ND	0.234						0		30	
1,3-Dichlorobenzene	ND	0.0234						0		30	
1,4-Dichlorobenzene	ND	0.0176						0		30	
n-Butylbenzene	ND	0.0234						0		30	
1,2-Dichlorobenzene	ND	0.0234						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0351						0		30	
1,2,4-Trimethylbenzene	0.260	0.0176						0.2531	2.68	30	
Hexachloro-1,3-butadiene	ND	0.0468						0		30	
Naphthalene	ND	0.117						0		30	
1,2,3-Trichlorobenzene	ND	0.0703						0		30	
Surr: Dibromofluoromethane	1.46		1.464		99.8	80	120		0		
Surr: Toluene-d8	1.43		1.464		97.7	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.46		1.464		99.8	80	120		0		



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2301086-002BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4 (14-15)		Batch ID: 39081					Analysis Date: 1/12/2023			SeqNo: 1677951	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: 2301086-003BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066			
Client ID: AST-4A (4-4.5)		Batch ID: 39081					Analysis Date: 1/12/2023			SeqNo: 1677953		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	1.20	0.0169	1.128	0	107	13.6	193				
Chloromethane	0.959	0.0564	1.128	0	85.0	37.6	165				
Vinyl chloride	1.09	0.0282	1.128	0	96.6	49.9	166				
Bromomethane	1.05	0.0282	1.128	0	93.0	29.1	184				
Trichlorofluoromethane (CFC-11)	2.42	0.0226	1.128	0	214	49.8	160				S
Chloroethane	1.25	0.0846	1.128	0	111	41.1	171				
1,1-Dichloroethene	1.31	0.113	1.128	0	116	64.6	149				
Acetone	2.06	0.282	2.820	0	73.0	54.6	152				
Methylene chloride	0.803	0.0395	1.128	0	71.2	66.1	140				
trans-1,2-Dichloroethene	1.08	0.0113	1.128	0	96.0	73.1	137				
Methyl tert-butyl ether (MTBE)	1.12	0.0226	1.128	0	99.4	72.4	129				
1,1-Dichloroethane	1.14	0.0282	1.128	0	101	68.6	139				
cis-1,2-Dichloroethene	1.06	0.0169	1.128	0	94.0	76.4	134				
(MEK) 2-Butanone	2.25	0.338	2.820	0	79.7	58.2	156				
Chloroform	1.03	0.0197	1.128	0	90.9	77.9	132				
1,1,1-Trichloroethane (TCA)	1.13	0.0226	1.128	0	100	77.6	139				
1,1-Dichloropropene	1.09	0.0226	1.128	0	96.5	78.1	138				
Carbon tetrachloride	1.20	0.0282	1.128	0	106	75.8	140				
1,2-Dichloroethane (EDC)	1.04	0.0226	1.128	0	92.0	74.5	133				
Benzene	1.09	0.0197	1.128	0	97.0	76.2	134				
Trichloroethene (TCE)	1.15	0.0169	1.128	0	102	75.5	144				
1,2-Dichloropropane	1.06	0.0282	1.128	0	94.4	70.9	135				
Bromodichloromethane	1.05	0.0282	1.128	0	93.5	72.4	135				
Dibromomethane	1.12	0.0141	1.128	0	99.5	75.8	134				
cis-1,3-Dichloropropene	0.959	0.0169	1.128	0	85.0	67.1	135				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-003BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81066			
Client ID: AST-4A (4-4.5)		Batch ID: 39081				Analysis Date: 1/12/2023		SeqNo: 1677953			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	1.04	0.0338	1.128	0	92.2	77.9	135				
Trans-1,3-Dichloropropylene	1.03	0.0226	1.128	0	90.9	66.8	135				
Methyl Isobutyl Ketone (MIBK)	2.33	0.0677	2.820	0	82.6	55	155				
1,1,2-Trichloroethane	1.01	0.0141	1.128	0	89.1	71.7	137				
1,3-Dichloropropane	0.972	0.0113	1.128	0	86.2	72.9	135				
Tetrachloroethene (PCE)	1.13	0.0169	1.128	0	100	78.3	138				
Dibromochloromethane	1.04	0.0169	1.128	0	91.9	69.4	137				
1,2-Dibromoethane (EDB)	1.01	0.0113	1.128	0	89.5	75.2	133				
2-Hexanone (MBK)	2.28	0.0705	2.820	0	80.8	45.8	156				
Chlorobenzene	1.07	0.0169	1.128	0	94.5	83.2	128				
1,1,1,2-Tetrachloroethane	1.10	0.0282	1.128	0	97.1	81	131				
Ethylbenzene	1.15	0.0282	1.128	0	102	81.1	138				
m,p-Xylene	2.28	0.0564	2.256	0	101	82.2	135				
o-Xylene	1.15	0.0282	1.128	0	102	81.3	136				
Styrene	1.11	0.0113	1.128	0	98.3	81.9	132				
Isopropylbenzene	1.19	0.0169	1.128	0	106	80.3	142				
Bromoform	1.09	0.0169	1.128	0	96.2	63.3	143				
1,1,2,2-Tetrachloroethane	1.04	0.226	1.128	0	92.6	61	136				
n-Propylbenzene	1.14	0.0169	1.128	0	101	77.4	145				
Bromobenzene	1.09	0.0141	1.128	0	96.4	80.1	131				
1,3,5-Trimethylbenzene	1.06	0.0169	1.128	0.009705	92.8	78.6	138				
2-Chlorotoluene	1.02	0.0186	1.128	0	90.6	79.6	136				
4-Chlorotoluene	1.02	0.0186	1.128	0	90.9	80.2	133				
tert-Butylbenzene	1.11	0.0169	1.128	0	98.0	76.8	138				
1,2,3-Trichloropropane	0.948	0.0338	1.128	0	84.0	68.4	134				
1,2,4-Trichlorobenzene	1.21	0.0677	1.128	0	107	71.4	134				
sec-Butylbenzene	1.10	0.169	1.128	0.01067	96.8	74.3	148				
4-Isopropyltoluene	1.23	0.226	1.128	0.007468	109	75.4	142				
1,3-Dichlorobenzene	1.17	0.0226	1.128	0	104	83.8	130				
1,4-Dichlorobenzene	1.12	0.0169	1.128	0	99.7	83.7	130				
n-Butylbenzene	1.21	0.0226	1.128	0	107	77.1	142				

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CLIENT: Apex Companies, LLC
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-003BMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81066		
Client ID: AST-4A (4-4.5)		Batch ID: 39081			Analysis Date: 1/12/2023			SeqNo: 1677953				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

1,2-Dichlorobenzene	1.17	0.0226	1.128	0	104	84.8	128				
1,2-Dibromo-3-chloropropane	1.01	0.0338	1.128	0	89.5	61.3	138				
1,2,4-Trimethylbenzene	1.13	0.0169	1.128	0.01249	99.5	77.1	138				
Hexachloro-1,3-butadiene	1.32	0.0451	1.128	0	117	70.3	148				
Naphthalene	1.07	0.113	1.128	0	94.9	58.7	144				
1,2,3-Trichlorobenzene	1.20	0.0677	1.128	0	106	61.4	142				
Surr: Dibromofluoromethane	1.35		1.410		95.9	80	120				
Surr: Toluene-d8	1.33		1.410		94.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.410		99.0	80	120				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39083	SampType: LCS	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81071			
Client ID: LCSS	Batch ID: 39083	Analysis Date: 1/11/2023						SeqNo: 1678058			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.783	0.0150	1.000	0	78.3	80	120				S
Chloromethane	0.731	0.0500	1.000	0	73.1	80	120				S
Vinyl chloride	0.806	0.0250	1.000	0	80.6	80	120				
Bromomethane	0.815	0.0250	1.000	0	81.5	80	120				
Trichlorofluoromethane (CFC-11)	0.837	0.0200	1.000	0	83.7	80	120				
Chloroethane	0.809	0.0750	1.000	0	80.9	80	120				
1,1-Dichloroethene	0.920	0.100	1.000	0	92.0	80	120				
Acetone	2.26	0.250	2.500	0	90.6	80	120				
Methylene chloride	0.801	0.0350	1.000	0	80.1	80	120				
trans-1,2-Dichloroethene	0.945	0.0100	1.000	0	94.5	80	120				
Methyl tert-butyl ether (MTBE)	0.930	0.0200	1.000	0	93.0	80	120				
1,1-Dichloroethane	0.939	0.0250	1.000	0	93.9	80	120				
cis-1,2-Dichloroethene	0.976	0.0150	1.000	0	97.6	80	120				
(MEK) 2-Butanone	2.06	0.300	2.500	0	82.5	80	120				
Chloroform	1.01	0.0175	1.000	0	101	80	120				
1,1,1-Trichloroethane (TCA)	1.03	0.0200	1.000	0	103	80	120				
1,1-Dichloropropene	0.959	0.0200	1.000	0	95.9	80	120				
Carbon tetrachloride	1.05	0.0250	1.000	0	105	80	120				
1,2-Dichloroethane (EDC)	0.949	0.0200	1.000	0	94.9	80	120				
Benzene	0.933	0.0175	1.000	0	93.3	80	120				
Trichloroethene (TCE)	0.938	0.0150	1.000	0	93.8	80	120				
1,2-Dichloropropane	0.976	0.0250	1.000	0	97.6	80	120				
Bromodichloromethane	1.05	0.0250	1.000	0	105	80	120				
Dibromomethane	1.04	0.0125	1.000	0	104	80	120				
cis-1,3-Dichloropropene	1.07	0.0150	1.000	0	107	80	120				
Toluene	0.939	0.0300	1.000	0	93.9	80	120				
Trans-1,3-Dichloropropylene	1.09	0.0200	1.000	0	109	80	120				
Methyl Isobutyl Ketone (MIBK)	2.55	0.0600	2.500	0	102	80	120				
1,1,2-Trichloroethane	1.01	0.0125	1.000	0	101	80	120				
1,3-Dichloropropane	1.00	0.0100	1.000	0	100	80	120				
Tetrachloroethene (PCE)	0.959	0.0150	1.000	0	95.9	80	120				

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CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39083	SampType: LCS	Units: µg/L				Prep Date: 1/11/2023			RunNo: 81071		
Client ID: LCSS	Batch ID: 39083	Analysis Date: 1/11/2023							SeqNo: 1678058		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	1.11	0.0150	1.000	0	111	80	120				
1,2-Dibromoethane (EDB)	1.05	0.0100	1.000	0	105	80	120				
2-Hexanone (MBK)	2.60	0.0625	2.500	0	104	80	120				
Chlorobenzene	0.984	0.0150	1.000	0	98.4	80	120				
1,1,1,2-Tetrachloroethane	1.09	0.0250	1.000	0	109	80	120				
Ethylbenzene	1.01	0.0250	1.000	0	101	80	120				
m,p-Xylene	2.04	0.0500	2.000	0	102	80	120				
o-Xylene	1.05	0.0250	1.000	0	105	80	120				
Styrene	0.999	0.0100	1.000	0	99.9	80	120				
Isopropylbenzene	1.06	0.0150	1.000	0	106	80	120				
Bromoform	0.978	0.0150	1.000	0	97.8	80	120				
1,1,2,2-Tetrachloroethane	1.13	0.200	1.000	0	113	80	120				
n-Propylbenzene	1.04	0.0150	1.000	0	104	80	120				
Bromobenzene	1.03	0.0125	1.000	0	103	80	120				
1,3,5-Trimethylbenzene	1.05	0.0150	1.000	0	105	80	120				
2-Chlorotoluene	1.03	0.0165	1.000	0	103	80	120				
4-Chlorotoluene	1.06	0.0165	1.000	0	106	80	120				
tert-Butylbenzene	1.04	0.0150	1.000	0	104	80	120				
1,2,3-Trichloropropane	1.09	0.0300	1.000	0	109	80	120				
1,2,4-Trichlorobenzene	0.983	0.0600	1.000	0	98.3	80	120				
sec-Butylbenzene	1.04	0.150	1.000	0	104	80	120				
4-Isopropyltoluene	1.03	0.200	1.000	0	103	80	120				
1,3-Dichlorobenzene	0.950	0.0200	1.000	0	95.0	80	120				
1,4-Dichlorobenzene	0.937	0.0150	1.000	0	93.7	80	120				
n-Butylbenzene	0.994	0.0200	1.000	0	99.4	80	120				
1,2-Dichlorobenzene	0.943	0.0200	1.000	0	94.3	80	120				
1,2-Dibromo-3-chloropropane	1.04	0.0300	1.000	0	104	80	120				
1,2,4-Trimethylbenzene	1.03	0.0150	1.000	0	103	80	120				
Hexachloro-1,3-butadiene	0.977	0.0400	1.000	0	97.7	80	120				
Naphthalene	1.03	0.100	1.000	0	103	80	120				
1,2,3-Trichlorobenzene	0.977	0.0600	1.000	0	97.7	80	120				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39083		SampType: LCS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81071		
Client ID: LCSS		Batch ID: 39083			Analysis Date: 1/11/2023			SeqNo: 1678058				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	1.28		1.250		103	80	120				
Surr: Toluene-d8	1.22		1.250		97.6	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.30		1.250		104	80	120				

NOTES:

S - Outlying spike recovery observed (low bias). Samples will be qualified with a Q.

Sample ID: MB-39083		SampType: MBLK		Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81071			
Client ID: MBLKS		Batch ID: 39083					Analysis Date: 1/11/2023			SeqNo: 1678053		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0150									Q
Chloromethane	ND	0.0500									Q
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0750									
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39083	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81071			
Client ID: MBLKS	Batch ID: 39083	Analysis Date: 1/11/2023						SeqNo: 1678053			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									



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CLIENT: Apex Companies, LLC
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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39083	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81071			
Client ID: MBLKS	Batch ID: 39083	Analysis Date: 1/11/2023						SeqNo: 1678053			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.21		1.250		96.9	80	120				
Surr: Toluene-d8	1.22		1.250		97.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.27		1.250		101	80	120				

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2301054-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81071		
Client ID: BATCH		Batch ID: 39083					Analysis Date: 1/11/2023			SeqNo: 1678036	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0188						0		30	Q
Chloromethane	ND	0.0628						0		30	Q
Vinyl chloride	ND	0.0314						0		30	
Bromomethane	ND	0.0314						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0251						0		30	
Chloroethane	ND	0.0942						0		30	
1,1-Dichloroethene	ND	0.126						0		30	
Acetone	ND	0.314						0		30	
Methylene chloride	ND	0.0440						0		30	
trans-1,2-Dichloroethene	ND	0.0126						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0251						0		30	



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Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301054-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81071		
Client ID: BATCH		Batch ID: 39083		Analysis Date: 1/11/2023					SeqNo: 1678036		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.0314						0		30	
cis-1,2-Dichloroethene	ND	0.0188						0		30	
(MEK) 2-Butanone	ND	0.377						0		30	
Chloroform	ND	0.0220						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0251						0		30	
1,1-Dichloropropene	ND	0.0251						0		30	
Carbon tetrachloride	ND	0.0314						0		30	
1,2-Dichloroethane (EDC)	ND	0.0251						0		30	
Benzene	ND	0.0220						0		30	
Trichloroethene (TCE)	ND	0.0188						0		30	
1,2-Dichloropropane	ND	0.0314						0		30	
Bromodichloromethane	ND	0.0314						0		30	
Dibromomethane	ND	0.0157						0		30	
cis-1,3-Dichloropropene	ND	0.0188						0		30	
Toluene	ND	0.0377						0		30	
Trans-1,3-Dichloropropylene	ND	0.0251						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0754						0		30	
1,1,2-Trichloroethane	ND	0.0157						0		30	
1,3-Dichloropropane	ND	0.0126						0		30	
Tetrachloroethene (PCE)	0.111	0.0188						0.1106	0.616	30	
Dibromochloromethane	ND	0.0188						0		30	
1,2-Dibromoethane (EDB)	ND	0.0126						0		30	
2-Hexanone (MBK)	ND	0.0785						0		30	
Chlorobenzene	ND	0.0188						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0314						0		30	
Ethylbenzene	ND	0.0314						0		30	
m,p-Xylene	ND	0.0628						0		30	
o-Xylene	ND	0.0314						0		30	
Styrene	ND	0.0126						0		30	
Isopropylbenzene	ND	0.0188						0		30	
Bromoform	ND	0.0188						0		30	



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301054-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81071		
Client ID: BATCH		Batch ID: 39083		Analysis Date: 1/11/2023						SeqNo: 1678036	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	0.251						0		30	
n-Propylbenzene	ND	0.0188						0		30	
Bromobenzene	ND	0.0157						0		30	
1,3,5-Trimethylbenzene	ND	0.0188						0		30	
2-Chlorotoluene	ND	0.0207						0		30	
4-Chlorotoluene	ND	0.0207						0		30	
tert-Butylbenzene	ND	0.0188						0		30	
1,2,3-Trichloropropane	ND	0.0377						0		30	
1,2,4-Trichlorobenzene	ND	0.0754						0		30	
sec-Butylbenzene	ND	0.188						0		30	
4-Isopropyltoluene	ND	0.251						0		30	
1,3-Dichlorobenzene	ND	0.0251						0		30	
1,4-Dichlorobenzene	ND	0.0188						0		30	
n-Butylbenzene	ND	0.0251						0		30	
1,2-Dichlorobenzene	ND	0.0251						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0377						0		30	
1,2,4-Trimethylbenzene	ND	0.0188						0		30	
Hexachloro-1,3-butadiene	ND	0.0503						0		30	
Naphthalene	ND	0.126						0		30	
1,2,3-Trichlorobenzene	ND	0.0754						0		30	
Surr: Dibromofluoromethane	1.57		1.571		99.7	80	120		0		
Surr: Toluene-d8	1.54		1.571		97.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.61		1.571		102	80	120		0		

NOTES:

Q - Associated calibration verification and LCS are below acceptance criteria. Result may be low-biased.

Sample ID: 2301054-006BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81071			
Client ID: BATCH		Batch ID: 39083				Analysis Date: 1/11/2023		SeqNo: 1678040			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.03	0.0158	1.055	0	98.0	13.6	193				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301054-006BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81071			
Client ID: BATCH		Batch ID: 39083				Analysis Date: 1/11/2023		SeqNo: 1678040			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	0.891	0.0527	1.055	0	84.5	37.6	165				
Vinyl chloride	1.06	0.0264	1.055	0	101	49.9	166				
Bromomethane	0.938	0.0264	1.055	0	88.9	29.1	184				
Trichlorofluoromethane (CFC-11)	1.07	0.0211	1.055	0	101	49.8	160				
Chloroethane	1.11	0.0791	1.055	0	106	41.1	171				
1,1-Dichloroethene	1.19	0.105	1.055	0	113	64.6	149				
Acetone	2.43	0.264	2.637	0	92.3	54.6	152				
Methylene chloride	0.906	0.0369	1.055	0	85.9	66.1	140				
trans-1,2-Dichloroethene	1.13	0.0105	1.055	0	108	73.1	137				
Methyl tert-butyl ether (MTBE)	1.06	0.0211	1.055	0	101	72.4	129				
1,1-Dichloroethane	1.15	0.0264	1.055	0	109	68.6	139				
cis-1,2-Dichloroethene	1.11	0.0158	1.055	0	105	76.4	134				
(MEK) 2-Butanone	2.46	0.316	2.637	0	93.4	58.2	156				
Chloroform	1.13	0.0185	1.055	0	108	77.9	132				
1,1,1-Trichloroethane (TCA)	1.23	0.0211	1.055	0	117	77.6	139				
1,1-Dichloropropene	1.17	0.0211	1.055	0	111	78.1	138				
Carbon tetrachloride	1.31	0.0264	1.055	0	125	75.8	140				
1,2-Dichloroethane (EDC)	1.07	0.0211	1.055	0	101	74.5	133				
Benzene	1.09	0.0185	1.055	0	104	76.2	134				
Trichloroethene (TCE)	1.12	0.0158	1.055	0	106	75.5	144				
1,2-Dichloropropane	1.10	0.0264	1.055	0	105	70.9	135				
Bromodichloromethane	1.18	0.0264	1.055	0	112	72.4	135				
Dibromomethane	1.17	0.0132	1.055	0	111	75.8	134				
cis-1,3-Dichloropropene	1.16	0.0158	1.055	0	110	67.1	135				
Toluene	1.11	0.0316	1.055	0	105	77.9	135				
Trans-1,3-Dichloropropylene	1.20	0.0211	1.055	0	114	66.8	135				
Methyl Isobutyl Ketone (MIBK)	3.18	0.0633	2.637	0	121	55	155				
1,1,2-Trichloroethane	1.16	0.0132	1.055	0	110	71.7	137				
1,3-Dichloropropane	1.14	0.0105	1.055	0	108	72.9	135				
Tetrachloroethene (PCE)	1.17	0.0158	1.055	0.009507	110	78.3	138				
Dibromochloromethane	1.24	0.0158	1.055	0	118	69.4	137				



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QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2301054-006BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81071			
Client ID: BATCH		Batch ID: 39083				Analysis Date: 1/11/2023		SeqNo: 1678040			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	1.20	0.0105	1.055	0	114	75.2	133				
2-Hexanone (MBK)	3.27	0.0659	2.637	0	124	45.8	156				
Chlorobenzene	1.11	0.0158	1.055	0	105	83.2	128				
1,1,1,2-Tetrachloroethane	1.20	0.0264	1.055	0	114	81	131				
Ethylbenzene	1.16	0.0264	1.055	0	110	81.1	138				
m,p-Xylene	2.34	0.0527	2.109	0	111	82.2	135				
o-Xylene	1.19	0.0264	1.055	0	113	81.3	136				
Styrene	1.12	0.0105	1.055	0	106	81.9	132				
Isopropylbenzene	1.24	0.0158	1.055	0	118	80.3	142				
Bromoform	1.04	0.0158	1.055	0	98.2	63.3	143				
1,1,2,2-Tetrachloroethane	1.25	0.211	1.055	0	119	61	136				
n-Propylbenzene	1.22	0.0158	1.055	0	115	77.4	145				
Bromobenzene	1.14	0.0132	1.055	0	108	80.1	131				
1,3,5-Trimethylbenzene	1.18	0.0158	1.055	0	112	78.6	138				
2-Chlorotoluene	1.16	0.0174	1.055	0	110	79.6	136				
4-Chlorotoluene	1.16	0.0174	1.055	0	110	80.2	133				
tert-Butylbenzene	1.21	0.0158	1.055	0	115	76.8	138				
1,2,3-Trichloropropane	1.13	0.0316	1.055	0	108	68.4	134				
1,2,4-Trichlorobenzene	1.04	0.0633	1.055	0	98.8	71.4	134				
sec-Butylbenzene	1.22	0.158	1.055	0	116	74.3	148				
4-Isopropyltoluene	1.18	0.211	1.055	0	112	75.4	142				
1,3-Dichlorobenzene	1.04	0.0211	1.055	0	98.1	83.8	130				
1,4-Dichlorobenzene	0.997	0.0158	1.055	0	94.6	83.7	130				
n-Butylbenzene	1.10	0.0211	1.055	0	105	77.1	142				
1,2-Dichlorobenzene	1.02	0.0211	1.055	0	96.4	84.8	128				
1,2-Dibromo-3-chloropropane	1.15	0.0316	1.055	0	109	61.3	138				
1,2,4-Trimethylbenzene	1.15	0.0158	1.055	0	110	77.1	138				
Hexachloro-1,3-butadiene	1.09	0.0422	1.055	0	104	70.3	148				
Naphthalene	1.09	0.105	1.055	0	104	58.7	144				
1,2,3-Trichlorobenzene	1.02	0.0633	1.055	0	97.0	61.4	142				
Surr: Dibromofluoromethane	1.34		1.318		102	80	120				



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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301054-006BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81071			
Client ID: BATCH		Batch ID: 39083				Analysis Date: 1/11/2023		SeqNo: 1678040			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	1.30		1.318		98.7	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.40		1.318		106	80	120				

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CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39085	SampType: LCS	Units: µg/L				Prep Date: 1/11/2023			RunNo: 81242		
Client ID: LCSS	Batch ID: 39085	Analysis Date: 1/12/2023							SeqNo: 1682100		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.814	0.0150	1.000	0	81.4	80	120				S
Chloromethane	0.716	0.0500	1.000	0	71.6	80	120				
Vinyl chloride	0.806	0.0250	1.000	0	80.6	80	120				
Bromomethane	0.841	0.0250	1.000	0	84.1	80	120				
Trichlorofluoromethane (CFC-11)	1.11	0.0200	1.000	0	111	80	120				
Chloroethane	1.01	0.0750	1.000	0	101	80	120				
1,1-Dichloroethene	0.819	0.100	1.000	0	81.9	80	120				
Acetone	2.06	0.250	2.500	0	82.6	80	120				
Methylene chloride	0.825	0.0350	1.000	0	82.5	80	120				
trans-1,2-Dichloroethene	0.819	0.0100	1.000	0	81.9	80	120				
Methyl tert-butyl ether (MTBE)	1.03	0.0200	1.000	0	103	80	120				
1,1-Dichloroethane	0.913	0.0250	1.000	0	91.3	80	120				
cis-1,2-Dichloroethene	0.927	0.0150	1.000	0	92.7	80	120				
(MEK) 2-Butanone	2.39	0.300	2.500	0	95.6	80	120				
Chloroform	0.854	0.0175	1.000	0	85.4	80	120				
1,1,1-Trichloroethane (TCA)	0.831	0.0200	1.000	0	83.1	80	120				
1,1-Dichloropropene	0.791	0.0200	1.000	0	79.1	80	120				S
Carbon tetrachloride	0.842	0.0250	1.000	0	84.2	80	120				
1,2-Dichloroethane (EDC)	0.939	0.0200	1.000	0	93.9	80	120				
Benzene	0.889	0.0175	1.000	0	88.9	80	120				
Trichloroethene (TCE)	0.896	0.0150	1.000	0	89.6	80	120				
1,2-Dichloropropane	0.931	0.0250	1.000	0	93.1	80	120				
Bromodichloromethane	0.914	0.0250	1.000	0	91.4	80	120				
Dibromomethane	1.04	0.0125	1.000	0	104	80	120				
cis-1,3-Dichloropropene	0.851	0.0150	1.000	0	85.1	80	120				
Toluene	0.838	0.0300	1.000	0	83.8	80	120				
Trans-1,3-Dichloropropylene	0.936	0.0200	1.000	0	93.6	80	120				
Methyl Isobutyl Ketone (MIBK)	2.14	0.0600	2.500	0	85.5	80	120				
1,1,2-Trichloroethane	0.919	0.0125	1.000	0	91.9	80	120				
1,3-Dichloropropane	0.906	0.0100	1.000	0	90.6	80	120				
Tetrachloroethene (PCE)	0.834	0.0150	1.000	0	83.4	80	120				



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39085	SampType: LCS	Units: µg/L			Prep Date: 1/11/2023			RunNo: 81242			
Client ID: LCSS	Batch ID: 39085	Analysis Date: 1/12/2023						SeqNo: 1682100			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	0.960	0.0150	1.000	0	96.0	80	120				
1,2-Dibromoethane (EDB)	0.929	0.0100	1.000	0	92.9	80	120				
2-Hexanone (MBK)	2.11	0.0625	2.500	0	84.2	80	120				
Chlorobenzene	0.891	0.0150	1.000	0	89.1	80	120				
1,1,1,2-Tetrachloroethane	0.952	0.0250	1.000	0	95.2	80	120				
Ethylbenzene	0.899	0.0250	1.000	0	89.9	80	120				
m,p-Xylene	1.80	0.0500	2.000	0	90.0	80	120				
o-Xylene	0.942	0.0250	1.000	0	94.2	80	120				
Styrene	0.946	0.0100	1.000	0	94.6	80	120				
Isopropylbenzene	0.900	0.0150	1.000	0	90.0	80	120				
Bromoform	1.02	0.0150	1.000	0	102	80	120				
1,1,2,2-Tetrachloroethane	0.928	0.200	1.000	0	92.8	80	120				
n-Propylbenzene	0.912	0.0150	1.000	0	91.2	80	120				
Bromobenzene	0.937	0.0125	1.000	0	93.7	80	120				
1,3,5-Trimethylbenzene	0.853	0.0150	1.000	0	85.3	80	120				
2-Chlorotoluene	0.864	0.0165	1.000	0	86.4	80	120				
4-Chlorotoluene	0.869	0.0165	1.000	0	86.9	80	120				
tert-Butylbenzene	0.841	0.0150	1.000	0	84.1	80	120				
1,2,3-Trichloropropane	0.905	0.0300	1.000	0	90.5	80	120				
1,2,4-Trichlorobenzene	1.02	0.0600	1.000	0	102	80	120				
sec-Butylbenzene	0.817	0.150	1.000	0	81.7	80	120				
4-Isopropyltoluene	0.926	0.200	1.000	0	92.6	80	120				
1,3-Dichlorobenzene	0.979	0.0200	1.000	0	97.9	80	120				
1,4-Dichlorobenzene	0.958	0.0150	1.000	0	95.8	80	120				
n-Butylbenzene	0.857	0.0200	1.000	0	85.7	80	120				
1,2-Dichlorobenzene	1.01	0.0200	1.000	0	101	80	120				
1,2-Dibromo-3-chloropropane	0.946	0.0300	1.000	0	94.6	80	120				
1,2,4-Trimethylbenzene	0.920	0.0150	1.000	0	92.0	80	120				
Hexachloro-1,3-butadiene	0.878	0.0400	1.000	0	87.8	80	120				
Naphthalene	0.953	0.100	1.000	0	95.3	80	120				
1,2,3-Trichlorobenzene	1.05	0.0600	1.000	0	105	80	120				

Work Order: 2301086
CLIENT: Apex Companies, LLC
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QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39085		SampType: LCS			Units: µg/L		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: LCSS		Batch ID: 39085			Analysis Date: 1/12/2023			SeqNo: 1682100				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Surr: Dibromofluoromethane	1.20		1.250		95.7	80	120				
Surr: Toluene-d8	1.19		1.250		95.5	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.3	80	120				

NOTES:

S - Outlying spike recovery observed (low bias). Samples will be qualified with a Q.

Sample ID: MB-39085		SampType: MBLK			Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: MBLKS		Batch ID: 39085						Analysis Date: 1/12/2023			SeqNo: 1682086	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Dichlorodifluoromethane (CFC-12)	ND	0.0150									
Chloromethane	ND	0.0500									Q
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0750									
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									Q
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39085	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81242			
Client ID: MBLKS	Batch ID: 39085	Analysis Date: 1/12/2023						SeqNo: 1682086			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									



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Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-39085	SampType: MBLK	Units: mg/Kg			Prep Date: 1/11/2023			RunNo: 81242			
Client ID: MBLKS	Batch ID: 39085	Analysis Date: 1/12/2023						SeqNo: 1682086			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.21		1.250		96.4	80	120				
Surr: Toluene-d8	1.20		1.250		96.0	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.8	80	120				

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2301086-030BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-09 (24.5-25)		Batch ID: 39085					Analysis Date: 1/12/2023			SeqNo: 1682067	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0172						0		30	Q
Chloromethane	ND	0.0574						0		30	
Vinyl chloride	ND	0.0287						0		30	
Bromomethane	ND	0.0287						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0230						0		30	
Chloroethane	ND	0.0862						0		30	
1,1-Dichloroethene	ND	0.115						0		30	
Acetone	ND	0.287						0		30	
Methylene chloride	ND	0.0402						0		30	
trans-1,2-Dichloroethene	ND	0.0115						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0230						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-030BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-09 (24.5-25)		Batch ID: 39085		Analysis Date: 1/12/2023						SeqNo: 1682067	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.0287						0		30	
cis-1,2-Dichloroethene	ND	0.0172						0		30	
(MEK) 2-Butanone	ND	0.345						0		30	
Chloroform	ND	0.0201						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0230						0		30	
1,1-Dichloropropene	ND	0.0230						0		30	Q
Carbon tetrachloride	ND	0.0287						0		30	
1,2-Dichloroethane (EDC)	ND	0.0230						0		30	
Benzene	ND	0.0201						0		30	
Trichloroethene (TCE)	ND	0.0172						0		30	
1,2-Dichloropropane	ND	0.0287						0		30	
Bromodichloromethane	ND	0.0287						0		30	
Dibromomethane	ND	0.0144						0		30	
cis-1,3-Dichloropropene	ND	0.0172						0		30	
Toluene	ND	0.0345						0		30	
Trans-1,3-Dichloropropylene	ND	0.0230						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0689						0		30	
1,1,2-Trichloroethane	ND	0.0144						0		30	
1,3-Dichloropropane	ND	0.0115						0		30	
Tetrachloroethene (PCE)	ND	0.0172						0		30	
Dibromochloromethane	ND	0.0172						0		30	
1,2-Dibromoethane (EDB)	ND	0.0115						0		30	
2-Hexanone (MBK)	ND	0.0718						0		30	
Chlorobenzene	ND	0.0172						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0287						0		30	
Ethylbenzene	ND	0.0287						0		30	
m,p-Xylene	ND	0.0574						0		30	
o-Xylene	ND	0.0287						0		30	
Styrene	ND	0.0115						0		30	
Isopropylbenzene	ND	0.0172						0		30	
Bromoform	ND	0.0172						0		30	



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QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2301086-030BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-09 (24.5-25)		Batch ID: 39085		Analysis Date: 1/12/2023						SeqNo: 1682067	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	0.230						0		30	
n-Propylbenzene	ND	0.0172						0		30	
Bromobenzene	ND	0.0144						0		30	
1,3,5-Trimethylbenzene	ND	0.0172						0		30	
2-Chlorotoluene	ND	0.0190						0		30	
4-Chlorotoluene	ND	0.0190						0		30	
tert-Butylbenzene	ND	0.0172						0		30	
1,2,3-Trichloropropane	ND	0.0345						0		30	
1,2,4-Trichlorobenzene	ND	0.0689						0		30	
sec-Butylbenzene	ND	0.172						0		30	
4-Isopropyltoluene	ND	0.230						0		30	
1,3-Dichlorobenzene	ND	0.0230						0		30	
1,4-Dichlorobenzene	ND	0.0172						0		30	
n-Butylbenzene	ND	0.0230						0		30	
1,2-Dichlorobenzene	ND	0.0230						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0345						0		30	
1,2,4-Trimethylbenzene	ND	0.0172						0		30	
Hexachloro-1,3-butadiene	ND	0.0459						0		30	
Naphthalene	ND	0.115						0		30	
1,2,3-Trichlorobenzene	ND	0.0689						0		30	
Surr: Dibromofluoromethane	1.41		1.436		98.1	80	120		0		
Surr: Toluene-d8	1.39		1.436		96.7	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.40		1.436		97.8	80	120		0		

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2301086-031BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-08 (13.5-14)		Batch ID: 39085					Analysis Date: 1/12/2023			SeqNo: 1682069	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0334						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-031BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-08 (13.5-14)		Batch ID: 39085					Analysis Date: 1/12/2023			SeqNo: 1682069	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloromethane	ND	0.111						0		30	Q
Vinyl chloride	ND	0.0557						0		30	
Bromomethane	ND	0.0557						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0445						0		30	
Chloroethane	ND	0.167						0		30	
1,1-Dichloroethene	ND	0.223						0		30	
Acetone	ND	0.557						0		30	
Methylene chloride	ND	0.0779						0		30	
trans-1,2-Dichloroethene	ND	0.0223						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0445						0		30	
1,1-Dichloroethane	ND	0.0557						0		30	
cis-1,2-Dichloroethene	ND	0.0334						0		30	
(MEK) 2-Butanone	ND	0.668						0		30	
Chloroform	ND	0.0390						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0445						0		30	
1,1-Dichloropropene	ND	0.0445						0		30	Q
Carbon tetrachloride	ND	0.0557						0		30	
1,2-Dichloroethane (EDC)	ND	0.0445						0		30	
Benzene	ND	0.0390						0		30	
Trichloroethene (TCE)	ND	0.0334						0		30	
1,2-Dichloropropane	ND	0.0557						0		30	
Bromodichloromethane	ND	0.0557						0		30	
Dibromomethane	ND	0.0278						0		30	
cis-1,3-Dichloropropene	ND	0.0334						0		30	
Toluene	ND	0.0668						0		30	
Trans-1,3-Dichloropropylene	ND	0.0445						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.134						0		30	
1,1,2-Trichloroethane	ND	0.0278						0		30	
1,3-Dichloropropane	ND	0.0223						0		30	
Tetrachloroethene (PCE)	ND	0.0334						0		30	
Dibromochloromethane	ND	0.0334						0		30	



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QC SUMMARY REPORT
Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-031BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-08 (13.5-14)		Batch ID: 39085					Analysis Date: 1/12/2023			SeqNo: 1682069	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.0223						0		30	
2-Hexanone (MBK)	ND	0.139						0		30	
Chlorobenzene	ND	0.0334						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0557						0		30	
Ethylbenzene	ND	0.0557						0		30	
m,p-Xylene	ND	0.111						0		30	
o-Xylene	ND	0.0557						0		30	
Styrene	ND	0.0223						0		30	
Isopropylbenzene	ND	0.0334						0		30	
Bromoform	ND	0.0334						0		30	
1,1,2,2-Tetrachloroethane	ND	0.445						0		30	
n-Propylbenzene	ND	0.0334						0		30	
Bromobenzene	ND	0.0278						0		30	
1,3,5-Trimethylbenzene	ND	0.0334						0		30	
2-Chlorotoluene	ND	0.0367						0		30	
4-Chlorotoluene	ND	0.0367						0		30	
tert-Butylbenzene	ND	0.0334						0		30	
1,2,3-Trichloropropane	ND	0.0668						0		30	
1,2,4-Trichlorobenzene	ND	0.134						0		30	
sec-Butylbenzene	ND	0.334						0		30	
4-Isopropyltoluene	ND	0.445						0		30	
1,3-Dichlorobenzene	ND	0.0445						0		30	
1,4-Dichlorobenzene	ND	0.0334						0		30	
n-Butylbenzene	ND	0.0445						0		30	
1,2-Dichlorobenzene	ND	0.0445						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0668						0		30	
1,2,4-Trimethylbenzene	ND	0.0334						0		30	
Hexachloro-1,3-butadiene	ND	0.0890						0		30	
Naphthalene	ND	0.223						0		30	
1,2,3-Trichlorobenzene	ND	0.134						0		30	
Surr: Dibromofluoromethane	2.82		2.783		101	80	120		0		



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CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT**Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2301086-031BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81242		
Client ID: SB-08 (13.5-14)		Batch ID: 39085					Analysis Date: 1/12/2023			SeqNo: 1682069	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	2.70		2.783		97.0	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	2.72		2.783		97.7	80	120		0		

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2301086-032BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81242			
Client ID: SB-08 (24.5-25)		Batch ID: 39085				Analysis Date: 1/12/2023		SeqNo: 1682071			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.19	0.0183	1.217	0	98.1	13.6	193				
Chloromethane	0.979	0.0608	1.217	0	80.5	37.6	165				
Vinyl chloride	1.13	0.0304	1.217	0	93.0	49.9	166				
Bromomethane	0.996	0.0304	1.217	0	81.8	29.1	184				
Trichlorofluoromethane (CFC-11)	2.38	0.0243	1.217	0	196	49.8	160				S
Chloroethane	1.28	0.0913	1.217	0	106	41.1	171				
1,1-Dichloroethene	1.29	0.122	1.217	0	106	64.6	149				
Acetone	2.54	0.304	3.042	0	83.6	54.6	152				
Methylene chloride	1.11	0.0426	1.217	0	91.3	66.1	140				
trans-1,2-Dichloroethene	1.14	0.0122	1.217	0	93.3	73.1	137				
Methyl tert-butyl ether (MTBE)	1.20	0.0243	1.217	0	98.6	72.4	129				
1,1-Dichloroethane	1.20	0.0304	1.217	0	98.5	68.6	139				
cis-1,2-Dichloroethene	1.13	0.0183	1.217	0	92.8	76.4	134				
(MEK) 2-Butanone	2.49	0.365	3.042	0	81.8	58.2	156				
Chloroform	1.09	0.0213	1.217	0	89.6	77.9	132				
1,1,1-Trichloroethane (TCA)	1.21	0.0243	1.217	0	99.4	77.6	139				
1,1-Dichloropropene	1.14	0.0243	1.217	0	94.0	78.1	138				
Carbon tetrachloride	1.27	0.0304	1.217	0	104	75.8	140				
1,2-Dichloroethane (EDC)	1.09	0.0243	1.217	0	89.8	74.5	133				
Benzene	1.16	0.0213	1.217	0	95.5	76.2	134				
Trichloroethene (TCE)	1.26	0.0183	1.217	0	104	75.5	144				
1,2-Dichloropropane	1.14	0.0304	1.217	0	93.8	70.9	135				



Date: 1/19/2023

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-032BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81242			
Client ID: SB-08 (24.5-25)		Batch ID: 39085				Analysis Date: 1/12/2023		SeqNo: 1682071			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromodichloromethane	1.11	0.0304	1.217	0	90.9	72.4	135				
Dibromomethane	1.20	0.0152	1.217	0	99.0	75.8	134				
cis-1,3-Dichloropropene	0.984	0.0183	1.217	0	80.9	67.1	135				
Toluene	1.10	0.0365	1.217	0	90.8	77.9	135				
Trans-1,3-Dichloropropylene	1.06	0.0243	1.217	0	87.3	66.8	135				
Methyl Isobutyl Ketone (MIBK)	2.48	0.0730	3.042	0	81.5	55	155				
1,1,2-Trichloroethane	1.08	0.0152	1.217	0	88.6	71.7	137				
1,3-Dichloropropane	1.05	0.0122	1.217	0	86.2	72.9	135				
Tetrachloroethene (PCE)	1.20	0.0183	1.217	0	98.7	78.3	138				
Dibromochloromethane	1.14	0.0183	1.217	0	93.6	69.4	137				
1,2-Dibromoethane (EDB)	1.09	0.0122	1.217	0	89.4	75.2	133				
2-Hexanone (MBK)	2.45	0.0760	3.042	0	80.4	45.8	156				
Chlorobenzene	1.14	0.0183	1.217	0	93.9	83.2	128				
1,1,1,2-Tetrachloroethane	1.19	0.0304	1.217	0	98.0	81	131				
Ethylbenzene	1.22	0.0304	1.217	0	100	81.1	138				
m,p-Xylene	2.43	0.0608	2.433	0	99.9	82.2	135				
o-Xylene	1.23	0.0304	1.217	0	101	81.3	136				
Styrene	1.19	0.0122	1.217	0	97.9	81.9	132				
Isopropylbenzene	1.27	0.0183	1.217	0	104	80.3	142				
Bromoform	1.21	0.0183	1.217	0	99.3	63.3	143				
1,1,2,2-Tetrachloroethane	1.06	0.243	1.217	0	87.4	61	136				
n-Propylbenzene	1.15	0.0183	1.217	0	94.9	77.4	145				
Bromobenzene	1.17	0.0152	1.217	0	96.4	80.1	131				
1,3,5-Trimethylbenzene	1.10	0.0183	1.217	0.006326	89.7	78.6	138				
2-Chlorotoluene	1.05	0.0201	1.217	0	86.5	79.6	136				
4-Chlorotoluene	1.07	0.0201	1.217	0	87.6	80.2	133				
tert-Butylbenzene	1.16	0.0183	1.217	0	95.6	76.8	138				
1,2,3-Trichloropropane	1.09	0.0365	1.217	0	89.3	68.4	134				
1,2,4-Trichlorobenzene	1.27	0.0730	1.217	0	105	71.4	134				
sec-Butylbenzene	1.15	0.183	1.217	0.006944	94.2	74.3	148				
4-Isopropyltoluene	1.28	0.243	1.217	0	105	75.4	142				

Work Order: 2301086
CLIENT: Apex Companies, LLC
Project: Dagmars Marina RI

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301086-032BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81242			
Client ID: SB-08 (24.5-25)		Batch ID: 39085				Analysis Date: 1/12/2023		SeqNo: 1682071			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	1.23	0.0243	1.217	0	101	83.8	130				
1,4-Dichlorobenzene	1.19	0.0183	1.217	0	97.6	83.7	130				
n-Butylbenzene	1.22	0.0243	1.217	0	100	77.1	142				
1,2-Dichlorobenzene	1.25	0.0243	1.217	0	103	84.8	128				
1,2-Dibromo-3-chloropropane	1.12	0.0365	1.217	0	91.9	61.3	138				
1,2,4-Trimethylbenzene	1.18	0.0183	1.217	0	96.6	77.1	138				
Hexachloro-1,3-butadiene	1.29	0.0487	1.217	0	106	70.3	148				
Naphthalene	1.17	0.122	1.217	0	95.8	58.7	144				
1,2,3-Trichlorobenzene	1.29	0.0730	1.217	0	106	61.4	142				
Surr: Dibromofluoromethane	1.42		1.521		93.7	80	120				
Surr: Toluene-d8	1.42		1.521		93.6	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.51		1.521		99.6	80	120				

NOTES:

S - Outlying spike recoveries were associated with this sample.

Client Name: APEXCO
 Logged by: Clare Griggs

Work Order Number: 2301086
 Date Received: 1/5/2023 5:16:00 PM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☒ No ☐ Not Present ☐
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☒ No ☐ NA ☐
 MeOH VOA extracted for SHOP-4 (2.5-3)
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified: Anders Utter Date: 1/6/2023
 By Whom: Matt Langston Via: ☐ eMail ☒ Phone ☐ Fax ☐ In Person
 Regarding: Metals selection. Labeling discrepancies.
 Client Instructions: RCRA8+3

19. Additional remarks:

Item Information

Item #	Temp °C
Sample	4.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 1 of 5
Laboratory Project No (Internal): 2301086
Special Remarks: Hold = do not analyze
Project Name: Dagmars Marina R1
Project No: ALT021-0314032
Collected by: H Hixox
Location: Everett, WA
Report To (PM): Anders Utter
PM Email: Anders.Utter@APEXCO.S.COM
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client: APEX Companies LLC
Address: 801 N 42nd St
City, State, Zip: Seattle, WA
Telephone: 425-757-1452
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 A5T-4 (2.5-3)	01-3-23	900	S	3	X	X	X	X	X	X	X	X	X	X	
2 A5T-4 (14-15)		910	S	3	X	X	X	X	X	X	X	X	X	X	
3 A5T-4A (4-4.5)		935	S	3	X	X	X	X	X	X	X	X	X	X	Hold
4 A5T-4A (9.5-10)		940	S	3	X	X	X	X	X	X	X	X	X	X	
5 A5T-5 (3-4)		1020	S	3	X	X	X	X	X	X	X	X	X	X	Hold
6 A5T-5 (9.5-10)		1025	S	3	X	X	X	X	X	X	X	X	X	X	
7 A5T-6 (2.5-3)		1045	S	3	X	X	X	X	X	X	X	X	X	X	
8 A5T-6 (10-11)		1050	S	3	X	X	X	X	X	X	X	X	X	X	
9 A5T-6 (14.5-15)		1055	S	3	X	X	X	X	X	X	X	X	X	X	
10 A5T-6A (2.5-3)		1120	S	3	X	X	X	X	X	X	X	X	X	X	Hold

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn
Anions (Circle): Nitrate Nitrite Nitrate+Nitrite
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)

Relinquished (Signature) Print Name Date/Time
Relinquished (Signature) Print Name Date/Time
Received (Signature) Print Name Date/Time
Received (Signature) Print Name Date/Time

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 2 of 5

Laboratory Project No (Internal): 2306086

Special Remarks:

Hold = do not analyze

Project Name: Dagmaxs Marine RI

Project No: AITC21-0314032

Collected by: H HISCX

Location: Everett, WA

Report To (PM): A. Vthor

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: anders.uthor@apexcos.com

Client: APEX Companies LLC

Address: 801 N 42nd St

City, State, Zip: Seattle WA 98148

Telephone: 206-757-1452

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCs (EPA 8270 - 625)	PCBs (EPA 8082 / 508)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	ED8 (801.1)	Comments
1 AST6A- (10-11)	1-3-23	1125	S	3	X	X							Hold
2 AST6A- (14.5-15)		1130	S	3	X	X							
3 AST6B- (15-2)		1200	S	3									Hold
4 AST6B (9.5-10)		1205	S	3	X	X							
5 AST-7 (2-25)		1206	S	3									Hold
6 AST-7 (9.5-10)		1246	S	3	X	X							
7 AST-8 (3-4)		1310	S	3									Hold
8 AST-8 (9.5-10)		1326	S	3	X	X							
9 SHOP-3 (6-6)		1340	S	3									Hold
10 SHOP-3 (9.5-10)		1345	S	3	X	X							Hold

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
	H. Hiscx	1/5/23 1600		Nathaniel Ries	1/5/23 17:16
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time

Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23
Page: 3 of: 5

Laboratory Project No (Internal): 2301086

Project Name: DAWSON MARY R1
Project No: ALT021 0314032
Collected by: H TISOX
Location: Everett, WA

Special Remarks: Hold = do not analyze

Report To (PM): A. Utter

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: Anders.Utter@ApexAS.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOG (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOC (EPA 8270 - 5M)	PCBs (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC) ***	EDB (801)	Comments
1 SHOP 4 - (2.5-3)	1-3-23	1400	S	3	X	X	X	X	X	X				
2 SHOP 4 - (5-6)	"	1410	S	6	X	X	X	X	X	X				
3 SHOP 4 - (9.5-10)	"	1420	S	3	X	X	X	X	X	X				
4 SHOP 4 - GW	"	1445	W	4	X	X	X	X	X	X				
5 SHOP 4A (2.5-3)	1-4-23	845	S	3	X	X	X	X	X	X				Hot
6 SHOP 4A (9.5-10)	"	850	S	3	X	X	X	X	X	X				Hot
7 SHOP 5 (3.5-4)	"	910	S	3	X	X	X	X	X	X				
8 SHOP 5 (9.5-10)	"	915	S	3	X	X	X	X	X	X				
9 SB-09 (13-13.5)	"	1445	S	3	X	X	X	X	X	X				
10 SB-09 (24.5-25)	"	1505	S	3	X	X	X	X	X	X				

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

Anions (Circle): Nitrate Nitrite Nitrate+Nitrite

Turn-around Time:
☒ Standard
☐ Next Day
☐ 3 Day
☐ Same Day
☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)
Date/Time

Relinquished (Signature)
Date/Time



**3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178**

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 34 of: 5

Laboratory Project No (internal): 2301086

Special Remarks:

Project Name: Udaya Krishna

Project Name: Vagabond Wading
Project No: A1021-0314032

Collected by: H. H. Sox

Location: Sweet + WA

Report To (PM):

APM Email: Anders.utter@Apexcas.com

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCS (EPA 8270 / 825)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals ** (EPA 6020 - SIM)	Total (T) Dissolved (D)	Anions (G)*** (EPA 8013)	Comments
1 SB-06 (13.5-14)	1-4-23	1350	S	6	X	X	X	X	X	X	X	X			
2 SB-06 (24.5-25)		1410	S	3		X	X	X							
3 SB-06 (6-7)		1100	S	3											Hold
4 SB-04 (14.5-15)		1110	S	3		X	X	X							
5 SB-07 (12.5-13)		1245	S	6	X	X	X	X				X			
6 SB-07 (24.5-25)		1310	S	3		X	X	X							
7 SB-05 (5.5-6)		10410	S	3											Hold
8 SB-05 (14.5-15)		10560	S	3		X	X	X							
9 GW-08-0123		1400	W	6	X	X	X	X	X	X	X				

ac = Matrix; A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle):	RCRA-8	Priority Pollutants	TAL	Individual:	Ag	Al	As	B	Ba	Be	Cd	Co	Cr	Cu	Fe	Hg	K	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Sr	Sn	Tl	V	Zn
---------------------------	--------	---------------------	-----	-------------	----	----	----	---	----	----	----	----	----	----	----	----	---	----	----	----	----	----	----	----	----	----	----	----	---	----

Anions (Circle):	Nitrate	Nitrite	Chloride	Sulfate	Bromide	O-Phosphate	Fluoride	Nitrate+Nitrite
4								
6								
8								
10								
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								
42								
44								
46								
48								
50								
52								
54								
56								
58								
60								
62								
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68								
70								
72								
74								
76								
78								
80								
82								
84								
86								
88								
90								
92								
94								
96								
98								
100								

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

4
Relinquished (Signature)

Print Name _____

Date/Time

Received (Signature)

Print Name _____

Date/Time:

x  Relinquished (Signature)

Print Name Anders

Date/Time
1/5/23

X

Print Name: Northside

Date/Time	1/5/2
-----------	-------

Turn-around Time:
☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day



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Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 5 of: 5 Laboratory Project No (Internal): 2301086

Project Name: Danvers Marina RI Special Remarks: hold = do not analyze

Project No: Altaz-0314032

Collected by: H. Hiscok

Location: Everett, WA

Report To (PM): A. Utter Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: Anders.Utter@apexcos.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOG (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8082 / 608)	Metals** (EPA 8210 - SIM)	Total (T) Dissolved (D)	Anions (IC)**	EDB (801.1)	Comments
1 SB-8A (13-13.5)	1/5/23	1110	S	3											Hold
2 SB-8A (14.5-15)	1/5/23	1120	S	3		X									
3 SB-11 (5-5.5)	1/5/23	1009	S	3											Hold
4 SB-11 (14-14.5)	1/5/23	1005	S	3		X									
5 SB-12 (6.5-7)	1/5/23	1025	S	3											Hold
6 SB-12 (14-14.5)	1/5/23	1030	S	3		X									
7															
8															
9															
10															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Nitrate+Nitrite

represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) [Signature] Print Name Anders Utter Date/Time 1/5/23 1600

Received (Signature) [Signature] Print Name Nathan Rios Date/Time 1/5/23 17:16

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23

Page: 1 of 5

Laboratory Project No (Internal): 2301086

Client: APEx Companies LLC

Address: 801 N 42nd St

City, State, Zip: Seattle, WA

Telephone: 425-757-1452

Fax:

Project Name: Dagmars Marina R1

Project No: ALTO21-0314032

Collected by: H Hixox

Location: Everett, WA

Report To (PM): Anders Utter

PM Email: Anders.Utter@APExCOS.com

Special Remarks:

Hold = do not analyze

edits per HH & AU 1/10/23 -cg

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOC (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PCBs (EPA 8082 / 51M)	Metals** (EPA 8210 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 A5T-4 (2.5-3)	01-3-23	900	S	3	X	X	X	X	X	X	X	X	X	X	
2 A5T-4 (14-15)		910	S	3	X	X	X	X	X	X	X	X	X	X	
3 A5T-4A (4-4.5)		935	S	3	X	X	X	X	X	X	X	X	X	X	Hold
4 A5T-4A (9.5-10)		940	S	3	X	X	X	X	X	X	X	X	X	X	
5 A5T-5 (3-4)		1020	S	3	X	X	X	X	X	X	X	X	X	X	Hold
6 A5T-5 (9.5-10)		1025	S	3	X	X	X	X	X	X	X	X	X	X	
7 A5T-6 (2.5-3)		1045	S	3	X	X	X	X	X	X	X	X	X	X	
8 A5T-6 (10-11)		1050	S	3	X	X	X	X	X	X	X	X	X	X	
9 A5T-6 (14.5-15)		1055	S	3	X	X	X	X	X	X	X	X	X	X	
10 A5T-6A (2.5)		1120	S	3	X	X	X	X	X	X	X	X	X	X	Hold

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8

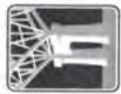
Anions (Circle): Nitrate Nitrite Nitrate+Nitrite

Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) _____ Date/Time 1/5/23 17:16

Relinquished (Signature) _____ Date/Time 1/5/23 17:16



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 2 of 5

Laboratory Project No (Internal): 2306086

Special Remarks:

Hold = do not analyze

Project Name: Dagmaxs Marine RI

Project No: AITC21-0314032

Collected by: H HISCX

Location: Everett, WA

Report To (PM): A. Vthor

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: anders.uthor@apexcos.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCS (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCs (EPA 8270 / 625)	PCBs (EPA 8082 / 51M)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)***	ED8 (8011)	Comments
1 AST6A-(10-11)	1-3-23	1125	S	3	X	X	X	X	X	X	X	X	X	X	Hold
2 AST6A-(14.5-15)		1130	S	3	X	X	X	X	X	X	X	X	X	X	Hold
3 AST6B-(15-2)		1200	S	3	X	X	X	X	X	X	X	X	X	X	Hold
4 AST6B-(9.5-10)		1205	S	3	X	X	X	X	X	X	X	X	X	X	Hold
5 AST-7 (2-25)		1200	S	3	X	X	X	X	X	X	X	X	X	X	Hold
6 AST-7 (9.5-10)		1240	S	3	X	X	X	X	X	X	X	X	X	X	Hold
7 AST-8 (3-4)		1310	S	3	X	X	X	X	X	X	X	X	X	X	Hold
8 AST-8 (9.5-10)		1320	S	3	X	X	X	X	X	X	X	X	X	X	Hold
9 SHOP-3 (6-6)		1340	S	3	X	X	X	X	X	X	X	X	X	X	Hold
10 SHOP-3 (9.5-10)		1345	S	3	X	X	X	X	X	X	X	X	X	X	Hold

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) H. Hiscx Date/Time 1/5/23 1600

Print Name

Date/Time

Relinquished (Signature) Nathaniel Ries Date/Time 1/5/23 17:16

Print Name

Date/Time

Relinquished (Signature) Date/Time

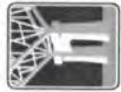
Print Name

Date/Time

Relinquished (Signature) Date/Time

Print Name

Date/Time



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Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 3 of: 5
Laboratory Project No (Internal): 2301086
Special Remarks: Hold = do not analyze
Project Name: DATA WAS MARKED R1
Project No: ALT021 0314032
Collected by: H TISOX
Location: Gwerett, WA
Report To (PM): A. Utter
PM Email: Anders.Utter@ApexAS.com
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOG (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCs (EPA 8270 - 5M)	PCBs (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC) ***	EDB (801.1)	Comments
1 SHOP 4 - (2.5-3)	1-3-23	1400	S	3	X	X	X	X	X	X	X	X	X	
2 SHOP 4 - (5-6)	"	1410	S	6	X	X	X	X	X	X	X	X	X	
3 SHOP 4 - (9.5-10)	"	1420	S	3	X	X	X	X	X	X	X	X	X	
4 SHOP 4 - GW	"	1445	W	4	X	X	X	X	X	X	X	X	X	VOA volume not received
5 SHOP 4A (2.5-3)	1-4-23	845	S	3	X	X	X	X	X	X	X	X	X	Hold
6 SHOP 4A (9.5-10)	"	850	S	3	X	X	X	X	X	X	X	X	X	Hold
7 SHOP 5 (3.5-4)	"	910	S	3	X	X	X	X	X	X	X	X	X	
8 SHOP 5 (9.5-10)	"	915	S	3	X	X	X	X	X	X	X	X	X	
9 SB-09 (13-13.5)	"	1445	S	3	X	X	X	X	X	X	X	X	X	
10 SB-09 (24.5-25)	"	1505	S	3	X	X	X	X	X	X	X	X	X	

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn
Anions (Circle): Nitrate Nitrite Nitrate+Nitrite
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.
Relinquished (Signature) Anders Utter Date/Time 1/5/23 1600 Print Name Anders Utter
Relinquished (Signature) Nathaniel Ries Date/Time 1/5/2023 17:16 Print Name Nathaniel Ries



Fremont
Analytical

3600 Fremont Ave N.
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Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 3 of 5
Laboratory Project No (Internal): 2301086
Special Remarks: Hold = do not analyze
Project Name: Dagmars Marina RI
Project No: A1021-0314032
Collected by: H Hixox
Location: Everett, WA
Report To (PM): A Utter
PM Email: Anders.utter@Apexcas.com
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC)**	ED8 (8011)	Comments
1 SB-06 (13.5-14)	1-4-23	1350	S	6	X	X	X	X	X	X	X	X	X	X	X	
2 SB-06 (24.5-25)		1410	S	3	X	X	X	X	X	X	X	X	X	X	X	
3 SB-06 (6-7)		1100	S	3	X	X	X	X	X	X	X	X	X	X	X	Hold
4 SB-04 (14.5-15)		1110	S	3	X	X	X	X	X	X	X	X	X	X	X	
5 SB-07 (12.5-13)		1245	S	6	X	X	X	X	X	X	X	X	X	X	X	
6 SB-07 (24.5-25)		1300	S	3	X	X	X	X	X	X	X	X	X	X	X	
7 SB-05 (5.5-6)		1040	S	6	X	X	X	X	X	X	X	X	X	X	X	Hold
8 SB-05 (14.5-15)		1050	S	3	X	X	X	X	X	X	X	X	X	X	X	
9 GW-06-0123		1400	W	6	X	X	X	X	X	X	X	X	X	X	X	
10 GW-07-0123																

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn
Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)
Relinquished (Signature) Print Name Date/Time
Anders Utter 1/5/23 1600
Relinquished (Signature) Print Name Date/Time
Nathaniel Rits 1/5/23 17:16
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 5 of: 5
Laboratory Project No (Internal): 2301086
Project Name: Danvers Marina RI
Project No: Altaz-0314032
Collected by: H. Hiscok
Location: Everett, WA
Report To (PM): A. Utter
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Special Remarks:

hold = do not analyze

PM Email: Anders.Utter@apexcos.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOC (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOC (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 - SIM)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (801.1)	Comments
1 SB-8A (13-13.5)	1/5/23	1110	S	3											<u>Hold</u>
2 SB-8A (14.5-15)	1/5/23	1120	S	3		X									
3 SB-11 (5-5.5)	1/5/23	1009	S	3											<u>Hold</u>
4 SB-11 (14-14.5)	1/5/23	1005	S	3		X									
5 SB-12 (6.5-7)	1/5/23	1025	S	3											<u>Hold</u>
6 SB-12 (14-14.5)	1/5/23	1030	S	3		X									
7 SB-10 12.5-13	1/5/23	9:10	S		X										
8 SB-10 14.5-15	1/5/23	9:15	S												
9 Shop-4 (1.5-2)	1/5/23	14:00	S		X	X	X								
10															

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn
Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
<u>[Signature]</u>	<u>Anders Utter</u>	<u>1/5/23 1600</u>	<u>[Signature]</u>	<u>Nathan Rios</u>	<u>1/5/23 17:16</u>
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

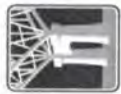
Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 1 of 5
Laboratory Project No (Internal): 2301086
Project Name: Dagmers Marina R1
Project No: ALT021-0314032
Special Remarks: Hold = do not analyze
edits per HH & AU 1/10/23 -cg
edits per AU 1/17/23-BB
Collected by: H Hixox
Location: Everett, WA
Report To (PM): Anders Uter
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)
PM Email: Anders.Uter@APEXCO.S.COM

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 625)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 A5T-4 (2.5-3)	01-3-23	900	S	3	X	X	X	X	X	X	X	X	X	X	
2 A5T-4 (14-15)		910	S	3	X	X	X	X	X	X	X	X	X	X	
3 A5T-4A (4-4.5)		935	S	3	X	X	X	X	X	X	X	X	X	X	Hold
4 A5T-4A (9.5-10)		940	S	3	X	X	X	X	X	X	X	X	X	X	
5 A5T-5 (3-4)		1020	S	3	X	X	X	X	X	X	X	X	X	X	Hold
6 A5T-5 (9.5-10)		1025	S	3	X	X	X	X	X	X	X	X	X	X	
7 A5T-6 (2.5-3)		1045	S	3	X	X	X	X	X	X	X	X	X	X	
8 A5T-6 (10-11)		1050	S	3	X	X	X	X	X	X	X	X	X	X	
9 A5T-6 (14.5-15)		1055	S	3	X	X	X	X	X	X	X	X	X	X	
10 A5T-6A (2.5-3)		1120	S	3	X	X	X	X	X	X	X	X	X	X	Hold

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)
Metals (Circle): MTCA-5 RCRA-8 Pb Sn Ti V Zn
Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite
Received (Signature) x Nathaniel Ries 1/5/23 17:16
Relinquished (Signature) x Hixox 1/5/23 1800
Print Name Date/Time
Relinquished (Signature) x Anders Uter 1/5/23 1800
Print Name Date/Time

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.



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Analytical

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Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 2 of 5

Laboratory Project No (Internal): 2306086

Special Remarks:

Hold = do not analyze

Client: APEX Companies LLC

Address: 801 N 42nd St

City, State, Zip: Seattle WA 98148

Telephone: 206-467-1452

Fax:

Project Name: Dagmars Morning R1

Project No: APT021-0314032

Collected by: H HISCOK

Location: Everett, WA

Report To (PM): A. Vithay

PM Email: anders.vithay@apexcos.com

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)

Represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement

No each of the terms on the front and backside of this Agreement.

Relinquished (Signature) _____

Relinquished (Signature) _____

Relinquished (Signature) _____

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Relinquished (Signature) _____

Relinquished (Signature) _____

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCS (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCs (EPA 8270 / 625)	PCBs (EPA 8082 / 508)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC) ***	ED8 (801.1)	Comments
1 AST6A- (10-11)	1-3-23	1125	S	3	X	X	X	X	X	X	X	X	X	X	Hold
2 AST6A- (14.5-15)		1130	S	3	X	X	X	X	X	X	X	X	X	X	Hold
3 AST6B- (15-2)		1200	S	3	X	X	X	X	X	X	X	X	X	X	Hold
4 AST6B (9.5-10)		1205	S	3	X	X	X	X	X	X	X	X	X	X	Hold
5 AST-7 (2-25)		1206	S	3	X	X	X	X	X	X	X	X	X	X	Hold
6 AST-7 (9.5-10)		1246	S	3	X	X	X	X	X	X	X	X	X	X	Hold
7 AST-8 (3-4)		1310	S	3	X	X	X	X	X	X	X	X	X	X	Hold
8 AST-8 (9.5-10)		1326	S	3	X	X	X	X	X	X	X	X	X	X	Hold
9 SHOP-3 (6-6)		1340	S	3	X	X	X	X	X	X	X	X	X	X	Hold
10 SHOP-3 (9.5-10)		1345	S	3	X	X	X	X	X	X	X	X	X	X	Hold

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Print Name: _____ Date/Time: 1/5/23 1600

Print Name: _____ Date/Time: 1/5/23 17:16



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 3 of: 5

Laboratory Project No (Internal): 2301086

Special Remarks:

Hold = do not analyze

Client:

Apex Comparatives LLC

Address:

801 N 4th St

City, State, Zip:

Seattle WA

Telephone:

425-757-1452

Fax:

Report To (PM):

A. Utter

PM Email:

Anders.Utter@ApexAS.com

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOG (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOCs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC) ***	EDB (801)	Comments
1 SHOP 4 - (2.5-3)	1-3-23	1400	S	3	X	X	X	X	X	X	X	X	X	
2 SHOP 4 - (5-6)	"	1410	S	6	X	X	X	X	X	X	X	X	X	
3 SHOP 4 - (9.5-10)	"	1420	S	3	X	X	X	X	X	X	X	X	X	
4 SHOP 4 - GW	"	1445	W	4	X	X	X	X	X	X	X	X	X	VOA volume not received
5 SHOP 4A (2.5-3)	1-4-23	845	S	3	X	X	X	X	X	X	X	X	X	Hold
6 SHOP 4A (9.5-10)	"	850	S	3	X	X	X	X	X	X	X	X	X	Hold
7 SHOP 5 (3.5-4)	"	910	S	3	X	X	X	X	X	X	X	X	X	
8 SHOP 5 (9.5-10)	"	915	S	3	X	X	X	X	X	X	X	X	X	
9 SB-09 (13-13.5)	"	1445	S	3	X	X	X	X	X	X	X	X	X	
10 SB-09 (24.5-25)	"	1505	S	3	X	X	X	X	X	X	X	X	X	

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

*Anions (Circle): Nitrate Nitrite Nitrate+Nitrite

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

1/5/2023 17:16



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 3 of 5

Laboratory Project No (Internal): 2301086

Special Remarks:

Hold = do not analyze

Project Name: Dagmars Marina RI

Project No: A1021-0314032

Collected by: H Hixox

Location: Everett, WA

Report To (PM): A Utter

PM Email: Anders.utter@Apexcas.com

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Client: APEX Companies LLC
Address: 801 N 42nd St
City, State, Zip: Seattle, WA
Telephone: 425-757-1452

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC)**	ED8 (801)	Comments
1 SB-06 (13.5-14)	1-4-23	1350	S	6	X	X	X	X	X	X	X	X	X	X	X	
2 SB-06 (24.5-25)		1410	S	3	X	X	X	X	X	X	X	X	X	X	X	
3 SB-06 (6-7)		1100	S	3	X	X	X	X	X	X	X	X	X	X	X	Hold
4 SB-04 (14.5-15)		1110	S	3	X	X	X	X	X	X	X	X	X	X	X	
5 SB-07 (12.5-13)		1245	S	6	X	X	X	X	X	X	X	X	X	X	X	
6 SB-07 (24.5-25)		1300	S	3	X	X	X	X	X	X	X	X	X	X	X	
7 SB-05 (5.5-6)		1040	S	6	X	X	X	X	X	X	X	X	X	X	X	Hold
8 SB-05 (14.5-15)		1050	S	3	X	X	X	X	X	X	X	X	X	X	X	
9 GW-06-0123		1400	W	6	X	X	X	X	X	X	X	X	X	X	X	
10 GW-07-0123																

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

**Anions (Circle): Nitrate Nitrite Nitrate+Nitrite Fluoride Nitrate+Nitrite

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1/5/23 Page: 5 of: 5
Laboratory Project No (Internal): 2301086
Project Name: Danvers Marina RI
Special Remarks: hold = do not analyze
Project No: Altaz1-0314032
Collected by: H. Hiscok
Location: Everett, WA
Report To (PM): A. Utter
Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

PM Email: Anders.Utter@apexcos.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOC (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	SVOC (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 8210 / 608)	Total (T) / Dissolved (D)	Anions (IC)***	EDB (801.1)	Comments
1 SB-8A (13-13.5)	1/5/23	1110	S	3											Hold
2 SB-8A (14.5-15)	1/5/23	1120	S	3		X									
3 SB-11 (5-5.5)	1/5/23	1009	S	3											Hold
4 SB-11 (14-14.5)	1/5/23	1005	S	3		X									
5 SB-12 (6.5-7)	1/5/23	1025	S	3											Hold
6 SB-12 (14-14.5)	1/5/23	1030	S	3		X									
7 SB-10 12.5-13	1/5/23	9:10	S		X										
8 SB-10 14.5-15	1/5/23	9:15	S												
9 Shop-4 (1.5-2) (2.5-3)	1/5/23	14:00	S		X	X	X	X	X						
10															

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn
Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite
Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
<u>[Signature]</u>	<u>Anders Utter</u>	<u>1/5/23 1600</u>	<u>[Signature]</u>	<u>Nathan Rios</u>	<u>1/5/23 17:16</u>
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Companies, LLC
Anders Utter
3015 SW 1st Ave.
Portland, OR 97201

RE: Dagmar
Work Order Number: 2301108

January 19, 2023

Attention Anders Utter:

Fremont Analytical, Inc. received 16 sample(s) on 1/6/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Gasoline by NWTPH-Gx

Mercury by EPA Method 7471B

Sample Moisture (Percent Moisture)

Total Metals by EPA Method 6020B

Total Organic Carbon by EPA 9060

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

CLIENT: Apex Companies, LLC
Project: Dagmar
Work Order: 2301108

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2301108-001	MW-3(4-6in)	01/05/2023 1:40 PM	01/06/2023 2:25 PM
2301108-002	SHOP 4B(13-14)	01/06/2023 9:10 AM	01/06/2023 2:25 PM
2301108-003	SHOP 4B(19-20)	01/06/2023 9:20 AM	01/06/2023 2:25 PM
2301108-004	AST 4B(5.0-5.5)	01/06/2023 9:40 AM	01/06/2023 2:25 PM
2301108-005	AST 4B(9.5-10)	01/06/2023 9:50 AM	01/06/2023 2:25 PM
2301108-006	ARS3(0-4)	01/06/2023 12:25 PM	01/06/2023 2:25 PM
2301108-007	ARS3(4-9)	01/06/2023 12:30 PM	01/06/2023 2:25 PM
2301108-008	ARS3(9-14)	01/06/2023 12:35 PM	01/06/2023 2:25 PM
2301108-009	ARS3(14-20)	01/06/2023 12:40 PM	01/06/2023 2:25 PM
2301108-010	ARS2(0-5)	01/06/2023 11:10 AM	01/06/2023 2:25 PM
2301108-011	ARS2(5.5-12)	01/06/2023 11:13 AM	01/06/2023 2:25 PM
2301108-012	ARS2(12-15)	01/06/2023 11:15 AM	01/06/2023 2:25 PM
2301108-013	ARS2(15-17)	01/06/2023 11:20 AM	01/06/2023 2:25 PM
2301108-014	ARS2(17-20)	01/06/2023 11:25 AM	01/06/2023 2:25 PM
2301108-015	ARS1(0-3)	01/06/2023 10:50 AM	01/06/2023 2:25 PM
2301108-016	ARS1(3-6)	01/06/2023 11:00 AM	01/06/2023 2:25 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Companies, LLC**Project:** Dagmar

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-001

Client Sample ID: MW-3(4-6in)

Collection Date: 1/5/2023 1:40:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39129		Analyst: KJ
Diesel Range Organics	ND	52.8		mg/Kg-dry	1	1/17/2023 3:47:34 PM
Heavy Oil	1,860	106		mg/Kg-dry	1	1/17/2023 3:47:34 PM
Total Petroleum Hydrocarbons	1,860	158		mg/Kg-dry	1	1/17/2023 3:47:34 PM
Surr: 2-Fluorobiphenyl	90.2	50 - 150		%Rec	1	1/17/2023 3:47:34 PM
Surr: o-Terphenyl	90.0	50 - 150		%Rec	1	1/17/2023 3:47:34 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 39055		Analyst: LAC
Gasoline Range Organics	2.76	2.02		mg/Kg-dry	1	1/10/2023 12:37:49 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	1/10/2023 12:37:49 PM
Surr: 4-Bromofluorobenzene	97.2	65 - 135		%Rec	1	1/10/2023 12:37:49 PM
NOTES: Detection is due to overlap with diesel-range material						
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.214		mg/Kg-dry	1	1/12/2023 5:32:53 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	2.71	0.201		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Barium	30.2	0.401		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Cadmium	0.518	0.0161		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Chromium	16.9	0.201		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Copper	679	6.02	D	mg/Kg-dry	10	1/12/2023 3:56:00 PM
Lead	16.2	0.803		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Nickel	15.4	0.201		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Selenium	ND	0.803		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Silver	0.0622	0.0161		mg/Kg-dry	1	1/12/2023 11:31:00 AM
Zinc	78.5	2.81		mg/Kg-dry	1	1/12/2023 11:31:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	6.35			wt%	1	1/18/2023 12:13:42 PM



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-002

Collection Date: 1/6/2023 9:10:00 AM

Client Sample ID: SHOP 4B(13-14)

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39129		Analyst: KJ
Diesel Range Organics	ND	70.5		mg/Kg-dry	1	1/18/2023 8:09:21 AM
Heavy Oil	ND	141		mg/Kg-dry	1	1/18/2023 8:09:21 AM
Total Petroleum Hydrocarbons	ND	212		mg/Kg-dry	1	1/18/2023 8:09:21 AM
Surr: 2-Fluorobiphenyl	52.4	50 - 150		%Rec	1	1/18/2023 8:09:21 AM
Surr: o-Terphenyl	42.5	50 - 150	S	%Rec	1	1/18/2023 8:09:21 AM
NOTES: S - Outlying surrogate recovery(ies) observed.						
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.273		mg/Kg-dry	1	1/12/2023 5:34:34 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	9.71	0.284		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Barium	36.0	0.569		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Cadmium	0.121	0.0227		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Chromium	40.7	0.284		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Copper	33.7	0.853		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Lead	6.10	1.14		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Nickel	33.7	0.284		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Selenium	ND	1.14		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Silver	0.103	0.0227		mg/Kg-dry	1	1/12/2023 11:34:00 AM
Zinc	61.2	3.98		mg/Kg-dry	1	1/12/2023 11:34:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	29.6			wt%	1	1/18/2023 12:13:42 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-003

Collection Date: 1/6/2023 9:20:00 AM

Client Sample ID: SHOP 4B(19-20)

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39129		Analyst: KJ
Diesel Range Organics	ND	63.6		mg/Kg-dry	1	1/18/2023 8:20:27 AM
Heavy Oil	ND	127		mg/Kg-dry	1	1/18/2023 8:20:27 AM
Total Petroleum Hydrocarbons	ND	191		mg/Kg-dry	1	1/18/2023 8:20:27 AM
Surr: 2-Fluorobiphenyl	33.8	50 - 150	S	%Rec	1	1/18/2023 8:20:27 AM
Surr: o-Terphenyl	43.5	50 - 150	S	%Rec	1	1/18/2023 8:20:27 AM
NOTES: S - Outlying surrogate recovery(ies) observed.						
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.236		mg/Kg-dry	1	1/12/2023 5:39:45 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	6.08	0.239		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Barium	23.9	0.479		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Cadmium	0.0675	0.0191		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Chromium	25.0	0.239		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Copper	18.8	0.718		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Lead	3.19	0.957		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Nickel	23.1	0.239		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Selenium	ND	0.957		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Silver	0.0388	0.0191		mg/Kg-dry	1	1/12/2023 11:36:00 AM
Zinc	38.7	3.35		mg/Kg-dry	1	1/12/2023 11:36:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	21.4			wt%	1	1/18/2023 12:13:42 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-004

Client Sample ID: AST 4B(5.0-5.5)

Collection Date: 1/6/2023 9:40:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39129		Analyst: KJ
Diesel Range Organics	762	63.5		mg/Kg-dry	1	1/17/2023 5:14:30 PM
Heavy Oil	ND	127		mg/Kg-dry	1	1/17/2023 5:14:30 PM
Total Petroleum Hydrocarbons	762	190		mg/Kg-dry	1	1/17/2023 5:14:30 PM
Surr: 2-Fluorobiphenyl	42.2	50 - 150	S	%Rec	1	1/17/2023 5:14:30 PM
Surr: o-Terphenyl	52.1	50 - 150		%Rec	1	1/17/2023 5:14:30 PM
NOTES: S - Outlying surrogate recovery(ies) observed.						
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 39055		Analyst: LAC
Gasoline Range Organics	171	6.93	E	mg/Kg-dry	1	1/10/2023 1:07:56 PM
Surr: Toluene-d8	97.8	65 - 135		%Rec	1	1/10/2023 1:07:56 PM
Surr: 4-Bromofluorobenzene	112	65 - 135		%Rec	1	1/10/2023 1:07:56 PM
NOTES: Detection is due to overlap with diesel-range material						
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.242		mg/Kg-dry	1	1/12/2023 5:41:26 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	13.0	0.257		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Barium	40.2	0.513		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Cadmium	0.193	0.0205		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Chromium	35.6	0.257		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Copper	30.3	0.770		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Lead	12.9	1.03		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Nickel	27.4	0.257		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Selenium	ND	1.03		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Silver	0.0827	0.0205		mg/Kg-dry	1	1/12/2023 11:38:00 AM
Zinc	65.0	3.59		mg/Kg-dry	1	1/12/2023 11:38:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	22.1			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	1.38	0.150		%-dry	1	1/17/2023 2:57:00 PM

Original



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-005

Client Sample ID: AST 4B(9.5-10)

Collection Date: 1/6/2023 9:50:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.</u>				Batch ID: 39129		Analyst: KJ
Diesel Range Organics	ND	72.2		mg/Kg-dry	1	1/17/2023 5:25:16 PM
Heavy Oil	ND	144		mg/Kg-dry	1	1/17/2023 5:25:16 PM
Total Petroleum Hydrocarbons	ND	217		mg/Kg-dry	1	1/17/2023 5:25:16 PM
Surr: 2-Fluorobiphenyl	70.5	50 - 150		%Rec	1	1/17/2023 5:25:16 PM
Surr: o-Terphenyl	55.1	50 - 150		%Rec	1	1/17/2023 5:25:16 PM
<u>Gasoline by NWTPH-Gx</u>				Batch ID: 39055		Analyst: LAC
Gasoline Range Organics	ND	10.3		mg/Kg-dry	1	1/11/2023 6:14:02 PM
Surr: Toluene-d8	103	65 - 135		%Rec	1	1/11/2023 6:14:02 PM
Surr: 4-Bromofluorobenzene	94.5	65 - 135		%Rec	1	1/11/2023 6:14:02 PM
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.289		mg/Kg-dry	1	1/12/2023 5:43:08 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	13.9	0.295		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Barium	38.2	0.590		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Cadmium	0.0590	0.0236		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Chromium	46.8	0.295		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Copper	32.9	0.885		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Lead	6.81	1.18		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Nickel	36.4	0.295		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Selenium	ND	1.18		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Silver	0.0749	0.0236		mg/Kg-dry	1	1/12/2023 11:40:00 AM
Zinc	62.8	4.13		mg/Kg-dry	1	1/12/2023 11:40:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	32.2			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	1.30	0.150		%-dry	1	1/17/2023 3:13:00 PM

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-006

Collection Date: 1/6/2023 12:25:00 PM

Client Sample ID: ARS3(0-4)

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.222		mg/Kg-dry	1	1/12/2023 5:44:50 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	2.33	0.215		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Barium	40.0	0.430		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Cadmium	0.0511	0.0172		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Chromium	19.3	0.215		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Copper	9.80	0.644		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Lead	2.43	0.859		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Nickel	26.1	0.215		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Selenium	ND	0.859		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Silver	0.0266	0.0172		mg/Kg-dry	1	1/12/2023 11:43:00 AM
Zinc	23.8	3.01		mg/Kg-dry	1	1/12/2023 11:43:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	11.8			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	0.279	0.150		%-dry	1	1/17/2023 3:24:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-007

Client Sample ID: ARS3(4-9)

Collection Date: 1/6/2023 12:30:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.301		mg/Kg-dry	1	1/12/2023 5:46:32 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	10.2	0.296		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Barium	26.0	0.592		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Cadmium	0.0450	0.0237		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Chromium	30.8	0.296		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Copper	20.5	0.888		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Lead	5.60	1.18		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Nickel	20.4	0.296		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Selenium	ND	1.18		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Silver	0.0355	0.0237		mg/Kg-dry	1	1/12/2023 11:50:00 AM
Zinc	34.1	4.14		mg/Kg-dry	1	1/12/2023 11:50:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	33.5			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	2.65	0.150		%-dry	1	1/17/2023 3:49:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-008

Client Sample ID: ARS3(9-14)

Collection Date: 1/6/2023 12:35:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.324		mg/Kg-dry	1	1/12/2023 5:48:15 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	9.23	0.327		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Barium	15.1	0.653		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Cadmium	0.0986	0.0261		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Chromium	20.8	0.327		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Copper	20.0	0.980		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Lead	2.96	1.31		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Nickel	21.4	0.327		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Selenium	ND	1.31		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Silver	0.0451	0.0261		mg/Kg-dry	1	1/12/2023 11:52:00 AM
Zinc	25.9	4.57		mg/Kg-dry	1	1/12/2023 11:52:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	40.7			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	7.25	0.150		%-dry	1	1/17/2023 4:05:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-009

Client Sample ID: ARS3(14-20)

Collection Date: 1/6/2023 12:40:00 PM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.263		mg/Kg-dry	1	1/12/2023 5:49:56 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	7.50	0.280		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Barium	22.7	0.561		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Cadmium	0.0925	0.0224		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Chromium	26.4	0.280		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Copper	22.7	0.841		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Lead	3.97	1.12		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Nickel	24.7	0.280		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Selenium	ND	1.12		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Silver	0.0578	0.0224		mg/Kg-dry	1	1/12/2023 11:55:00 AM
Zinc	39.5	3.93		mg/Kg-dry	1	1/12/2023 11:55:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	30.9			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	1.44	0.150		%-dry	1	1/17/2023 4:24:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-010

Client Sample ID: ARS2(0-5)

Collection Date: 1/6/2023 11:10:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.218		mg/Kg-dry	1	1/12/2023 5:51:37 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	4.49	0.208		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Barium	20.4	0.417		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Cadmium	0.0471	0.0167		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Chromium	17.1	0.208		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Copper	11.1	0.625		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Lead	3.06	0.833		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Nickel	16.8	0.208		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Selenium	ND	0.833		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Silver	ND	0.0167		mg/Kg-dry	1	1/12/2023 11:57:00 AM
Zinc	32.4	2.92		mg/Kg-dry	1	1/12/2023 11:57:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	8.41			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39127		Analyst: AT
Total Organic Carbon	ND	0.150		%-dry	1	1/17/2023 5:08:00 PM



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-011

Client Sample ID: ARS2(5.5-12)

Collection Date: 1/6/2023 11:13:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.235		mg/Kg-dry	1	1/12/2023 5:56:48 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	5.93	0.241		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Barium	28.2	0.482		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Cadmium	0.0665	0.0193		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Chromium	19.9	0.241		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Copper	14.2	0.723		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Lead	4.01	0.964		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Nickel	20.7	0.241		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Selenium	ND	0.964		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Silver	0.0231	0.0193		mg/Kg-dry	1	1/12/2023 11:59:00 AM
Zinc	37.5	3.37		mg/Kg-dry	1	1/12/2023 11:59:00 AM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	22.6			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	0.259	0.150		%-dry	1	1/18/2023 12:49:00 PM



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-012

Client Sample ID: ARS2(12-15)

Collection Date: 1/6/2023 11:15:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.261		mg/Kg-dry	1	1/12/2023 5:58:29 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39082		Analyst: SLL
Arsenic	10.3	0.281		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Barium	24.7	0.563		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Cadmium	0.0732	0.0225		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Chromium	27.7	0.281		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Copper	22.0	0.844		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Lead	6.69	1.13		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Nickel	21.5	0.281		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Selenium	ND	1.13		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Silver	0.0580	0.0225		mg/Kg-dry	1	1/12/2023 12:02:00 PM
Zinc	37.4	3.94		mg/Kg-dry	1	1/12/2023 12:02:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	28.9			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	1.35	0.150		%-dry	1	1/18/2023 2:43:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-013

Client Sample ID: ARS2(15-17)

Collection Date: 1/6/2023 11:20:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.306		mg/Kg-dry	1	1/12/2023 6:00:11 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39094		Analyst: SLL
Arsenic	9.53	0.312		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Barium	25.2	0.624		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Cadmium	0.118	0.0249		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Chromium	33.2	0.312		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Copper	28.2	0.935		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Lead	4.45	1.25		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Nickel	21.8	0.312		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Selenium	ND	1.25		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Silver	0.0686	0.0249		mg/Kg-dry	1	1/12/2023 1:32:00 PM
Zinc	34.8	4.37		mg/Kg-dry	1	1/12/2023 1:32:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81191		Analyst: MP
Percent Moisture	35.9			wt%	1	1/18/2023 12:13:42 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	3.19	0.150		%-dry	1	1/18/2023 3:01:00 PM



Analytical Report

Work Order: 2301108

Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC

Project: Dagmar

Lab ID: 2301108-014

Client Sample ID: ARS2(17-20)

Collection Date: 1/6/2023 11:25:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.280		mg/Kg-dry	1	1/12/2023 6:01:54 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39094		Analyst: SLL
Arsenic	11.4	0.273		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Barium	29.4	0.546		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Cadmium	0.0759	0.0218		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Chromium	34.4	0.273		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Copper	27.4	0.819		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Lead	6.07	1.09		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Nickel	31.0	0.273		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Selenium	ND	1.09		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Silver	0.0655	0.0218		mg/Kg-dry	1	1/12/2023 1:34:00 PM
Zinc	49.3	3.82		mg/Kg-dry	1	1/12/2023 1:34:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81197		Analyst: MP
Percent Moisture	30.1			wt%	1	1/18/2023 1:41:45 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	3.25	0.150		%-dry	1	1/18/2023 3:21:00 PM

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-015

Client Sample ID: ARS1(0-3)

Collection Date: 1/6/2023 10:50:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.210		mg/Kg-dry	1	1/12/2023 6:03:36 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39094		Analyst: SLL
Arsenic	4.03	0.226		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Barium	31.5	0.453		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Cadmium	0.0484	0.0181		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Chromium	19.6	0.226		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Copper	13.2	0.679		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Lead	3.62	0.905		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Nickel	25.0	0.226		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Selenium	ND	0.905		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Silver	0.0244	0.0181		mg/Kg-dry	1	1/12/2023 1:41:00 PM
Zinc	31.2	3.17		mg/Kg-dry	1	1/12/2023 1:41:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81197		Analyst: MP
Percent Moisture	11.6			wt%	1	1/18/2023 1:41:45 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	0.214	0.150		%-dry	1	1/18/2023 3:49:00 PM



Analytical Report

Work Order: 2301108
Date Reported: 1/19/2023

CLIENT: Apex Companies, LLC
Project: Dagmar

Lab ID: 2301108-016

Client Sample ID: ARS1(3-6)

Collection Date: 1/6/2023 11:00:00 AM

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Mercury by EPA Method 7471B</u>				Batch ID: 39105		Analyst: SS
Mercury	ND	0.311		mg/Kg-dry	1	1/12/2023 6:05:17 PM
<u>Total Metals by EPA Method 6020B</u>				Batch ID: 39094		Analyst: SLL
Arsenic	8.89	0.306		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Barium	36.5	0.612		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Cadmium	0.139	0.0245		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Chromium	19.3	0.306		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Copper	17.6	0.918		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Lead	12.4	1.22		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Nickel	20.5	0.306		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Selenium	ND	1.22		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Silver	0.0324	0.0245		mg/Kg-dry	1	1/12/2023 1:43:00 PM
Zinc	64.3	4.28		mg/Kg-dry	1	1/12/2023 1:43:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R81197		Analyst: MP
Percent Moisture	35.7			wt%	1	1/18/2023 1:41:45 PM
<u>Total Organic Carbon by EPA 9060</u>				Batch ID: 39140		Analyst: SS
Total Organic Carbon	1.76	0.150		%-dry	1	1/18/2023 4:28:00 PM

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Organic Carbon by EPA 9060

Sample ID: MB-39127	SampType: MBLK	Units: %-dry			Prep Date: 1/17/2023			RunNo: 81189			
Client ID: MBLKS	Batch ID: 39127				Analysis Date: 1/17/2023			SeqNo: 1680661			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.150									

Sample ID: LCS-39127	SampType: LCS	Units: %-dry			Prep Date: 1/17/2023			RunNo: 81189			
Client ID: LCSS	Batch ID: 39127				Analysis Date: 1/17/2023			SeqNo: 1680662			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.04	0.150	1.000	0	104	80	120				

Sample ID: 2301108-010ADUP	SampType: DUP	Units: %-dry			Prep Date: 1/17/2023			RunNo: 81189			
Client ID: ARS2(0-5)	Batch ID: 39127				Analysis Date: 1/17/2023			SeqNo: 1680673			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.150						0		20	

Sample ID: 2301108-010AMS	SampType: MS	Units: %-dry			Prep Date: 1/17/2023			RunNo: 81189			
Client ID: ARS2(0-5)	Batch ID: 39127				Analysis Date: 1/17/2023			SeqNo: 1680674			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.05	0.150	1.000	0.06300	99.1	75	125				

Sample ID: 2301108-010AMSD	SampType: MSD	Units: %-dry			Prep Date: 1/17/2023			RunNo: 81189			
Client ID: ARS2(0-5)	Batch ID: 39127				Analysis Date: 1/17/2023			SeqNo: 1680675			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.07	0.150	1.000	0.06300	101	75	125	1.054	1.51	20	

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Organic Carbon by EPA 9060

Sample ID: MB-39140	SampType: MBLK	Units: %-dry				Prep Date: 1/18/2023			RunNo: 81218		
Client ID: MBLKS	Batch ID: 39140					Analysis Date: 1/18/2023			SeqNo: 1681302		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.150									

Sample ID: LCS-39140	SampType: LCS	Units: %-dry				Prep Date: 1/18/2023			RunNo: 81218		
Client ID: LCSS	Batch ID: 39140					Analysis Date: 1/18/2023			SeqNo: 1681303		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.972	0.150	1.000	0	97.2	80	120				

Sample ID: 2301108-011ADUP	SampType: DUP	Units: %-dry				Prep Date: 1/18/2023			RunNo: 81218		
Client ID: ARS2(5.5-12)	Batch ID: 39140					Analysis Date: 1/18/2023			SeqNo: 1681306		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.374	0.150						0.2590	36.3	20	

Sample ID: 2301108-011AMS	SampType: MS	Units: %-dry				Prep Date: 1/18/2023			RunNo: 81218		
Client ID: ARS2(5.5-12)	Batch ID: 39140					Analysis Date: 1/18/2023			SeqNo: 1681307		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.34	0.150	1.000	0.2590	108	75	125				

Sample ID: 2301108-011AMSD	SampType: MSD	Units: %-dry				Prep Date: 1/18/2023			RunNo: 81218		
Client ID: ARS2(5.5-12)	Batch ID: 39140					Analysis Date: 1/18/2023			SeqNo: 1681308		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.30	0.150	1.000	0.2590	104	75	125	1.343	3.10	20	

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: MB-39082		SampType: MBLK		Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: MBLKS		Batch ID: 39082		Analysis Date: 1/12/2023						SeqNo: 1678263	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.250									
Barium	ND	0.500									
Cadmium	ND	0.0200									
Chromium	ND	0.250									
Copper	ND	0.750									
Lead	ND	1.00									
Nickel	ND	0.250									
Selenium	ND	1.00									
Silver	ND	0.0200									
Zinc	ND	3.50									

Sample ID: 2301085-012AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: BATCH		Batch ID: 39082		Analysis Date: 1/12/2023					SeqNo: 1678267		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	42.1	0.231	46.12	2.631	85.5	75	125				
Barium	81.3	0.461	46.12	29.29	113	75	125				
Cadmium	2.23	0.0184	2.306	0.03478	95.1	75	125				
Chromium	49.0	0.231	46.12	10.07	84.3	75	125				
Copper	47.6	0.692	46.12	12.36	76.5	75	125				
Lead	23.6	0.922	23.06	3.351	87.8	75	125				
Nickel	45.3	0.231	46.12	11.92	72.4	75	125				S
Selenium	4.09	0.922	4.612	0.2109	84.1	75	125				
Silver	2.14	0.0184	2.306	0.01510	92.1	75	125				
Zinc	65.3	3.23	46.12	27.47	82.1	75	125				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2301085-012AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81084			
Client ID: BATCH		Batch ID: 39082				Analysis Date: 1/12/2023		SeqNo: 1678268			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	38.2	0.215	43.05	2.631	82.5	75	125	42.05	9.71	20	
Barium	66.7	0.430	43.05	29.29	87.0	75	125	81.29	19.7	20	
Cadmium	2.02	0.0172	2.152	0.03478	92.2	75	125	2.228	9.85	20	
Chromium	46.0	0.215	43.05	10.07	83.4	75	125	48.95	6.31	20	
Copper	45.3	0.646	43.05	12.36	76.6	75	125	47.64	4.97	20	
Lead	21.5	0.861	21.52	3.351	84.3	75	125	23.59	9.30	20	
Nickel	43.2	0.215	43.05	11.92	72.6	75	125	45.31	4.81	20	S
Selenium	3.66	0.861	4.305	0.2109	80.1	75	125	4.092	11.2	20	
Silver	1.95	0.0172	2.152	0.01510	89.9	75	125	2.139	9.23	20	
Zinc	58.9	3.01	43.05	27.47	73.0	75	125	65.33	10.4	20	S

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2301085-012APDS		SampType: PDS		Units: mg/Kg-dry		Prep Date: 1/11/2023		RunNo: 81084			
Client ID: BATCH		Batch ID: 39082				Analysis Date: 1/12/2023		SeqNo: 1678271			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	52.1	0.229	45.8	11.9	87.7	75	125				

Sample ID: MB-39094		SampType: MBLK		Units: mg/Kg		Prep Date: 1/12/2023		RunNo: 81089			
Client ID: MBLKS		Batch ID: 39094				Analysis Date: 1/12/2023		SeqNo: 1678384			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.250									
Barium	ND	0.500									
Cadmium	ND	0.0200									
Chromium	ND	0.250									
Copper	ND	0.750									
Lead	ND	1.00									
Nickel	ND	0.250									
Selenium	ND	1.00									

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: MB-39094		SampType: MBLK		Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81089			
Client ID: MBLKS		Batch ID: 39094					Analysis Date: 1/12/2023			SeqNo: 1678384		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Silver	ND	0.0200										
Zinc	ND	3.50										

Sample ID: LCS-39094		SampType: LCS		Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81089		
Client ID: LCSS		Batch ID: 39094		Analysis Date: 1/12/2023						SeqNo: 1678385	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.3	0.250	50.00	0	94.5	80	120				
Barium	49.4	0.500	50.00	0	98.7	80	120				
Cadmium	2.51	0.0200	2.500	0	100	80	120				
Chromium	54.1	0.250	50.00	0	108	80	120				
Copper	52.1	0.750	50.00	0	104	80	120				
Lead	25.9	1.00	25.00	0	103	80	120				
Nickel	50.7	0.250	50.00	0	101	80	120				
Selenium	4.90	1.00	5.000	0	98.0	80	120				
Silver	2.55	0.0200	2.500	0	102	80	120				
Zinc	48.3	3.50	50.00	0	96.5	80	120				

Sample ID: 2301172-001AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/12/2023		RunNo: 81089			
Client ID: BATCH		Batch ID: 39094				Analysis Date: 1/12/2023		SeqNo: 1678388			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	52.4	0.518	103.6	0.1336	50.5	75	125				S
Barium	5,720	1.04	103.6	4,325	1,340	75	125				ES
Cadmium	4.08	0.0414	5.179	0.01850	78.4	75	125				
Chromium	114	0.518	103.6	16.83	93.8	75	125				
Copper	148	1.55	103.6	108.3	38.7	75	125				S
Lead	50.3	2.07	51.79	10.91	76.1	75	125				
Nickel	115	0.518	103.6	30.29	81.4	75	125				
Selenium	5.37	2.07	10.36	0	51.9	75	125				S
Silver	4.08	0.0414	5.179	0	78.7	75	125				

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2301172-001AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 1/12/2023		RunNo: 81089			
Client ID: BATCH	Batch ID: 39094	Analysis Date: 1/12/2023						SeqNo: 1678388			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	274	7.25	103.6	162.0	108	75	125				

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected. (Ba, Cu)

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect. (As, Se)

Sample ID: 2301172-001AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81089		
Client ID: BATCH		Batch ID: 39094		Analysis Date: 1/12/2023					SeqNo: 1678389		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	65.3	0.483	96.63	0.1336	67.4	75	125	52.43	21.8	20	RS
Barium	6,560	0.966	96.63	4,325	2,320	75	125	5,717	13.8	20	ES
Cadmium	5.14	0.0387	4.831	0.01850	106	75	125	4.080	23.1	20	R
Chromium	127	0.483	96.63	16.83	114	75	125	114.0	11.0	20	
Copper	173	1.45	96.63	108.3	66.8	75	125	148.4	15.2	20	S
Lead	49.5	1.93	48.31	10.91	79.9	75	125	50.32	1.62	20	
Nickel	117	0.483	96.63	30.29	89.7	75	125	114.6	2.08	20	
Selenium	6.75	1.93	9.663	0	69.8	75	125	5.375	22.6	20	S
Silver	5.20	0.0387	4.831	0	108	75	125	4.077	24.2	20	R
Zinc	229	6.76	96.63	162.0	69.4	75	125	273.6	17.7	20	S

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected. (Ba, Cu, Zn)

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect. (As, Se)

R - High RPD observed.

Sample ID: 2301172-001APDS		SampType: PDS		Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81089		
Client ID: BATCH		Batch ID: 39094					Analysis Date: 1/12/2023			SeqNo: 1678390	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	96.1	0.514	103	0.134	93.4	75	125				ES
Barium	4,810	1.03	103	4,320	469	75	125				
Cadmium	5.28	0.0411	5.14	0.0185	102	75	125				
Chromium	131	0.514	103	16.8	111	75	125				
Copper	222	1.54	103	108	111	75	125				

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2301172-001APDS		SampType: PDS		Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81089		
Client ID: BATCH		Batch ID: 39094		Analysis Date: 1/12/2023			SeqNo: 1678390				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	65.0	2.06	51.4	10.9	105	75	125				
Nickel	136	0.514	103	30.3	103	75	125				
Selenium	9.62	2.06	10.3	0	93.6	75	125				
Silver	5.39	0.0411	5.14	0	105	75	125				
Zinc	269	7.19	103	162	104	75	125				

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: LCS-39082		SampType: LCS		Units: mg/Kg		Prep Date: 1/11/2023			RunNo: 81084		
Client ID: LCSS		Batch ID: 39082		Analysis Date: 1/12/2023					SeqNo: 1678299		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	47.8	0.250	50.00	0	95.6	80	120				
Barium	49.2	0.500	50.00	0	98.4	80	120				
Cadmium	2.52	0.0200	2.500	0	101	80	120				
Chromium	52.2	0.250	50.00	0	104	80	120				
Copper	52.8	0.750	50.00	0	106	80	120				
Lead	25.3	1.00	25.00	0	101	80	120				
Nickel	50.8	0.250	50.00	0	102	80	120				
Selenium	4.74	1.00	5.000	0	94.8	80	120				
Silver	2.60	0.0200	2.500	0	104	80	120				
Zinc	48.3	3.50	50.00	0	96.6	80	120				

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Mercury by EPA Method 7471B

Sample ID: MB-39105		SampType: MBLK		Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81106			
Client ID: MBLKS		Batch ID: 39105					Analysis Date: 1/12/2023			SeqNo: 1678687		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.200

Sample ID: LCS-39105		SampType: LCS			Units: mg/Kg		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: LCSS		Batch ID: 39105			Analysis Date: 1/12/2023					SeqNo: 1678688		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.253 0.200 0.2500 0 101 80 120

Sample ID: 2301086-048ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: BATCH		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678690				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury ND 0.228 0 20

Sample ID: 2301086-048AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: BATCH		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678691				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.313 0.228 0.2852 0.01499 104 70 130

Sample ID: 2301086-048AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/12/2023			RunNo: 81106		
Client ID: BATCH		Batch ID: 39105			Analysis Date: 1/12/2023			SeqNo: 1678692				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury 0.314 0.228 0.2852 0.01499 105 70 130 0.3126 0.364 20

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39129		SampType: MBLK		Units: mg/Kg		Prep Date: 1/17/2023			RunNo: 81187			
Client ID: MBLKS		Batch ID: 39129					Analysis Date: 1/17/2023			SeqNo: 1680550		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	9.67		10.00		96.7	50	150				
Surr: o-Terphenyl	9.66		10.00		96.6	50	150				

Sample ID: LCS-39129		SampType: LCS			Units: mg/Kg		Prep Date: 1/17/2023			RunNo: 81187		
Client ID: LCSS		Batch ID: 39129			Analysis Date: 1/17/2023					SeqNo: 1680551		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	497	150	500.0	0	99.5	74.5	125				
Surr: 2-Fluorobiphenyl	9.51		10.00		95.1	50	150				
Surr: o-Terphenyl	10.6		10.00		106	50	150				

Sample ID: 2301290-003ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/17/2023			RunNo: 81187		
Client ID: BATCH		Batch ID: 39129			Analysis Date: 1/18/2023					SeqNo: 1680582		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	58.4						0		30	
Heavy Oil	ND	117						0		30	
Total Petroleum Hydrocarbons	ND	175						0		30	
Surr: 2-Fluorobiphenyl	6.63		11.69		56.7	50	150		0		
Surr: o-Terphenyl	7.22		11.69		61.8	50	150		0		

Sample ID: 2301108-001AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/17/2023			RunNo: 81187		
Client ID: MW-3(4-6in)		Batch ID: 39129			Analysis Date: 1/18/2023			SeqNo: 1680704				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	1,930	158	525.5	1,860	14.1	50.3	140				S
Surr: 2-Fluorobiphenyl	8.34		10.51		79.4	50	150				

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2301108-001AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 1/17/2023			RunNo: 81187			
Client ID: MW-3(4-6in)	Batch ID: 39129				Analysis Date: 1/18/2023			SeqNo: 1680704			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	10.9		10.51		104	50	150				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2301108-001AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 1/17/2023			RunNo: 81187		
Client ID: MW-3(4-6in)	Batch ID: 39129					Analysis Date: 1/18/2023			SeqNo: 1680705		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,960	158	528.1	1,860	19.6	50.3	140	1,935	1.51	30	S
Surr: 2-Fluorobiphenyl	9.18		10.56		86.9	50	150		0		
Surr: o-Terphenyl	11.8		10.56		111	50	150		0		

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39055		SampType: LCS			Units: mg/Kg		Prep Date: 1/9/2023			RunNo: 81011		
Client ID: LCSS		Batch ID: 39055			Analysis Date: 1/9/2023					SeqNo: 1676436		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics
 Surr: Toluene-d8
 Surr: 4-Bromofluorobenzene

29.7
 1.28
 1.25
 5.00
 25.00
 1.250
 1.250
 0
 119
 102
 100
 65
 65
 65
 135
 135
 135

Sample ID: MB-39055		SampType: MBLK			Units: mg/Kg		Prep Date: 1/9/2023			RunNo: 81011		
Client ID: MBLKS		Batch ID: 39055			Analysis Date: 1/9/2023					SeqNo: 1676435		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics
 Surr: Toluene-d8
 Surr: 4-Bromofluorobenzene

ND
 1.27
 1.23
 5.00
 1.250
 1.250
 102
 98.7
 65
 65
 135
 135

Sample ID: 2301113-007BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/9/2023			RunNo: 81011		
Client ID: BATCH		Batch ID: 39055			Analysis Date: 1/9/2023			SeqNo: 1676443				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics
 Surr: Toluene-d8
 Surr: 4-Bromofluorobenzene

4.60
 1.13
 1.09
 4.48
 1.119
 1.119
 101
 97.1
 65
 65
 135
 135
 4.339
 5.86
 0
 0
 30

Sample ID: 2301113-001BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/9/2023			RunNo: 81011		
Client ID: BATCH		Batch ID: 39055			Analysis Date: 1/9/2023			SeqNo: 1676640				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics
 Surr: Toluene-d8
 Surr: 4-Bromofluorobenzene

6.98
 1.35
 1.29
 5.35
 1.338
 1.338
 101
 96.3
 65
 65
 135
 135
 5.187
 29.4
 0
 0
 30

Work Order: 2301108
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301113-008BMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/9/2023		RunNo: 81011		
Client ID: BATCH		Batch ID: 39055			Analysis Date: 1/9/2023				SeqNo: 1676642		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	99.2	8.76	43.81	45.19	123	65	135				
Surr: Toluene-d8	2.22		2.191		102	65	135				
Surr: 4-Bromofluorobenzene	2.18		2.191		99.6	65	135				

Client Name: APEXCO
 Logged by: Matt Langston

Work Order Number: 2301108
 Date Received: 1/6/2023 2:25:00 PM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Anders Utter	Date:	1/6/2023
By Whom:	Matt Langston	Via:	☐ eMail ☒ Phone ☐ Fax ☐ In Person
Regarding:	Metals Selection		
Client Instructions:	RCRA8+3		

19. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Fremont
Analytical

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-6-23 Page: 1 of 2

Laboratory Project No (Internal): 2301108

Special Remarks:

Project Name: Dagmar

Project No:

Collected by: H Hiscax

Location: Everett WA

Report To (PM): A. Utter

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Telephone:

City, State, Zip: Seattle WA

Fax:

PM Email: Anders.Utter@Apex105.com

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOGs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOGs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Total Organic Carbon	TPH-0.1	TPH-0.5	TPH-1.0	Comments
1 MW-3 (4-6 in)	1-5-23	1346	5	3																
2 SHOP 4B (13-14)	1-6-23	910	5	3																
3 SHOP 4B (19-20)		910	5	3																
4 AST 4B (5.0-5.5)		940	5	3																
5 AST 4B (9.5-10)		930	5	3																
6 ARS 3 (0-4)		1225	5	1																
7 ARS 3 (4-9)		1230	5	1																
8 ARS 3 (9-14)		1235	5	1																
9 ARS 3 (14-20)		1240	5	1																
10 ARS 2 (0-5)		1110	5	1																

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Turn-around Time:
☐ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify)



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-6-23 Page: 2 of 2

Project Name: Dargmar Laboratory Project No (Internal): 2301108

Client: Apex Composites LLC

Address: 801 N 4th St

City, State, Zip: Seattle WA

Telephone: Collected by: H Hiscor

Fax: Location: Everett WA

Report To (PM): A. Uther

PM Email: Anders.Uther@apex.com

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Special Remarks:

Turn-around Time: ☐ Standard ☐ Next Day ☐ 3 Day ☐ Same Day (specify)

Relinquished (Signature) Hannah Porter 1/6/23

Print Name Katherine Porter

Date/Time 1/6/23

Received (Signature) [Signature]

Print Name [Name]

Date/Time [Date]

Relinquished (Signature) [Signature]

Print Name [Name]

Date/Time [Date]

Received (Signature) [Signature]

Print Name [Name]

Date/Time [Date]

Relinquished (Signature) [Signature]

Print Name [Name]

Date/Time [Date]



Fremont
Analytical

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
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info@fremontanalytical.com

Apex Companies, LLC

Anders Utter
3015 SW 1st Ave.
Portland, OR 97201

RE: Dagmar

Work Order Number: 2301194

January 23, 2023

Attention Anders Utter:

Fremont Analytical, Inc. received 29 sample(s) on 1/11/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Gasoline by NWTPH-Gx

Sample Moisture (Percent Moisture)

Total Metals by EPA Method 6020B

Total Organic Carbon by EPA 9060

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original

www.fremontanalytical.com

CLIENT: Apex Companies, LLC
Project: Dagmar
Work Order: 2301194

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2301194-001	SB-13(13-13.5)	01/09/2023 9:20 AM	01/11/2023 2:07 PM
2301194-002	SB-13(24.5-25)	01/09/2023 9:45 AM	01/11/2023 2:07 PM
2301194-003	SB-14(14-14.5)	01/09/2023 10:10 AM	01/11/2023 2:07 PM
2301194-004	SB-14(25.5-25)	01/09/2023 10:20 AM	01/11/2023 2:07 PM
2301194-005	SB-14A(14-14.5)	01/09/2023 11:00 AM	01/11/2023 2:07 PM
2301194-006	SB-14A(19.5-20)	01/09/2023 11:10 AM	01/11/2023 2:07 PM
2301194-007	SB-15(8-8.5)	01/09/2023 1:00 PM	01/11/2023 2:07 PM
2301194-008	SB-15(12.5-13)	01/09/2023 1:10 PM	01/11/2023 2:07 PM
2301194-009	SB-16(8-8.5)	01/09/2023 3:40 PM	01/11/2023 2:07 PM
2301194-010	SB-16(19.5-15)	01/09/2023 4:00 PM	01/11/2023 2:07 PM
2301194-011	SB-17(6.5-7)	01/10/2023 8:40 AM	01/11/2023 2:07 PM
2301194-012	SB-17(14.5-15)	01/10/2023 8:45 AM	01/11/2023 2:07 PM
2301194-013	Ars 4 (1-3)	01/10/2023 10:20 AM	01/11/2023 2:07 PM
2301194-014	Ars 4 (3-7)	01/10/2023 10:23 AM	01/11/2023 2:07 PM
2301194-015	Ars 4 (7-10)	01/10/2023 10:28 AM	01/11/2023 2:07 PM
2301194-016	Ars 4 (10-15)	01/10/2023 10:35 AM	01/11/2023 2:07 PM
2301194-017	Ars 4 (15-17)	01/10/2023 10:45 AM	01/11/2023 2:07 PM
2301194-018	Ars 4 (17-20)	01/10/2023 10:50 AM	01/11/2023 2:07 PM
2301194-019	SB-18(14.5-15)	01/10/2023 12:50 PM	01/11/2023 2:07 PM
2301194-020	SB-18(19.5-20)	01/10/2023 1:00 PM	01/11/2023 2:07 PM
2301194-021	SHOP-4-GW	01/10/2023 12:00 PM	01/11/2023 2:07 PM
2301194-022	SB-19(13-13.5)	01/10/2023 1:30 PM	01/11/2023 2:07 PM
2301194-023	SB-19(19-20)	01/10/2023 1:40 PM	01/11/2023 2:07 PM
2301194-024	SB-20(14.5-15)	01/10/2023 2:10 PM	01/11/2023 2:07 PM
2301194-025	SB-20(19.5-20)	01/10/2023 2:20 PM	01/11/2023 2:07 PM
2301194-026	SB-20(24.5-20)	01/10/2023 2:30 PM	01/11/2023 2:07 PM
2301194-027	SB-21(14-14.5)	01/10/2023 2:40 PM	01/11/2023 2:07 PM
2301194-028	SB-21(19.5-20)	01/10/2023 2:45 PM	01/11/2023 2:07 PM
2301194-029	SB-21(24.5-25)	01/10/2023 2:50 PM	01/11/2023 2:07 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Companies, LLC**Project:** Dagmar

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 9:20:00 AM

Project: Dagmar

Lab ID: 2301194-001

Matrix: Soil

Client Sample ID: SB-13(13-13.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	99.9		mg/Kg-dry	1	1/19/2023 3:27:07 PM
Heavy Oil	ND	200		mg/Kg-dry	1	1/19/2023 3:27:07 PM
Total Petroleum Hydrocarbons	ND	300		mg/Kg-dry	1	1/19/2023 3:27:07 PM
Surr: 2-Fluorobiphenyl	92.7	50 - 150		%Rec	1	1/19/2023 3:27:07 PM
Surr: o-Terphenyl	78.3	50 - 150		%Rec	1	1/19/2023 3:27:07 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	13.8		mg/Kg-dry	1	1/13/2023 5:13:05 PM
Surr: Toluene-d8	97.7	65 - 135		%Rec	1	1/13/2023 5:13:05 PM
Surr: 4-Bromofluorobenzene	95.4	65 - 135		%Rec	1	1/13/2023 5:13:05 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	51.3	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 9:45:00 AM

Project: Dagmar

Lab ID: 2301194-002

Matrix: Soil

Client Sample ID: SB-13(24.5-25)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	60.9		mg/Kg-dry	1	1/19/2023 3:59:41 PM
Heavy Oil	ND	122		mg/Kg-dry	1	1/19/2023 3:59:41 PM
Total Petroleum Hydrocarbons	ND	183		mg/Kg-dry	1	1/19/2023 3:59:41 PM
Surr: 2-Fluorobiphenyl	89.4	50 - 150		%Rec	1	1/19/2023 3:59:41 PM
Surr: o-Terphenyl	93.3	50 - 150		%Rec	1	1/19/2023 3:59:41 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	5.71		mg/Kg-dry	1	1/13/2023 5:44:18 PM
Surr: Toluene-d8	97.2	65 - 135		%Rec	1	1/13/2023 5:44:18 PM
Surr: 4-Bromofluorobenzene	97.3	65 - 135		%Rec	1	1/13/2023 5:44:18 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	22.2	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 10:10:00 AM

Project: Dagmar

Lab ID: 2301194-003

Matrix: Soil

Client Sample ID: SB-14(14-14.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	93.5		mg/Kg-dry	1	1/20/2023 8:22:09 AM
Heavy Oil	ND	187		mg/Kg-dry	1	1/20/2023 8:22:09 AM
Total Petroleum Hydrocarbons	ND	280		mg/Kg-dry	1	1/20/2023 8:22:09 AM
Surr: 2-Fluorobiphenyl	58.3	50 - 150		%Rec	1	1/20/2023 8:22:09 AM
Surr: o-Terphenyl	61.9	50 - 150		%Rec	1	1/20/2023 8:22:09 AM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	14.7		mg/Kg-dry	1	1/13/2023 6:15:39 PM
Surr: Toluene-d8	97.8	65 - 135		%Rec	1	1/13/2023 6:15:39 PM
Surr: 4-Bromofluorobenzene	95.0	65 - 135		%Rec	1	1/13/2023 6:15:39 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	49.6	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 10:20:00 AM

Project: Dagmar

Lab ID: 2301194-004

Matrix: Soil

Client Sample ID: SB-14(25.5-25)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	64.3		mg/Kg-dry	1	1/19/2023 4:25:16 PM
Heavy Oil	ND	129		mg/Kg-dry	1	1/19/2023 4:25:16 PM
Total Petroleum Hydrocarbons	ND	193		mg/Kg-dry	1	1/19/2023 4:25:16 PM
Surr: 2-Fluorobiphenyl	69.9	50 - 150		%Rec	1	1/19/2023 4:25:16 PM
Surr: o-Terphenyl	78.3	50 - 150		%Rec	1	1/19/2023 4:25:16 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	6.69		mg/Kg-dry	1	1/13/2023 6:47:01 PM
Surr: Toluene-d8	97.0	65 - 135		%Rec	1	1/13/2023 6:47:01 PM
Surr: 4-Bromofluorobenzene	96.0	65 - 135		%Rec	1	1/13/2023 6:47:01 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	24.0	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 11:00:00 AM

Project: Dagmar

Lab ID: 2301194-005

Matrix: Soil

Client Sample ID: SB-14A(14-14.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	111		mg/Kg-dry	1	1/19/2023 4:36:00 PM
Heavy Oil	ND	222		mg/Kg-dry	1	1/19/2023 4:36:00 PM
Total Petroleum Hydrocarbons	ND	332		mg/Kg-dry	1	1/19/2023 4:36:00 PM
Surr: 2-Fluorobiphenyl	81.2	50 - 150		%Rec	1	1/19/2023 4:36:00 PM
Surr: o-Terphenyl	68.9	50 - 150		%Rec	1	1/19/2023 4:36:00 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	13.2		mg/Kg-dry	1	1/13/2023 7:18:23 PM
Surr: Toluene-d8	97.9	65 - 135		%Rec	1	1/13/2023 7:18:23 PM
Surr: 4-Bromofluorobenzene	96.8	65 - 135		%Rec	1	1/13/2023 7:18:23 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	55.5	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 1:10:00 PM

Project: Dagmar

Lab ID: 2301194-008

Matrix: Soil

Client Sample ID: SB-15(12.5-13)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	68.9		mg/Kg-dry	1	1/19/2023 4:46:43 PM
Heavy Oil	ND	138		mg/Kg-dry	1	1/19/2023 4:46:43 PM
Total Petroleum Hydrocarbons	ND	207		mg/Kg-dry	1	1/19/2023 4:46:43 PM
Surr: 2-Fluorobiphenyl	79.5	50 - 150		%Rec	1	1/19/2023 4:46:43 PM
Surr: o-Terphenyl	80.4	50 - 150		%Rec	1	1/19/2023 4:46:43 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	6.69		mg/Kg-dry	1	1/13/2023 7:49:42 PM
Surr: Toluene-d8	97.7	65 - 135		%Rec	1	1/13/2023 7:49:42 PM
Surr: 4-Bromofluorobenzene	96.6	65 - 135		%Rec	1	1/13/2023 7:49:42 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	28.4	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/9/2023 4:00:00 PM

Project: Dagmar

Lab ID: 2301194-010

Matrix: Soil

Client Sample ID: SB-16(19.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	59.4		mg/Kg-dry	1	1/19/2023 4:57:27 PM
Heavy Oil	ND	119		mg/Kg-dry	1	1/19/2023 4:57:27 PM
Total Petroleum Hydrocarbons	ND	178		mg/Kg-dry	1	1/19/2023 4:57:27 PM
Surr: 2-Fluorobiphenyl	82.0	50 - 150		%Rec	1	1/19/2023 4:57:27 PM
Surr: o-Terphenyl	84.7	50 - 150		%Rec	1	1/19/2023 4:57:27 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	5.23		mg/Kg-dry	1	1/13/2023 8:20:58 PM
Surr: Toluene-d8	97.9	65 - 135		%Rec	1	1/13/2023 8:20:58 PM
Surr: 4-Bromofluorobenzene	97.1	65 - 135		%Rec	1	1/13/2023 8:20:58 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	19.0	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 8:45:00 AM

Project: Dagmar

Lab ID: 2301194-012

Matrix: Soil

Client Sample ID: SB-17(14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	76.4		mg/Kg-dry	1	1/19/2023 5:08:13 PM
Heavy Oil	ND	153		mg/Kg-dry	1	1/19/2023 5:08:13 PM
Total Petroleum Hydrocarbons	ND	229		mg/Kg-dry	1	1/19/2023 5:08:13 PM
Surr: 2-Fluorobiphenyl	107	50 - 150		%Rec	1	1/19/2023 5:08:13 PM
Surr: o-Terphenyl	99.2	50 - 150		%Rec	1	1/19/2023 5:08:13 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	8.24		mg/Kg-dry	1	1/13/2023 8:52:14 PM
Surr: Toluene-d8	98.0	65 - 135		%Rec	1	1/13/2023 8:52:14 PM
Surr: 4-Bromofluorobenzene	96.7	65 - 135		%Rec	1	1/13/2023 8:52:14 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	34.9	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 10:35:00 AM

Project: Dagmar

Lab ID: 2301194-016

Matrix: Soil

Client Sample ID: Ars 4 (10-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Total Metals by EPA Method 6020B

Batch ID: 39110 Analyst: EH

Arsenic	10.5	0.379		mg/Kg-dry	1	1/13/2023 3:26:00 PM
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Sample Moisture (Percent Moisture)

Batch ID: R81208 Analyst: ALB

Percent Moisture	48.0	0.500		wt%	1	1/18/2023 3:45:52 PM
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Total Organic Carbon by EPA 9060

Batch ID: 39140 Analyst: SS

Total Organic Carbon	4.73	0.150		%-dry	1	1/18/2023 5:02:00 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 12:50:00 PM

Project: Dagmar

Lab ID: 2301194-019

Matrix: Soil

Client Sample ID: SB-18(14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	65.8		mg/Kg-dry	1	1/19/2023 5:19:07 PM
Heavy Oil	ND	132		mg/Kg-dry	1	1/19/2023 5:19:07 PM
Total Petroleum Hydrocarbons	ND	197		mg/Kg-dry	1	1/19/2023 5:19:07 PM
Surr: 2-Fluorobiphenyl	91.8	50 - 150		%Rec	1	1/19/2023 5:19:07 PM
Surr: o-Terphenyl	95.4	50 - 150		%Rec	1	1/19/2023 5:19:07 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	8.19		mg/Kg-dry	1	1/13/2023 11:59:34 PM
Surr: Toluene-d8	99.2	65 - 135		%Rec	1	1/13/2023 11:59:34 PM
Surr: 4-Bromofluorobenzene	96.7	65 - 135		%Rec	1	1/13/2023 11:59:34 PM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	24.9	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 12:00:00 PM

Project: Dagmar

Lab ID: 2301194-021

Matrix: Water

Client Sample ID: SHOP-4-GW

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Gasoline by NWTPH-Gx

Batch ID: 39108

Analyst: SH

Gasoline Range Organics	ND	50.0		µg/L	1	1/19/2023 1:44:48 AM
Surr: Toluene-d8	98.2	65 - 135		%Rec	1	1/19/2023 1:44:48 AM
Surr: 4-Bromofluorobenzene	97.9	65 - 135		%Rec	1	1/19/2023 1:44:48 AM



Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 1:30:00 PM

Project: Dagmar

Lab ID: 2301194-022

Matrix: Soil

Client Sample ID: SB-19(13-13.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	98.6		mg/Kg-dry	1	1/19/2023 5:29:54 PM
Heavy Oil	ND	197		mg/Kg-dry	1	1/19/2023 5:29:54 PM
Total Petroleum Hydrocarbons	ND	296		mg/Kg-dry	1	1/19/2023 5:29:54 PM
Surr: 2-Fluorobiphenyl	65.3	50 - 150		%Rec	1	1/19/2023 5:29:54 PM
Surr: o-Terphenyl	66.7	50 - 150		%Rec	1	1/19/2023 5:29:54 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	13.7		mg/Kg-dry	1	1/14/2023 12:30:43 AM
Surr: Toluene-d8	99.0	65 - 135		%Rec	1	1/14/2023 12:30:43 AM
Surr: 4-Bromofluorobenzene	96.3	65 - 135		%Rec	1	1/14/2023 12:30:43 AM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	51.1	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 2:10:00 PM

Project: Dagmar

Lab ID: 2301194-024

Matrix: Soil

Client Sample ID: SB-20(14.5-15)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	95.2		mg/Kg-dry	1	1/19/2023 6:23:42 PM
Heavy Oil	ND	190		mg/Kg-dry	1	1/19/2023 6:23:42 PM
Total Petroleum Hydrocarbons	ND	286		mg/Kg-dry	1	1/19/2023 6:23:42 PM
Surr: 2-Fluorobiphenyl	97.7	50 - 150		%Rec	1	1/19/2023 6:23:42 PM
Surr: o-Terphenyl	88.0	50 - 150		%Rec	1	1/19/2023 6:23:42 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	16.9		mg/Kg-dry	1	1/14/2023 1:01:55 AM
Surr: Toluene-d8	99.7	65 - 135		%Rec	1	1/14/2023 1:01:55 AM
Surr: 4-Bromofluorobenzene	95.6	65 - 135		%Rec	1	1/14/2023 1:01:55 AM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	47.9	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 2:30:00 PM

Project: Dagmar

Lab ID: 2301194-026

Matrix: Soil

Client Sample ID: SB-20(24.5-20)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	64.8		mg/Kg-dry	1	1/19/2023 6:34:24 PM
Heavy Oil	ND	130		mg/Kg-dry	1	1/19/2023 6:34:24 PM
Total Petroleum Hydrocarbons	ND	194		mg/Kg-dry	1	1/19/2023 6:34:24 PM
Surr: 2-Fluorobiphenyl	77.3	50 - 150		%Rec	1	1/19/2023 6:34:24 PM
Surr: o-Terphenyl	82.6	50 - 150		%Rec	1	1/19/2023 6:34:24 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	7.47		mg/Kg-dry	1	1/14/2023 1:33:11 AM
Surr: Toluene-d8	99.7	65 - 135		%Rec	1	1/14/2023 1:33:11 AM
Surr: 4-Bromofluorobenzene	96.5	65 - 135		%Rec	1	1/14/2023 1:33:11 AM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	25.6	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 2:40:00 PM

Project: Dagmar

Lab ID: 2301194-027

Matrix: Soil

Client Sample ID: SB-21(14-14.5)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	98.2		mg/Kg-dry	1	1/19/2023 6:45:07 PM
Heavy Oil	ND	196		mg/Kg-dry	1	1/19/2023 6:45:07 PM
Total Petroleum Hydrocarbons	ND	295		mg/Kg-dry	1	1/19/2023 6:45:07 PM
Surr: 2-Fluorobiphenyl	61.6	50 - 150		%Rec	1	1/19/2023 6:45:07 PM
Surr: o-Terphenyl	62.8	50 - 150		%Rec	1	1/19/2023 6:45:07 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	10.9		mg/Kg-dry	1	1/14/2023 2:04:22 AM
Surr: Toluene-d8	98.6	65 - 135		%Rec	1	1/14/2023 2:04:22 AM
Surr: 4-Bromofluorobenzene	97.4	65 - 135		%Rec	1	1/14/2023 2:04:22 AM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	49.8	0.500		wt%	1	1/18/2023 3:45:52 PM
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Analytical Report

Work Order: 2301194
Date Reported: 1/23/2023

Client: Apex Companies, LLC

Collection Date: 1/10/2023 2:45:00 PM

Project: Dagmar

Lab ID: 2301194-028

Matrix: Soil

Client Sample ID: SB-21(19.5-20)

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39162

Analyst: KJ

Diesel Range Organics	ND	65.7		mg/Kg-dry	1	1/19/2023 6:55:49 PM
Heavy Oil	ND	131		mg/Kg-dry	1	1/19/2023 6:55:49 PM
Total Petroleum Hydrocarbons	ND	197		mg/Kg-dry	1	1/19/2023 6:55:49 PM
Surr: 2-Fluorobiphenyl	82.8	50 - 150		%Rec	1	1/19/2023 6:55:49 PM
Surr: o-Terphenyl	87.2	50 - 150		%Rec	1	1/19/2023 6:55:49 PM

Gasoline by NWTPH-Gx

Batch ID: 39112

Analyst: CC

Gasoline Range Organics	ND	6.29		mg/Kg-dry	1	1/14/2023 2:35:35 AM
Surr: Toluene-d8	99.9	65 - 135		%Rec	1	1/14/2023 2:35:35 AM
Surr: 4-Bromofluorobenzene	96.6	65 - 135		%Rec	1	1/14/2023 2:35:35 AM

Sample Moisture (Percent Moisture)

Batch ID: R81208

Analyst: ALB

Percent Moisture	26.0	0.500		wt%	1	1/18/2023 3:45:52 PM
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Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Organic Carbon by EPA 9060

Sample ID: MB-39140	SampType: MBLK	Units: %-dry			Prep Date: 1/18/2023			RunNo: 81218			
Client ID: MBLKS	Batch ID: 39140				Analysis Date: 1/18/2023			SeqNo: 1681302			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	0.150									

Sample ID: LCS-39140	SampType: LCS	Units: %-dry			Prep Date: 1/18/2023			RunNo: 81218			
Client ID: LCSS	Batch ID: 39140				Analysis Date: 1/18/2023			SeqNo: 1681303			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.972	0.150	1.000	0	97.2	80	120				

Sample ID: 2301108-011ADUP	SampType: DUP	Units: %-dry			Prep Date: 1/18/2023			RunNo: 81218			
Client ID: BATCH	Batch ID: 39140				Analysis Date: 1/18/2023			SeqNo: 1681306			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.374	0.150						0.2590	36.3	20	

Sample ID: 2301108-011AMS	SampType: MS	Units: %-dry			Prep Date: 1/18/2023			RunNo: 81218			
Client ID: BATCH	Batch ID: 39140				Analysis Date: 1/18/2023			SeqNo: 1681307			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.34	0.150	1.000	0.2590	108	75	125				

Sample ID: 2301108-011AMSD	SampType: MSD	Units: %-dry			Prep Date: 1/18/2023			RunNo: 81218			
Client ID: BATCH	Batch ID: 39140				Analysis Date: 1/18/2023			SeqNo: 1681308			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.30	0.150	1.000	0.2590	104	75	125	1.343	3.10	20	

Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: MB-39110		SampType: MBLK		Units: mg/Kg		Prep Date: 1/13/2023			RunNo: 81142			
Client ID: MBLKS		Batch ID: 39110					Analysis Date: 1/13/2023			SeqNo: 1679455		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	0.250									
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Sample ID: LCS-39110		SampType: LCS			Units: mg/Kg		Prep Date: 1/13/2023			RunNo: 81142		
Client ID: LCSS		Batch ID: 39110			Analysis Date: 1/13/2023			SeqNo: 1679456				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	46.8	0.250	50.00	0	93.6	80	120				
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Sample ID: 2301120-015AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/13/2023		RunNo: 81142		
Client ID: BATCH		Batch ID: 39110			Analysis Date: 1/13/2023				SeqNo: 1679459		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	33.1	0.230	46.05	3.768	63.8	75	125				S
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NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2301120-015AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/13/2023			RunNo: 81142			
Client ID: BATCH		Batch ID: 39110					Analysis Date: 1/13/2023			SeqNo: 1679460		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	40.1	0.227	45.33	3.768	80.2	75	125	33.14	19.1	20	
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Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39162		SampType: MBLK			Units: mg/Kg		Prep Date: 1/19/2023			RunNo: 81263		
Client ID: MBLKS		Batch ID: 39162			Analysis Date: 1/19/2023			SeqNo: 1682548				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	9.92		10.00		99.2	50	150				
Surr: o-Terphenyl	10.2		10.00		102	50	150				

Sample ID: LCS-39162		SampType: LCS			Units: mg/Kg		Prep Date: 1/19/2023			RunNo: 81263		
Client ID: LCSS		Batch ID: 39162			Analysis Date: 1/19/2023			SeqNo: 1682549				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	491	150	500.0	0	98.2	74.5	125				
Surr: 2-Fluorobiphenyl	9.12		10.00		91.2	50	150				
Surr: o-Terphenyl	11.0		10.00		110	50	150				

Sample ID: 2301194-001AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/19/2023			RunNo: 81263		
Client ID: SB-13(13-13.5)		Batch ID: 39162			Analysis Date: 1/19/2023			SeqNo: 1682551				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	1,230	302	1,007	106.3	112	50.3	140				
Surr: 2-Fluorobiphenyl	19.3		20.14		95.9	50	150				
Surr: o-Terphenyl	20.4		20.14		101	50	150				

Sample ID: 2301194-001AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 1/19/2023			RunNo: 81263		
Client ID: SB-13(13-13.5)		Batch ID: 39162			Analysis Date: 1/19/2023			SeqNo: 1682552				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	1,170	303	1,009	106.3	105	50.3	140	1,234	5.63	30	
Surr: 2-Fluorobiphenyl	16.0		20.18		79.2	50	150		0		
Surr: o-Terphenyl	15.5		20.18		76.7	50	150		0		



Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2301194-028ADUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 1/19/2023			RunNo: 81263			
Client ID: SB-21(19.5-20)	Batch ID: 39162				Analysis Date: 1/19/2023			SeqNo: 1682568			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	65.6						0		30	
Heavy Oil	ND	131						0		30	
Total Petroleum Hydrocarbons	ND	197						0		30	
Surr: 2-Fluorobiphenyl	9.34		13.12		71.2	50	150		0		
Surr: o-Terphenyl	10.2		13.12		77.9	50	150		0		

Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39112		SampType: LCS			Units: mg/Kg		Prep Date: 1/13/2023			RunNo: 81156		
Client ID: LCSS		Batch ID: 39112			Analysis Date: 1/13/2023			SeqNo: 1680049				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	28.1	5.00	25.00	0	112	65	135				
Surr: Toluene-d8	1.23		1.250		98.3	65	135				
Surr: 4-Bromofluorobenzene	1.21		1.250		96.6	65	135				

Sample ID: MB-39112		SampType: MBLK			Units: mg/Kg		Prep Date: 1/13/2023			RunNo: 81156		
Client ID: MBLKS		Batch ID: 39112			Analysis Date: 1/13/2023					SeqNo: 1680048		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.22		1.250		98.0	65	135				
Surr: 4-Bromofluorobenzene	1.20		1.250		95.9	65	135				

Sample ID: 2301186-001BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/13/2023			RunNo: 81156		
Client ID: BATCH		Batch ID: 39112			Analysis Date: 1/13/2023			SeqNo: 1680029				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	188	4.54						180.4	3.94	30	
Surr: Toluene-d8	1.13		1.134		99.5	65	135		0		
Surr: 4-Bromofluorobenzene	1.15		1.134		101	65	135		0		

Sample ID: 2301142-001BDUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 1/13/2023		RunNo: 81156		
Client ID: BATCH		Batch ID: 39112			Analysis Date: 1/13/2023				SeqNo: 1680025		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	ND	5.21						0		30	
Surr: Toluene-d8	1.28		1.302		98.2	65	135		0		
Surr: 4-Bromofluorobenzene	1.25		1.302		95.7	65	135		0		

Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301158-001BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/13/2023			RunNo: 81156		
Client ID: BATCH		Batch ID: 39112		Analysis Date: 1/13/2023					SeqNo: 1680044		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	17.4	2.98	14.90	2.614	99.0	65	135				
Surr: Toluene-d8	0.752		0.7450		101	65	135				
Surr: 4-Bromofluorobenzene	0.713		0.7450		95.7	65	135				

Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39108		SampType: LCS			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81128		
Client ID: LCSW		Batch ID: 39108			Analysis Date: 1/11/2023			SeqNo: 1679228				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	495	50.0	500.0	0	99.0	65	135				
Surr: Toluene-d8	25.2		25.00		101	65	135				
Surr: 4-Bromofluorobenzene	27.3		25.00		109	65	135				

Sample ID: MB-39108		SampType: MBLK			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81128		
Client ID: MBLKW		Batch ID: 39108			Analysis Date: 1/11/2023			SeqNo: 1679227				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	50.0									
Surr: Toluene-d8	24.3		25.00		97.2	65	135				
Surr: 4-Bromofluorobenzene	22.0		25.00		88.2	65	135				

Sample ID: 2301191-004ADUP		SampType: DUP			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81128		
Client ID: BATCH		Batch ID: 39108			Analysis Date: 1/12/2023			SeqNo: 1679212				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	50.0						0		30	
Surr: Toluene-d8	24.2		25.00		96.7	65	135		0		
Surr: 4-Bromofluorobenzene	21.0		25.00		84.1	65	135		0		

Sample ID: 2301191-002AMS		SampType: MS			Units: µg/L		Prep Date: 1/12/2023			RunNo: 81128		
Client ID: BATCH		Batch ID: 39108			Analysis Date: 1/13/2023					SeqNo: 1679208		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	522	50.0	500.0	0	104	65	135				
Surr: Toluene-d8	24.9		25.00		99.6	65	135				
Surr: 4-Bromofluorobenzene	26.8		25.00		107	65	135				



Work Order: 2301194
CLIENT: Apex Companies, LLC
Project: Dagmar

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301206-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/12/2023			RunNo: 81233		
Client ID: BATCH		Batch ID: 39108		Analysis Date: 1/19/2023			SeqNo: 1681742				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	50.0						0		30	
Surr: Toluene-d8	24.6		25.00		98.3	65	135		0		
Surr: 4-Bromofluorobenzene	24.5		25.00		98.0	65	135		0		

Client Name: **APEXCO**
 Logged by: **Clare Griggs**

Work Order Number: **2301194**
 Date Received: **1/11/2023 2:07:00 PM**

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified: Anders Utter Date: 1/13/2023
 By Whom: Clare Griggs Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person
 Regarding: Sample labeling discrepancies.
 Client Instructions:

19. Additional remarks:

Item Information

Item #	Temp °C
Sample	5.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-10-23 Page: 1 of 3 Laboratory Project No (Internal): 2301194

Client: Apex Company LLC Project Name: Dagmar Special Remarks: PM will contact samples for HOIP

Address: 801 N 42nd St Collected by: H HSCOX

City, State, Zip: Seattle, WA Location: Everett WA

Telephone: Report To (PM): A. Utter

Fax: PM Email: Anders.Utter@ApexCO3.com

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	NWTPH GX+DX	Comments
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1	SB-13 (13-13.5)	1-9-23	920	5	3														
2	SB-13 (24.5-25)		945	5	3														
3	SB-14 (14-14.5)		1010	5	3														
4	SB-14 (24.5-25)		1020	5	3														
5	SB-14A (14-14.5)		1100	5	3														
6	SB-14A (19.5-20)		1110	5	3														
7	SB-15 (8-8.5)		1300	5	3														
8	SB-15 (12.3-13)		1310	5	3														
9	SB-16 (8-8.5)		1540	5	3														
10	SB-16 (19.5-15)		1400	5	3														

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water
**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn
***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
	Hannah H.	1-11-23 1400		Katherine Porter	1/11/23 14:07
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-10-23 Page: 2 of 3

Project Name: Daymar

Project No:

Collected by: H Hiscob

Location: ELEC + WA

Report To (PM): A Utter

PM Email: anders.utter@daymar.com

Laboratory Project No (Internal): 2301194

Special Remarks:

PM will contact samples for 1st ID

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: Post Compens LLC
Address: 501 N 4th
City, State, Zip: Seattle WA
Telephone:
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 620 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Total Organic Carbon	Comments	
SB-13 (10.5-7)	1-10-23	840	S	3															
SB-17 (14.5-15)		845	S	3															
ACS 4 (1-3)		1023	S	1															
ACS 4 (3-7)		1023	S	1															
ACS 4 (7-10)		1026	S	1															
ACS 4 (10-15)		1035	S	1															
ACS 4 (15-17)		1045	S	1															
ACS 4 (17-20)		1050	S	1															
SB-18 (14.5-15)		1250	S	3															
SB-16 (19.5-20)		1300	S	3															

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Requisitioned (Signature) Print Name Date/Time
Relinquished (Signature) Print Name Date/Time

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify)

Chain of Custody Record & Laboratory Services Agreement

Date: **1-10-23** Page: **3** of **3**

Laboratory Project No (internal): **2301194**

Project Name: **Dagmar**

Special Remarks: **PM will contact samples for Ho1d**

Project No:

Collected by: **H Hiscor**

Location: **Everett WA**

Report To (PM): **A Diller**

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

PM Email: **Anders.H.H.H.C@Apexxos.com**

Telephone:

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDB (8011)	Comments	
1 SHOR-4-6W	1-10-23	1200	W	3												X	← From 10L2361066 missing set of bottles
2 SB-19 (13-13.5)		1330	S	3												X	
3 SB-19 (19-20)		1340	S	3												X	
4 SB-20 (14.5-15)		1410	S	3												X	
5 SB-20 (19.5-20)		1420	S	3												X	
6 SB-20 (24.5-20)		1430	S	3												X	
7 SB-21 (14-14.5)		1440	S	3												X	
8 SB-21 (19.5-20)		1445	S	3												X	
9 SB-21 (24.5-25)		1450	S	3												X	
10																	Turn-around Time:

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify) _____

Reinquired (Signature) <i>[Signature]</i>	Print Name Hannah Apex	Date/Time 1-11-23 1400	Received (Signature) <i>[Signature]</i>	Print Name Katherine Porter	Date/Time 1/11/23 14:07
Relinquished (Signature) <i>[Signature]</i>	Print Name	Date/Time	Received (Signature) <i>[Signature]</i>	Print Name	Date/Time



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-10-23 Page: 1 of 3

Project Name: Dagmar

Project No:

Collected by: H HSCOX

Location: Everett WA

Report To (PM): A. Utter

PM Email: Anders.Utter@Agxco3.com

Laboratory Project No (Internal): 2301194

Special Remarks: PM will contact samples for hold

Edits per AU 1/11/23 -cg

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Telephone:

Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
1 SB-13 (13-13.5)	1-9-23	9:20	S	3												
2 SB-13 (24.5-25)		9:45	S	3												
3 SB-14 (14-14.5)		10:10	S	3												
4 SB-14 (24.5-25)		10:20	S	3												
5 SB-14A (14-14.5)		11:00	S	3												
6 SB-14A (19.5-20)		11:10	S	3												Hold
7 SB-15 (8-8.5)		13:00	S	3												Hold
8 SB-15 (12.3-13)		13:10	S	3												
9 SB-16 (8-8.5)		15:40	S	3												Hold
10 SB-16 (19.5-15)		14:00	S	3												

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn

Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Turn-around Time:

☐ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

Print Name: Hannah H. Date/Time: 1-11-23 1400

Print Name: Katherine Porter Date/Time: 1/11/23 14:00

Relinquished (Signature): [Signature] Print Name: Hannah H. Date/Time: 1-11-23 1400

Relinquished (Signature): [Signature] Print Name: Katherine Porter Date/Time: 1/11/23 14:00

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Relinquished (Signature) _____ Date/Time _____ Received (Signature) _____ Date/Time _____

Print Name _____ Date/Time _____ Print Name _____ Date/Time _____



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 1-10-23 Page: 2 of 3

Project Name: Daymar

Project No:

Collected by: H Hiscox

Location: ELEC + WA

Report To (PM): A Utter

PM Email: anders.utter@daymar.com

Laboratory Project No (Internal): 2301194

Special Remarks:

PM will contact samples for 1st ID

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: Post Compens LLC
Address: 501 N 4th
City, State, Zip: Seattle WA
Telephone:
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOCS (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Total Organic Carbon	Comments	
SB-13 (10.5-7)	1-10-23	840	S	3														Hold
SB-17 (14.5-15)		845	S	3														Hold
ACS 4 (1-3)		1023	S	1														Hold
ACS 4 (3-7)		1023	S	1														Hold
ACS 4 (7-10)		1026	S	1														Hold
ACS 4 (10-15)		1035	S	1														Hold
ACS 4 (15-17)		1045	S	1														Hold
ACS 4 (17-20)		1050	S	1														Hold
SB-18 (14.5-15)		1750	S	3														Hold
SB-18 (14.5-20)		1300	S	3														Hold

Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

***Metals (Circle): MTCA-5 RCR-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Tl Ti V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Requisitioned (Signature) Print Name Date/Time
Relinquished (Signature) Print Name Date/Time

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify)

Chain of Custody Record & Laboratory Services Agreement

Date: **1-10-23** Page: **3** of **3**

Laboratory Project No (internal): **2301194**

Project Name: **Dagmar**

Special Remarks: **PM will contact samples for Hold**

Project No:

Collected by: **H Hiscor**

Location: **Everett WA**

Report To (PM): **A Diller**

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

PM Email: **Anders.H.H.H.C@Apex.com**

Telephone:

Fax:

Sample Name					Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) / Dissolved (D)	Anions (IC)**	EDB (8011)	Comments	
1	SHOR-4- (GW	1-10-23	1200	W	3																	← From 10L-2301066 missing set of bottles
2	SB-19 (13-13.5)		1340	S	3																	
3	SB-19 (19-20)		1340	S	3																	Hold
4	SB-20 (14.5-15)		1410	S	3																	
5	SB-20 (19.5-20)		1420	S	3																	Hold
6	SB-20 (24.5-25)		1430	S	3																	SB-20(24.5-25)
7	SB-21 (14-14.5)		1440	S	3																	
8	SB-21 (19.5-20)		1445	S	3																	
9	SB-21 (24.5-25)		1450	S	3																	Hold

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-around Time:
☒ Standard ☐ Next Day
☐ 3 Day ☐ Same Day
☐ 2 Day (specify) _____

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
<i>[Signature]</i>	Hannah Apex	1-11-23 1400	<i>[Signature]</i>	Katherine Porter	1/11/23 14:07



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Companies, LLC

Anders Utter
3015 SW 1st Ave.
Portland, OR 97201

RE: Dagmars Marina
Work Order Number: 2301517

January 31, 2023

Attention Anders Utter:

Fremont Analytical, Inc. received 10 sample(s) on 1/27/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Gasoline by NWTPH-Gx
Sample Moisture (Percent Moisture)
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

www.fremontanalytical.com

CLIENT: Apex Companies, LLC
Project: Dagmars Marina
Work Order: 2301517

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2301517-001	SB-22-17	01/25/2023 1:57 PM	01/27/2023 1:43 PM
2301517-002	SB-24-11	01/25/2023 3:30 PM	01/27/2023 1:43 PM
2301517-003	SB-23-12	01/25/2023 2:40 PM	01/27/2023 1:43 PM
2301517-004	SB-25-6	01/25/2023 4:24 PM	01/27/2023 1:43 PM
2301517-005	MW-2	01/27/2023 11:42 AM	01/27/2023 1:43 PM
2301517-006	MW-3	01/26/2023 3:00 PM	01/27/2023 1:43 PM
2301517-007	MW-4	01/26/2023 12:57 PM	01/27/2023 1:43 PM
2301517-008	MW-5	01/26/2023 4:08 PM	01/27/2023 1:43 PM
2301517-009	Trip Blank	01/24/2023 11:03 AM	01/27/2023 1:43 PM
2301517-010	Trip Blank	01/24/2023 11:03 AM	01/27/2023 1:43 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

CLIENT: Apex Companies, LLC**Project:** Dagmars Marina

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

- * - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 1:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-001

Matrix: Soil

Client Sample ID: SB-22-17

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39266

Analyst: KJ

Diesel Range Organics	ND	62.5		mg/Kg-dry	1	1/30/2023 5:33:30 PM
Heavy Oil	ND	125		mg/Kg-dry	1	1/30/2023 5:33:30 PM
Total Petroleum Hydrocarbons	ND	188		mg/Kg-dry	1	1/30/2023 5:33:30 PM
Surr: 2-Fluorobiphenyl	86.9	50 - 150		%Rec	1	1/30/2023 5:33:30 PM
Surr: o-Terphenyl	86.4	50 - 150		%Rec	1	1/30/2023 5:33:30 PM

Gasoline by NWTPH-Gx

Batch ID: 39271

Analyst: SH

Gasoline Range Organics	ND	6.56		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	1/30/2023 9:29:10 PM
Surr: 4-Bromofluorobenzene	97.0	65 - 135		%Rec	1	1/30/2023 9:29:10 PM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Chloromethane	ND	0.0656		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Vinyl chloride	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Bromomethane	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Trichlorofluoromethane (CFC-11)	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Chloroethane	ND	0.0984		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1-Dichloroethene	ND	0.131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Acetone	ND	0.328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Methylene chloride	ND	0.0459		mg/Kg-dry	1	1/30/2023 9:29:10 PM
trans-1,2-Dichloroethene	ND	0.0131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Methyl tert-butyl ether (MTBE)	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1-Dichloroethane	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
cis-1,2-Dichloroethene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
(MEK) 2-Butanone	ND	0.394		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Chloroform	ND	0.0230		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1,1-Trichloroethane (TCA)	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1-Dichloropropene	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Carbon tetrachloride	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2-Dichloroethane (EDC)	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Benzene	ND	0.0230		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Trichloroethene (TCE)	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2-Dichloropropane	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Bromodichloromethane	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Dibromomethane	ND	0.0164		mg/Kg-dry	1	1/30/2023 9:29:10 PM
cis-1,3-Dichloropropene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 1:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-001

Matrix: Soil

Client Sample ID: SB-22-17

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Toluene	ND	0.0394		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Trans-1,3-Dichloropropylene	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0787		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1,2-Trichloroethane	ND	0.0164		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,3-Dichloropropane	ND	0.0131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Tetrachloroethene (PCE)	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Dibromochloromethane	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2-Dibromoethane (EDB)	ND	0.0131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
2-Hexanone (MBK)	ND	0.0820		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Chlorobenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1,1,2-Tetrachloroethane	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Ethylbenzene	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
m,p-Xylene	ND	0.0656		mg/Kg-dry	1	1/30/2023 9:29:10 PM
o-Xylene	ND	0.0328		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Styrene	ND	0.0131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Isopropylbenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Bromoform	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,1,2,2-Tetrachloroethane	ND	0.262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
n-Propylbenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Bromobenzene	ND	0.0164		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,3,5-Trimethylbenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
2-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	1/30/2023 9:29:10 PM
4-Chlorotoluene	ND	0.0216		mg/Kg-dry	1	1/30/2023 9:29:10 PM
tert-Butylbenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2,3-Trichloropropane	ND	0.0394		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2,4-Trichlorobenzene	ND	0.0787		mg/Kg-dry	1	1/30/2023 9:29:10 PM
sec-Butylbenzene	ND	0.197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
4-Isopropyltoluene	ND	0.262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,3-Dichlorobenzene	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,4-Dichlorobenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
n-Butylbenzene	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2-Dichlorobenzene	ND	0.0262		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2-Dibromo-3-chloropropane	ND	0.0394		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2,4-Trimethylbenzene	ND	0.0197		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Hexachloro-1,3-butadiene	ND	0.0525		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Naphthalene	ND	0.131		mg/Kg-dry	1	1/30/2023 9:29:10 PM
1,2,3-Trichlorobenzene	ND	0.0787		mg/Kg-dry	1	1/30/2023 9:29:10 PM
Surr: Dibromofluoromethane	98.8	80 - 120		%Rec	1	1/30/2023 9:29:10 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	1/30/2023 9:29:10 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 1:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-001

Matrix: Soil

Client Sample ID: SB-22-17

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271 Analyst: SH

Surr: 1-Bromo-4-fluorobenzene	98.1	80 - 120	%Rec	1	1/30/2023 9:29:10 PM
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Sample Moisture (Percent Moisture)

Batch ID: R81488 Analyst: et

Percent Moisture	23.8	0.500	wt%	1	1/30/2023 9:27:00 AM
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Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 3:30:00 PM

Project: Dagmars Marina

Lab ID: 2301517-002

Matrix: Soil

Client Sample ID: SB-24-11

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39266

Analyst: KJ

Diesel Range Organics	ND	59.6		mg/Kg-dry	1	1/30/2023 5:44:16 PM
Heavy Oil	ND	119		mg/Kg-dry	1	1/30/2023 5:44:16 PM
Total Petroleum Hydrocarbons	ND	179		mg/Kg-dry	1	1/30/2023 5:44:16 PM
Surr: 2-Fluorobiphenyl	74.2	50 - 150		%Rec	1	1/30/2023 5:44:16 PM
Surr: o-Terphenyl	76.2	50 - 150		%Rec	1	1/30/2023 5:44:16 PM

Gasoline by NWTPH-Gx

Batch ID: 39271

Analyst: SH

Gasoline Range Organics	ND	6.23		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Surr: Toluene-d8	105	65 - 135		%Rec	1	1/30/2023 9:59:18 PM
Surr: 4-Bromofluorobenzene	98.4	65 - 135		%Rec	1	1/30/2023 9:59:18 PM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Chloromethane	ND	0.0623		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Vinyl chloride	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Bromomethane	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Trichlorofluoromethane (CFC-11)	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Chloroethane	ND	0.0934		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1-Dichloroethene	ND	0.125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Acetone	ND	0.311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Methylene chloride	ND	0.0436		mg/Kg-dry	1	1/30/2023 9:59:18 PM
trans-1,2-Dichloroethene	ND	0.0125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Methyl tert-butyl ether (MTBE)	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1-Dichloroethane	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
cis-1,2-Dichloroethene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
(MEK) 2-Butanone	ND	0.374		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Chloroform	ND	0.0218		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1,1-Trichloroethane (TCA)	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1-Dichloropropene	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Carbon tetrachloride	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2-Dichloroethane (EDC)	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Benzene	ND	0.0218		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Trichloroethene (TCE)	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2-Dichloropropane	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Bromodichloromethane	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Dibromomethane	ND	0.0156		mg/Kg-dry	1	1/30/2023 9:59:18 PM
cis-1,3-Dichloropropene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 3:30:00 PM

Project: Dagmars Marina

Lab ID: 2301517-002

Matrix: Soil

Client Sample ID: SB-24-11

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Toluene	ND	0.0374		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Trans-1,3-Dichloropropylene	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0747		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1,2-Trichloroethane	ND	0.0156		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,3-Dichloropropane	ND	0.0125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Tetrachloroethene (PCE)	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Dibromochloromethane	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2-Dibromoethane (EDB)	ND	0.0125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
2-Hexanone (MBK)	ND	0.0779		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Chlorobenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1,1,2-Tetrachloroethane	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Ethylbenzene	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
m,p-Xylene	ND	0.0623		mg/Kg-dry	1	1/30/2023 9:59:18 PM
o-Xylene	ND	0.0311		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Styrene	ND	0.0125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Isopropylbenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Bromoform	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,1,2,2-Tetrachloroethane	ND	0.249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
n-Propylbenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Bromobenzene	ND	0.0156		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,3,5-Trimethylbenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
2-Chlorotoluene	ND	0.0206		mg/Kg-dry	1	1/30/2023 9:59:18 PM
4-Chlorotoluene	ND	0.0206		mg/Kg-dry	1	1/30/2023 9:59:18 PM
tert-Butylbenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2,3-Trichloropropane	ND	0.0374		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2,4-Trichlorobenzene	ND	0.0747		mg/Kg-dry	1	1/30/2023 9:59:18 PM
sec-Butylbenzene	ND	0.187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
4-Isopropyltoluene	ND	0.249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,3-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,4-Dichlorobenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
n-Butylbenzene	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2-Dichlorobenzene	ND	0.0249		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2-Dibromo-3-chloropropane	ND	0.0374		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2,4-Trimethylbenzene	ND	0.0187		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Hexachloro-1,3-butadiene	ND	0.0498		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Naphthalene	ND	0.125		mg/Kg-dry	1	1/30/2023 9:59:18 PM
1,2,3-Trichlorobenzene	ND	0.0747		mg/Kg-dry	1	1/30/2023 9:59:18 PM
Surr: Dibromofluoromethane	99.3	80 - 120		%Rec	1	1/30/2023 9:59:18 PM
Surr: Toluene-d8	100	80 - 120		%Rec	1	1/30/2023 9:59:18 PM

Original



Analytical Report

Work Order: 2301517

Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 3:30:00 PM

Project: Dagmars Marina

Lab ID: 2301517-002

Matrix: Soil

Client Sample ID: SB-24-11

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Surr: 1-Bromo-4-fluorobenzene

99.2

80 - 120

%Rec

1

1/30/2023 9:59:18 PM

Sample Moisture (Percent Moisture)

Batch ID: R81488

Analyst: et

Percent Moisture

19.7

0.500

wt%

1

1/30/2023 9:27:00 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 2:40:00 PM

Project: Dagmars Marina

Lab ID: 2301517-003

Matrix: Soil

Client Sample ID: SB-23-12

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39266

Analyst: KJ

Diesel Range Organics	ND	57.5		mg/Kg-dry	1	1/30/2023 5:55:00 PM
Heavy Oil	ND	115		mg/Kg-dry	1	1/30/2023 5:55:00 PM
Total Petroleum Hydrocarbons	ND	172		mg/Kg-dry	1	1/30/2023 5:55:00 PM
Surr: 2-Fluorobiphenyl	73.1	50 - 150		%Rec	1	1/30/2023 5:55:00 PM
Surr: o-Terphenyl	74.1	50 - 150		%Rec	1	1/30/2023 5:55:00 PM

Gasoline by NWTPH-Gx

Batch ID: 39271

Analyst: SH

Gasoline Range Organics	ND	6.18		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Surr: Toluene-d8	106	65 - 135		%Rec	1	1/30/2023 10:29:27 PM
Surr: 4-Bromofluorobenzene	98.5	65 - 135		%Rec	1	1/30/2023 10:29:27 PM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Chloromethane	ND	0.0618		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Vinyl chloride	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Bromomethane	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Trichlorofluoromethane (CFC-11)	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Chloroethane	ND	0.0927		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1-Dichloroethene	ND	0.124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Acetone	ND	0.309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Methylene chloride	ND	0.0432		mg/Kg-dry	1	1/30/2023 10:29:27 PM
trans-1,2-Dichloroethene	ND	0.0124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Methyl tert-butyl ether (MTBE)	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1-Dichloroethane	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
cis-1,2-Dichloroethene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
(MEK) 2-Butanone	ND	0.371		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Chloroform	ND	0.0216		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1,1-Trichloroethane (TCA)	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1-Dichloropropene	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Carbon tetrachloride	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2-Dichloroethane (EDC)	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Benzene	ND	0.0216		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Trichloroethene (TCE)	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2-Dichloropropane	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Bromodichloromethane	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Dibromomethane	ND	0.0154		mg/Kg-dry	1	1/30/2023 10:29:27 PM
cis-1,3-Dichloropropene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 2:40:00 PM

Project: Dagmars Marina

Lab ID: 2301517-003

Matrix: Soil

Client Sample ID: SB-23-12

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Toluene	ND	0.0371		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Trans-1,3-Dichloropropylene	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0741		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1,2-Trichloroethane	ND	0.0154		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,3-Dichloropropane	ND	0.0124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Tetrachloroethene (PCE)	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Dibromochloromethane	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2-Dibromoethane (EDB)	ND	0.0124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
2-Hexanone (MBK)	ND	0.0772		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Chlorobenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1,1,2-Tetrachloroethane	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Ethylbenzene	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
m,p-Xylene	ND	0.0618		mg/Kg-dry	1	1/30/2023 10:29:27 PM
o-Xylene	ND	0.0309		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Styrene	ND	0.0124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Isopropylbenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Bromoform	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,1,2,2-Tetrachloroethane	ND	0.247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
n-Propylbenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Bromobenzene	ND	0.0154		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,3,5-Trimethylbenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
2-Chlorotoluene	ND	0.0204		mg/Kg-dry	1	1/30/2023 10:29:27 PM
4-Chlorotoluene	ND	0.0204		mg/Kg-dry	1	1/30/2023 10:29:27 PM
tert-Butylbenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2,3-Trichloropropane	ND	0.0371		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2,4-Trichlorobenzene	ND	0.0741		mg/Kg-dry	1	1/30/2023 10:29:27 PM
sec-Butylbenzene	ND	0.185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
4-Isopropyltoluene	ND	0.247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,3-Dichlorobenzene	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,4-Dichlorobenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
n-Butylbenzene	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2-Dichlorobenzene	ND	0.0247		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2-Dibromo-3-chloropropane	ND	0.0371		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2,4-Trimethylbenzene	ND	0.0185		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Hexachloro-1,3-butadiene	ND	0.0494		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Naphthalene	ND	0.124		mg/Kg-dry	1	1/30/2023 10:29:27 PM
1,2,3-Trichlorobenzene	ND	0.0741		mg/Kg-dry	1	1/30/2023 10:29:27 PM
Surr: Dibromofluoromethane	99.8	80 - 120		%Rec	1	1/30/2023 10:29:27 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	1/30/2023 10:29:27 PM

Original



Analytical Report

Work Order: 2301517

Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 2:40:00 PM

Project: Dagmars Marina

Lab ID: 2301517-003

Matrix: Soil

Client Sample ID: SB-23-12

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Surr: 1-Bromo-4-fluorobenzene

99.5

80 - 120

%Rec

1

1/30/2023 10:29:27 PM

Sample Moisture (Percent Moisture)

Batch ID: R81488

Analyst: et

Percent Moisture

19.1

0.500

wt%

1

1/30/2023 9:27:00 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2301517-004

Matrix: Soil

Client Sample ID: SB-25-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39266

Analyst: KJ

Diesel Range Organics	ND	56.6		mg/Kg-dry	1	1/30/2023 6:05:45 PM
Heavy Oil	ND	113		mg/Kg-dry	1	1/30/2023 6:05:45 PM
Total Petroleum Hydrocarbons	ND	170		mg/Kg-dry	1	1/30/2023 6:05:45 PM
Surr: 2-Fluorobiphenyl	74.4	50 - 150		%Rec	1	1/30/2023 6:05:45 PM
Surr: o-Terphenyl	75.4	50 - 150		%Rec	1	1/30/2023 6:05:45 PM

Gasoline by NWTPH-Gx

Batch ID: 39271

Analyst: SH

Gasoline Range Organics	ND	6.10		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Surr: Toluene-d8	104	65 - 135		%Rec	1	1/30/2023 10:59:35 PM
Surr: 4-Bromofluorobenzene	99.6	65 - 135		%Rec	1	1/30/2023 10:59:35 PM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Chloromethane	ND	0.0610		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Vinyl chloride	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Bromomethane	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Trichlorofluoromethane (CFC-11)	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Chloroethane	ND	0.0915		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1-Dichloroethene	ND	0.122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Acetone	ND	0.305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Methylene chloride	ND	0.0427		mg/Kg-dry	1	1/30/2023 10:59:35 PM
trans-1,2-Dichloroethene	ND	0.0122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Methyl tert-butyl ether (MTBE)	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1-Dichloroethane	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
cis-1,2-Dichloroethene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
(MEK) 2-Butanone	ND	0.366		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Chloroform	ND	0.0213		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1,1-Trichloroethane (TCA)	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1-Dichloropropene	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Carbon tetrachloride	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2-Dichloroethane (EDC)	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Benzene	ND	0.0213		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Trichloroethene (TCE)	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2-Dichloropropane	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Bromodichloromethane	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Dibromomethane	ND	0.0152		mg/Kg-dry	1	1/30/2023 10:59:35 PM
cis-1,3-Dichloropropene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2301517-004

Matrix: Soil

Client Sample ID: SB-25-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271

Analyst: SH

Toluene	ND	0.0366		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Trans-1,3-Dichloropropylene	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0732		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1,2-Trichloroethane	ND	0.0152		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,3-Dichloropropane	ND	0.0122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Tetrachloroethene (PCE)	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Dibromochloromethane	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2-Dibromoethane (EDB)	ND	0.0122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
2-Hexanone (MBK)	ND	0.0762		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Chlorobenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1,1,2-Tetrachloroethane	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Ethylbenzene	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
m,p-Xylene	ND	0.0610		mg/Kg-dry	1	1/30/2023 10:59:35 PM
o-Xylene	ND	0.0305		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Styrene	ND	0.0122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Isopropylbenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Bromoform	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,1,2,2-Tetrachloroethane	ND	0.244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
n-Propylbenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Bromobenzene	ND	0.0152		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,3,5-Trimethylbenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
2-Chlorotoluene	ND	0.0201		mg/Kg-dry	1	1/30/2023 10:59:35 PM
4-Chlorotoluene	ND	0.0201		mg/Kg-dry	1	1/30/2023 10:59:35 PM
tert-Butylbenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2,3-Trichloropropane	ND	0.0366		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2,4-Trichlorobenzene	ND	0.0732		mg/Kg-dry	1	1/30/2023 10:59:35 PM
sec-Butylbenzene	ND	0.183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
4-Isopropyltoluene	ND	0.244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,3-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,4-Dichlorobenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
n-Butylbenzene	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2-Dichlorobenzene	ND	0.0244		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2-Dibromo-3-chloropropane	ND	0.0366		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2,4-Trimethylbenzene	ND	0.0183		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Hexachloro-1,3-butadiene	ND	0.0488		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Naphthalene	ND	0.122		mg/Kg-dry	1	1/30/2023 10:59:35 PM
1,2,3-Trichlorobenzene	ND	0.0732		mg/Kg-dry	1	1/30/2023 10:59:35 PM
Surr: Dibromofluoromethane	103	80 - 120		%Rec	1	1/30/2023 10:59:35 PM
Surr: Toluene-d8	101	80 - 120		%Rec	1	1/30/2023 10:59:35 PM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/25/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2301517-004

Matrix: Soil

Client Sample ID: SB-25-6

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39271 Analyst: SH

Surr: 1-Bromo-4-fluorobenzene	100	80 - 120	%Rec	1	1/30/2023 10:59:35 PM
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Sample Moisture (Percent Moisture)

Batch ID: R81488 Analyst: et

Percent Moisture	18.0	0.500	wt%	1	1/30/2023 9:27:00 AM
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Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/27/2023 11:42:00 AM

Project: Dagmars Marina

Lab ID: 2301517-005

Matrix: Groundwater

Client Sample ID: MW-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39285

Analyst: KJ

Diesel Range Organics	191	93.9		µg/L	1	1/31/2023 1:53:00 PM
Heavy Oil	ND	93.9		µg/L	1	1/31/2023 1:53:00 PM
Total Petroleum Hydrocarbons	191	188		µg/L	1	1/31/2023 1:53:00 PM
Surr: 2-Fluorobiphenyl	76.5	50 - 150		%Rec	1	1/31/2023 1:53:00 PM
Surr: o-Terphenyl	80.8	50 - 150		%Rec	1	1/31/2023 1:53:00 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx

Batch ID: 39273

Analyst: SH

Gasoline Range Organics	ND	50.0		µg/L	1	1/31/2023 12:40:15 AM
Surr: Toluene-d8	95.8	65 - 135		%Rec	1	1/31/2023 12:40:15 AM
Surr: 4-Bromofluorobenzene	96.6	65 - 135		%Rec	1	1/31/2023 12:40:15 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Chloromethane	ND	0.750		µg/L	1	1/31/2023 12:40:15 AM
Vinyl chloride	ND	0.200		µg/L	1	1/31/2023 12:40:15 AM
Bromomethane	ND	3.00		µg/L	1	1/31/2023 12:40:15 AM
Trichlorofluoromethane (CFC-11)	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
Chloroethane	ND	1.00		µg/L	1	1/31/2023 12:40:15 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Acetone	266	50.0	D	µg/L	10	1/31/2023 11:55:00 AM
Methylene chloride	ND	0.750		µg/L	1	1/31/2023 12:40:15 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	1/31/2023 12:40:15 AM
Methyl tert-butyl ether (MTBE)	ND	0.350		µg/L	1	1/31/2023 12:40:15 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
2-Butanone (MEK)	ND	1.50		µg/L	1	1/31/2023 12:40:15 AM
Chloroform	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,1,1-Trichloroethane (TCA)	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
1,1-Dichloropropene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Carbon tetrachloride	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
1,2-Dichloroethane (EDC)	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Benzene	ND	0.440		µg/L	1	1/31/2023 12:40:15 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	1/31/2023 12:40:15 AM
1,2-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
Bromodichloromethane	ND	0.250		µg/L	1	1/31/2023 12:40:15 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/27/2023 11:42:00 AM

Project: Dagmars Marina

Lab ID: 2301517-005

Matrix: Groundwater

Client Sample ID: MW-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dibromomethane	ND	0.250		µg/L	1	1/31/2023 12:40:15 AM
cis-1,3-Dichloropropene	ND	0.350		µg/L	1	1/31/2023 12:40:15 AM
Toluene	ND	1.00		µg/L	1	1/31/2023 12:40:15 AM
trans-1,3-Dichloropropylene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		µg/L	1	1/31/2023 12:40:15 AM
1,1,2-Trichloroethane	ND	0.250		µg/L	1	1/31/2023 12:40:15 AM
1,3-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	1/31/2023 12:40:15 AM
Dibromochloromethane	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
1,2-Dibromoethane (EDB)	ND	0.200		µg/L	1	1/31/2023 12:40:15 AM
2-Hexanone (MBK)	ND	1.25		µg/L	1	1/31/2023 12:40:15 AM
Chlorobenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,1,1,2-Tetrachloroethane	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
Ethylbenzene	ND	0.400		µg/L	1	1/31/2023 12:40:15 AM
m,p-Xylene	ND	1.00		µg/L	1	1/31/2023 12:40:15 AM
o-Xylene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Styrene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Isopropylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Bromoform	ND	0.300		µg/L	1	1/31/2023 12:40:15 AM
1,1,2,2-Tetrachloroethane	ND	0.200		µg/L	1	1/31/2023 12:40:15 AM
n-Propylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Bromobenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
2-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
4-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
tert-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,2,3-Trichloropropane	ND	0.400		µg/L	1	1/31/2023 12:40:15 AM
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	1/31/2023 12:40:15 AM
sec-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
4-Isopropyltoluene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,4-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
n-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,2-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	1/31/2023 12:40:15 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Hexachloro-1,3-butadiene	ND	0.500		µg/L	1	1/31/2023 12:40:15 AM
Naphthalene	ND	1.25		µg/L	1	1/31/2023 12:40:15 AM
1,2,3-Trichlorobenzene	ND	0.700		µg/L	1	1/31/2023 12:40:15 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/27/2023 11:42:00 AM

Project: Dagmars Marina

Lab ID: 2301517-005

Matrix: Groundwater

Client Sample ID: MW-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Surr: Dibromofluoromethane	103	80 - 120	%Rec	1	1/31/2023 12:40:15 AM
Surr: Toluene-d8	97.4	80 - 120	%Rec	1	1/31/2023 12:40:15 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	80 - 120	%Rec	1	1/31/2023 12:40:15 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 3:00:00 PM

Project: Dagmars Marina

Lab ID: 2301517-006

Matrix: Groundwater

Client Sample ID: MW-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39285

Analyst: KJ

Diesel Range Organics	573	95.5		µg/L	1	1/31/2023 2:03:55 PM
Heavy Oil	ND	95.5		µg/L	1	1/31/2023 2:03:55 PM
Total Petroleum Hydrocarbons	573	191		µg/L	1	1/31/2023 2:03:55 PM
Surr: 2-Fluorobiphenyl	95.8	50 - 150		%Rec	1	1/31/2023 2:03:55 PM
Surr: o-Terphenyl	86.5	50 - 150		%Rec	1	1/31/2023 2:03:55 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx

Batch ID: 39273

Analyst: SH

Gasoline Range Organics	ND	50.0		µg/L	1	1/31/2023 1:10:29 AM
Surr: Toluene-d8	96.6	65 - 135		%Rec	1	1/31/2023 1:10:29 AM
Surr: 4-Bromofluorobenzene	97.7	65 - 135		%Rec	1	1/31/2023 1:10:29 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Chloromethane	ND	0.750		µg/L	1	1/31/2023 1:10:29 AM
Vinyl chloride	ND	0.200		µg/L	1	1/31/2023 1:10:29 AM
Bromomethane	ND	3.00		µg/L	1	1/31/2023 1:10:29 AM
Trichlorofluoromethane (CFC-11)	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
Chloroethane	ND	1.00		µg/L	1	1/31/2023 1:10:29 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Acetone	19.7	5.00		µg/L	1	1/31/2023 1:10:29 AM
Methylene chloride	ND	0.750		µg/L	1	1/31/2023 1:10:29 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	1/31/2023 1:10:29 AM
Methyl tert-butyl ether (MTBE)	ND	0.350		µg/L	1	1/31/2023 1:10:29 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
2-Butanone (MEK)	3.67	1.50		µg/L	1	1/31/2023 1:10:29 AM
Chloroform	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,1,1-Trichloroethane (TCA)	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
1,1-Dichloropropene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Carbon tetrachloride	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
1,2-Dichloroethane (EDC)	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Benzene	ND	0.440		µg/L	1	1/31/2023 1:10:29 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	1/31/2023 1:10:29 AM
1,2-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
Bromodichloromethane	ND	0.250		µg/L	1	1/31/2023 1:10:29 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 3:00:00 PM

Project: Dagmars Marina

Lab ID: 2301517-006

Matrix: Groundwater

Client Sample ID: MW-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dibromomethane	ND	0.250		µg/L	1	1/31/2023 1:10:29 AM
cis-1,3-Dichloropropene	ND	0.350		µg/L	1	1/31/2023 1:10:29 AM
Toluene	ND	1.00		µg/L	1	1/31/2023 1:10:29 AM
trans-1,3-Dichloropropylene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		µg/L	1	1/31/2023 1:10:29 AM
1,1,2-Trichloroethane	ND	0.250		µg/L	1	1/31/2023 1:10:29 AM
1,3-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	1/31/2023 1:10:29 AM
Dibromochloromethane	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
1,2-Dibromoethane (EDB)	ND	0.200		µg/L	1	1/31/2023 1:10:29 AM
2-Hexanone (MBK)	ND	1.25		µg/L	1	1/31/2023 1:10:29 AM
Chlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,1,1,2-Tetrachloroethane	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
Ethylbenzene	ND	0.400		µg/L	1	1/31/2023 1:10:29 AM
m,p-Xylene	ND	1.00		µg/L	1	1/31/2023 1:10:29 AM
o-Xylene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Styrene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Isopropylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Bromoform	ND	0.300		µg/L	1	1/31/2023 1:10:29 AM
1,1,2,2-Tetrachloroethane	ND	0.200		µg/L	1	1/31/2023 1:10:29 AM
n-Propylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Bromobenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
2-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
4-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
tert-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,2,3-Trichloropropane	ND	0.400		µg/L	1	1/31/2023 1:10:29 AM
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	1/31/2023 1:10:29 AM
sec-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
4-Isopropyltoluene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,4-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
n-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,2-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	1/31/2023 1:10:29 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Hexachloro-1,3-butadiene	ND	0.500		µg/L	1	1/31/2023 1:10:29 AM
Naphthalene	ND	1.25		µg/L	1	1/31/2023 1:10:29 AM
1,2,3-Trichlorobenzene	ND	0.700		µg/L	1	1/31/2023 1:10:29 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 3:00:00 PM

Project: Dagmars Marina

Lab ID: 2301517-006

Matrix: Groundwater

Client Sample ID: MW-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Surr: Dibromofluoromethane	105	80 - 120	%Rec	1	1/31/2023 1:10:29 AM
Surr: Toluene-d8	97.0	80 - 120	%Rec	1	1/31/2023 1:10:29 AM
Surr: 1-Bromo-4-fluorobenzene	99.2	80 - 120	%Rec	1	1/31/2023 1:10:29 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 12:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-007

Matrix: Groundwater

Client Sample ID: MW-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39285

Analyst: KJ

Diesel Range Organics	465	93.0		µg/L	1	1/31/2023 2:14:50 PM
Heavy Oil	ND	93.0		µg/L	1	1/31/2023 2:14:50 PM
Total Petroleum Hydrocarbons	465	186		µg/L	1	1/31/2023 2:14:50 PM
Surr: 2-Fluorobiphenyl	75.0	50 - 150		%Rec	1	1/31/2023 2:14:50 PM
Surr: o-Terphenyl	82.7	50 - 150		%Rec	1	1/31/2023 2:14:50 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx

Batch ID: 39273

Analyst: SH

Gasoline Range Organics	ND	50.0		µg/L	1	1/31/2023 1:40:39 AM
Surr: Toluene-d8	96.2	65 - 135		%Rec	1	1/31/2023 1:40:39 AM
Surr: 4-Bromofluorobenzene	97.3	65 - 135		%Rec	1	1/31/2023 1:40:39 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Chloromethane	ND	0.750		µg/L	1	1/31/2023 1:40:39 AM
Vinyl chloride	ND	0.200		µg/L	1	1/31/2023 1:40:39 AM
Bromomethane	ND	3.00		µg/L	1	1/31/2023 1:40:39 AM
Trichlorofluoromethane (CFC-11)	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
Chloroethane	ND	1.00		µg/L	1	1/31/2023 1:40:39 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Acetone	32.4	5.00		µg/L	1	1/31/2023 1:40:39 AM
Methylene chloride	ND	0.750		µg/L	1	1/31/2023 1:40:39 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	1/31/2023 1:40:39 AM
Methyl tert-butyl ether (MTBE)	ND	0.350		µg/L	1	1/31/2023 1:40:39 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
2-Butanone (MEK)	3.23	1.50		µg/L	1	1/31/2023 1:40:39 AM
Chloroform	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,1,1-Trichloroethane (TCA)	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
1,1-Dichloropropene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Carbon tetrachloride	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
1,2-Dichloroethane (EDC)	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Benzene	ND	0.440		µg/L	1	1/31/2023 1:40:39 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	1/31/2023 1:40:39 AM
1,2-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
Bromodichloromethane	ND	0.250		µg/L	1	1/31/2023 1:40:39 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 12:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-007

Matrix: Groundwater

Client Sample ID: MW-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dibromomethane	ND	0.250		µg/L	1	1/31/2023 1:40:39 AM
cis-1,3-Dichloropropene	ND	0.350		µg/L	1	1/31/2023 1:40:39 AM
Toluene	ND	1.00		µg/L	1	1/31/2023 1:40:39 AM
trans-1,3-Dichloropropylene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		µg/L	1	1/31/2023 1:40:39 AM
1,1,2-Trichloroethane	ND	0.250		µg/L	1	1/31/2023 1:40:39 AM
1,3-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	1/31/2023 1:40:39 AM
Dibromochloromethane	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
1,2-Dibromoethane (EDB)	ND	0.200		µg/L	1	1/31/2023 1:40:39 AM
2-Hexanone (MBK)	ND	1.25		µg/L	1	1/31/2023 1:40:39 AM
Chlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,1,1,2-Tetrachloroethane	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
Ethylbenzene	ND	0.400		µg/L	1	1/31/2023 1:40:39 AM
m,p-Xylene	ND	1.00		µg/L	1	1/31/2023 1:40:39 AM
o-Xylene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Styrene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Isopropylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Bromoform	ND	0.300		µg/L	1	1/31/2023 1:40:39 AM
1,1,2,2-Tetrachloroethane	ND	0.200		µg/L	1	1/31/2023 1:40:39 AM
n-Propylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Bromobenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
2-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
4-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
tert-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,2,3-Trichloropropane	ND	0.400		µg/L	1	1/31/2023 1:40:39 AM
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	1/31/2023 1:40:39 AM
sec-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
4-Isopropyltoluene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,4-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
n-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,2-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	1/31/2023 1:40:39 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Hexachloro-1,3-butadiene	ND	0.500		µg/L	1	1/31/2023 1:40:39 AM
Naphthalene	ND	1.25		µg/L	1	1/31/2023 1:40:39 AM
1,2,3-Trichlorobenzene	ND	0.700		µg/L	1	1/31/2023 1:40:39 AM

Original



Analytical Report

Work Order: 2301517

Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 12:57:00 PM

Project: Dagmars Marina

Lab ID: 2301517-007

Matrix: Groundwater

Client Sample ID: MW-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Surr: Dibromofluoromethane	104	80 - 120	%Rec	1	1/31/2023 1:40:39 AM
Surr: Toluene-d8	96.8	80 - 120	%Rec	1	1/31/2023 1:40:39 AM
Surr: 1-Bromo-4-fluorobenzene	98.5	80 - 120	%Rec	1	1/31/2023 1:40:39 AM



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 4:08:00 PM

Project: Dagmars Marina

Lab ID: 2301517-008

Matrix: Groundwater

Client Sample ID: MW-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 39285

Analyst: KJ

Diesel Range Organics	345	94.1		µg/L	1	1/31/2023 2:25:51 PM
Heavy Oil	ND	94.1		µg/L	1	1/31/2023 2:25:51 PM
Total Petroleum Hydrocarbons	345	188		µg/L	1	1/31/2023 2:25:51 PM
Surr: 2-Fluorobiphenyl	87.1	50 - 150		%Rec	1	1/31/2023 2:25:51 PM
Surr: o-Terphenyl	89.1	50 - 150		%Rec	1	1/31/2023 2:25:51 PM

NOTES:

Chromatographic pattern indicates an unresolved complex mixture, which may be weathered and/or organic material

Gasoline by NWTPH-Gx

Batch ID: 39273

Analyst: SH

Gasoline Range Organics	ND	50.0		µg/L	1	1/31/2023 2:10:45 AM
Surr: Toluene-d8	97.4	65 - 135		%Rec	1	1/31/2023 2:10:45 AM
Surr: 4-Bromofluorobenzene	96.9	65 - 135		%Rec	1	1/31/2023 2:10:45 AM

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dichlorodifluoromethane (CFC-12)	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Chloromethane	ND	0.750		µg/L	1	1/31/2023 2:10:45 AM
Vinyl chloride	ND	0.200		µg/L	1	1/31/2023 2:10:45 AM
Bromomethane	ND	3.00		µg/L	1	1/31/2023 2:10:45 AM
Trichlorofluoromethane (CFC-11)	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
Chloroethane	ND	1.00		µg/L	1	1/31/2023 2:10:45 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Acetone	15.3	5.00		µg/L	1	1/31/2023 2:10:45 AM
Methylene chloride	ND	0.750		µg/L	1	1/31/2023 2:10:45 AM
trans-1,2-Dichloroethene	ND	0.350		µg/L	1	1/31/2023 2:10:45 AM
Methyl tert-butyl ether (MTBE)	ND	0.350		µg/L	1	1/31/2023 2:10:45 AM
1,1-Dichloroethane	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
cis-1,2-Dichloroethene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
2-Butanone (MEK)	3.96	1.50		µg/L	1	1/31/2023 2:10:45 AM
Chloroform	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,1,1-Trichloroethane (TCA)	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
1,1-Dichloropropene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Carbon tetrachloride	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
1,2-Dichloroethane (EDC)	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Benzene	ND	0.440		µg/L	1	1/31/2023 2:10:45 AM
Trichloroethene (TCE)	ND	0.400		µg/L	1	1/31/2023 2:10:45 AM
1,2-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
Bromodichloromethane	ND	0.250		µg/L	1	1/31/2023 2:10:45 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 4:08:00 PM

Project: Dagmars Marina

Lab ID: 2301517-008

Matrix: Groundwater

Client Sample ID: MW-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Dibromomethane	ND	0.250		µg/L	1	1/31/2023 2:10:45 AM
cis-1,3-Dichloropropene	ND	0.350		µg/L	1	1/31/2023 2:10:45 AM
Toluene	ND	1.00		µg/L	1	1/31/2023 2:10:45 AM
trans-1,3-Dichloropropylene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		µg/L	1	1/31/2023 2:10:45 AM
1,1,2-Trichloroethane	ND	0.250		µg/L	1	1/31/2023 2:10:45 AM
1,3-Dichloropropane	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
Tetrachloroethene (PCE)	ND	0.350		µg/L	1	1/31/2023 2:10:45 AM
Dibromochloromethane	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
1,2-Dibromoethane (EDB)	ND	0.200		µg/L	1	1/31/2023 2:10:45 AM
2-Hexanone (MBK)	ND	1.25		µg/L	1	1/31/2023 2:10:45 AM
Chlorobenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,1,1,2-Tetrachloroethane	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
Ethylbenzene	ND	0.400		µg/L	1	1/31/2023 2:10:45 AM
m,p-Xylene	ND	1.00		µg/L	1	1/31/2023 2:10:45 AM
o-Xylene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Styrene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Isopropylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Bromoform	ND	0.300		µg/L	1	1/31/2023 2:10:45 AM
1,1,2,2-Tetrachloroethane	ND	0.200		µg/L	1	1/31/2023 2:10:45 AM
n-Propylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Bromobenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
2-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
4-Chlorotoluene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
tert-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,2,3-Trichloropropane	ND	0.400		µg/L	1	1/31/2023 2:10:45 AM
1,2,4-Trichlorobenzene	ND	0.750		µg/L	1	1/31/2023 2:10:45 AM
sec-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
4-Isopropyltoluene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,4-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
n-Butylbenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,2-Dichlorobenzene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	1/31/2023 2:10:45 AM
1,2,4-Trimethylbenzene	0.619	0.500		µg/L	1	1/31/2023 2:10:45 AM
Hexachloro-1,3-butadiene	ND	0.500		µg/L	1	1/31/2023 2:10:45 AM
Naphthalene	ND	1.25		µg/L	1	1/31/2023 2:10:45 AM
1,2,3-Trichlorobenzene	ND	0.700		µg/L	1	1/31/2023 2:10:45 AM

Original



Analytical Report

Work Order: 2301517
Date Reported: 1/31/2023

Client: Apex Companies, LLC

Collection Date: 1/26/2023 4:08:00 PM

Project: Dagmars Marina

Lab ID: 2301517-008

Matrix: Groundwater

Client Sample ID: MW-5

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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Volatile Organic Compounds by EPA Method 8260D

Batch ID: 39273

Analyst: SH

Surr: Dibromofluoromethane	104	80 - 120	%Rec	1	1/31/2023 2:10:45 AM
Surr: Toluene-d8	96.6	80 - 120	%Rec	1	1/31/2023 2:10:45 AM
Surr: 1-Bromo-4-fluorobenzene	98.0	80 - 120	%Rec	1	1/31/2023 2:10:45 AM

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39266	SampType: MBLK	Units: mg/Kg			Prep Date: 1/30/2023			RunNo: 81507			
Client ID: MBLKS	Batch ID: 39266				Analysis Date: 1/30/2023			SeqNo: 1688551			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	8.78		10.00		87.8	50	150				
Surr: o-Terphenyl	8.87		10.00		88.7	50	150				

Sample ID: LCS-39266	SampType: LCS	Units: mg/Kg				Prep Date: 1/30/2023			RunNo: 81507		
Client ID: LCSS	Batch ID: 39266					Analysis Date: 1/30/2023			SeqNo: 1688552		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	429	150	500.0	0	85.7	74.5	125				
Surr: 2-Fluorobiphenyl	9.06		10.00		90.6	50	150				
Surr: o-Terphenyl	10.0		10.00		100	50	150				

Sample ID: 2301523-001AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 1/30/2023			RunNo: 81507		
Client ID: BATCH	Batch ID: 39266					Analysis Date: 1/30/2023			SeqNo: 1688554		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	622	180	598.7	0	104	50.3	140				
Surr: 2-Fluorobiphenyl	11.0		11.97		91.5	50	150				
Surr: o-Terphenyl	13.2		11.97		111	50	150				

Sample ID: 2301523-001AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 1/30/2023			RunNo: 81507		
Client ID: BATCH	Batch ID: 39266					Analysis Date: 1/30/2023			SeqNo: 1688559		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	332	179	596.4	0	55.7	50.3	140	621.6	60.7	30	R
Surr: 2-Fluorobiphenyl	6.32		11.93		53.0	50	150		0		
Surr: o-Terphenyl	7.42		11.93		62.2	50	150		0		

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2301523-001AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 1/30/2023		RunNo: 81507			
Client ID: BATCH		Batch ID: 39266				Analysis Date: 1/30/2023		SeqNo: 1688559			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

NOTES:

R - High RPD observed, spike recovery is within range.

Sample ID: 2301416-017ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 1/30/2023			RunNo: 81507		
Client ID: BATCH	Batch ID: 39266	Analysis Date: 1/30/2023							SeqNo: 1689037		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	54.8						0		30	
Heavy Oil	ND	110						0		30	
Total Petroleum Hydrocarbons	ND	164						0		30	
Surr: 2-Fluorobiphenyl	9.82		10.97		89.6	50	150		0		
Surr: o-Terphenyl	9.84		10.97		89.7	50	150		0		

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: MB-39285	SampType: MBLK	Units: µg/L			Prep Date: 1/30/2023				RunNo: 81538			
Client ID: MBLKW	Batch ID: 39285					Analysis Date: 1/31/2023				SeqNo: 1689506		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel Range Organics	ND	94.0										
Heavy Oil	ND	94.0										
Total Petroleum Hydrocarbons	ND	188										
Surr: 2-Fluorobiphenyl	19.1		23.51		81.3	50	150					
Surr: o-Terphenyl	22.1		23.51		93.9	50	150					

Sample ID: LCS-39285	SampType: LCS	Units: µg/L			Prep Date: 1/30/2023			RunNo: 81538			
Client ID: LCSW	Batch ID: 39285				Analysis Date: 1/31/2023			SeqNo: 1689507			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	815	188	1,173	0	69.5	45.7	115				
Surr: 2-Fluorobiphenyl	15.8		23.46		67.4	50	150				
Surr: o-Terphenyl	20.9		23.46		89.1	50	150				

Sample ID: LCSD-39285	SampType: LCSD	Units: µg/L			Prep Date: 1/30/2023				RunNo: 81538		
Client ID: LCSW02	Batch ID: 39285				Analysis Date: 1/31/2023				SeqNo: 1689508		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	840	184	1,149	0	73.1	45.7	115	815.4	2.97	30	
Surr: 2-Fluorobiphenyl	19.2		22.98		83.5	50	150		0		
Surr: o-Terphenyl	22.7		22.98		98.9	50	150		0		

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: LCS-39271		SampType: LCS			Units: mg/Kg		Prep Date: 1/30/2023			RunNo: 81527		
Client ID: LCSS		Batch ID: 39271			Analysis Date: 1/30/2023					SeqNo: 1689220		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	21.2	5.00	25.00	0	84.7	65	135				
Surr: Toluene-d8	1.28		1.250		102	65	135				
Surr: 4-Bromofluorobenzene	1.25		1.250		100	65	135				

Sample ID: MB-39271		SampType: MBLK			Units: mg/Kg		Prep Date: 1/30/2023			RunNo: 81527		
Client ID: MBLKS		Batch ID: 39271			Analysis Date: 1/30/2023					SeqNo: 1689218		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.34		1.250		107	65	135				
Surr: 4-Bromofluorobenzene	1.33		1.250		106	65	135				

Sample ID: 2301520-001AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/30/2023			RunNo: 81527		
Client ID: BATCH		Batch ID: 39271			Analysis Date: 1/31/2023					SeqNo: 1689200		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	32.5	6.08	30.41	0	107	65	135				
Surr: Toluene-d8	1.64		1.521		108	65	135				
Surr: 4-Bromofluorobenzene	1.52		1.521		100	65	135				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Gasoline by NWTPH-Gx

Sample ID: 2301521-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/30/2023		RunNo: 81530			
Client ID: BATCH		Batch ID: 39273				Analysis Date: 1/30/2023		SeqNo: 1689297			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics	ND	50.0						0		30	
Surr: Toluene-d8	24.3		25.00		97.3	65	135		0		
Surr: 4-Bromofluorobenzene	24.3		25.00		97.3	65	135		0		

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39271	SampType: LCS	Units: µg/L				Prep Date: 1/30/2023			RunNo: 81528		
Client ID: LCSS	Batch ID: 39271	Analysis Date: 1/30/2023							SeqNo: 1689256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.51	0.0150	1.000	0	151	80	120				S
Chloromethane	1.24	0.0500	1.000	0	124	80	120				S
Vinyl chloride	1.37	0.0250	1.000	0	137	80	120				S
Bromomethane	1.19	0.0250	1.000	0	119	80	120				
Trichlorofluoromethane (CFC-11)	1.15	0.0200	1.000	0	115	80	120				
Chloroethane	1.20	0.0750	1.000	0	120	80	120				S
1,1-Dichloroethene	1.22	0.100	1.000	0	122	80	120				S
Acetone	3.05	0.250	2.500	0	122	80	120				S
Methylene chloride	1.15	0.0350	1.000	0	115	80	120				
trans-1,2-Dichloroethene	1.27	0.0100	1.000	0	127	80	120				S
Methyl tert-butyl ether (MTBE)	1.29	0.0200	1.000	0	129	80	120				S
1,1-Dichloroethane	1.22	0.0250	1.000	0	122	80	120				S
cis-1,2-Dichloroethene	1.21	0.0150	1.000	0	121	80	120				S
(MEK) 2-Butanone	3.38	0.300	2.500	0	135	80	120				S
Chloroform	1.19	0.0175	1.000	0	119	80	120				
1,1,1-Trichloroethane (TCA)	1.22	0.0200	1.000	0	122	80	120				S
1,1-Dichloropropene	1.27	0.0200	1.000	0	127	80	120				S
Carbon tetrachloride	1.31	0.0250	1.000	0	131	80	120				S
1,2-Dichloroethane (EDC)	1.18	0.0200	1.000	0	118	80	120				
Benzene	1.21	0.0175	1.000	0	121	80	120				S
Trichloroethene (TCE)	1.26	0.0150	1.000	0	126	80	120				S
1,2-Dichloropropane	1.17	0.0250	1.000	0	117	80	120				
Bromodichloromethane	1.25	0.0250	1.000	0	125	80	120				S
Dibromomethane	1.25	0.0125	1.000	0	125	80	120				S
cis-1,3-Dichloropropene	1.25	0.0150	1.000	0	125	80	120				S
Toluene	1.25	0.0300	1.000	0	125	80	120				S
Trans-1,3-Dichloropropylene	1.24	0.0200	1.000	0	124	80	120				S
Methyl Isobutyl Ketone (MIBK)	2.98	0.0600	2.500	0	119	80	120				
1,1,2-Trichloroethane	1.25	0.0125	1.000	0	125	80	120				S
1,3-Dichloropropane	1.33	0.0100	1.000	0	133	80	120				S
Tetrachloroethene (PCE)	1.31	0.0150	1.000	0	131	80	120				S
Dibromochloromethane	1.28	0.0150	1.000	0	128	80	120				S

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39271	SampType: LCS	Units: µg/L				Prep Date: 1/30/2023			RunNo: 81528		
Client ID: LCSS	Batch ID: 39271	Analysis Date: 1/30/2023						SeqNo: 1689256			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	1.26	0.0100	1.000	0	126	80	120				S
2-Hexanone (MBK)	2.85	0.0625	2.500	0	114	80	120				
Chlorobenzene	1.14	0.0150	1.000	0	114	80	120				
1,1,1,2-Tetrachloroethane	1.22	0.0250	1.000	0	122	80	120				S
Ethylbenzene	1.15	0.0250	1.000	0	115	80	120				
m,p-Xylene	2.48	0.0500	2.000	0	124	80	120				S
o-Xylene	1.22	0.0250	1.000	0	122	80	120				S
Styrene	1.19	0.0100	1.000	0	119	80	120				
Isopropylbenzene	1.18	0.0150	1.000	0	118	80	120				
Bromoform	1.34	0.0150	1.000	0	134	80	120				S
1,1,2,2-Tetrachloroethane	1.32	0.200	1.000	0	132	80	120				S
n-Propylbenzene	1.23	0.0150	1.000	0	123	80	120				S
Bromobenzene	1.18	0.0125	1.000	0	118	80	120				
1,3,5-Trimethylbenzene	1.22	0.0150	1.000	0	122	80	120				S
2-Chlorotoluene	1.18	0.0165	1.000	0	118	80	120				
4-Chlorotoluene	1.19	0.0165	1.000	0	119	80	120				
tert-Butylbenzene	1.18	0.0150	1.000	0	118	80	120				
1,2,3-Trichloropropane	1.10	0.0300	1.000	0	110	80	120				
1,2,4-Trichlorobenzene	1.21	0.0600	1.000	0	121	80	120				S
sec-Butylbenzene	1.25	0.150	1.000	0	125	80	120				S
4-Isopropyltoluene	1.24	0.200	1.000	0	124	80	120				S
1,3-Dichlorobenzene	1.12	0.0200	1.000	0	112	80	120				
1,4-Dichlorobenzene	1.14	0.0150	1.000	0	114	80	120				
n-Butylbenzene	1.21	0.0200	1.000	0	121	80	120				S
1,2-Dichlorobenzene	1.14	0.0200	1.000	0	114	80	120				
1,2-Dibromo-3-chloropropane	1.16	0.0300	1.000	0	116	80	120				
1,2,4-Trimethylbenzene	1.20	0.0150	1.000	0	120	80	120				S
Hexachloro-1,3-butadiene	1.27	0.0400	1.000	0	127	80	120				S
Naphthalene	1.24	0.100	1.000	0	124	80	120				S
1,2,3-Trichlorobenzene	1.21	0.0600	1.000	0	121	80	120				S
Surr: Dibromofluoromethane	1.30		1.250		104	80	120				
Surr: Toluene-d8	1.28		1.250		103	80	120				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: LCS-39271		SampType: LCS		Units: µg/L		Prep Date: 1/30/2023			RunNo: 81528			
Client ID: LCSS		Batch ID: 39271					Analysis Date: 1/30/2023			SeqNo: 1689256		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		99.7	80	120					

NOTES:

S - Outlying spike recovery observed (high bias). Samples are non-detect; result meets QC requirements.

Sample ID: 2301517-001BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/30/2023		RunNo: 81528			
Client ID: SB-22-17		Batch ID: 39271				Analysis Date: 1/31/2023		SeqNo: 1689231			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	2.03	0.0197	1.312	0	155	13.6	193				
Chloromethane	1.83	0.0656	1.312	0	139	37.6	165				
Vinyl chloride	2.03	0.0328	1.312	0	155	49.9	166				
Bromomethane	1.66	0.0328	1.312	0	127	29.1	184				
Trichlorofluoromethane (CFC-11)	2.08	0.0262	1.312	0	159	49.8	160				
Chloroethane	1.75	0.0984	1.312	0	134	41.1	171				
1,1-Dichloroethene	1.73	0.131	1.312	0	132	64.6	149				
Acetone	3.82	0.328	3.280	0	116	54.6	152				
Methylene chloride	1.37	0.0459	1.312	0	104	66.1	140				
trans-1,2-Dichloroethene	1.55	0.0131	1.312	0	118	73.1	137				
Methyl tert-butyl ether (MTBE)	1.56	0.0262	1.312	0	119	72.4	129				
1,1-Dichloroethane	1.55	0.0328	1.312	0	118	68.6	139				
cis-1,2-Dichloroethene	1.54	0.0197	1.312	0	118	76.4	134				
(MEK) 2-Butanone	4.39	0.394	3.280	0	134	58.2	156				
Chloroform	1.50	0.0230	1.312	0	115	77.9	132				
1,1,1-Trichloroethane (TCA)	1.57	0.0262	1.312	0	120	77.6	139				
1,1-Dichloropropene	1.63	0.0262	1.312	0	124	78.1	138				
Carbon tetrachloride	1.74	0.0328	1.312	0	132	75.8	140				
1,2-Dichloroethane (EDC)	1.48	0.0262	1.312	0	113	74.5	133				
Benzene	1.56	0.0230	1.312	0	119	76.2	134				
Trichloroethene (TCE)	1.62	0.0197	1.312	0	124	75.5	144				
1,2-Dichloropropane	1.50	0.0328	1.312	0	114	70.9	135				
Bromodichloromethane	1.58	0.0328	1.312	0	120	72.4	135				
Dibromomethane	1.53	0.0164	1.312	0	116	75.8	134				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301517-001BMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 1/30/2023		RunNo: 81528			
Client ID: SB-22-17		Batch ID: 39271				Analysis Date: 1/31/2023		SeqNo: 1689231			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	1.50	0.0197	1.312	0	115	67.1	135				
Toluene	1.59	0.0394	1.312	0	121	77.9	135				
Trans-1,3-Dichloropropylene	1.55	0.0262	1.312	0	118	66.8	135				
Methyl Isobutyl Ketone (MIBK)	4.26	0.0787	3.280	0	130	55	155				
1,1,2-Trichloroethane	1.53	0.0164	1.312	0	117	71.7	137				
1,3-Dichloropropane	1.62	0.0131	1.312	0	123	72.9	135				
Tetrachloroethene (PCE)	1.83	0.0197	1.312	0	139	78.3	138				S
Dibromochloromethane	1.57	0.0197	1.312	0	120	69.4	137				
1,2-Dibromoethane (EDB)	1.56	0.0131	1.312	0	119	75.2	133				
2-Hexanone (MBK)	3.78	0.0820	3.280	0	115	45.8	156				
Chlorobenzene	1.48	0.0197	1.312	0	113	83.2	128				
1,1,1,2-Tetrachloroethane	1.56	0.0328	1.312	0	119	81	131				
Ethylbenzene	1.51	0.0328	1.312	0	115	81.1	138				
m,p-Xylene	3.13	0.0656	2.624	0	119	82.2	135				
o-Xylene	1.54	0.0328	1.312	0	118	81.3	136				
Styrene	1.50	0.0131	1.312	0	114	81.9	132				
Isopropylbenzene	1.53	0.0197	1.312	0	117	80.3	142				
Bromoform	1.63	0.0197	1.312	0	124	63.3	143				
1,1,2,2-Tetrachloroethane	1.52	0.262	1.312	0	116	61	136				
n-Propylbenzene	1.60	0.0197	1.312	0	122	77.4	145				
Bromobenzene	1.55	0.0164	1.312	0	119	80.1	131				
1,3,5-Trimethylbenzene	1.54	0.0197	1.312	0	118	78.6	138				
2-Chlorotoluene	1.49	0.0216	1.312	0	114	79.6	136				
4-Chlorotoluene	1.51	0.0216	1.312	0	115	80.2	133				
tert-Butylbenzene	1.55	0.0197	1.312	0	118	76.8	138				
1,2,3-Trichloropropane	1.34	0.0394	1.312	0	102	68.4	134				
1,2,4-Trichlorobenzene	1.49	0.0787	1.312	0	114	71.4	134				
sec-Butylbenzene	1.66	0.197	1.312	0	126	74.3	148				
4-Isopropyltoluene	1.59	0.262	1.312	0	121	75.4	142				
1,3-Dichlorobenzene	1.46	0.0262	1.312	0	112	83.8	130				
1,4-Dichlorobenzene	1.38	0.0197	1.312	0	105	83.7	130				
n-Butylbenzene	1.55	0.0262	1.312	0	118	77.1	142				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301517-001BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 1/30/2023			RunNo: 81528		
Client ID: SB-22-17	Batch ID: 39271	Analysis Date: 1/31/2023							SeqNo: 1689231		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	1.48	0.0262	1.312	0	113	84.8	128				
1,2-Dibromo-3-chloropropane	1.35	0.0394	1.312	0	103	61.3	138				
1,2,4-Trimethylbenzene	1.50	0.0197	1.312	0	114	77.1	138				
Hexachloro-1,3-butadiene	1.56	0.0525	1.312	0	119	70.3	148				
Naphthalene	1.57	0.131	1.312	0	119	58.7	144				
1,2,3-Trichlorobenzene	1.56	0.0787	1.312	0	119	61.4	142				
Surr: Dibromofluoromethane	1.65		1.640		101	80	120				
Surr: Toluene-d8	1.65		1.640		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.66		1.640		101	80	120				

NOTES:

S - Outlying spike recoveries were associated with this sample.

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39273	SampType: MBLK	Units: µg/L			Prep Date: 1/30/2023			RunNo: 81540			
Client ID: MBLKW	Batch ID: 39273	Analysis Date: 1/30/2023						SeqNo: 1689575			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500									
Chloromethane	ND	0.750									
Vinyl chloride	ND	0.200									
Bromomethane	ND	3.00									
Trichlorofluoromethane (CFC-11)	ND	0.300									
Chloroethane	ND	1.00									
1,1-Dichloroethene	ND	0.500									
Acetone	ND	5.00									
Methylene chloride	ND	0.750									
trans-1,2-Dichloroethene	ND	0.350									
Methyl tert-butyl ether (MTBE)	ND	0.350									
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
2-Butanone (MEK)	ND	1.50									
Chloroform	ND	0.500									
1,1,1-Trichloroethane (TCA)	ND	0.300									
1,1-Dichloropropene	ND	0.500									
Carbon tetrachloride	ND	0.300									
1,2-Dichloroethane (EDC)	ND	0.500									
Benzene	ND	0.440									
Trichloroethene (TCE)	ND	0.400									
1,2-Dichloropropane	ND	0.300									
Bromodichloromethane	ND	0.250									
Dibromomethane	ND	0.250									
cis-1,3-Dichloropropene	ND	0.350									
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	0.500									
Methyl Isobutyl Ketone (MIBK)	ND	1.00									
1,1,2-Trichloroethane	ND	0.250									
1,3-Dichloropropane	ND	0.300									
Tetrachloroethene (PCE)	ND	0.350									
Dibromochloromethane	ND	0.300									

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39273	SampType: MBLK	Units: µg/L			Prep Date: 1/30/2023			RunNo: 81540			
Client ID: MBLKW	Batch ID: 39273				Analysis Date: 1/30/2023			SeqNo: 1689575			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.200									
2-Hexanone (MBK)	ND	1.25									
Chlorobenzene	ND	0.500									
1,1,1,2-Tetrachloroethane	ND	0.300									
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Styrene	ND	0.500									
Isopropylbenzene	ND	0.500									
Bromoform	ND	0.300									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.500									
Bromobenzene	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
2-Chlorotoluene	ND	0.500									
4-Chlorotoluene	ND	0.500									
tert-Butylbenzene	ND	0.500									
1,2,3-Trichloropropane	ND	0.400									
1,2,4-Trichlorobenzene	ND	0.750									
sec-Butylbenzene	ND	0.500									
4-Isopropyltoluene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
n-Butylbenzene	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.500									
Naphthalene	ND	1.25									
1,2,3-Trichlorobenzene	ND	0.700									
Surr: Dibromofluoromethane	22.0		25.00		88.0	80	120				
Surr: Toluene-d8	23.5		25.00		93.9	80	120				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: MB-39273	SampType: MBLK	Units: µg/L			Prep Date: 1/30/2023			RunNo: 81540			
Client ID: MBLKW	Batch ID: 39273	Analysis Date: 1/30/2023						SeqNo: 1689575			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	23.9		25.00		95.8	80	120				

Sample ID: 2301523-006ADUP	SampType: DUP	Units: µg/L			Prep Date: 1/30/2023			RunNo: 81540			
Client ID: BATCH	Batch ID: 39273				Analysis Date: 1/30/2023			SeqNo: 1689572			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500						0		30	Q
Chloromethane	ND	0.750						0		30	Q
Vinyl chloride	ND	0.200						0		30	Q
Bromomethane	ND	3.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.300						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	ND	5.00						0		30	
Methylene chloride	ND	0.750						0		30	
trans-1,2-Dichloroethene	ND	0.350						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	ND	0.500						0		30	
2-Butanone (MEK)	ND	1.50						0		30	Q
Chloroform	ND	0.500						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.300						0		30	
1,1-Dichloropropene	ND	0.500						0		30	
Carbon tetrachloride	ND	0.300						0		30	
1,2-Dichloroethane (EDC)	ND	0.500						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
1,2-Dichloropropane	ND	0.300						0		30	
Bromodichloromethane	ND	0.250						0		30	
Dibromomethane	ND	0.250						0		30	
cis-1,3-Dichloropropene	ND	0.350						0		30	

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301523-006ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/30/2023			RunNo: 81540		
Client ID: BATCH		Batch ID: 39273					Analysis Date: 1/30/2023			SeqNo: 1689572	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	0.500						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	1.00						0		30	Q
1,1,2-Trichloroethane	ND	0.250						0		30	
1,3-Dichloropropane	ND	0.300						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Dibromochloromethane	ND	0.300						0		30	
1,2-Dibromoethane (EDB)	ND	0.200						0		30	
2-Hexanone (MBK)	ND	1.25						0		30	Q
Chlorobenzene	ND	0.500						0		30	
1,1,1,2-Tetrachloroethane	ND	0.300						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Styrene	ND	0.500						0		30	
Isopropylbenzene	ND	0.500						0		30	
Bromoform	ND	0.300						0		30	
1,1,2,2-Tetrachloroethane	ND	0.200						0		30	
n-Propylbenzene	ND	0.500						0		30	
Bromobenzene	ND	0.500						0		30	
1,3,5-Trimethylbenzene	ND	0.500						0		30	
2-Chlorotoluene	ND	0.500						0		30	
4-Chlorotoluene	ND	0.500						0		30	
tert-Butylbenzene	ND	0.500						0		30	
1,2,3-Trichloropropane	ND	0.400						0		30	
1,2,4-Trichlorobenzene	ND	0.750						0		30	
sec-Butylbenzene	ND	0.500						0		30	
4-Isopropyltoluene	ND	0.500						0		30	
1,3-Dichlorobenzene	ND	0.500						0		30	
1,4-Dichlorobenzene	ND	0.500						0		30	
n-Butylbenzene	ND	0.500						0		30	
1,2-Dichlorobenzene	ND	0.500						0		30	

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301523-006ADUP	SampType: DUP	Units: µg/L			Prep Date: 1/30/2023				RunNo: 81540		
Client ID: BATCH	Batch ID: 39273	Analysis Date: 1/30/2023							SeqNo: 1689572		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Hexachloro-1,3-butadiene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
1,2,3-Trichlorobenzene	ND	0.700						0		30	
Surr: Dibromofluoromethane	23.5		25.00		94.1	80	120		0		
Surr: Toluene-d8	24.2		25.00		96.7	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	24.2		25.00		96.9	80	120		0		

NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased

Sample ID: 2301521-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/30/2023			RunNo: 81536		
Client ID: BATCH		Batch ID: 39273					Analysis Date: 1/30/2023			SeqNo: 1689446	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500						0		30	
Chloromethane	ND	0.750						0		30	
Vinyl chloride	ND	0.200						0		30	
Bromomethane	ND	3.00						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.300						0		30	
Chloroethane	ND	1.00						0		30	
1,1-Dichloroethene	ND	0.500						0		30	
Acetone	ND	5.00						0		30	
Methylene chloride	ND	0.750						0		30	
trans-1,2-Dichloroethene	ND	0.350						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.350						0		30	
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	ND	0.500						0		30	
2-Butanone (MEK)	ND	1.50						0		30	
Chloroform	ND	0.500						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.300						0		30	
1,1-Dichloropropene	ND	0.500						0		30	

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301521-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/30/2023			RunNo: 81536		
Client ID: BATCH		Batch ID: 39273					Analysis Date: 1/30/2023			SeqNo: 1689446	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.300						0		30	
1,2-Dichloroethane (EDC)	ND	0.500						0		30	
Benzene	ND	0.440						0		30	
Trichloroethene (TCE)	ND	0.400						0		30	
1,2-Dichloropropane	ND	0.300						0		30	
Bromodichloromethane	ND	0.250						0		30	
Dibromomethane	ND	0.250						0		30	
cis-1,3-Dichloropropene	ND	0.350						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	0.500						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	0.250						0		30	
1,3-Dichloropropane	ND	0.300						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Dibromochloromethane	ND	0.300						0		30	
1,2-Dibromoethane (EDB)	ND	0.200						0		30	
2-Hexanone (MBK)	ND	1.25						0		30	
Chlorobenzene	ND	0.500						0		30	
1,1,1,2-Tetrachloroethane	ND	0.300						0		30	
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Styrene	ND	0.500						0		30	
Isopropylbenzene	ND	0.500						0		30	
Bromoform	ND	0.300						0		30	
1,1,2,2-Tetrachloroethane	ND	0.200						0		30	
n-Propylbenzene	ND	0.500						0		30	
Bromobenzene	ND	0.500						0		30	
1,3,5-Trimethylbenzene	ND	0.500						0		30	
2-Chlorotoluene	ND	0.500						0		30	
4-Chlorotoluene	ND	0.500						0		30	
tert-Butylbenzene	ND	0.500						0		30	

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301521-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 1/30/2023		RunNo: 81536			
Client ID: BATCH		Batch ID: 39273				Analysis Date: 1/30/2023		SeqNo: 1689446			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	0.400						0		30	
1,2,4-Trichlorobenzene	ND	0.750						0		30	
sec-Butylbenzene	ND	0.500						0		30	
4-Isopropyltoluene	ND	0.500						0		30	
1,3-Dichlorobenzene	ND	0.500						0		30	
1,4-Dichlorobenzene	ND	0.500						0		30	
n-Butylbenzene	ND	0.500						0		30	
1,2-Dichlorobenzene	ND	0.500						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Hexachloro-1,3-butadiene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
1,2,3-Trichlorobenzene	ND	0.700						0		30	
Surr: Dibromofluoromethane	25.8		25.00		103	80	120		0		
Surr: Toluene-d8	24.1		25.00		96.2	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	24.7		25.00		98.9	80	120		0		

Sample ID: 2301523-011AMS		SampType: MS		Units: µg/L		Prep Date: 1/30/2023		RunNo: 81540			
Client ID: BATCH		Batch ID: 39273				Analysis Date: 1/30/2023		SeqNo: 1689574			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	21.9	0.500	20.00	0	109	1.35	172				
Chloromethane	18.0	0.750	20.00	0	90.2	27.2	164				
Vinyl chloride	24.7	0.200	20.00	0	123	52.3	147				
Bromomethane	27.0	3.00	20.00	0	135	24.2	186				
Trichlorofluoromethane (CFC-11)	30.2	0.300	20.00	0	151	71.2	137				S
Chloroethane	39.0	1.00	20.00	0	195	62.9	141				S
1,1-Dichloroethene	28.1	0.500	20.00	0	140	68	152				
Acetone	44.6	5.00	50.00	0	89.1	56.1	148				
Methylene chloride	21.1	0.750	20.00	0	105	73.7	132				
trans-1,2-Dichloroethene	19.5	0.350	20.00	0	97.3	79.1	131				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301523-011AMS	SampType: MS	Units: µg/L				Prep Date: 1/30/2023			RunNo: 81540		
Client ID: BATCH	Batch ID: 39273					Analysis Date: 1/30/2023			SeqNo: 1689574		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21.6	0.350	20.00	0	108	60.2	140				
1,1-Dichloroethane	18.5	0.500	20.00	0	92.5	64.8	148				
cis-1,2-Dichloroethene	18.7	0.500	20.00	0	93.7	78.3	131				
2-Butanone (MEK)	52.3	1.50	50.00	0	105	53.6	145				
Chloroform	18.3	0.500	20.00	0	91.3	78.9	131				
1,1,1-Trichloroethane (TCA)	19.5	0.300	20.00	0	97.7	76.6	143				
1,1-Dichloropropene	17.9	0.500	20.00	0	89.6	73.9	146				
Carbon tetrachloride	20.5	0.300	20.00	0	103	79.5	133				
1,2-Dichloroethane (EDC)	19.1	0.500	20.00	0	95.7	67.8	140				
Benzene	17.7	0.440	20.00	0	88.4	78.5	133				
Trichloroethene (TCE)	19.7	0.400	20.00	0	98.5	75	133				
1,2-Dichloropropane	19.0	0.300	20.00	0	95.2	71.4	139				
Bromodichloromethane	21.0	0.250	20.00	0	105	76.1	130				
Dibromomethane	20.4	0.250	20.00	0	102	75.5	130				
cis-1,3-Dichloropropene	18.9	0.350	20.00	0	94.5	68.4	128				
Toluene	18.6	1.00	20.00	0	93.1	77	133				
trans-1,3-Dichloropropylene	19.9	0.500	20.00	0	99.3	63.8	132				
Methyl Isobutyl Ketone (MIBK)	50.8	1.00	50.00	0	102	55.6	145				
1,1,2-Trichloroethane	19.3	0.250	20.00	0	96.5	70.1	138				
1,3-Dichloropropane	18.8	0.300	20.00	0	94.0	67.7	139				
Tetrachloroethene (PCE)	19.7	0.350	20.00	0	98.3	78	131				
Dibromochloromethane	20.8	0.300	20.00	0	104	72.6	129				
1,2-Dibromoethane (EDB)	19.9	0.200	20.00	0	99.5	67.7	137				
2-Hexanone (MBK)	50.9	1.25	50.00	0	102	48.5	148				
Chlorobenzene	19.1	0.500	20.00	0	95.5	80.9	124				
1,1,1,2-Tetrachloroethane	20.5	0.300	20.00	0	102	75	133				
Ethylbenzene	20.0	0.400	20.00	0	100	77.9	133				
m,p-Xylene	41.0	1.00	40.00	0	102	74.8	133				
o-Xylene	20.8	0.500	20.00	0	104	81.2	126				
Styrene	20.0	0.500	20.00	0	100	75.7	126				
Isopropylbenzene	19.6	0.500	20.00	0	97.9	79.1	132				
Bromoform	25.9	0.300	20.00	0	130	68.3	132				

Work Order: 2301517
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2301523-011AMS	SampType: MS	Units: µg/L				Prep Date: 1/30/2023			RunNo: 81540		
Client ID: BATCH	Batch ID: 39273	Analysis Date: 1/30/2023							SeqNo: 1689574		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	22.4	0.200	20.00	0	112	62.8	148				
n-Propylbenzene	20.9	0.500	20.00	0	104	77.2	137				
Bromobenzene	20.5	0.500	20.00	0	103	79.9	124				
1,3,5-Trimethylbenzene	21.6	0.500	20.00	0	108	73.9	142				
2-Chlorotoluene	18.9	0.500	20.00	0	94.7	73.5	140				
4-Chlorotoluene	19.1	0.500	20.00	0	95.6	73.5	140				
tert-Butylbenzene	22.0	0.500	20.00	0	110	79.5	131				
1,2,3-Trichloropropane	22.9	0.400	20.00	0	115	63.1	139				
1,2,4-Trichlorobenzene	23.2	0.750	20.00	0	116	60.4	135				
sec-Butylbenzene	19.6	0.500	20.00	0	98.0	77.9	136				
4-Isopropyltoluene	21.9	0.500	20.00	0	109	69.9	147				
1,3-Dichlorobenzene	20.5	0.500	20.00	0	102	79.3	131				
1,4-Dichlorobenzene	20.0	0.500	20.00	0	100	79.1	131				
n-Butylbenzene	20.9	0.500	20.00	0	104	76	137				
1,2-Dichlorobenzene	21.2	0.500	20.00	0	106	79.3	131				
1,2-Dibromo-3-chloropropane	24.8	1.00	20.00	0	124	47.7	153				
1,2,4-Trimethylbenzene	21.5	0.500	20.00	0	108	74.3	142				
Hexachloro-1,3-butadiene	21.6	0.500	20.00	0	108	68.5	136				
Naphthalene	25.3	1.25	20.00	0	127	51.6	149				
1,2,3-Trichlorobenzene	23.9	0.700	20.00	0	120	56.6	142				
Surr: Dibromofluoromethane	21.4		25.00		85.8	80	120				
Surr: Toluene-d8	23.7		25.00		94.7	80	120				
Surr: 1-Bromo-4-fluorobenzene	25.8		25.00		103	80	120				

Client Name: APEXCO
 Logged by: Clare Griggs

Work Order Number: 2301517
 Date Received: 1/27/2023 1:43:00 PM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes ☒ No ☐ NA ☐
 4. Shipping container/cooler in good condition? Yes ☒ No ☐
 5. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 6. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 7. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 8. Sample(s) in proper container(s)? Yes ☒ No ☐
 9. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 10. Are samples properly preserved? Yes ☒ No ☐
 11. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 12. Is there headspace in the VOA vials? Yes ☐ No ☒ NA ☐
 13. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 14. Does paperwork match bottle labels? Yes ☒ No ☐
 15. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 16. Is it clear what analyses were requested? Yes ☒ No ☐
 17. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: Date:
 By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
 Regarding:
 Client Instructions:

19. Additional remarks:

Item Information

Item #	Temp °C
Sample	0.5

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Chain of Custody Record & Laboratory Services Agreement

Date: 01/27/23 Page: 1 of 1

Project Name: Dignitas Marina

Project No: 32-22008149

Collected by: Robert Sedell

Location: 1871 Ross Ave. Everett, WA

Report To (PM): Anders Utter

PM Email: Anders.Utter@apexcos.com

Laboratory Project No (Internal): 2301517

Special Remarks: Please send results to Anders Utter
Anders.Utter@apexcos.com

Sample Disposal: ☐ Return to client ☐ Disposal by lab (after 30 days)

Client: Apex Compaies
Address: 801 NW 42nd St
City/State/Zip: Seattle, WA 98107
Telephone: 425-757-1452
Fax:

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCD)	Diesel/Heavy Oil Range Organics (DOX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC)**	EDB (8011)	NW TPH 6X	NW TPH DX	VOCs 8260 50/5	VOCs 8260	Comments
1 SB-22-17	1/25	1357	Soil	3																	
2 SB-24-11	1/25	1530	Soil	3																	
3 SB-25-12	1/25	1440	Soil	3																	
4 SB-25-6	1/25	1624	Soil	3																	
5 Mw-2	1/27	1442	GW	4																	
6 Mw-3	1/26	1506	GW	4																	
7 Mw-4	1/26	1257	GW	4																	
8 Mw-5	1/26	1604	GW	4																	
9																					
10																					

*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

**Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Turn-around Time:

☐ Standard ☐ Next Day ☐ 3 Day ☐ Same Day (specify)

Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
	Robert Sedell	1/27/23/1342		Emma Tuel	1/27/23 13:42
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
X			X		

Appendix D

Standard Operating Procedures

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) provides instructions for standard field screening. Field screening results are used to aid in the selection of soil samples for chemical analysis. This procedure is applicable during Apex Companies, LLC (Apex) soil sampling operations.

Standard field screening techniques include the use of a photoionization detector (PID) to assess for volatile organic compounds (VOCs), for the presence of separate-phase petroleum hydrocarbons using a sheen test. These methods will not detect all potential contaminants, so selection of screening techniques shall be based on an understanding of the site history. The PID is not compound or concentration-specific, but it can provide a qualitative indication of the presence of VOCs. PID measurements are affected by other field parameters such as temperature and soil moisture. Other field screening methods, such as screening for dense non-aqueous phase liquid (DNAPL) using dye or UV light, are not considered "standard" and will be detailed in the site-specific sampling and analysis plan (SAP).

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- PID with calibration gas (record daily calibration/calibration check in field notes);
- Plastic resealable bags (for PID measurement); and
- Glass jars or stainless steel bowls (for sheen testing).

3. METHODOLOGY

Each soil sample will be field screened for VOCs using a PID and for the presence of separate-phase petroleum hydrocarbons using a sheen test. If the presence of DNAPL is suspected, then screening using dye and UV light may also be completed. For information regarding screening using dye or UV light, refer to the site specific sampling and analysis plan.

PID lamps come in multiple sizes, typically 9.8, 10.6, and 11.7 electron volts (eV). The eV rating for the lamp must be greater than the ionization potential (in eV) of a compound in order for the PID to detect the compound. For petroleum hydrocarbons, a lamp of at least 9.8 eV should be used. For typical chlorinated alkenes (dichloroethene, trichloroethene, tetrachloroethene, or vinyl chloride.), a lamp of at least 10.6 eV should be used. The compatibility of the lamp size with the site constituents should be verified prior to the field event and will be detailed in the site-specific SAP.

PID Calibration Procedure: The PID used on-site should be calibrated daily or more frequently if needed. Calibration of the PID should be documented in field notes. Calibrations procedures should be conducted according to the manufacturer's instructions. .

PID Screening Procedure:

- Place a representative portion (approximately one ounce) of freshly exposed, uncompacted soil into a clean resealable plastic bag.
- Seal the bag and break up the soil to expose vapors from the soil matrix.
- Allow the bag to sit to reach ambient temperature. Note: Ambient temperature and weather conditions/humidity should be recorded in field notes. Changes in ambient temperature and weather during the field work should also be recorded, as temperature and humidity can affect PID readings.
- Carefully insert the intake port of the PID into the plastic bag.
- Record the PID measurement in the field notes or boring logs.

Sheen Test Procedure:

- Following the PID screen, place approximately one ounce of freshly exposed, uncompacted soil into a clean glass jar or stainless steel bowl.

STANDARD OPERATING PROCEDURE

SOP Number: 2.1

Date: November 9, 2009

STANDARD FIELD SCREENING PROCEDURES

Revision Number: 1.1

Page: 2 of 2

- Add enough water to cover the sample.
- Observe the water surface for signs of discoloration/sheen and characterize

No Sheen (NS)	No visible sheen on the water surface
Biogenic Film (BF)	Dull, platy/blocky or foamy film.
Slight Sheen (SS)	Light sheen with irregular spread, not rapid. May have small spots of color/iridescence. Majority of water surface not covered by sheen.
Moderate Sheen (MS)	Medium to heavy coverage, some color/iridescence, spread is irregular to flowing. Sheen covering a large portion of water surface.
Heavy Sheen (HS)	Heavy sheen coverage with color/iridescence, spread is rapid, entire water surface covered with sheen. Separate-phase hydrocarbons may be evident during sheen test.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for observing and sampling from push-probes (i.e., GeoProbe™). Subsurface soil cores may be obtained using this system for purposes of determining subsurface soil conditions and for obtaining soil samples for physical and/or chemical evaluation. Grab groundwater samples may be collected using temporary well screens. Soil vapor samples may be obtained using temporary well points. Shallow (less than 50 feet), small-diameter (2-inch max) pre-packed wells may also be installed using push-probe equipment. This procedure is applicable during all Apex Companies, LLC (Apex) push-probe activities.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Traffic cones, measuring tape, spatula, and buckets/drums
- Sampling equipment (water level probe, pumps, tubing) and laboratory-supplied sample containers
- Field documentation materials
- Decontamination materials
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

Coring Procedure (Conducted by Drilling Subcontractor):

The sampling procedure includes driving a 2-inch outside-diameter, 5-foot-long, push-probe soil sampler to the desired depth using a combination of hydraulic pressure and mechanical hammer blows. When the sampling depth is reached, the pin attaching the sampler's tip is released (if a tip is used), which allows the tip to slide inside the sampler (Macro-Core Sampler with removable plastic liner). The sampler is driven the length of the sampler to collect a soil core, which is then withdrawn from the exploration. When the sampler is retrieved from the borehole the drive head/cutting shoe is detached and the liner is removed. Soil cores are collected continuously to the full depth of the exploration unless otherwise specified in a project-specific sampling and analysis plan (SAP). Verify that the subcontractor decontaminates the sampling device (per SOP 1.2) prior to its initial use and following collection of each soil sample.

Logging and Soil Sample Collection:

Remove the soil core from the sampler for field screening, description, and placement into sample jars. Soil samples will be collected for field screening and possible chemical analysis on two foot intervals unless otherwise specified in a project-specific SAP. The sampling interval will be determined in the field based on recovery, soil variability, and evidence of contamination. Complete field screening as specified in SOP-2.1. Soil samples should be collected using different procedures for volatile on non-volatile analyses, as follows.

- **Volatile Analyses.** Sampling for volatile organics analysis (VOA) is different than other routine physical or chemical testing because of the potential loss of volatiles during sampling. To limit volatile loss, the soil sample must be obtained as quickly and as directly as possible. If a VOA sample is to be collected as part of a multiple analyte sample, the VOA sample portion will be obtained first. The VOA sample should be obtained from a discrete portion of the entire collected sample and should not be composited or homogenized. Sample bottles should be filled to capacity, with no headspace. Specific procedures for collecting VOA samples using the EPA Method 5035 are discussed in SOP 2.7.
- **Other Analyses.** Soil samples for non-volatile analyses will be thoroughly homogenized in a stainless steel bowl prior to bottling. Sample homogenizing is accomplished by manually mixing the entire soil

sample in the stainless steel bowl with a clean sampling tool until a uniform mixture is achieved. The sample jar should be filled completely.

Any extra soil generated during probing activities will be placed in Department of Transportation (DOT) approved drums.

Grab Groundwater Sample Collection:

Collect grab groundwater samples using a sampling attachment with a 4 to 5-foot-long temporary screen (specify to drillers whether to use decontaminated stainless steel or disposable PVC. Also, specify whether a filter pack is necessary based on field observations). Obtain samples using a peristaltic pump unless otherwise specified in the SAP with new tubing for each boring. Record field parameters (e.g., temperature, conductivity, and pH) prior to sampling.

Backfilling the Excavation (Conducted by Drilling Subcontractor):

After sampling activities are completed, abandon each exploration in accordance with Oregon Water Resources Department (OWRD) regulations and procedures. The abandonment procedure typically consists of filling the exploration with granular bentonite and hydrating the bentonite with water. Match the surface completion to the surrounding materials.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for collection of groundwater samples from monitoring wells applying low flow protocols. Low flow sampling is a method of collecting samples that does not require the removal of large volumes of water and therefore does not overly agitate the water, suspend particles, or potentially aspirate VOCs. Typical flow rates for low flow sampling range from 0.1 L/min to 0.5 L/min depending on site characteristics. The groundwater monitoring activities will consist of measuring water levels, purging and sampling groundwater, and measuring groundwater field parameters. This procedure is applicable during Apex Companies low flow groundwater sampling activities.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Traffic cones, tools, keys, and buckets/drums
- Water quality meter with calibration solutions (record daily calibration/calibration check in field notes)
- Sampling equipment (water level probe, pumps, tubing) and laboratory-supplied sample containers
- Field documentation materials
- Well construction details, if available
- Decontamination materials
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

Water Levels:

Water levels in the wells will be measured and recorded for the purpose of determining groundwater elevations and gradient prior to initiating purging of any of the wells. The wells will be opened and the water level allowed to equilibrate before the measurements are taken. Measurements of the depth to water will be made to the nearest 0.01 foot using an electronic probe.

Purging:

Purge using low-flow sampling equipment (e.g., peristaltic pump or bladder pump) at a low-flow rate to limit water table drawdown. Unless specified otherwise in the project-specific sampling and analysis plan (SAP) the sample tubing/pump will be lowered to the middle of the saturated screened interval. To assess the effectiveness of purging, groundwater field parameters (pH, specific conductance, dissolved oxygen, oxidation/reduction potential, temperature and turbidity) will be measured using a flow cell connected to the discharge tubing of the sample pump. Purging will be considered complete when the water quality parameters meet the following criteria:

pH	+/- 0.1 pH units
Specific Conductance	+/- 3% of prior reading
Dissolved Oxygen	+/- 10% of prior reading for values greater than 0.5 mg/L. If three DO values are less than 0.5 mg/L, consider the DO stabilized
Oxidation/Reduction potential	+/- 20 mV
Temperature	+/- 3% of prior reading
Turbidity (if measured)	10% of prior reading for values greater than 5 NTUs. If three turbidity values are less than 5 NTUs, consider the values as stabilized. Measure turbidity before flow-through cell.

Consult the project-specific SAP for additional parameters and stabilization criteria. Purge water will be placed in Department of Transportation (DOT) approved drums.

Sample Collection:

After the purging of each well is complete, collect groundwater samples for chemical analyses using the same pump used for the well purging. Disconnect the flow-through cell and collect the samples directly from the pump tubing. Do not collect samples from the downstream side of the flow-through cell.

Low Yield Sampling Procedure:

If drawdown of the water table is unavoidable and a well pumps dry during purging, discontinue measurement of water quality parameters. Collect groundwater samples once the water level recovers to 90 percent of the pre-purge water column. Contact project manager in the event of slow recharge conditions. Always collect samples for VOC analysis as soon after recharge as possible.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods used for obtaining soil samples for chemical analysis for volatile organic compounds (VOCs) by EPA Method 5035A. Samples collected using the 5035A protocols are not exposed to the atmosphere after sampling thereby reducing the potential for loss of VOCs during sample transport, handling, and analysis. This procedure assumes the use of the PowerStop Handle sampler with disposable EasyDraw Syringes or Terra Core Samplers. This procedure is applicable during Apex Companies, LLC (Apex) soil sampling activities where the 5035A protocols are employed.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Sampling equipment (PowerStop Handle, disposable EasyDraw Syringes, Terra Core Samplers)
- Laboratory-supplied sample containers (pre-weighed 40ml VOA vials including labels, preservative, stir bars, etc. [number and type as specified by the lab], two ounce jars)
 - Vials used from ACA stock must be weighed to confirm loss of reagents is less than 0.02 grams. Record vial tare weight in field notes. Discard vials with dates over 6 months old.
- Field documentation materials
- Decontamination materials
- Personal protective equipment (as required by Health and Safety Plan)

3. METHODOLOGY

The project-specific sampling and analysis plan (SAP) will define the specific requirements for 5035A methodology required for a particular site or by a regulatory agency.

Analytical Requirements

- VOCs must be analyzed within 14 days of collection.
- Field preserved samples (e.g., sodium bisulfate or methanol) must be maintained at 4° C.
- Sample collected without preservative (e.g., reagent water) must frozen or analyzed within 48 hours.

Collection of Samples

- When using the PowerStop Handle, clip the syringe into the handle in one of the three 5 gram positions. Use the heavy position for dense clay, the light position for dry sandy soil, and the medium position for all others.
- Using the handle, push the sampler into the soil to collect the sample. Continue pushing until the soil column has forced the plunger in the syringe to the stopping point or filled the sampler.
- Wipe all debris from the outside of the sampler. The soil plug should be flush with the mouth of the sampler. Remove any excess soil that extends beyond the mouth of the sampler.
- Extrude the 5 gram sample into vial and cap vial immediately. Hold vial at an angle when extruding to minimize splashing. Gently swirl vial for 10 seconds to break up soil particles (do not shake).
- When capping the vial, be sure to remove any soil or debris from the threads of the vial.
- Repeat process for each additional vial.
- Fill a two ounce container (to capacity) for percent total solids determination.

Additional Considerations

- Methanol contamination can occur from adjacent activities (e.g., exhaust from running equipment or vehicles, hot tar roofing, facility operations, etc). Collection and analysis of methanol field blank (e.g., additional methanol vial left open during period of sampling) is recommended.
- Acidification of carbonaceous soils with sodium bisulfate can cause effervescence and loss of VOCs.
- Certain volatile compounds such as 2-chloroethylvinyl ether may be lost by acidification.
- Acidification of certain soils with sodium bisulfate may cause the formation of acetone through oxidation of soil waxes and humic material (e.g., organic materials such as roots).

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for installing monitoring wells (using conventional PVC or pre-packed well screens). A pre-packed well screen generally consists of 5-foot sections of an inner PVC well screen and an outer stainless steel wire mesh. The sand filter pack is housed between the inner screen and outer wire mesh. Well installations are typically completed using push probe drilling to save time and cost but may include many other techniques for drilling a borehole to install the well. This procedure is applicable during all Ash Creek Associates (ACA) drilling activities for installation of monitoring wells.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Field documentation materials
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

The soil boring for the monitoring well will be completed in accordance with SOP-2.4.

Installation/Construction of Monitoring Well:

Filter Pack. Wells will be constructed of flush-threaded Schedule 40 PVC casing connected to a conventional PVC well screen or pre-packed well screen, placed at the bottom of the boring. A clean silica sand pack will be placed between the boring wall and the PVC screen/riser (i.e., the annulus) from the bottom of the well to approximately one to two feet above the screened interval. Prior to installation of the seal, the well will be surged using a surge block or similar technique. The depth to sand will be measured prior to setting the bentonite seal.

Seal. A bentonite seal, 1 to 2 feet thick, will be placed above the sand. The bentonite will be hydrated and allowed to sit for a minimum of 30 minutes for proper hydration and sealing. The depth to the top of the seal will be measured prior to placing grout. In Washington State and some California counties, the bentonite seal may be placed to within 1 foot of the ground surface in place of grout (per local/state regulations).

Grout. A cement-bentonite slurry will be placed above the bentonite seal following proper hydration. The cement-bentonite slurry will be placed to within 1 foot of the ground surface.

Surface Seal. A concrete surface seal will secure a flush-mounted, traffic-rated monument, or a bollard protected stove-pipe stickup. A locking cap and lock will secure the wellhead, and tamper-resistant bolts (either pentagonal or Allen wrench) will secure a monument cover if a flush-mounted monument is used for surface completion. Flush-mounted surface completions will be completed slightly above grade to prevent the ponding of water in, and around, the monument. All monuments will be permanently marked with well identification numbers. The identification number should be marked on the well (e.g., punched into monument ring, written on the well casing and/or cap with permanent marker, etc.). A survey point should also be added to the well casing (e.g., v-notch cut in PVC).

Documentation:

The field geologist will document the well construction activities. Details to be noted include the following:

- Length of well components;
- Measurements of bentonite, sand, and concrete depths;
- Types, brands, and amounts of materials used;
- Documentation of decontamination; and
- Any deviation from standard procedures or problems during the installation activities.

The drilling contractor will be responsible for conforming to all applicable regulations pertaining to well construction.

1. PURPOSE AND SCOPE

This Standard Operating Procedure (SOP) describes the methods for developing monitoring wells following construction; however, this procedure is also applicable for the redevelopment of existing monitoring wells. Monitoring wells will be allowed to sit for a minimum of 48 hours following completion, or applicable local or state regulated waiting period, before initiating the well development process. This procedure is applicable during all Ash Creek Associates (ACA) well development activities.

2. EQUIPMENT AND MATERIALS

The following materials are necessary for this procedure:

- Field documentation materials
- Well Purge Equipment (i.e., High flow centrifugal down-hole pump or bailer)
- Multi-parameter meter (temperature, pH, and conductivity)
- Decontamination materials
- Drums and/or high-capacity tank for storage of purged water
- Personal protective equipment (as required by project Health and Safety Plan)

3. METHODOLOGY

The well will be set up in a manner such that the volume of water generated can be easily determined and field parameters can be collected. The development activities will be completed to maximize the removal of sediment from the well casing.

Procedures:

- Measure depth to water (DTW) and total depth of the well prior to development and calculate the casing volume.
- Field parameters (temperature, pH, and conductivity) will be measured for each casing volume removed.
- Purge water will be placed in Department of Transportation (DOT) approved drums or high-capacity tank.
- After the removal of eight casing volumes, field parameters will be monitored for stability.

The well will be considered developed after a minimum of 10 casing volumes have been removed, field parameters have stabilized, and purged water is as free of sediment as possible. Field parameters will be considered stable if temperature, pH, and conductivity are within 10% for three consecutive casing volumes. Wells will also be considered developed if the well is pumped dry during the development process. Consult the project-specific SAP for additional parameters and stabilization criteria.

Documentation:

The field representative will document the well development activities. Details to be noted include the following:

- Depths to water;
- Total depth of the well;
- Purging type and rate;
- Field parameters; and
- Total volume of water purged.