



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

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

**November 1, 2023
32-22012832**



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A handwritten signature in black ink that reads 'A Utter'.

Anders Utter
Project Manager



JOHN P. FOXWELL

John P. Foxwell, LHg
Senior Associate

Table of Contents

1.0 INTRODUCTION	1
1.1 Purpose and Objectives of Investigation	1
2.0 SITE BACKGROUND	2
2.1 General Site Information.....	2
2.2 Site History	2
2.3 Prior Site Investigation Activities.....	3
3.0 SEDIMENT FIELD INVESTIGATION.....	3
3.1 Preparatory Activities.....	3
3.2 Sediment Investigation Field Activities	4
3.3 Physical Characteristics of Sediment Unit.....	7
4.0 LABORATORY TESTING PROGRAM	8
4.1 Sediment Analytical Results	8
5.0 RISK SCREENING	9
5.1 Historic Piling Area	10
5.2 Boat Launch Area.....	10
5.3 Marina Piling Area	11
5.4 Outfall Area.....	11
5.5 River Background Samples	11
6.0 CONCEPTUAL SITE MODEL.....	12
6.1 Physical Characteristics	12
6.2 Exposure Pathways.....	13
6.3 Preliminary Ecological Evaluation.....	13
7.0 SUMMARY AND CONCLUSIONS.....	14
8.0 REFERENCES	15

Tables

1	Final Sample Station Coordinates
2	Sediment Results: TPH and PAHs
3	Sediment Results: SVOCs
4	Sediment Results: Metals
5	Sediment Results: Conventional Parameters
6	Sediment Results: Organometallics

Figures

- 1 Site Location Map
- 2 Site Vicinity Plan
- 3 Site Layout
- 4 Sediment Sampling Results – Nickel (North)
- 5 Sediment Sampling Results – Nickel (South)
- 6 Sediment Sampling Results – Total Sulfides (North)
- 7 Sediment Sampling Results – Total Sulfides (South)

Appendices

- A Historic Aerial Photos
- B Boring Logs
- C Photolog
- D Laboratory Data Reports and Quality Assurance Review

1.0 Introduction

This Supplemental Remedial Investigation (RI) Report was prepared for the Dagmars Marina sediment unit located at 1870 Ross Ave, Everett, Snohomish County, Washington (Property; Figure 1). Dagmars Marina is a recreational boatyard with tenants that include boat maintenance, boat sales, and trailer sales in upland areas of the Property. Ship building/repair, in-water repair activities, and over-water fueling were not documented at the Property. The Dagmars Marina “Site” includes the Property and any area where a hazardous substance released at the Property, other than a consumer product in consumer use, has been deposited, stored, disposed of, placed, or otherwise come to be located. A Site location map and Site plan are provided in Figures 1 and 2, respectively.

Work is being completed following the Proposal for Sediment Characterization (Apex Companies, LLC [Apex], 2023b) that was signed by 1870 Ross Partners, LLC on August 14, 2023 and following the Draft Sediment Characterization Workplan (Apex 2023c) that was reviewed by the Washington Department of Ecology (Ecology). Ecology provided comments in an email sent on August 25, 2023. This Supplemental RI Report was prepared following the requirements of the Washington Administrative Code (WAC)-340-350, WAC-173-204, and Sediment Cleanup User’s Manual (SCUM) guidance (Ecology 2021b). The project is being completed under the Washington Department of Ecology Expedited Voluntary Cleanup Program (eVCP).

The sediment investigation was managed by Apex’s Seattle office. Anders Utter served as the project coordinator and the primary point of contact for agency communications. Mr. Utter was responsible for implementing the field investigation in accordance with the Work Plan. His contact information is as follows:

Anders Utter
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1.1 Purpose and Objectives of Investigation

The purpose of the sediment characterization was to collect data necessary to address Ecology’s request for characterization of data gaps in the Site’s sediment unit. The sediment characterization was completed to determine if in-water sediment impacts are present, and if so, the extent of any such contamination based on applicable cleanup levels from the Sediment Management Standards (SMS) and SCUM guidance (Ecology, 2013a and 2021b). Ecology requested the additional investigation of sediments near the boat ramp, pilings, and stormwater outfall to determine if a sediment pathway is complete and poses risk to humans or ecological receptors. Results from the sediment characterization will be used to determine whether sediment cleanup may be required as part of the eVCP cleanup action plan (CAP).

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, including: 1) a phase I environmental site assessment (ESA) report dated July 12, 2022 (Apex, 2022a), 2) a phase II ESA report dated November 21, 2022 (Apex, 2022b); and 3) a remedial investigation report dated March 17, 2023 (Apex, 2023a).

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. The Snohomish River is the closest body of water, located directly adjacent to the west of the Property and flowing approximately north to Possession Sound. The Property is located in Section 09, Township 29, Range 05 and is comprised of government lots 8 & 10.

The Property is comprised of two parcels adjacent to the Snohomish River and Interstate 5, totaling 37 acres. Dagmars Marina's operations include on-land storage of marine vessels, a fueling operation, and a maintenance shop. Current tenants at Dagmars Marina include Snohomish Marine Maintenance, Boat Country Sales, Signal Trailer Sales, and a cellular telecommunications station. The cellular station sits several feet above the grade of the remainder of the Property. 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 Property was used for agricultural and dairy operations. The current layout of the Site is shown on Figure 3.

2.2 Site History

The following description of the Site and adjacent properties is based on review of historical information. The Property 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 Property (Apex 2022a). Log boom tie-ups were present along the shoreline from the early 1950s until the late 1970s. Aerial photographs provided in Appendix A show development of the log boom tie-up over time from the 1950s through the 1970s. In the late 1970s, Dagmar's Marina was constructed and has been operating since then with expansion throughout the years. Dagmars Marina has been owned and operated by Dagmars Marina LLC since the 1980s.

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 has been a lumber mill and various other 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 Prior Site Investigation Activities

A series of environmental investigations have been conducted since 2022 to document upland conditions at the Site. Findings from previous investigations are discussed in the Remedial Investigation report dated March 17, 2023 (Apex, 2023a). Findings from these investigations indicated that petroleum hydrocarbons are located at localized upland sources and do not extend to the Snohomish River. These prior investigations included collection and analysis of drainage sediment samples collected from the immediate area of each outfall and subsequent evaluation using Cleanup Screening Level (CSL) procedures in SMS.

Apex applied for enrollment in Ecology's eVCP on March 19, 2023. Ecology concluded that the data presented in the March 2023 Remedial Investigation did not adequately characterize sediments and evaluate potential risks to humans and ecological receptors. As a result, Ecology required additional sediment characterization near the boat ramp, marina pilings, historical pilings, and the stormwater outfall as part of the eVCP remedial investigation.

3.0 Sediment Field Investigation

Field investigation activities were completed in general accordance with the Sediment Characterization Work Plan (Apex, 2023c) and Ecology SCUM guidance for remedial investigations and cleanup standards. Sediment investigation events were completed during the week of August 28, 2023.

3.1 Preparatory Activities

Preparatory activities for sediment characterization efforts included preparing health and safety documents, coordinating subcontractor availability, coordinating access with Dagmars Marina personnel, and submitting applicable permits to local agencies. These activities are discussed in more detail below.

Health and Safety Plan. A Site-specific health and safety plan (HASP) was prepared for the sediment sampling activities. The HASP was prepared in general accordance with Occupational Safety and Health Administration (OSHA) standards (29 CFR 1910.120) and WAC 173-340-810. A copy of the HASP was maintained on-Site during field activities.

Additionally, the Ecology Inadvertent Discovery Plan (IDP) was maintained on-site during field activities to be followed in the event of a discovery of archaeological materials or human remains, in accordance with applicable state and federal laws (Ecology, 2021a).

Subcontracting. A licensed professional subcontractor, Gravity Marine, was contracted to assist in the collection of sediment samples during field activities. Gravity Marine is an experienced marine sampling and research contractor providing marine vessel support with specialized environmental sampling equipment and data acquisition services.

Permitting. To conduct sediment characterization activities within the Snohomish River, a Nationwide Permit (NWP-6) notice was submitted to the United States Army Corps of Engineers (USACE) on June 30, 2023. USACE approved the sediment characterization activities on August 8, 2023 and assigned a project manager for any follow up questions if necessary.

On June 28, 2023, Apex contacted the Washington Department of Natural Resources (DNR) to confirm the scope of work did not require a use authorization permit. On July 20, 2023, an Aquatics Manager with DNR confirmed that given the short duration of the project and the lack of construction or permanent improvements in the scope of work, DNR would not require a use authorization for the project.

Underground utilities were located and marked prior to the beginning of the sediment characterization. This included contacting the Washington Utility Notification Center, which in turn notified the various utilities in the area to mark any underground installations. No utilities were identified to be traversing under the Snohomish River in the sediment characterization sampling area.

3.2 Sediment Investigation Field Activities

During the week of August 28, 2023, sixteen surface sediment samples and seven subsurface vibracore borings were completed at the Site (Figures 4 through 7). Sediment sampling equipment and GPS equipment were operated by Gravity Marine of Fall City, Washington. An Apex field scientist documented sediment conditions and collected samples.

Surface Sediment. Surface sediment samples were completed by advancing a Van Veen grab sampler vertically through the water column until the sediment surface was reached. Sediment lithology was logged and screened in accordance with the sample acceptance criteria below.

- Grab sampler is not overfilled;
- Sediment surface is relatively flat;
- Overlying water is present;
- Overlying water has minimal turbidity;
- Desired sample depth is achieved (first 10 centimeters); and
- Desired penetration depth is achieved (at least 10 inches).

If the acceptance criteria were met, samples from the first 10 centimeters of sediment were collected from each qualifying sample station for chemical analysis.

Subsurface Sediment. Subsurface sediment samples were completed using vibracore sampling equipment to advance 10-foot macro-core sediment samplers. Sediment lithology was logged and screened continuously using a photoionization detector (PID) to the total depth of each boring, ranging from 2 feet below ground surface (bgs) to 10 feet bgs. Lithologic logs are included in Appendix B. Vibracore samples were collected in accordance with the sample acceptance criteria below.

- Advance sampler approximately 10 feet bgs or until desired penetration depth is achieved;
- Make a maximum of three attempts to collect a core for a given location;
- Confirm the tube is not overfilled;
- If the recovered length of the sediment core is more than 60 percent of the penetration depth, keep the core;
- If an insufficient amount of material is recovered, discard the core, rinse the equipment with water, and prepare for an additional attempt; and
- If three attempts to collect a core are unsuccessful based on recovery alone, retain the final core for analysis and indicate that the targeted recovery was not achieved.

If the acceptance criteria were met, samples were collected from up to two locations per core for chemical analysis.

Sediment Sample Stations. Sediment sample stations were based on areas where data gaps were identified by Ecology in email correspondence sent to Apex on June 20, 2023. These areas include the marina's boat launch, pilings connected to docks, historic pilings used for log raft operations, and the marina's stormwater drainage outfall. Final sediment sampling stations are shown on Figure 4 through Figure 7. Sample station coordinates (longitude/latitude), sample depths, and station names are provided in Table 1. A summary of final sample locations is described below.

Final Sediment Sample Stations Summary

Data Gap Area	Sample Stations	Sample Attempts	
		Surface Sample	Subsurface Sample
Marina Pilings	MP-2	X	
	MP-3	X	
	MP-5	X	X
	MP-6	X	X

Data Gap Area	Sample Stations	Sample Attempts	
		Surface Sample	Subsurface Sample
Historic Pilings	HP-1	X	
	HP-2	X	
	HP-5	X	
	HP-6	X	X
	HP-7	X	X
	HP-8		X
Boat Launch Area	BL-1	X	X
	BL-2	X	
	BL-3	X	
	BL-4	X	
Stormwater Outfall Area	OF-1	X	X
River Background Samples	RB-1	X	
	RB-2	X	

Due to multiple refusal attempts (at least three attempts) or access issues with the sampling vessel (low tides and dock configuration), sample collection from certain sample stations could not be completed. A summary of abandoned sediment sample stations is presented below.

Sediment Sample Station Abandonment Summary

Data Gap Area	Sample Station	Sample Type	Cause for Abandonment
Marina Pilings	MP-1	Surface Sediment	Not accessible due to marina dock configuration
	MP-4	Surface Sediment	Three attempts of refusal
Historic Pilings	HP-1	Subsurface Sediment	Not accessible due to marina dock configuration
	HP-2	Subsurface Sediment	Not accessible due to marina dock configuration and tides
	HP-3	Surface and Subsurface Sediment	Not accessible due to marina dock configuration and tides
	HP-4	Surface and Subsurface Sediment	Not accessible due to marina dock configuration and tides
	HP-5	Subsurface Sediment	Three attempts of refusal

Field Screening. Sediment from each sample was field screened with a PID and logged for visual observations. PID readings were negative at all surface and subsurface sediment sample stations.

Work Plan Deviations. Due to limited access to historic piling sample locations (HP-1 through HP-4) between the southern marina docks and the shoreline, one additional sample station was added to the investigation area. Sediment sample station HP-8 was added to the field program to provide information on the historic pilings data gap area in place of historic piling sample stations that could not be accessed.

3.3 Physical Characteristics of Sediment Unit

Physical characteristics of the sediment unit included tides and current fluctuations, physical conditions, and occurrence of apparent natural woody debris.

Tides and Currents. Sediment sampling activities were completed within River Miles (RMs) 1 and 2 of the Snohomish River near the entrance to Possession Sound. Tides during sediment sampling were measured using the National Oceanic and Atmospheric Administration (NOAA) tide gauge located at the Port of Everett (Station 9447659). During the week of August 28, low tides ranged from -2.16 to 7.02 feet and high tides ranged from 9.79 to 11.80 feet at NOAA Station 9447659. Since the Site is located within RMs 1 and 2 of the Snohomish River, sediment sampling was tidally influenced. Sample stations BL-1, BL-2, HP-1, HP-2, OF-1, and HP-6 through 7 were located within the intertidal zone and left exposed to the atmosphere during low tide. Depending on tidal flows, currents in the Snohomish River fluctuated. During low tide events, currents were observed flowing out towards Possession Sound from the Site, and during high tide events, currents were observed flowing upriver.

Physical Conditions. Sediments encountered during surface and subsurface explorations consisted of unconsolidated fine-grained material (silt, silty sands, and silty clay mixtures). Various types of natural woody debris were encountered during sampling. Wood waste from industrial processing such as bark, wood chips, and sawdust were not observed during sampling. Woody debris observed included tree branches, fibrous woody debris, and decomposed woody debris throughout sample stations. Due to tidal and current influence in the area of the Site, woody debris observed could have been transported downriver over time and deposited at the mouth of the Snohomish River. Photos of woody debris captured during sampling activities are provided in Appendix C. Macroinvertebrates were observed at sample stations HP-1, HP-7, MP-3 and BL-1 during sampling activities. Macroinvertebrate identification was not completed during field activities but potential marine borers such as gribbles and shipworms are commonly found in the area. Small shells were identified at sample stations MP-5 and MP-6. Eelgrass and kelp beds were not observed or recovered during sampling activities.

4.0 Laboratory Testing Program

Laboratory analyses were completed by Fremont Analytical of Seattle, Washington and Analytical Resources, LLC of Tukwila, Washington. All samples except for sulfides and organometallics were analyzed by Fremont Analytical. Sulfides and organometallics were analyzed by Analytical Resources, LLC. All samples were analyzed on standard turnaround time. Copies of the laboratory reports and quality assurance reports are included in Appendix D. Analytical results for sediment samples are summarized in Tables 2 through 6. Sediment samples were analyzed using one or more of the following methods:

- Diesel range organics (DRO) using Northwest Method TPH-Dx;
- Polycyclic aromatic hydrocarbons (PAHs) using Environmental Protection Agency (EPA) Method 8270E- SIM;
- Semi-volatile organic compounds (SVOCs) using EPA Method 8270E;
- Metals (arsenic, barium, cadmium, lead, mercury, selenium, silver, copper, nickel, and zinc) using EPA Methods 6020B and 7471B;
- Total organic carbon using EPA Method 9060;
- Total volatile solids using SM2540;
- Ammonia/sulfides using SM4500, and;
- Organometallics (butyl tins) by EPA Method 8270E-SIM.

All PID field screening results were negative. Therefore, sample analysis for volatile organic compounds (VOCs) was not completed.

4.1 Sediment Analytical Results

The results of the sediment characterization for each area of the Site are summarized in this section. Data evaluation is completed in Section 5.

Marina Pilings. Concentrations of TPH-Dx and PAHs were not detected in samples collected near marina pilings. SVOCs were mostly not detected in samples collected near marina pilings except for sediment samples at sample station MP-6. Concentrations of bis(2-ethylhexyl) phthalate were detected in the surface and subsurface sediment samples. Metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, and zinc) and sulfides were detected in all samples collected near marina pilings. Silver was detected in surface and subsurface sediments at sample station MP-3. Ammonia was detected in sediment samples MP-5-SB-2, MP-6-SB-2, and MP-6-SS.

Historic Pilings. Concentrations of TPH-Dx were not detected in samples collected near historic pilings. PAHs and SVOCs were mostly not detected in samples collected near historic pilings except for sediment

samples at sample stations HP-2 and HP-7. Select PAHs were detected in the surface sample at sample station HP-2, and bis(2-ethylhexyl) phthalate was detected in the surface sample at sample station HP-7. Metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, and zinc) and sulfides were detected in all sediment samples collected near historic pilings. Silver was detected in surface sediments at sample station HP-6 and subsurface sediments at sample stations HP-6 through HP-8. Ammonia was detected in all sediment samples except HP-5-SS and HP-6-SB-2.

Boat Launch Area. Concentrations of TPH-Dx were not detected in samples collected near the boat launch. PAHs and SVOCs were mostly not detected in samples collected near the boat launch except for surface sediment samples collected at sample stations BL-1 and BL-2. Select PAHs were detected in surface and subsurface sediments at sample station BL-1. Bis(2-ethylhexyl) phthalate was detected in surface sediments at sample stations BL-1 and BL-2. Metals (arsenic, barium, cadmium, chromium, copper, nickel, and silver) and sulfides were detected in all sediment samples collected near the boat launch. Lead and zinc were detected in all sediment samples except surface sediments at sample station BL-1. Ammonia was detected in all sediment samples near the boat launch except for surface sediments at sample stations BL-3 and BL-4.

Outfall. Concentrations of TPH-Dx and SVOCs were not detected in samples collected near the drainage sediment outfall. Select PAHs were detected in surface sediments at sample station OF-1. Metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, silver, and zinc), sulfides, and ammonia were detected in both surface and subsurface sediments collected near the drainage sediment outfall.

River Background. Concentrations of TPH-Dx, ammonia, and sulfides were not detected in samples collected in the river background samples. Select PAHs and SVOCs were detected in surface sediments at sample station RB-2. Metals (arsenic, barium, cadmium, chromium, copper, lead, nickel, and zinc) were detected in both surface sediment samples collected at background sample stations. Silver was detected in surface sediments at sample station RB-1.

5.0 Risk Screening

Cleanup screening levels (CSL) and sediment cleanup objectives (SCO) were compared to the results of the sediment investigation consistent with Washington SCUM and SMS guidance. Marine sediment natural background concentrations for metals were applied consistent with Chapter 10 of the Washington SCUM guidance (Table 10-1). The CSLs are used to evaluate whether remedial action may be required. Following application of SMS and the SCUM, when the average of the three highest samples for any single hazardous substance exceeds the CSLs, remedial action is required. SCOs represent long-term cleanup levels used when concentrations are above CSLs.

Due to the Site being located within RMs 1 and 2 of the Snohomish River where brackish waters are present, sediment samples were screened against both freshwater and saltwater CSLs and SCOs. For metals, initial screening was completed using Puget Sound natural background concentrations. Site-specific sediment cleanup levels are often established in between the CSL and SCO using biological criteria in the SMS (WAC 173-204-562 Table V and 173-204-563 Table VIII) to provide optimal cleanup levels in compliance with the SMS. Sediment analytical results are compared to applicable screening levels in Tables 2 through 6. Nickel and sulfide analytical results are shown in Figures 4 through 7. Sediment analytical results from each data gap area compared to applicable screening levels are discussed in detail below.

5.1 Historic Piling Area

Sediment samples from the historic piling areas were analyzed for petroleum hydrocarbons, PAHs, SVOCs, metals, and ammonia/sulfides. In summary:

- Concentrations of nickel were detected in surface sediment samples at sample stations HP-1, HP-2, and HP-5 through HP-7. Nickel was detected in subsurface sediment samples at sample stations HP-6 through HP-8 from depths of 2 to 4 feet bgs. Concentrations of nickel in all sediment samples were detected below the SCUM Puget Sound natural background concentration for marine sediment of 50 milligrams per kilogram (mg/kg).
- Concentrations of sulfides were detected in surface sediment samples at sample stations HP-1, HP-2, and HP-5 through HP-7. Sulfides were detected in subsurface sediment samples at sample stations HP-6 through HP-8 from depths of 2 to 4 feet bgs. Concentrations of sulfides in subsurface sediment samples HP-6 and HP-8 exceeded the freshwater SMS SCO of 31 mg/kg. Samples HP-6-SB-2, HP-6-SB-3, and HP-8-SB-2 exceeded the freshwater SMS cleanup screening level of 61 mg/kg.
- All other samples analyzed were either not detected or detected at concentrations below the sediment management standards SCO and CSL for both freshwater and saltwater, and the SCUM Puget Sound natural background concentrations for metals.

5.2 Boat Launch Area

Sediment samples from the boat launch area were analyzed for petroleum hydrocarbons, PAHs, SVOCs, metals, ammonia/sulfides, and organometallics. The following concentrations were observed.

- Concentrations of nickel were detected in all sediment samples collected at the boat launch area. Concentrations of nickel in all sediment samples were detected below the Puget Sound natural background concentration for marine sediment of 50 mg/kg.
- Concentrations of sulfides were detected in surface sediment at sample station BL-2 and in subsurface sediment at sample station BL-1 at a depth of 4 feet bgs. Concentrations in both samples exceeded the freshwater SMS SCO of 31 mg/kg and CSL of 61 mg/kg.

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- All other samples analyzed were either not detected or detected at concentrations below the SMS SCO and CSL for both freshwater and saltwater. All other concentrations of metals were below natural background concentrations for marine sediments.

5.3 Marina Piling Area

Sediment samples from the historic piling areas were analyzed for petroleum hydrocarbons, PAHs, SVOCs, metals, and ammonia/sulfides. The following concentrations were observed.

- Concentrations of nickel were detected at sample stations MP-2, MP-3, MP-5, and MP-6. Concentrations of nickel in surface sediments and subsurface sediments were detected at sample station MP-6 to depths of 2 feet bgs. All nickel concentrations were below the Puget Sound natural background concentration for marine sediment of 50 mg/kg.
- All other samples analyzed were either not detected or detected at concentrations well below the SMS SCO and CSL for both freshwater and saltwater. All other metals were below natural background concentrations for marine sediments.

5.4 Outfall Area

Sediment samples from the drainage sediment outfall area were analyzed for petroleum hydrocarbons, PAHs, SVOCs, metals, ammonia/sulfides, and organometallics. The following concentrations were observed.

- Concentrations of nickel were detected in both the surface and subsurface sample to a depth of 4 feet bgs at sample station OF-1. Concentrations of nickel in all sediment samples were detected below the Puget Sound natural background concentration for marine sediment of 50 mg/kg.
- All other samples analyzed were either not detected or detected at concentrations below the SMS SCO and CSL for both freshwater and saltwater. All other metals were below natural background concentrations for marine sediments.

5.5 River Background Samples

Sediment samples from the river background areas were analyzed for petroleum hydrocarbons, PAHs, SVOCs, metals, and ammonia/sulfides. The following concentrations were observed.

- All samples analyzed were either not detected or detected at concentrations well below the SMS SCO and CSL for both freshwater and saltwater. All metals were below natural background concentrations for marine sediments.

Concentrations observed throughout the sediment investigation areas in comparison to river background samples yielded similar results for most analytes detected. Analyte concentrations detected in data gap areas were typically consistent with the river background concentrations, with the exception of sulfide. Sulfide

concentrations tend to increase near the shoreline where wood debris accumulates at a higher rate than the middle of river channels. Data throughout the Site presented fairly uniform results, with no identified mass sources for any analytes detected.

6.0 Conceptual Site Model

A conceptual site model (CSM) identifies potential exposure pathways and receptors at the Site based on the Site characteristics, the nature and extent of contamination, and land use. The CSM below is focused only on the sediment unit. A CSM for upland areas of the Site is presented in the Remedial Investigation Report (Apex, 2023a). Analytical results from this sediment investigation are consistent with the CSM presented in the Remedial Investigation Report, and revisions to the upland CSM are not necessary.

6.1 Physical Characteristics

Dagmars Marina is located within RMs 1 and 2 of the Snohomish River on the eastern shoreline. Dagmars includes approximately 1,400 feet of dock space along the shoreline extending approximately 70 feet into the river from the onshore levy. Other key features relevant to the sediment characterization include a boat launch in the approximate center of the marina operation and a stormwater outfall at the south end of the marina operation.

The Snohomish River basin is the second largest watershed in Puget Sound, with an area of 1,856 square miles. The basin includes three major rivers draining the west slope of the Cascade Mountains: the Skykomish River, the Snoqualmie River, and the Snohomish River. The Snoqualmie and Skykomish Rivers join to form the Snohomish River at approximately RM 20.4. The Snohomish River flows westward through the City of Everett into Port Gardner Bay. The river and its floodplain have been shaped into a network of channels, dikes, and sloughs with the most significant including Steamboat, Union, and Ebey sloughs. The lower mile of the river mainstem is dredged by the USACE on an annual basis. Tidal backwater effects extend to approximately RM 18.1 (Snohomish County, 2003).

The geologic unit for the 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. The thickness of the younger alluvial and estuarine deposits probably exceeds 30 meters. The alluvium overlies deposits from the last Pleistocene glaciation. Soils encountered during work on the Property included surface fill underlain by unconsolidated fine-grained alluvium. Areas of peat or organic materials were variably encountered in borings across the upland parts of the Site.

Groundwater in upland areas has been encountered at depths between 1.26 and 7.12 feet bgs during the 2023 RI. 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. There are no potable, irrigation, or production use water wells located on the Property. The City of Everett maintains a reservoir that is located approximately 16 miles east of Everett, and the Property is served by the municipal water source. Water wells were identified within a mile of the Property; however, the exact location and use are not known at this time.

6.2 Exposure Pathways

An exposure pathway describes the mechanisms by which human and/or ecological receptor exposure can occur assuming no remedial action or protective control is in place. An exposure pathway is considered complete if a human or ecological receptor can be exposed to a contaminant via that pathway.

Potential Receptors. Current receptors include recreational users/fishers and occupational workers. The Property is exclusively used for recreational and commercial uses, with no daycare centers or child educational facilities. A single residence is located in the north portion of the Site. Ecological receptors in sediment include benthic invertebrates and upper trophic level aquatic and avian ecological receptors.

Exposure Pathways in Sediment. Potential exposure pathways for sediment may include exposure to the benthic community and ingestion of the benthic community by upper trophic level aquatic endpoints (fish, shellfish) or avian endpoints. The Snohomish River is home to a variety of native aquatic species that are harvested for human consumption. Surface water ingestion is not considered a complete exposure pathway because the Snohomish River is not considered potable water.

6.3 Preliminary Ecological Evaluation

Preliminary evaluation of potential ecological risks to aquatic receptors was completed following the process for sediment cleanup evaluation in WAC 173-204. Potential contaminant transport pathways to the Site's sediment unit include 1) stormwater drainage to sediment and 2) surface water to sediment.

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 the Snohomish River. The available data indicate groundwater contamination is not migrating to surface water, and drainage sediment concentrations at stormwater outfalls across the upland portion of the Site do not constitute sediment impacts under WAC 173-240.

The two complete transport pathways to sediment are discussed below.

Stormwater to Sediment Pathway. Potential contaminant transport from the Site's stormwater drainage system to sediment includes stormwater discharge from Outfall-1 located at the southern end of the Site. As described in Section 2.4, primary evaluation of the upland to surface water pathway was completed by

comparing outfall sediment data to CSLs, consistent with the WAC 173-204 SCUM and WAC 173-204 SMS. Detected concentrations of petroleum hydrocarbons, PAHs, and metals in each sample were below CSLs for freshwater sediment management.

Current stormwater pathways other than the stormwater outfall were not identified. A levy along the shoreline prevents sheet flow from upland marina areas to reach the Snohomish River. All sheet flow and runoff are directed to the Property's stormwater drainage system and discharged at Outfall-1. Additionally, a paved berm is present across the boat ramp and prevents runoff from reaching the boat ramp. Unlike active shipyards that conduct ship maintenance on boat ramps/marine ways, these activities are not practiced at Dagmars.

Surface Water to Sediment Pathway. Marina operations represent possible pathways from surface water to sediment. These primarily include leaching of wood preservatives from pilings to water, leaching of bottom paint from boats, and leaking engines. Over-water fueling and maintenance are not practiced at the marina.

7.0 Summary and Conclusions

The Supplemental RI field activities consisted of surface and subsurface sediment characterization within RMs 1 and 2 of the Snohomish River. The investigation detected concentrations of metals, SVOCs, and sulfides.

The data support the conclusion that detected metals concentrations (including nickel) are attributed to natural background concentrations. The natural background concentration for nickel is 50 mg/kg, and all detected concentrations were below 50 mg/kg. Therefore, nickel is not considered a contaminant of potential concern in sediments.

SVOCs and PAHs concentrations detected throughout the Site were either not detected or detected at concentrations well below the SMS SCO and CSL for both freshwater and saltwater. Therefore, SVOCs and PAHs are not considered a contaminant of potential concern in sediments at the Site.

Detected sulfide concentrations throughout the in-water portion of the Site are characteristic of areas with increased microbial activity as a result of the decomposition of organic matter (including woody debris). Microorganisms break down organic matter creating by-products such as ammonia, sulfides, methane, and benzyl alcohol (Ecology 2013b). Sulfide is typically ubiquitous in marine environments, as large quantities of either naturally occurring or industrial wood debris are deposited in near-shore environments. Wood debris observed included tree branches, fibrous woody debris, and decomposed wood debris. Wood waste from industrial processing such as bark, wood chips, and sawdust were not observed during sampling. Concentrations of ammonia were not detected above SCOs, and concentrations of benzyl alcohol were not detected. The absence of accumulations of wood waste from industrial processes, the lack of ammonia

concentrations above SCOs, and the lack of benzyl alcohol detections all support the conclusion that the detected concentrations of sulfides are present due to natural processes and do not represent a condition that requires remedial action.

8.0 References

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Washington State Department of Ecology (Ecology), 2013a. *Sediment Management Standards*. February 2013.

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Ecology, 2021a. *Inadvertent Discovery Plan. Plan and Procedures for the Discovery of Cultural Resources and Human Skeletal Remains*. June 2021.

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Snohomish County, 2003. *Snohomish River Confluence Reach Analysis, Phase 1 Feasibility Study Final Report*. Snohomish County Department of Public Works, Surface Water Management. July 16, 2003.

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.

Table 1 - Final Sample Station Coordinates
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location	Final X	Final Y	Local Latitude	Local Longitude	WGS84 Latitude	WGS84 Longitude	Depth (feet)	Time	Date
BL-1-SS-1	1311077.19	371981.5	48.01187736 N	122.17894392 W	48.01187736 N	122.17894392 W	8.4	12:37:08	8/28/2023
BL-1_SB1	1311076.68	371986.97	48.01189234 N	122.1789464 W	48.01189234 N	122.1789464 W	4.8	9:54:21	8/29/2023
BL-2_SS1	1311057.51	372041.25	48.01204019 N	122.17902858 W	48.01204019 N	122.17902858 W	9	13:07:40	8/28/2023
BL-3_SS1	1311014.1	371952.81	48.01179569 N	122.17919961 W	48.01179569 N	122.17919961 W	13.1	12:54:12	8/28/2023
BL-4_SS1	1310999.15	372022.99	48.01198736 N	122.17926567 W	48.01198736 N	122.17926567 W	14.1	13:27:47	8/28/2023
HP-1_SS1			48.0105253 N	122.1781223 W	48.0105253 N	122.1781223 W	0	10:41:00	8/30/2023
HP-2_SS1			48.0107902 N	122.1782272 W	48.0107902 N	122.1782272 W	0	10:30:00	8/30/2023
HP-5_SS1	1311253.19	371421.31	48.01035033 N	122.17818498 W	48.01035033 N	122.17818498 W	17.1	15:59:35	8/28/2023
HP-5_SS2	1311254.16	371425.37	48.01036151 N	122.17818131 W	48.01036151 N	122.17818131 W	16.8	16:03:04	8/28/2023
HP-5_SS3	1311244.02	371413.25	48.0103278 N	122.17822186 W	48.0103278 N	122.17822186 W	17.7	16:06:23	8/28/2023
HP-5_SB1	1311256.54	371421.12	48.01034997 N	122.17817128 W	48.01034997 N	122.17817128 W	8.5	12:56:25	8/29/2023
HP-5_SB2	1311251.04	371414.76	48.01033228 N	122.17819329 W	48.01033228 N	122.17819329 W	11	13:08:13	8/29/2023
HP-5_SB3	1311244.73	371415.05	48.01033277 N	122.17821909 W	48.01033277 N	122.17821909 W	12	13:21:05	8/29/2023
HP-6_SS1	1311408.94	370938.51	48.00903445 N	122.17751432 W	48.00903445 N	122.17751432 W	10.9	16:53:47	8/28/2023
HP-6_SB1	1311403.83	370931.01	48.00901364 N	122.17753465 W	48.00901364 N	122.17753465 W	5.5	13:37:06	8/29/2023
HP-7_SS1	1311468.33	370438.95	48.007668 N	122.17723609 W	48.007668 N	122.17723609 W	10.7	17:07:05	8/28/2023
HP-7_SB1	1311472.94	370438.9	48.00766809 N	122.17721725 W	48.00766809 N	122.17721725 W	4.9	14:29:57	8/29/2023
HP-7_SB2	1311478.27	370437.9	48.0076656 N	122.17719541 W	48.0076656 N	122.17719541 W	4.9	14:41:22	8/29/2023
HP-8_SB1	1311296.11	371412.59	48.01032849 N	122.17800904 W	48.01032849 N	122.17800904 W	5	15:02:07	8/30/2023
HP-8_SB2	1311296.7	371413.25	48.01033032 N	122.17800667 W	48.01033032 N	122.17800667 W	5	15:14:34	8/30/2023
HP-8_SB3	1311302.84	371417.76	48.01034298 N	122.17798191 W	48.01034298 N	122.17798191 W	5	15:47:11	8/30/2023
MP-2_S1	1311224	371470.72	48.01048437 N	122.17830774 W	48.01048437 N	122.17830774 W	19.1	15:50:40	8/28/2023
MP-3_SS1	1311163.94	371612.2	48.01086928 N	122.17856318 W	48.01086928 N	122.17856318 W	18.2	15:40:18	8/28/2023
MP-4_SS1	1310960.32	372161.6	48.01236542 N	122.17943422 W	48.01236542 N	122.17943422 W	14.2	14:06:15	8/28/2023
MP-4_SS2	1310987.6	372131.56	48.01228439 N	122.17932061 W	48.01228439 N	122.17932061 W	17	14:16:57	8/28/2023
MP-4_SS3	1310987.13	372132.01	48.01228558 N	122.17932256 W	48.01228558 N	122.17932256 W	17.1	14:19:42	8/28/2023
MP-4_SS4	1310984.82	372136.02	48.01229647 N	122.17933228 W	48.01229647 N	122.17933228 W	18	14:25:11	8/28/2023
MP-4_SS5	1310952.21	372162.01	48.01236615 N	122.17946736 W	48.01236615 N	122.17946736 W	19.1	15:33:33	8/28/2023
MP-5_SS1	1310851.69	372413.85	48.01305162 N	122.17989599 W	48.01305162 N	122.17989599 W	17	15:06:08	8/28/2023
MP-5_SS2	1310851.2	372408.99	48.01303827 N	122.17989764 W	48.01303827 N	122.17989764 W	18	15:09:46	8/28/2023
MP-5_SS3	1310833.81	372412.78	48.01304783 N	122.17996895 W	48.01304783 N	122.17996895 W	19.1	15:12:54	8/28/2023
MP-5_SB2	1310854.34	372417.76	48.01306246 N	122.17988544 W	48.01306246 N	122.17988544 W	0	10:48:31	8/29/2023
MP-5_SB3	1310838.19	372407.65	48.01303398 N	122.17995069 W	48.01303398 N	122.17995069 W	9	11:25:58	8/29/2023
MP-6_SS1	1310770.49	372670.33	48.01375072 N	122.18024603 W	48.01375072 N	122.18024603 W	7.6	14:36:31	8/28/2023
MP-6_SB1	1310770.93	372663.7	48.01373258 N	122.18024376 W	48.01373258 N	122.18024376 W	4	9:01:10	8/30/2023
OF-1_SS1			48.0103638 N	122.1779395 W	48.0103638 N	122.1779395 W	0	10:48:00	8/30/2023
OF-1_SB1	1311318.84	371432.9	48.01038525 N	122.17791764 W	48.01038525 N	122.17791764 W	7	16:24:24	8/30/2023
RB-1_SS1	1310665.59	372617.35	48.01360048 N	122.18067077 W	48.01360048 N	122.18067077 W	17.4	14:53:26	8/28/2023
RB-2_SS1	1311184.5	371392.04	48.01026681 N	122.17846348 W	48.01026681 N	122.17846348 W	17.8	16:22:21	8/28/2023

Notes:

1. SS = surface sediment sample
2. SB = subsurface sediment sample
3. Number at the end of sample ID is the attempt number per sample station. Example: MP-5-SB2 = Second subsurface sample attempt at sample station MP-5

Table 2 - Sediment Results: TPH and PAHs
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SS	BL-2-SS	BL-3-SS	BL-4-SS	RB-1-SS	RB-2-SS	MP-2-SS	MP-3-SS	MP-5-SS	MP-6-SS	HP-5-SS	HP-6-SS	HP-7-SS	BL-1-SB-4'	MP-5-SB-2'	HP-6-SB-3'	MP-6-SB-2'	HP-1-SS	HP-2-SS	OF-1-SS	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels		
	Date:	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/29/23	8/29/23	8/29/23	8/30/23	8/30/23	8/30/23	8/30/23	Freshwater	Marine	Freshwater	Marine
Total Petroleum Hydrocarbons (TPH) by NWTPH in mg/kg																									
Diesel Range Organics	<49.8	<50	<60.5	<49.7	<61.2	<61.6	<58.6	<57.5	<49.8	<49.8	<56	<49.9	<49.9	<49.9	<59.6	<49.8	<49.9	<49.8	<50	<50.2		340	--	510	--
Heavy Oil	<99.6	<100	<121	<99.4	<122	<123	<117	<115	<99.6	<99.5	<112	<99.7	<99.9	<99.7	<119	<99.5	<99.8	<99.5	<100	<100		3600	--	4400	--
Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270E-SIM in mg/kg																									
Anthracene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0371	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	220	--	1200	
Acenaphthene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0492	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	16	--	57	
Acenaphthylene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0352	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	66	--	66	
Benzo(a)anthracene	0.0256	<0.0200	<0.0248	<0.0199	<0.0627	0.0487	<0.0238	<0.0239	<0.0498	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	0.0893	0.0211 J-	--	110	--	270	
Benzo(a)pyrene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0450	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	<0.0300	<0.0359	<0.0300	<0.0299	<0.0299	0.076	<0.0292 UJ	--	99	--	210	
Benzo(b)fluoranthene	0.0254	<0.0250	<0.0310	<0.0249	<0.0314	0.0527	<0.0298	<0.0298	<0.0249	<0.0250	<0.0276	<0.0249	<0.0300	<0.0250	<0.0299	<0.0250	<0.0249	<0.0250	0.159	<0.0244 UJ	--	--	--	--	
Benzo(g,h,i)perylene	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0553	<0.0498	<0.0501	<0.0500	<0.0599	<0.0500	<0.0498	<0.0500	<0.0500	<0.0487 UJ	--	31	--	78	
Benzo(k)fluoranthene	<0.0249	<0.0250	<0.0310	<0.0249	<0.0314	0.0427	<0.0238	<0.0298	<0.0249	<0.0250	<0.0276	<0.0199	<0.0250	<0.0250	<0.0299	<0.0250	<0.0199	<0.0250	0.0482	<0.0244 UJ	--	--	--	--	
Chrysene	0.0265	<0.0200	<0.0248	<0.0199	<0.0251	0.0534	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	0.139	0.0700 J-	--	110	--	460	
Dibenz(a,h)anthracene	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0553	<0.0199	<0.0501	<0.0500	<0.0599	<0.0500	<0.0199	<0.0499	<0.0500	<0.0487 UJ	--	12	--	33	
Fluoranthene	0.0248	<0.0200	<0.0248	<0.0199	<0.0251	0.0437	<0.0238	<0.0357	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	0.162	0.0271 J-	--	160	--	1200	
Fluorene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0470	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	23	--	79	
Indeno(1,2,3-cd)pyrene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	0.0519	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0400	<0.0390 UJ	--	34	--	88	
Naphthalene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0359	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	99	--	170	
Phenanthrene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0501	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	100	--	480	
Pyrene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	0.0638	<0.0390 UJ	--	1000	--	1400	
1-Methylnaphthalene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0380	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	--	--	--	
2-Methylnaphthalene	<0.0199	<0.0200	<0.0248	<0.0199	<0.0251	0.0386	<0.0238	<0.0239	<0.0199	<0.0200	<0.0221	<0.0199	<0.0200	<0.0200	<0.0240	<0.0200	<0.0199	<0.0200	<0.0200	<0.0195 UJ	--	38	--	64	
Total PAHs	0.1023	0.0000	0.0000	0.0000	0.0000	0.6692	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.7373	0.1182 J-	17	--	30	--	

- 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.
 - 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.
 - J+ = Result is estimated and may be biased high.

Table 3 - Sediment Results: SVOCs
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SS	BL-2-SS	BL-3-SS	BL-4-SS	RB-1-SS	RB-2-SS	MP-2-SS	MP-3-SS	MP-5-SS	MP-6-SS	HP-5-SS	HP-6-SS	HP-7-SS	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels	
Date:	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	Freshwater	Marine	Freshwater	Marine
Semivolatile Organic Compounds by EPA Method 8270E																	
Phenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	0.120	0.42	0.21	1.20
Bis(2-chloroethyl) ether	<0.0299	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0563	<0.0498	<0.0501	--	--	--	--
2-Chlorophenol	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	--	--	--
1,3-Dichlorobenzene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	--	--	--
1,4-Dichlorobenzene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	3.1	--	9.0
1,2-Dichlorobenzene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	2.3	--	2.3
Benzyl alcohol	<0.149	<0.150	<0.186	<0.150	<0.188	<0.184	<0.179	<0.179	<0.149	<0.150	<0.166	<0.149	<0.150	--	0.057	--	0.073
2-Methylphenol (o-cresol)	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	0.063	--	0.063
Hexachloroethane	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	--	--	--
N-Nitrosodi-n-propylamine	<0.0797	<0.0800	<0.0992	<0.0798	<0.100	<0.0983	<0.0952	<0.0954	<0.0797	<0.0799	<0.0884	<0.0797	<0.0801	--	--	--	0.011
3&4-Methylphenol (m, p-cresol)	0.0466	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	0.260	0.67	2.0	0.67
Nitrobenzene	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0563	<0.0498	<0.0501	--	--	--	--
Isophorone	<0.0398	<0.0400	<0.0496	<0.0299	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	--	--	--
2-Nitrophenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2,4-Dimethylphenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	0.029	--	0.029
Bis(2-chloroethoxy)methane	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2,4-Dichlorophenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
1,2,4-Trichlorobenzene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	0.81	--	1.80
Naphthalene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	99	--	170
4-Chloroaniline	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
Hexachlorobutadiene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	3.9	--	6.2
4-Chloro-3-methylphenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2-Methylnaphthalene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0372	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	38	--	64
1-Methylnaphthalene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
Hexachlorocyclopentadiene	<0.0996	<0.100	<0.124	<0.0997	<0.125	<0.123	<0.119	<0.119	<0.0996	<0.0998	<0.111	<0.0996	<0.100	--	--	--	--
2,4,6-Trichlorophenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2,4,5-Trichlorophenol	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2-Chloronaphthalene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
2-Nitroaniline	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0563	<0.0498	<0.0501	--	--	--	--
Acenaphthene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0396	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	16	--	57
Dimethylphthalate	<3.49	<3.50	<4.34	<3.49	<4.39	<4.30	<4.17	<4.17	<3.49	<3.49	<3.87	<3.49	<3.50	--	53	--	53
2,6-Dinitrotoluene	<0.0398	<0.0400	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	<0.0399	<0.0442	<0.0398	<0.0401	--	--	--	--
Acenaphthylene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	66	--	66
2,4-Dinitrophenol	<0.299	<0.300	<0.372	<0.299	<0.376	<0.369	<0.357	<0.358	<0.299	<0.299	<0.332	<0.299	<0.300	--	--	--	--
Dibenzofuran	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0401	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	0.20	15	0.68	58
2,4-Dinitrotoluene	<0.0598	<0.0600	<0.0744	<0.0598	<0.0753	<0.0738	<0.0714	<0.0716	<0.0598	<0.0599	<0.0663	<0.0597	<0.0601	--	--	--	--
4-Nitrophenol	<0.199	<0.200	<0.248	<0.199	<0.251	<0.246	<0.238	<0.239	<0.199	<0.200	<0.221	<0.199	<0.200	--	--	--	--
Fluorene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	23	--	79
4-Chlorophenyl phenyl ether	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0424	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
Diethylphthalate	<0.747	<0.750	<0.930	<0.748	<0.941	<0.922	<0.893	<0.895	<0.747	<0.749	<0.829	<0.747	<0.751	--	61	--	110
4,6-Dinitro-2-methylphenol	<0.249	<0.250	<0.310	<0.249	<0.314	<0.307	<0.298	<0.298	<0.249	<0.250	<0.276	<0.249	<0.250	--	--	--	--
4-Bromophenyl phenyl ether	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
Hexachlorobenzene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0404	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	0.38	--	2.3
Pentachlorophenol	<0.199	<0.200	<0.248	<0.199	<0.251	<0.246	<0.238	<0.239	<0.199	<0.200	<0.221	<0.199	<0.200	1.2	360	>1.2	690
Phenanthrene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0423	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	100	--	480
Anthracene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	220	--	1200
Carbazole	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	--	--	--
Di-n-butylphthalate	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	0.0375	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	0.38	220	1.0	1700
Fluoranthene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	160	--	1200
Pyrene	<0.149	<0.150	<0.186	<0.150	<0.188	<0.184	<0.179	<0.179	<0.149	<0.150	<0.166	<0.149	<0.150	--	1000	--	1400
Butyl Benzylphthalate	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0563	<0.0498	<0.0501	--	4.9	--	64
bis(2-Ethylhexyl)adipate	<0.199	<0.200	<0.248	<0.199	<0.251	<0.246	<0.238	<0.239	<0.199	<0.200	<0.221	<0.199	<0.200	--	--	--	--
Benz(a)anthracene	<0.0299	<0.0300	<0.0372	<0.0299	<0.0376	<0.0369	<0.0357	<0.0358	<0.0299	<0.0299	<0.0332	<0.0299	<0.0300	--	110	--	270
Chrysene	<0.0498	<0.0500	<0.0620	<0.0499	<0.0627	<0.0615	<0.0595	<0.0596	<0.0498	<0.0499	<0.0563	<0.0498	<0.0501	--	110	--	460
bis (2-Ethylhexyl) phthalate	0.137	0.235	<0.0496	<0.0399	<0.0502	<0.0492	<0.0476	<0.0477	<0.0399	0.102	<0.0442	<0.0398	0.100	0.50	47	22	78
Di-n-octyl phthalate	<0.0747	<0.0750	<0.0930	<0.0748	<0.0941	<0.0922	<0.0893	<0.0895	<0.0747	<0.0749	<0.0829	<0.0747	<0.0751	0.039	58	>1.1	4500
Benzo(b)fluoranthene	<0.0996	<0.100	<0.124	<0.0997	<0.125	<0.123	<0.119	&									

Table 3 - Sediment Results: SVOCs
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SB-4'	MP-5-SB-2'	HP-6-SB-3'	MP-6-SB-2'	HP-1-SS	HP-2-SS	OF-1-SS	HP-7-SB-3'	OF-1-SB-4'	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels	
	Date:	8/29/23	8/29/23	8/29/23	8/30/23	8/30/23	8/30/23	8/29/23	8/30/23	Freshwater	Marine	Freshwater	Marine
Semivolatile Organic Compounds by EPA Method 8270E													
Phenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	0.12	0.42	0.21	1.20
Bis(2-chloroethyl) ether	<0.0500	<0.0599	<0.0500	<0.0497	<0.0499	<0.0494	<0.0487	<0.0498	<0.0499	--	--	--	--
2-Chlorophenol	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	--	--	--
1,3-Dichlorobenzene	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	--	--	--
1,4-Dichlorobenzene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	3.1	--	9.0
1,2-Dichlorobenzene	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	2.3	--	2.3
Benzyl alcohol	<0.150	<0.180	<0.150	<0.149	<0.150	<0.148	<0.146	<0.149	<0.150	--	0.057	--	0.073
2-Methylphenol (o-cresol)	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	0.06	--	0.063
Hexachloroethane	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	--	--	--
N-Nitrosodi-n-propylamine	<0.0801	<0.0958	<0.0800	<0.0796	<0.0798	<0.0791	<0.0780	<0.0797	<0.0798	--	--	--	0.011
3&4-Methylphenol (m, p-cresol)	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	0.26	0.67	2.0	0.67
Nitrobenzene	<0.0500	<0.0599	<0.0500	<0.0497	<0.0499	<0.0494	<0.0487	<0.0498	<0.0499	--	--	--	--
Isophorone	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	--	--	--
2-Nitrophenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2,4-Dimethylphenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	0.029	--	0.029
Bis(2-chloroethoxy)methane	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2,4-Dichlorophenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
1,2,4-Trichlorobenzene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	0.81	--	1.80
Naphthalene	<0.0400	<0.0479	<0.0400	<0.0298	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	99	--	170
4-Chloroaniline	<0.0300	<0.0359	<0.0300	<0.0398	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
Hexachlorobutadiene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	3.9	--	6.2
4-Chloro-3-methylphenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2-Methylnaphthalene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	38	--	64
1-Methylnaphthalene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
Hexachlorocyclopentadiene	<0.100	<0.120	<0.100	<0.0994	<0.0998	<0.0989	<0.0975	<0.0996	<0.0997	--	--	--	--
2,4,6-Trichlorophenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2,4,5-Trichlorophenol	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2-Chloronaphthalene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
2-Nitroaniline	<0.0500	<0.0359	<0.0500	<0.0497	<0.0499	<0.0494	<0.0487	<0.0498	<0.0499	--	--	--	--
Acenaphthene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	16	--	57
Dimethylphthalate	<3.50	<4.19	<3.50	<3.48	<3.49	<3.46	<3.41	<3.49	<3.49	--	53	--	53
2,6-Dinitrotoluene	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	--	--	--	--
Acenaphthylene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	66	--	66
2,4-Dinitrophenol	<0.300	<0.359	<0.300	<0.298	<0.299	<0.297	<0.292	<0.299	<0.299	--	--	--	--
Dibenzofuran	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	0.20	15	0.68	58
2,4-Dinitrotoluene	<0.0601	<0.0719	<0.0600	<0.0597	<0.0599	<0.0593	<0.0585	<0.0598	<0.0598	--	--	--	--
4-Nitrophenol	<0.200	<0.240	<0.200	<0.199	<0.200	<0.198	<0.195	<0.199	<0.199	--	--	--	--
Fluorene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	23	--	79
4-Chlorophenyl phenyl ether	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
Diethylphthalate	<0.751	<0.898	<0.750	<0.746	<0.749	<0.742	<0.731	<0.747	<0.748	--	61	--	110
4,6-Dinitro-2-methylphenol	<0.250	<0.299	<0.250	<0.249	<0.250	<0.247	<0.244	<0.249	<0.249	--	--	--	--
4-Bromophenyl phenyl ether	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	--	--
Hexachlorobenzene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	0.38	--	2.3
Pentachlorophenol	<0.200	<0.240	<0.200	<0.199	<0.200	<0.198	<0.195	<0.199	<0.199	--	360	>1.2	690
Phenanthrene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	100	--	480
Anthracene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	0.0341	<0.0292	<0.0299	<0.0299	--	220	--	1200
Carbazole	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	--	--	1.1	--
Di-n-butylphthalate	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	<0.0297	<0.0292	<0.0299	<0.0299	0.38	220	1.0	1700
Fluoranthene	<0.0300	<0.0359	<0.0300	<0.0298	0.0302	0.351	0.0651	<0.0299	<0.0299	--	160	--	1200
Pyrene	<0.150	<0.180	<0.150	<0.149	<0.150	<0.148	<0.146	<0.149	<0.150	--	1000	--	1400
Butyl Benzylphthalate	0.0516	<0.0599	<0.0500	<0.0497	<0.0499	<0.0494	<0.0487	<0.0498	<0.0499	--	4.9	--	64
bis(2-Ethylhexyl)adipate	<0.200	<0.240	<0.200	<0.199	<0.200	<0.198	<0.195	<0.199	<0.199	--	--	--	--
Benzo(a)anthracene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	0.211	0.0513	<0.0299	<0.0299	--	110	--	270
Chrysene	<0.0500	<0.0599	<0.0500	<0.0497	<0.0499	0.267	0.148	<0.0498	<0.0499	--	110	--	460
bis (2-Ethylhexyl) phthalate	0.695	<0.0479	<0.0400	0.0588	<0.0399	<0.0396	<0.0390	<0.0398	<0.0399	0.050	47	22	78
Di-n-octyl phthalate	<0.0751	<0.0898	<0.0750	<0.0746	<0.0749	<0.0742	<0.0731	<0.0747	<0.0748	0.039	58	>1.1	4500
Benzo(b)fluoranthene	<0.100	<0.120	<0.100	<0.0994	<0.0998	0.291	<0.0975	<0.0996	<0.0997	--	--	--	--
Benzo(k)fluoranthene	<0.0300	<0.0359	<0.0300	<0.0298	<0.0299	0.0958	<0.0292	<0.0299	<0.0299	--	230	--	--
Benzo(a)pyrene	<0.0400	<0.0479	<0.0400	<0.0398	<0.0399	0.158	<0.0390	<0.0398	<0.0399	--	99	--	210
Indeno(1,2,3-cd)pyrene	<0.200	<0.240	<0.200	<0.199	<0.200	<0.198	<0.195	<0.199	<0.199	--	34	--	88
Dibenz(a,h)anthracene	<0.100	<0.120	<0.100	<0.0994	<0.0998	<0.0989	<0.0975	<0.0996	<0.0997	--	12	--	33
Benzo(g,h,i)perylene	<0.100	<0.120	<0.100	<0.0994	<0.0998	<0.0989	<0.0975	<0.0996	<0.0997	--	31	--	78

- 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
 8. Shading indicates analyte exceeds atleast one sediment cleanup levels

Table 4 - Sediment Results: Metals
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SS	BL-2-SS	BL-3-SS	BL-4-SS	RB-1-SS	RB-2-SS	MP-2-SS	MP-3-SS	MP-5-SS	HP-5-SS	HP-6-SS	HP-7-SS	BL-1-SB-4"	MP-5-SB-2'	HP-6-SB-3'	MP-6-SB-2'	HP-1-SS	HP-2-SS	OF-1-SS	HP-7-SB-3'	OF-1-SB-4'	HP-8-SB-2	HP-8-SB-2 DUP-1	Puget Sound Natural Background Concentrations for Marine Sediment	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels		
Date:	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/29/23	8/29/23	8/29/23	8/30/23	8/30/23	8/30/23	8/30/23	8/29/23	8/30/23	8/30/23	8/30/23			Freshwater	Marine	Freshwater	Marine
Metals by EPA Method 6020B and 7471B in mg/kg																													
Arsenic	7.26	6.68	5.84	5.43	5.43	5.31	5.13	5.65	5.65	5.77	7.42	7.64	8.16	5.01	9.53	7.55		11.4	7.95	12	11.5	10.4	11.4	8.03	11	14	57	120	93
Barium	21.3	21.4	15.9	16	16	14.9	16.6	17.1	17.8	18.1	22.6	22.2	26.7	17.5	30.5	32.1		33.6	22.7	27.5	33.8	31.9	38	25.5	--	--	--	--	--
Cadmium	0.0838	0.0675	0.042	0.0464	0.0464	0.0431	0.0430	0.053	0.0548	0.0475	0.0659	0.0629	0.105	0.0364	0.084	0.0985		0.101	0.0660	0.0901	0.0801	0.0730	0.1220	0.0510	0.8	2.1	5.1	5.4	6.7
Chromium	24.5	21.9	16.8	16.8	16.8	16.4	16.9	18.3	18	20.1	27.7	25.2	27.5	15.2	31.7	28.4		35	25	26.6	34.4	43.5	45.6	35.5	62	72	260	88	270
Copper	22.1	19.7	12.4	12.7	12.7	11.7	11.2	13.9	16.7	13	20.4	19.8	21.3	11.6	23.3	26		31.7	21.6	25.9	23.2	24.9	34.7	20.7	45	400	390	1200	390
Lead	5.59	4.69	3.16	3.17	3.17	2.92	2.88	3.2	3.28	2.95	5.82	5.35	5.72	2.65	4.61	5.87		8.29	5.74	6.01	5.66	6.52	7.24	5.19	21	360	450	>1300	530
Nickel	26	24.4	20.1	19.4	19.4	19.5	18	20.6	21.6	20.4	28	26.6	25.1	16.5	29.7	31.3		34.7	26.8	28.1	31	39.4	40.6	30.7	50	26	--	110	--
Selenium	<0.742	<0.689	<0.534	<0.602	<0.602	<0.546	<0.531	<0.0991	<1.01	<0.923	<1.17	<1.05	<1.01	<0.985	<1.13	<1.21		<1.18	<1.50	<0.262	<1.24	<0.969	<1.12	--	11	--	>20	--	--
Silver	0.0541	0.0403	0.0115	0.0132	0.0132	<0.0109	<0.0106	0.0243	<0.0201	<0.0185	0.0233	<0.0210	0.0408	<0.0197	0.0369	0.032		0.059	<0.0300	0.035	0.035	0.026	0.076	<0.0224	0.24	0.57	6.1	1.7	6.1
Zinc	48.3	45.1	37.2	37	2.11	36.1	34.3	38.2	41	38	50.4	46.6	46.5	34.7	47.4	52.2		0.0594	26.8	52.3	53.8	59.2	69	47.3	93	3200	410	>4200	960
Mercury	<0.148	<0.138	<0.107	<0.120	<0.120	<0.109	<0.106	<0.198	<0.201	<0.185	<0.233	<0.210	<0.201	<0.197	<0.227	<0.242		<0.235	<0.300	<0.316	<0.209	<0.247	<0.194	<0.224	0.2	0.66	0.41	0.8	0.59

- 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. Shaded results exceed the Puget Sound natural background concentration.
 5. Sediment Management Standards from WAC 173-204 and Washington Ecology's *Sediment Cleanup User's Manual* (December 2019 update). Puget Sound Natural Background Concentrations from Chapter 10, Table 10-1 of *Washington Ecology's Sediment Cleanup Users Manual*
 6. -- = Value not available.
 7. J = Result is estimated.

Table 5 - Sediment Results: Conventional Parameters
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SS	BL-2-SS	BL-3-SS	BL-4-SS	RB-1-SS	RB-2-SS	MP-2-SS	MP-3-SS	MP-5-SS	MP-6-SS	HP-5-SS	HP-6-SS	HP-7-SS	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels	
Date:	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	8/28/23	Freshwater	Marine	Freshwater	Marine
Sample Moisture (Percent Moisture) %																	
Percent Moisture	41.1	36.9	19.7	27.5	20.6	20.4	16.3	17.3	26.3	37.9	11.9	34	37.2	---	---	---	---
Total Organic Carbon by EPA 9060 (%)																	
Total Organic Carbon	0.773	0.479	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	<0.150	0.345	<0.150	0.357	--	---	---	---	---
Ammonia by SM 4500 NH3 E (mg/kg)																	
Ammonia	18.4	9.67	<1.24	<1.37	<1.26	<1.25	<1.18	<1.20	<1.34	9.66	<1.12	8.60	7.74	230	---	300	---
Total Volatile Solids by SM 2540 (%)																	
Total Solids	59.6	63	78.5	73.3	78.1	78	82.3	80.4	75.3	64	85.5	72	67.8	---	---	---	---
Total Volatile Solids	3.34	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	---	---	---	---
Sulfides (mg/kg)																	
Sulfides	<1.45 U	61.9	<1.19 U	<1.24 U	<1.14 U	<1.14 U	<1.28 UJ	<1.16 UJ	<1.26 UJ	<1.32 UJ	<1.13 UJ	<1.25 UJ	<1.20 UJ	39	---	61	---

See notes at the end of table

Table 5 - Sediment Results: Conventional Parameters
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SB-4'	MP-5-SB-2'	HP-6-SB-3'	MP-6-SB-2'	HP-1-SS	HP-2-SS	OF-1-SS	HP-7-SB-3'	OF-1-SB-4'	HP-8-SB-2	DUP-1	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels	
Date:	8/29/23	8/29/23	8/29/23	8/30/23	8/30/23	8/30/23	8/30/23	8/29/23	8/30/23	8/30/23	8/30/23	Freshwater	Marine	Freshwater	Marine
Sample Moisture (Percent Moisture) %															
Percent Moisture	29.1	18.8	26.5	35.3	40.1	48.30	50.2	28.2	33.2	26.3	29.2	---	---	---	---
Total Organic Carbon by EPA 9060 (%)												---	---	---	---
Total Organic Carbon	--	--	--	--	--	--	--	--	--	--	--	---	---	---	---
Ammonia by SM 4500 NH3 E (mg/kg)															
Ammonia	12.6	2.54	16.9	9.37	19.8	16.4	20.5	7.36	26.8	17.3	29.2	230	---	300	---
Total Volatile Solids by SM 2540 (%)															
Total Solids	72.2	83.2	72.4	66.1	57.9	60.8	54.8	72	64.2	72.4	63.6	---	---	---	---
Total Volatile Solids	3.27	<3.0	3.43	<3.0	4.22	3.42	4.33	3.54	5.02	4.32	5.02	---	---	---	---
Sulfides (mg/kg)															
Sulfides	219	1.15 U	54.9	763	1.64 U	1.35 U	27.5	15.5	5.45	99.7	--	39	---	61	---

Notes:

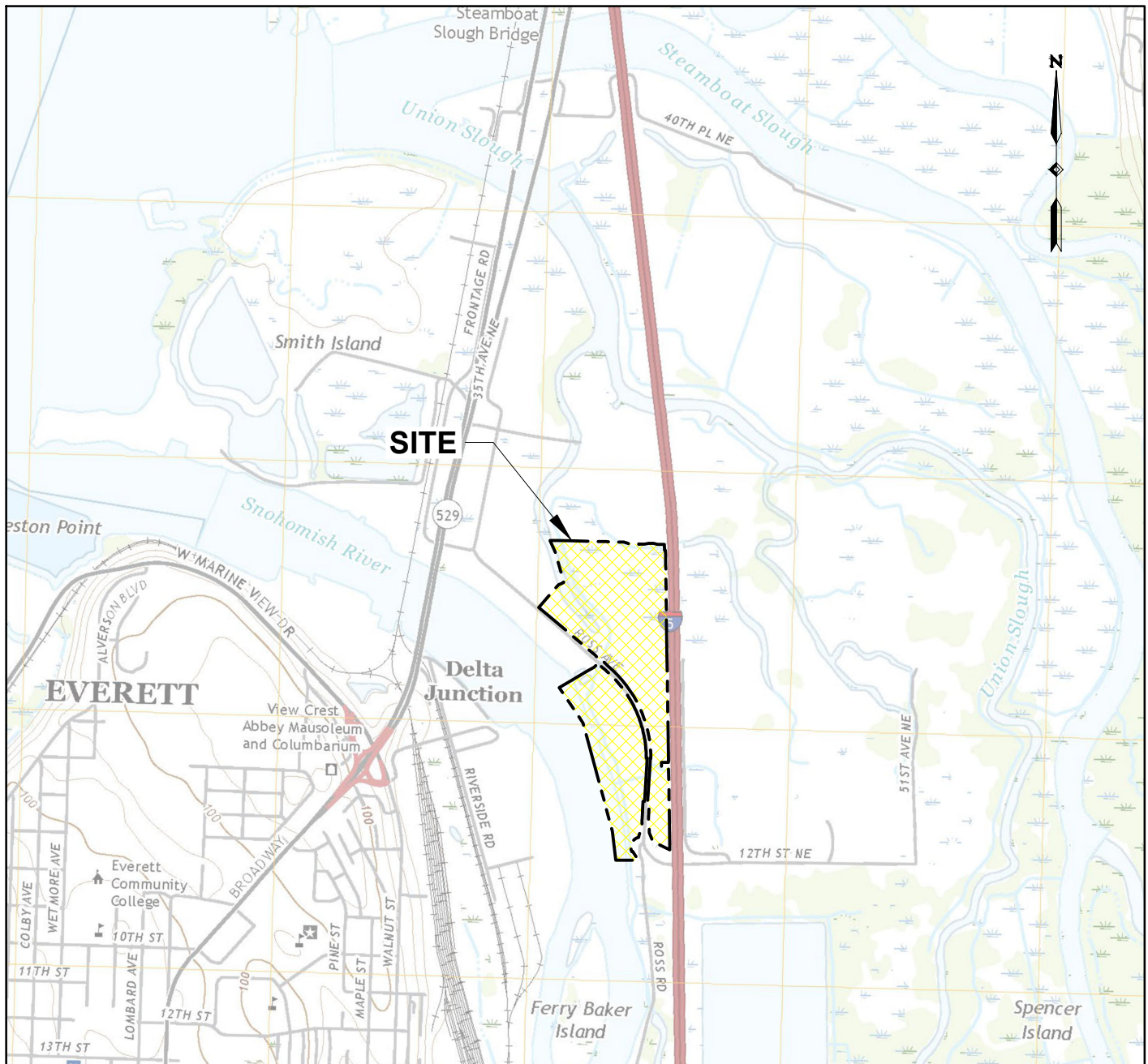
1. mg/kg = Milligrams per kilogram.
2. Bold values indicate the compound was detected above method detection limits.
3. < = Analyte was not detected above the detection limit shown.
4. Shaded results exceed the Freshwater or Marine Sediment Cleanup Screening Level.
4. Sediment Management Standards from 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.
11. UJ = The not detected result is estimated.

Table 6 - Sediment Results: Organometallics
Dagmars Marina - 1871 Ross Avenue
Everett, Washington

Sample Location ID:	BL-1-SS	BL-2-SS	BL-3-SS	BL-4-SS	BL-1-SB-4	OF-1-SS	OF-1-SB-4	Sediment Management Standards Sediment Cleanup Objectives		Sediment Management Standards Cleanup Screening Levels	
	Date:	8/28/23	8/28/23	8/28/23	8/28/23	8/29/23	8/30/23	8/30/23	Freshwater	Marine	Freshwater
Butyl Tin(s) - EPA Method SW8270E-SIM in µg/kg											
Tributyltin Ion	<0.449 U	<0.450 U	<0.446 U	<0.449 U	4.03 J-	<3.85 UJ	<0.450 U	47	320	0.32	--
Dibutyltin Ion	<1.72 U	<1.73 U	<1.71 U	<1.73 U	<2.29 UJ	<5.77 UJ	<1.73 U	910	130,000	130	--
Butyltin Ion	<1.82 U	<1.89 U	<1.87 U	6.14 J-	<2.50 UJ	3.44 J-	<1.89 U	540	>4,800	>4.8	--
Tetrabutyltin Ion	<4.98 U	<5.00 U	<4.95 U	<4.99 U	<6.62 UJ	<4.99 UJ	<5.00 U	97	>97	>0.097	--

Notes:

1. µg/kg = micrograms 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. Shaded results exceed the Cleanup Screening Level and the natural background concentration.
5. Natural Background Concentrations and 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. J+ = Result is estimated and may be biased high.
11. UJ = The not detected result is estimated.



Marysville, Washington

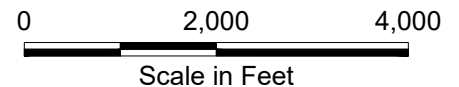
United States Geological Survey

7.5 Minute Series Topographic Map

Contour Interval: 20 feet

Scale: 1 inch = 24,000 feet

Date: 2020



WASHINGTON

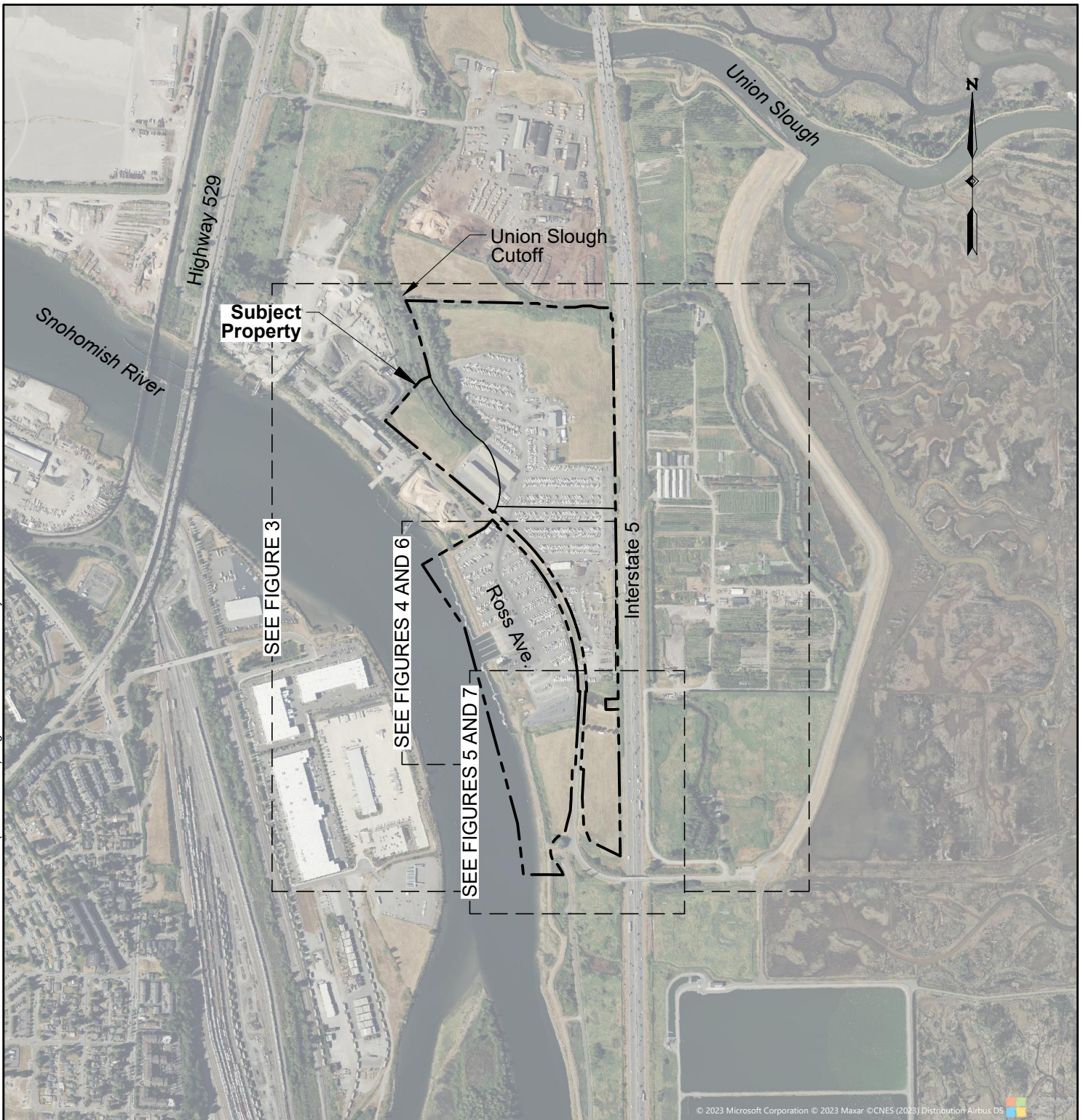
Site Location Map

Supplemental Remedial Investigation
Dagmars Marina Property - 1871 Ross Avenue
Everett, Washington

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

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

Figure
1



NOTE: Base map prepared from Microsoft Bing imagery (2023).
Parcel information from Snohomish County
(<ftp://ftp.snoco.org/assessor>).

0 1,000 2,000
Scale in Feet

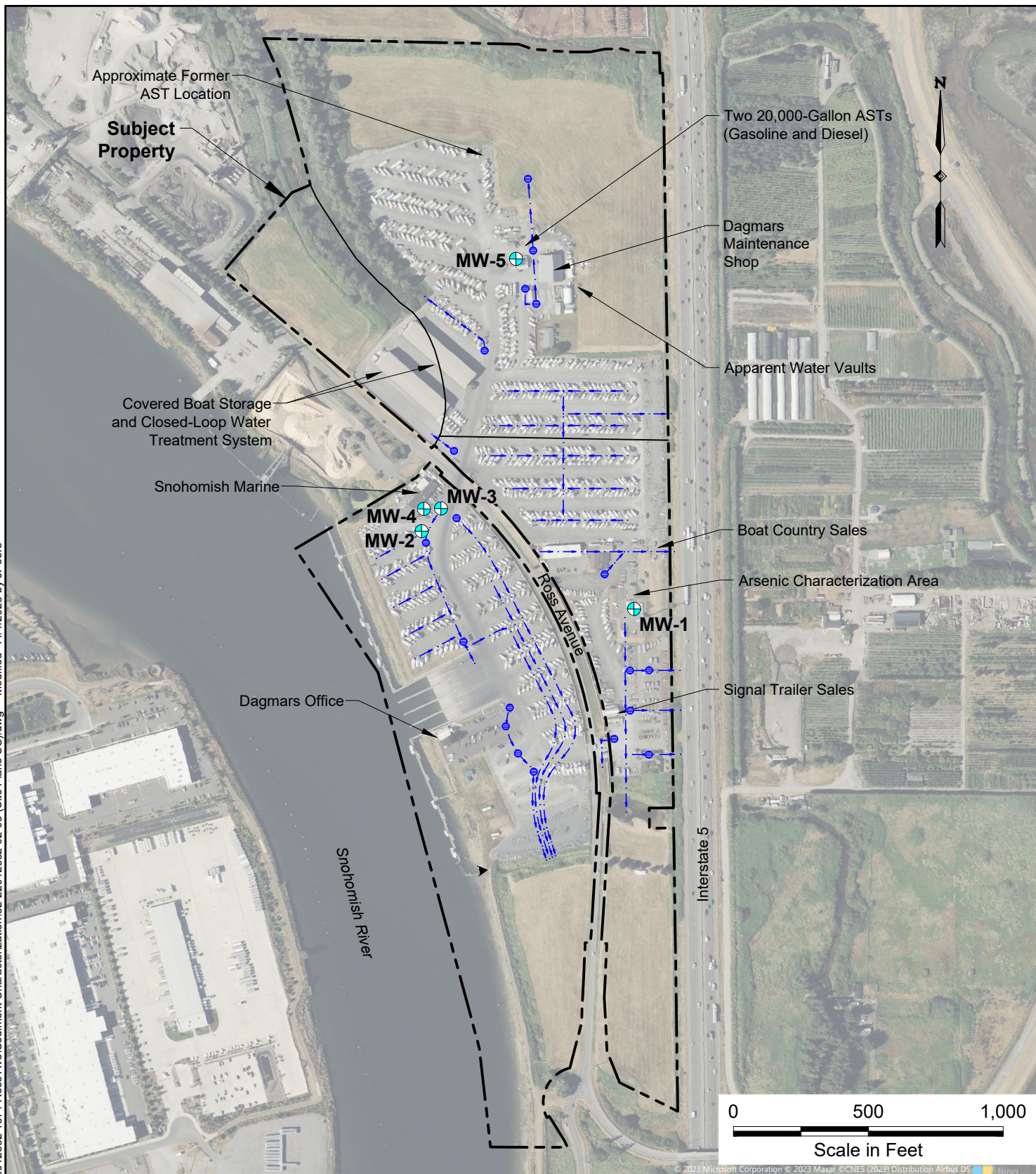
Site Vicinity Plan

Supplemental Remedial Investigation
Dagmars Marina Property - 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
November 2023

Figure
2



Legend:

-  Monitoring Well Location
-  Approximate Stormwater Outfall Location
-  Approximate Drain Line and Direction
-  Approximate Catch Basin Location

NOTE: Base map prepared from Microsoft Bing imagery (2023).
Parcel information from Snohomish County (<http://ftp.snoco.org/assessor>).

Site Layout

Supplemental Remedial Investigation
Dagmars Marina Property - 1871 Ross Avenue
Everett, Washington

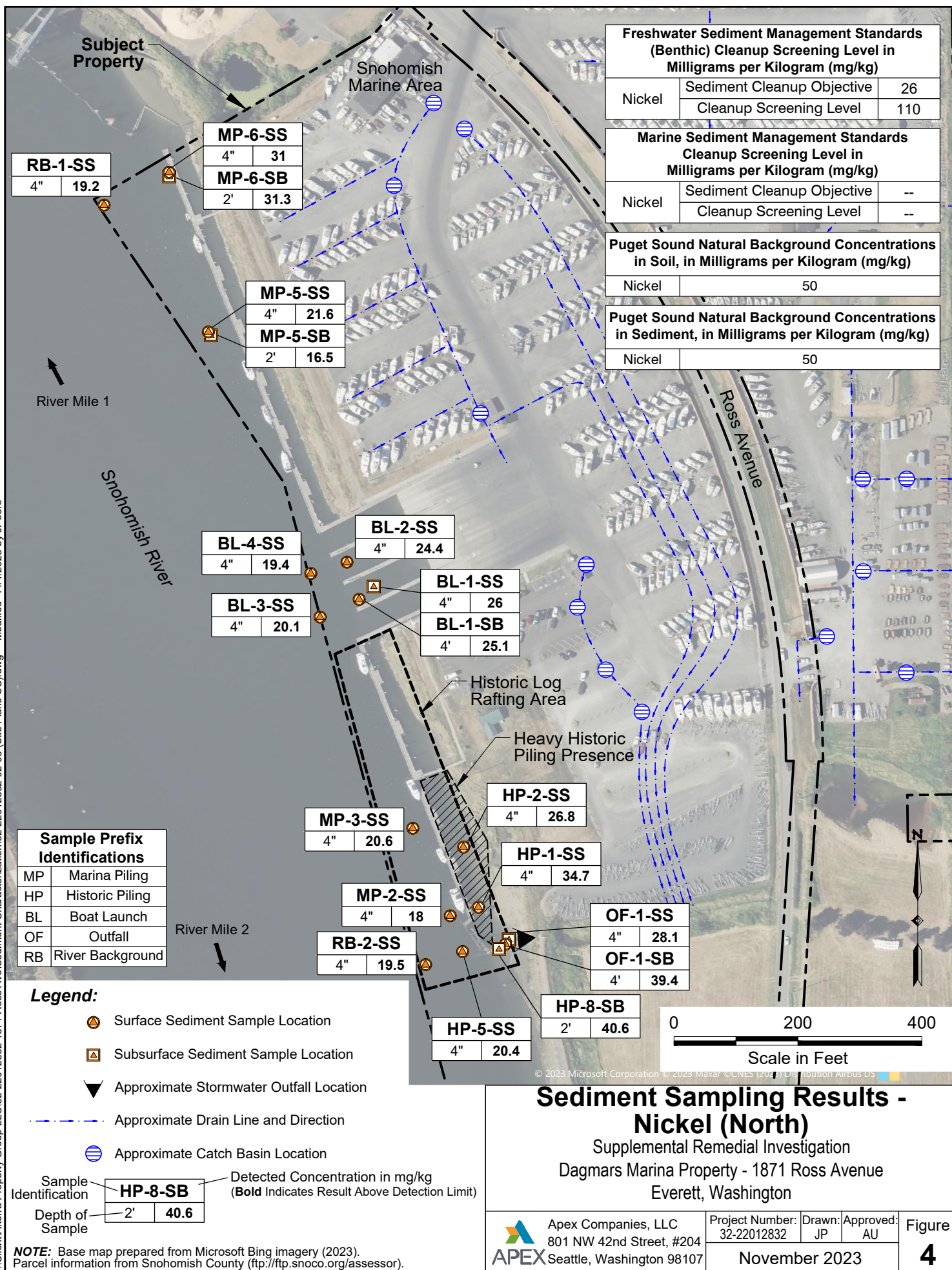
 Apex Companies, LLC
801 NW 42nd Street, #204
Seattle, Washington 98107

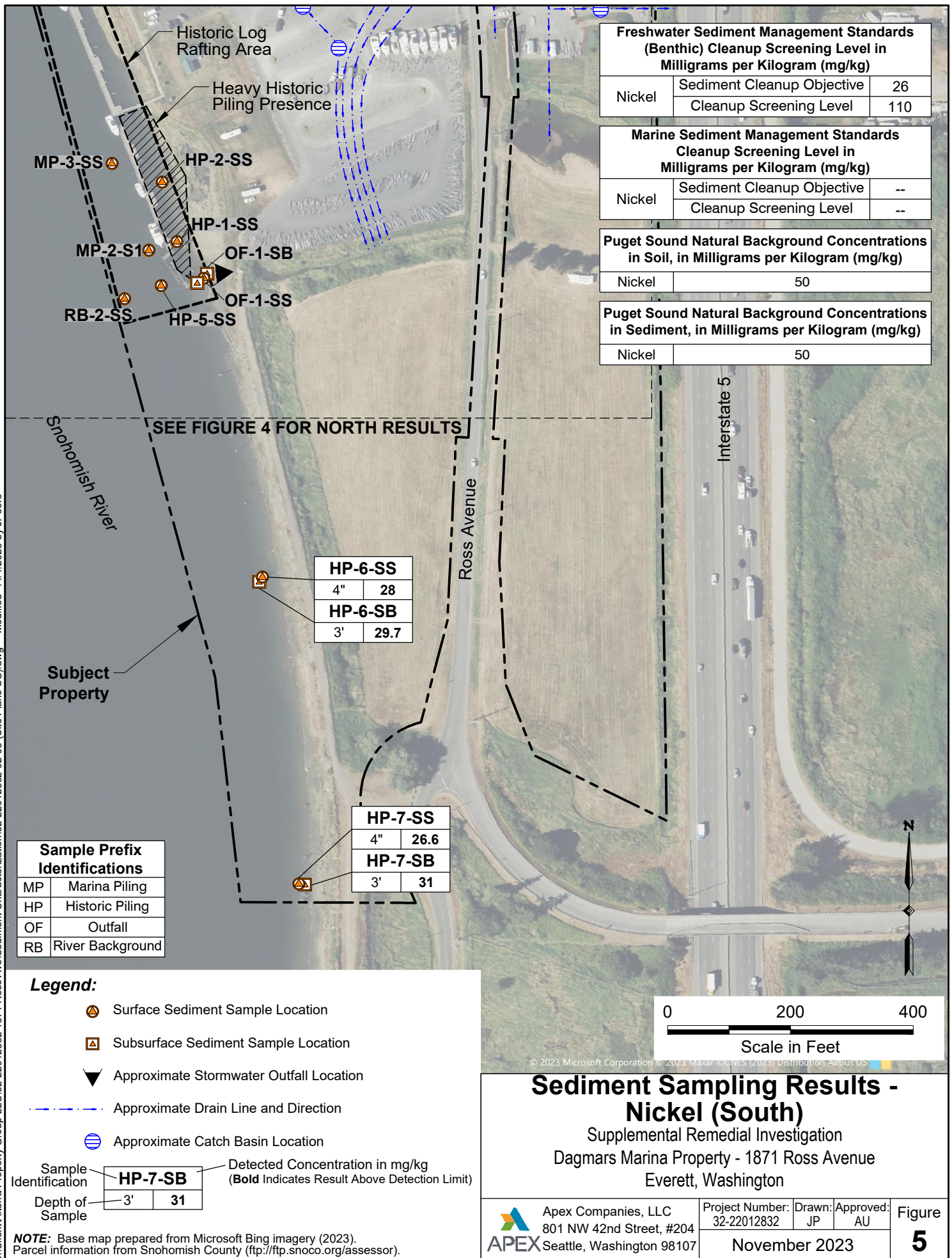
Project Number: 32-22012832	Drawn: JP	Approved: AU
--------------------------------	--------------	-----------------

November 2023

Figure
3

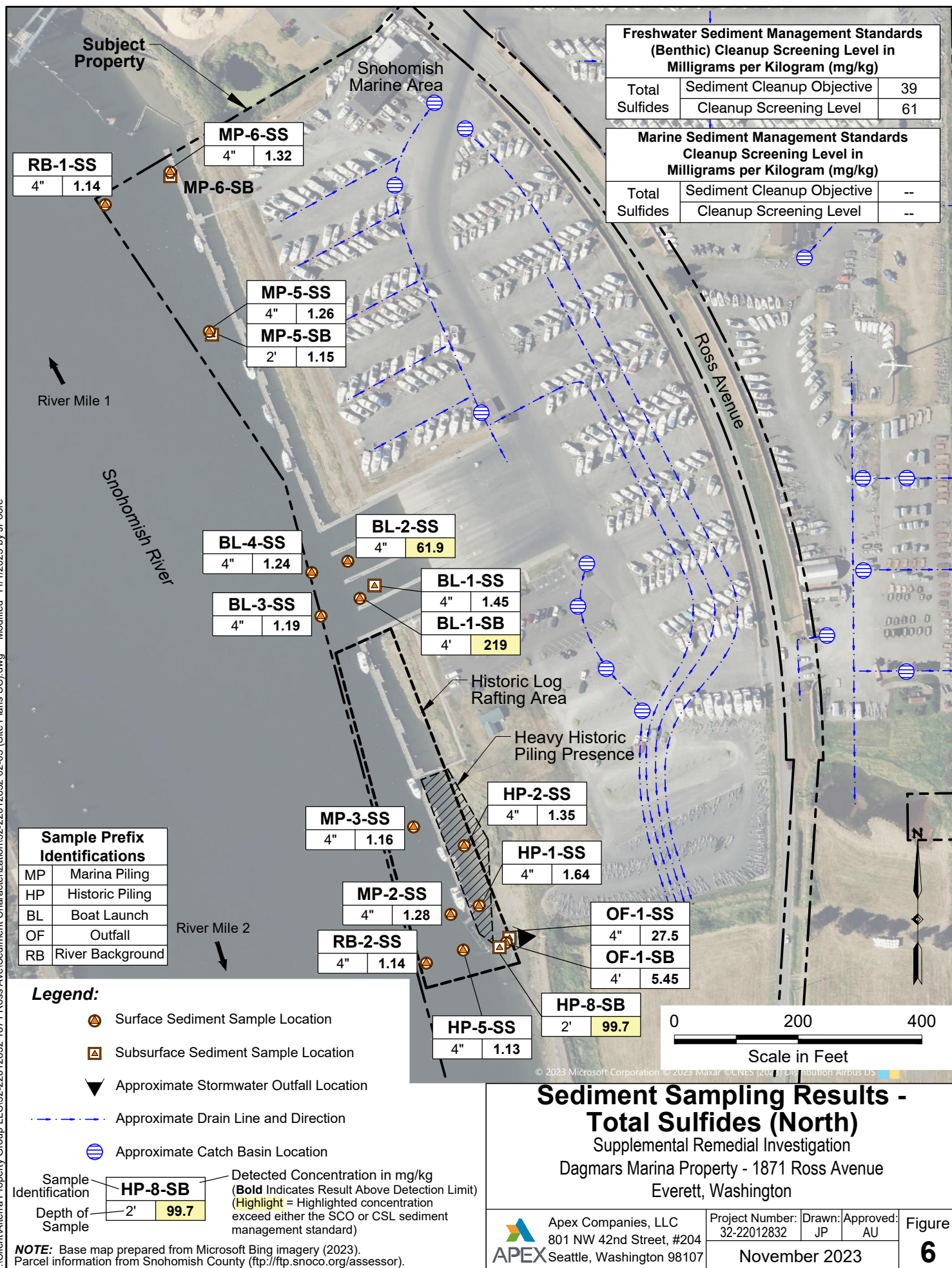
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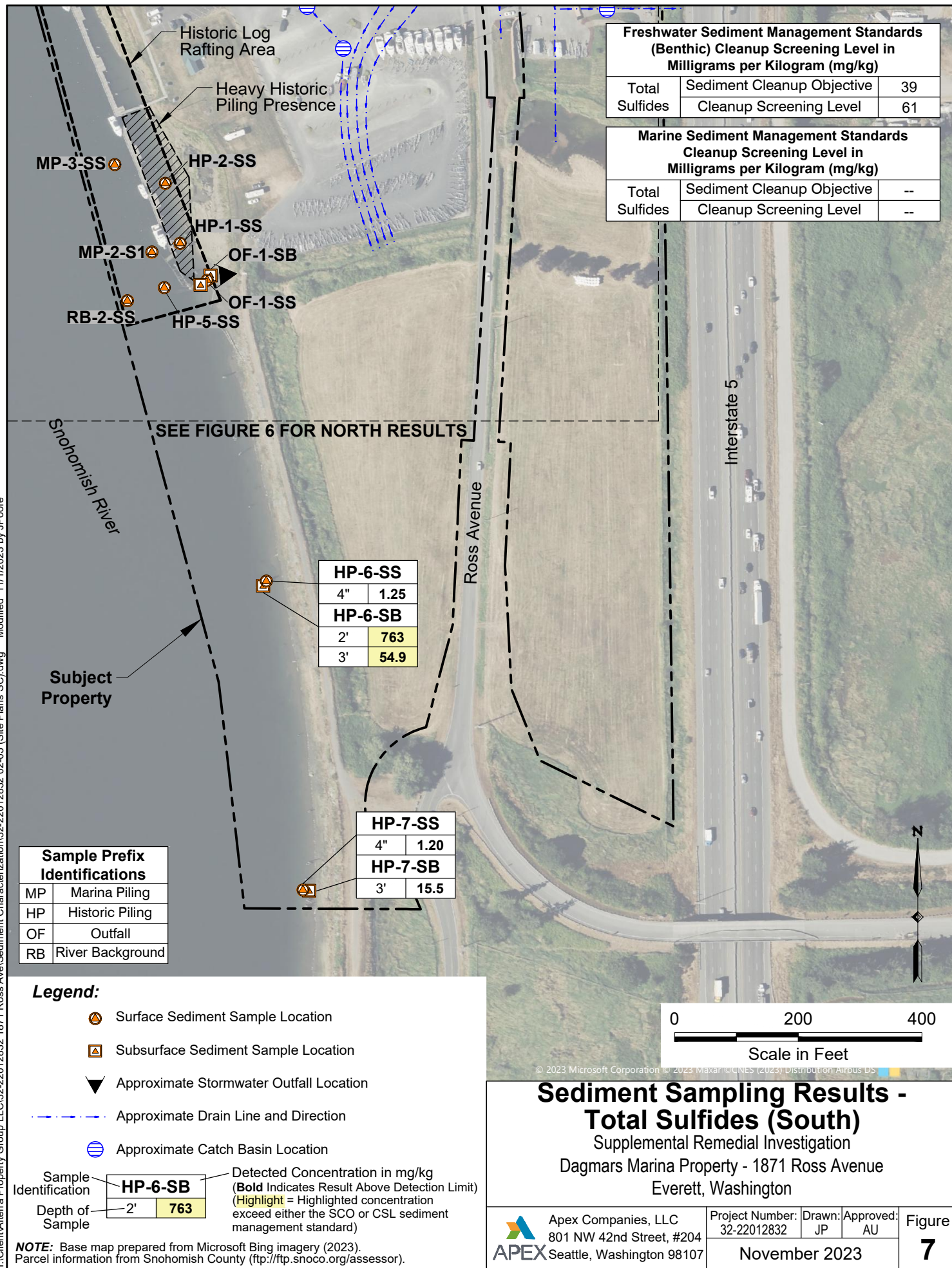


NOTE: Base map prepared from Microsoft Bing imagery (2023).
Parcel information from Snohomish County ([ftp://ftp.snoco.org/assessor](http://ftp.snoco.org/assessor)).

I:\Client\Alterra Property Group LLC\32-22012832 1871 Ross Ave\Sediment Characterization\32-22012832 02-05 (Site Plans SC).dwg Modified 11/1/2023 by jPoore

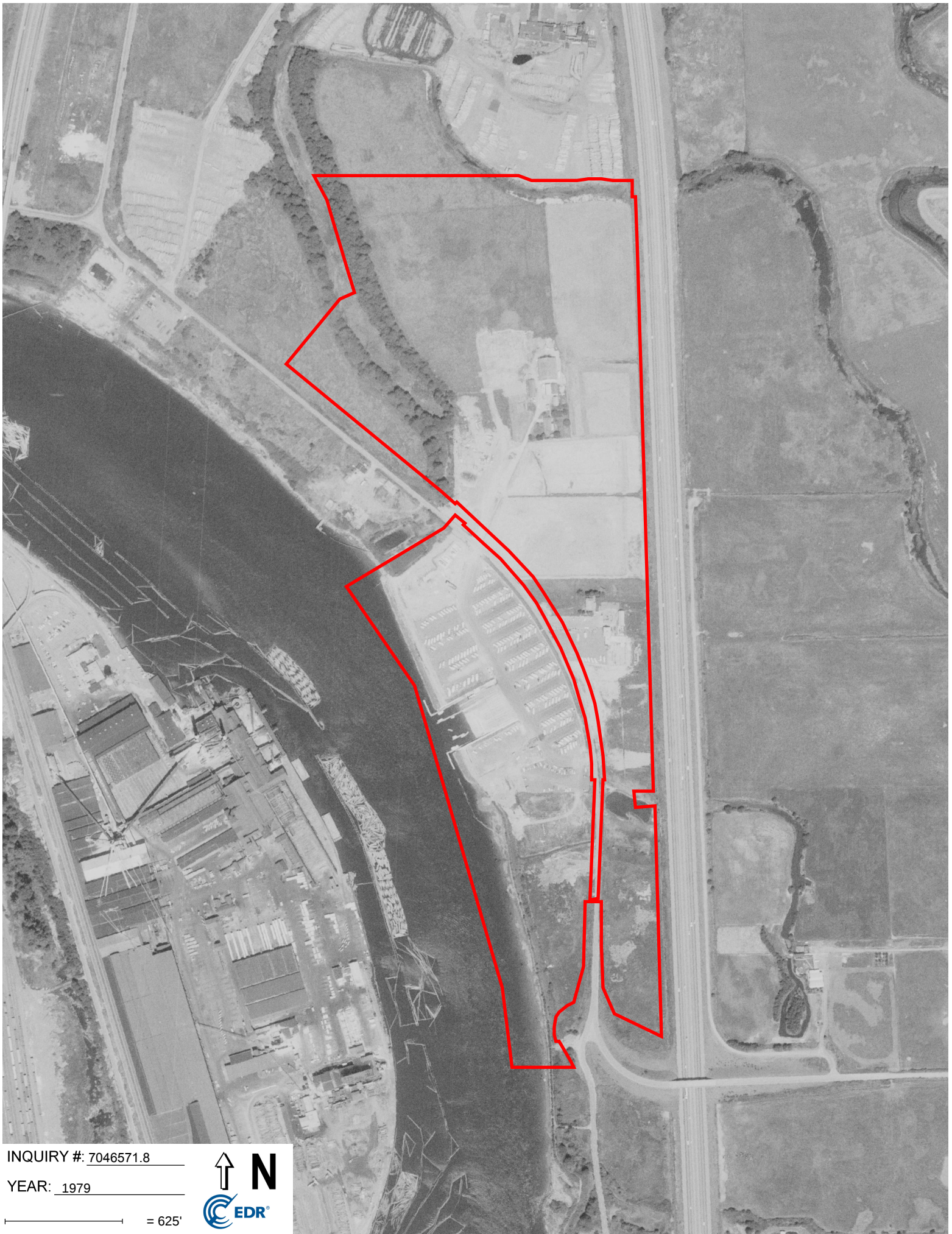


I:\Client\Alterra Property Group LLC\32-22012832 1871 Ross Ave\Sediment Characterization\32-22012832 02-05 (Site Plans SC).dwg Modified 11/1/2023 by JPoore



Appendix A

Historic Aerial Photos

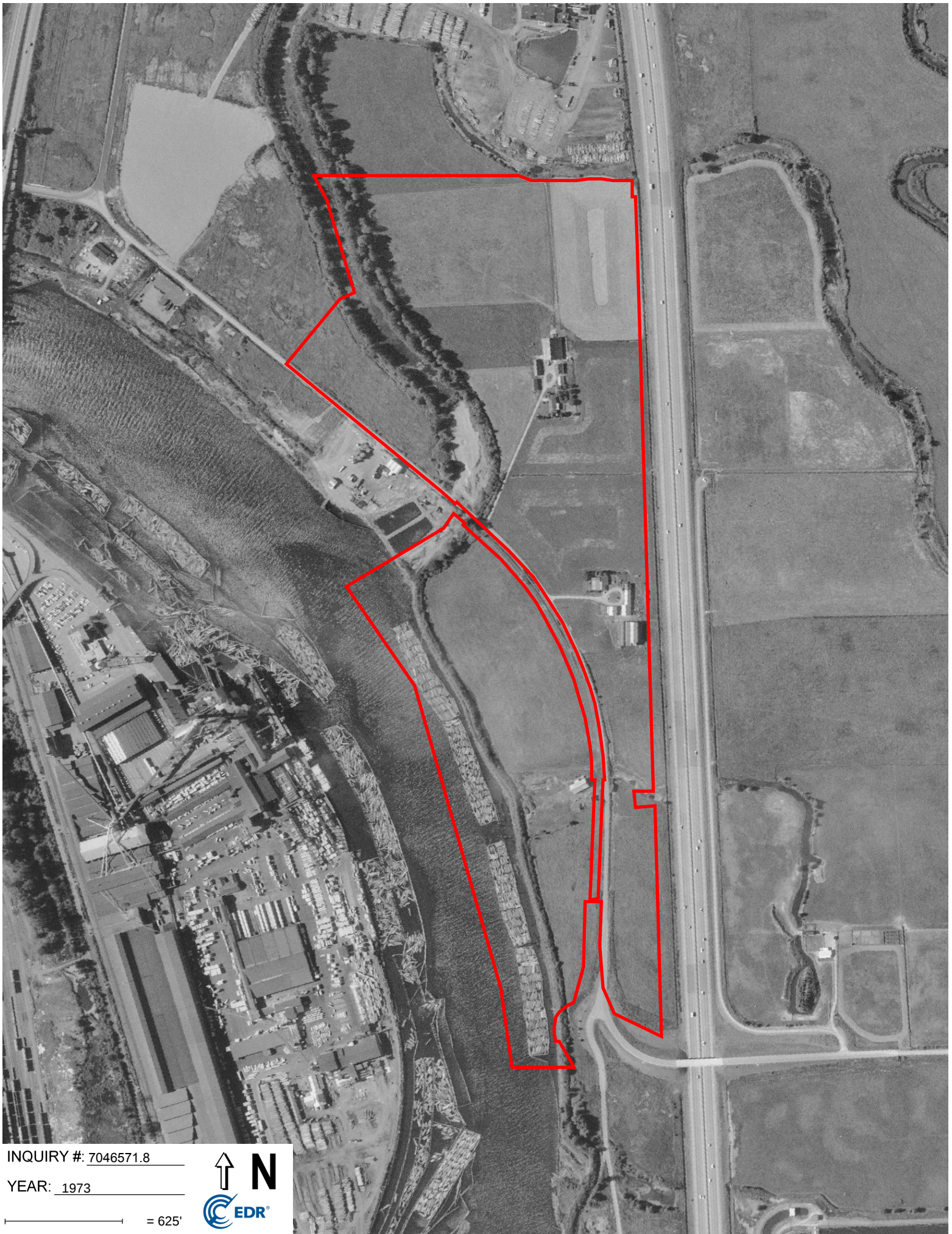


INQUIRY #: 7046571.8

YEAR: 1979

— = 625'



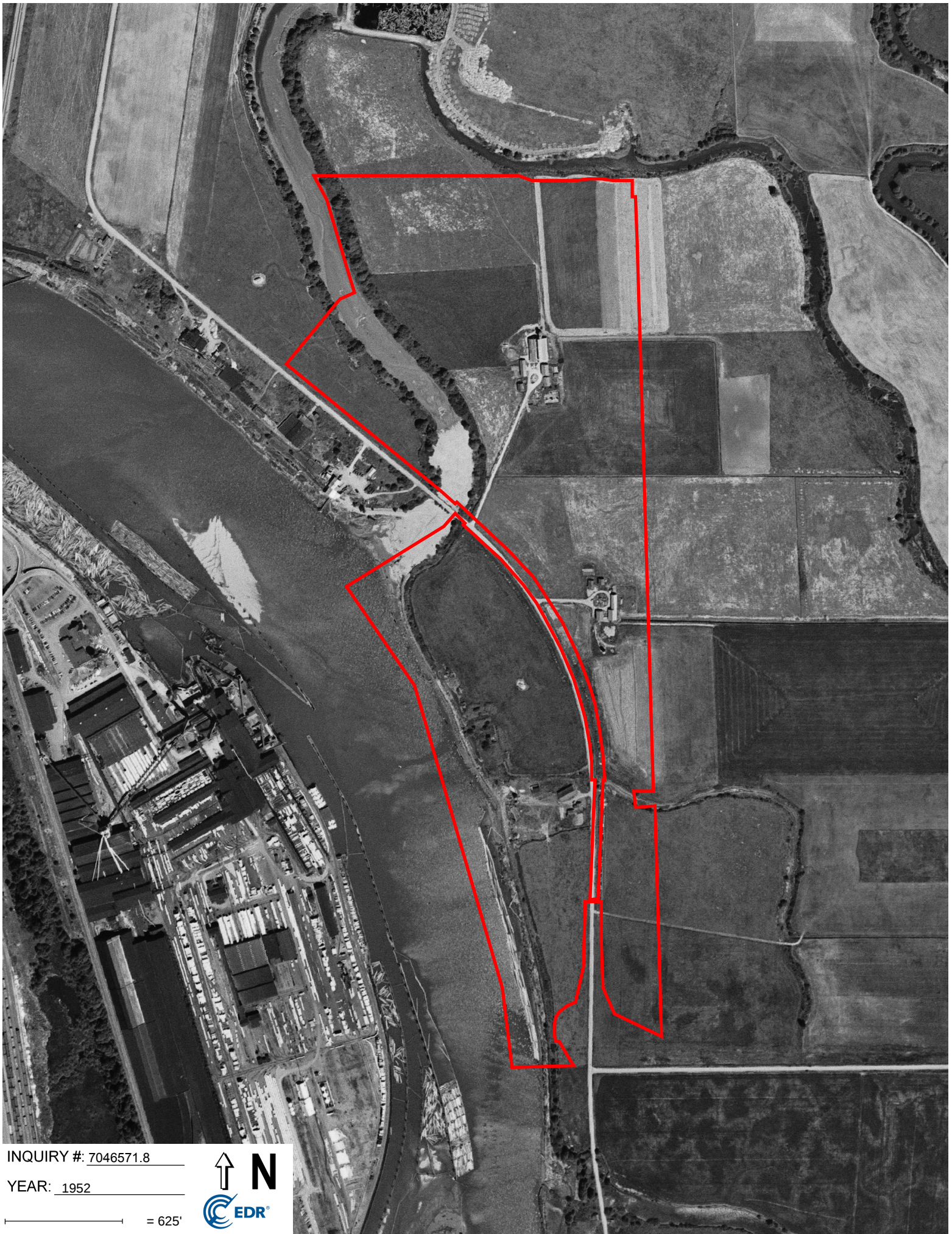


INQUIRY #: 7046571.8

YEAR: 1973

— = 625'





INQUIRY #: 7046571.8

YEAR: 1952

— = 625'





INQUIRY #: 7046571.8

YEAR: 1941

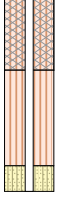
1" = 625'



Appendix B

Boring Logs

Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107				Dagmars Marina Property - 1871 Ross Avenue Everett, Washington				Boring Number: BL-1 Project Number: 32-22012832 Logged By: M. Strain Date: August 29, 2023 Site Conditions: Boat Launch Drilling Contractor: Gravity Marine Services Drilling Equipment: Vibracore Depth Below Water Surface: 4.8' No. of Attempts: 1/3 Core Recovery: 80% Boring Details and Notes:	
Depth in Feet	Core Interval/Recovery	Laboratory Sample ID	PID	Lithologic Description					
			<5	SILT; black with gray layering, saturated, poorly graded, trace woody debris, pockets of clay, no odor, no sheen.					
			<5						
			<5						
			<5						
5		BL-1-SB-4'	<5	Silty SAND; gray/dark gray, saturated, well-graded, heavy wood debris at 3.5'.					
		BL-1-SB-6'	<5						
		BL-1-SB-8'	<5	SILT; gray, saturated, poorly graded, trace woody debris (increase at 7'), sand grading from 7-8'.			5		
			<5						
			<5						
10			<5	Refusal at 8.0' BGS.			10		
						Boring Number: HP-6 Project Number: 32-22012832 Logged By: M. Strain Date: August 29, 2023 Site Conditions: Historic Piling Drilling Contractor: Gravity Marine Services Drilling Equipment: Vibracore Depth Below Water Surface: 5.5' No. of Attempts: 1/3 Core Recovery: 75% Boring Details and Notes:			
Depth in Feet	Core Interval/Recovery	Laboratory Sample ID	PID	Lithologic Description					
			<5	Sandy SILT; grayish black, saturated, fine-grained, poorly graded, low plasticity, wood debris, no macros, no odor, no sheen.					
			<5	SILT with sand; brownish-gray, saturated, trace organics, woody debris, intermittent organic bedding. Wood debris increases with depth. Silty SAND deposit at 7.2' to 7.5'.					
			<5						
5		HP-6-SB-3'	<5						
		HP-6-SB-5'	<5						
		HP-6-SB-7.5'	<5						
			<5						
10			<5	Refusal at 7.5' BGS.			10		
						Page 1/3			

 Apex Companies, LLC 801 NW 42nd Street, #204 Seattle, Washington 98107 Dagmars Marina Property - 1871 Ross Avenue Everett, Washington				Boring Number: MP-5 Project Number: 32-22012832 Logged By: M. Strain Date: August 29, 2023 Site Conditions: Marina Piling Drilling Contractor: Gravity Marine Services Drilling Equipment: Vibracore Depth Below Water Surface: 9' No. of Attempts: 0/3 (60%), 3/3 Core Recovery: 20% Boring Details and Notes:	
Depth in Feet	Core Interval/Recovery	Laboratory Sample ID	PID	Lithologic Description	
5		MP-5-SB-2'	<5	Silty SAND; saturated, well-graded, trace clamshells, no odor, no sheen. Gravel encountered at 1'.	 Silty SAND
10			<5	Refusal at 2.0' BGS.	
					Boring Number: MP-6 Project Number: 32-22012832 Logged By: M. Strain Date: August 30, 2023 Site Conditions: Historic Piling Drilling Contractor: Gravity Marine Services Drilling Equipment: Vibracore Depth Below Water Surface: 4' No. of Attempts: 1/1 Core Recovery: 50% Boring Details and Notes:
Depth in Feet	Core Interval/Recovery	Laboratory Sample ID	PID		
5		MP-6-SB-2' MP-6-SB-5'	<5	SILT with trace sand; dark gray, saturated, medium plasticity, trace organic pockets, woody debris (stringy), no odor, no sheen.	 SILT with SAND SILT Silty SAND
			<5	SILT; black, saturated, medium plasticity.	
			<5	Silty SAND; dark gray, saturated, well graded.	
10			<5	Refusal at 5.0' BGS.	

Surface Sediment Field Sample Record

Collection Date: 8-28 to 8-30

Date/Time Lab Drop Off: 8-31

Project Name: Dagmar Marina

Project No: _____

Station ID: _____

Sampling Crew: <u>Apex and Gravity</u>	Sampling Method: <u>Vibracore Van Veen Sampling technology</u>
Sampling Vessel: <u>Gravity, RV Ticton</u>	
Subcontractor(s): <u>Gravity</u>	
Station Coordinates: <u>N / Lat.</u>	Weather: <u>overcast</u>
<u>E / W / Long.</u>	
Datum: _____	Zone: _____

Sample ID: _____
Analysis: _____

Grab Number: HP-7-SS Water Depth: 10.7 Penetration/Sampled Depth: 12"/10cm Time: 17:00

Bioassay GPS: 48.007668 N, 122.17723609 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u> H2S	-no pid
gravel <u>silt w/ sand</u>	gray	slight Petroleum	-no sheen
sand C M F	black	moderate other:	-no organics
silt clay	brown	strong	-no macros
organic matter	brown surface	overwhelming	-1/3 attempts

Grab Number: HP-1-SS Water Depth: 0 Penetration/Sampled Depth: 12"/10cm Time: 1041

Chemistry GPS: 48.0105253 N, 122.1781223 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u> H2S	-medium plasticity
gravel <u>silt w/ traces of sand</u>	gray <u>dark-medium</u>	slight Petroleum	-no sheen
sand C M F	black <u>brown, trace</u>	moderate other:	-small clam
silt clay	brown <u>of organic</u>	strong	-trace macros
organic matter	brown surface	overwhelming	-1/3 attempts

Grab Number: HP-2-SS Water Depth: 0 Penetration/Sampled Depth: 12"/10cm Time: 1032

Chemistry GPS: collected by field staff, no GPS

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u> H2S	-no sheen
gravel <u>silt w/ sand</u>	gray <u>medium brown to red color</u>	slight Petroleum	-low plasticity
sand C M F	black	moderate other:	-trace woody
silt clay	brown	strong	-debris + shells
organic matter	brown surface	overwhelming	-1/3 attempts

Grab Number: OF-1-SS Water Depth: 0.5' Penetration/Sampled Depth: 12"/10cm Time: 10:50

Chemistry GPS: 48.0103638 N, 122.1779395 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u> H2S	-consistent woody and organic material
gravel <u>silt w/ trace sand</u>	gray <u>medium-dark brown</u>	slight Petroleum	-no sheen
sand C M F	black	moderate other:	-2/3 attempts
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Recorded by: Jasmine Haar + Molly Strain

Figure C-1
Sample Collection Form

Surface Sediment Field Sample Record

Collection Date: 8/28-30

Date/Time Lab Drop Off:

Project Name:

Project No:

Station ID:

Sampling Crew: <u>Apex</u>	Sampling Method: <u>Vibracore Van Veen Sampling technology</u>
Sampling Vessel: <u>DV Tieton</u>	
Subcontractor(s): <u>Gravity</u>	
Station Coordinates: N / Lat. _____	Weather: <u>Overcast</u>
E / W / Long. _____	
Datum: _____	Zone: _____

Sample ID: _____
Analysis: _____

Grab Number: MP-5-SS Water Depth: 14.1 Penetration/Sampled Depth: 12"/10cm Time: 15:14

Bioassay GPS: 48.01304783 N, 122.17996895 W ~~actual = 23.75" ms~~

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Sand w/ traces of silt

-3/3 attempts
-no sheen
-no PID
-no macro
-trace of woody debris

Grab Number: MP-6-SS Water Depth: 7.6 Penetration/Sampled Depth: 12"/10cm Time: 14:43

Chemistry GPS: 48.01375072 N, 122.18024603 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Silt w/ sand

-1/3 attempts
-no sheen
-no PID
-shell found
-trace of woody debris

Grab Number: HP-5-SS Water Depth: 12 Penetration/Sampled Depth: 12"/10cm Time: 16:06

Chemistry GPS: 48.0103278 N, 122.17822186 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Sand w/ silt

-3/3 attempts
-no sheen
-no PID
-trace of woody debris

Grab Number: HP-6-SS Water Depth: 10.9 Penetration/Sampled Depth: 12"/10cm Time: 16:56

Chemistry GPS: 48.00903445 N, 122.17751432 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Sandy silt w/ gravel

-1/3 attempts
-small patches of sheen possibly organic
-no PID
-no macros
-no organics

Recorded by: Jasmine Haar

Figure C-1
Sample Collection Form

Surface Sediment Field Sample Record

Collection Date: 8/28-30
Date/Time Lab Drop Off:

Project Name:

Project No:

Station ID:

Sampling Crew: Anders Utter, Molly Strain, Jasmine Haar
Sampling Vessel: RV Tieton Sampling Method: Vibracore Van Veen Sampling technology
Subcontractor(s): Gravity
Station Coordinates: N / Lat. _____ Weather: overcast
E / W / Long. _____
Datum: _____ Zone: _____

Sample ID: _____
Analysis: _____

Grab Number: RB-1-SS Water Depth: 17.4 Penetration/Sampled Depth: 12"/10cm Time: 14:53
Bioassay GPS: 48.01360048 N, 122.18067077 W 8/28/23

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Handwritten notes: Sand w/ trace silt, brown w/ tan, -No sheen, -PID=0.0, -woody debris, -No macros, -1/3 attempts

Grab Number: RB-2-SS Water Depth: 17.8 Penetration/Sampled Depth: 12"/10cm Time: 16:24
Chemistry GPS: 48.01026681 N, 122.17846348 W actual = 24.2" 8/28/23

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Handwritten notes: Sand w/ silt, medium brown w/ tan, -No sheen, -No organics, -No macros, -1/3 attempts

Grab Number: MP-2-SS Water Depth: 14.1 Penetration/Sampled Depth: 12"/10cm Time: 1550
Chemistry GPS: 48.01048437 N, 122.17830774 W actual 24.9 8/28/23

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Handwritten notes: Sand w/ silt, medium brown, -No sheen, -PID=0.0, -trace wood debris, -No macros, -1/3 attempts

Grab Number: MP-3-SS Water Depth: 18.2 Penetration/Sampled Depth: 12"/10cm Time: 1540
Chemistry GPS: 48.01086928 N, 122.17856318 W 8/28/23

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O.	<u>none</u>	H2S
gravel	gray	slight	Petroleum
sand C M F	black	moderate	other:
silt clay	brown	strong	
organic matter	brown surface	overwhelming	

Handwritten notes: Sand w/ silt, medium brown w/ tan, PID=0.0, No sheen, Trace organic, Trace macro (crawdad), -1/3 attempts

Recorded by: Molly Strain

Figure C-1
Sample Collection Form

Surface Sediment Field Sample Record

Collection Date: 8/28/23

Date/Time Lab Drop Off:

Project Name:

Project No:

Station ID:

Sampling Crew: <u>Anders Utter, Molly Strain, Jasmine Haan, Corey Stout</u>	
Sampling Vessel: <u>Gravity Sampling Vessel</u>	Sampling Method: <u>Hand/Van Veen Sampling technology</u>
Subcontractor(s): <u>Gravity</u> <u>RV Ticton</u>	
Station Coordinates: N / Lat. _____	
E / W / Long. _____	
Weather: <u>cloudy</u>	
Datum: _____	Zone: _____

Sample ID: _____

Analysis:

Grab Number: BL-1-SS Water Depth: 8.4" Penetration/Sampled Depth: 12"/10cm Time: 12:38
8/28/23
 Bioassay GPS: 48.01187736 N, 122.17894392 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O. <u>dark brown</u>	<u>none</u> H2S	- trace macro
gravel	gray	slight Petroleum	- trace organics
sand C M F	black	moderate other:	- No sheen
<u>silt</u> clay	brown	strong	- PID = 0.0
organic matter	brown surface	overwhelming	- 1/3 attempts

Grab Number: BL-2-SS Water Depth: 9.0 Penetration/Sampled Depth: 12"/10cm Time: 13:10
8/28/23
 Chemistry Silt w/ trace sand, trace macro, organic, and woody debris

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O. <u>greenish brown</u>	<u>none</u> H2S	No sheen
gravel	gray	<u>slight</u> Petroleum	PID = 0.0
sand C M F	black	moderate other:	1/3 attempts
<u>silt</u> clay	brown	strong <u>fishy</u>	
organic matter	brown surface	overwhelming	

Grab Number: BL-4-SS Water Depth: 14.1 Penetration/Sampled Depth: 12"/10cm Time: 13:33
8/28/23
 Chemistry organic GW: 48.01198736 N, 122.17924567 W

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O. <u>brownish tan</u>	<u>none</u> H2S	woody
gravel	gray	<u>slight</u> Petroleum	- organic material
sand C M F	black	moderate other:	1/3 attempts
silt clay	brown	strong <u>fishy</u>	- no macros
organic matter	brown surface	overwhelming	- No sheen

Grab Number: BL-3-SS Water Depth: 13.1 Penetration/Sampled Depth: 12"/10cm Time: 12:55
8/28/23
 Chemistry Sand w/ trace silt, trace organic, no debris

Sediment Type:	Sediment Color:	Sediment Odor:	Comments:
cobble	D.O. <u>brownish tan</u>	<u>none</u> H2S	no sheen
gravel	gray	slight Petroleum	- PID = 0.0
sand C M F	black	moderate other:	1/3 attempts
silt clay	<u>brownish tan</u>	strong	
organic matter	brown surface	overwhelming	

Recorded by: Molly Strain

Figure C-1
Sample Collection Form

Appendix C

Photolog

Photograph: 01
Description: Sample locations HP-1 through HP-4. Photo taken while tide was rising. Photo direction: North



Photograph: 02
Description: Sample location HP-2. Photo taken during low tide. Photo direction: East



Photograph: 03
Description: Sample locations HP-8 and OF-1. Photo taken during low tide. Photo direction: Northwest



Photograph: 04
Description: Sample location
OF-1 where
channel flows in
the river. Photo
direction:
Northwest.



Photograph: 05
Description: Sample location
HP-8 adjacent to
historic pilings.
Photo direction:
West



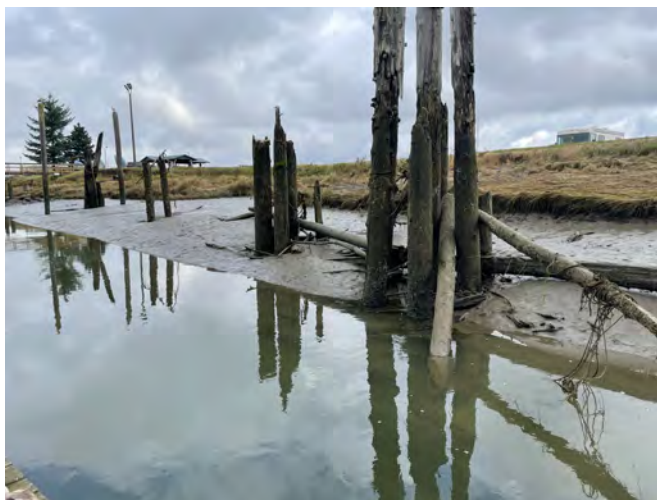
Photograph: 06
Description: Sample location
OF-1. Photo
direction: West.



Photograph: 07
Description: Sample location
HP-1 collected by
hand during low tide.
Photo direction:
Northwest.



Photograph: 08
Description: Historical pilings
during low tide
between shoreline
and southern
docks of marina.
Photo direction:
Northeast.



Photograph: 09
Description: Historical pilings
during low tide near
sample location
OF-1 and HP-8.
Photo direction:
South.



Photograph: 10
Description: Sample location MP-6. Vibracore sampling. Photo direction: North.



Photograph: 11
Description: Sample location BL-1. Vibracore sampling during low tide. Photo direction: West.



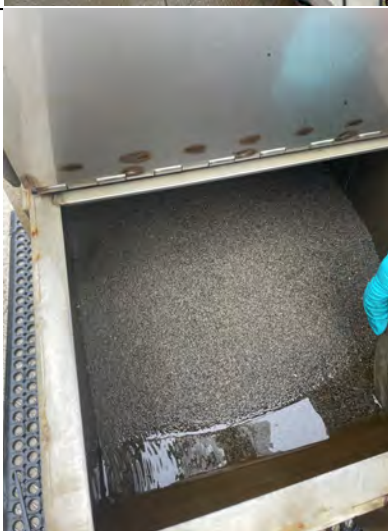
Photograph: 12
Description: Woody debris at boat launch during low tide. Photo direction: North.



Photograph: 13
Description: Sample location
HP-7-SS during
high tide Photo
direction: West



Photograph: 14
Description: Sampling
location BL-3-
SS.



Photograph: 15
Description: Sampling
location BL-1-
SS.



Photograph: 16
Description: Sample location MP-4-SS.
Refusal on first attempt
due to large woody debris



Photograph: 17
Description: Vibracore
processing for
sample
location BL-1



Photograph: 18
Description: Sample location HP-7.
Embedded woody
debris during
Vibracore processing.



Appendix D

Laboratory Data Reports and Quality Assurance Review

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

1.0 Introduction

This appendix documents the results of a quality assurance (QA) review of the analytical data for sediment sampling at Dagmars Marina in Everett, Washington in support of Washington Department of Ecology's (Ecology) request for additional sediment characterization at the Site.

Report	Report Date	Sampling Event
2308437	October 6, 2023	August 2023 Sampling Event
23I0015	October 5, 2023	August 2023 Sampling Event
23I0030	October 19, 2023	August 2023 Sampling Event

The data reviewed herein are representative of sediment samples collected at Dagmars Marina in Everett, Washington. The data quality was assessed in accordance with the procedures outlined in the National Functional Guidelines for Organic and Inorganic Superfund Methods Data Review. The samples were sent to Fremont Analytical in Seattle, Washington for analysis of Ammonia by SM 4500 NH3 E, Diesel and Heavy Oil by NWTPH-Dx/Dx Ext., Grain Size by ASTM D422, Polyaromatic Hydrocarbons by EPA Method 8270 (SIM), Percent Moisture, Semivolatile Organic Compounds by EPA Method 8270E, Total Metals by EPA Method 6020B, Total Organic Carbon by EPA 9060, and Total Volatile Solids by SM 2540. Fremont Analytical subcontracted the Butyl Tins by EPA Method 8270E-SIM, Total Solids, Sulfide by PSEP 1986 and Sulfide by SM 4500-S2 D analyses to Analytical Resources, LLC in Tukwila, Washington LLC. 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.

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

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.

J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.

3.0 Analytical Methods

Sediment samples were analyzed for:

- Ammonia by Standard Method (SM) 4500 NH3 E
- Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
- Grain Size by ASTM D422
- Polyaromatic Hydrocarbons by Environmental Protection Agency (EPA) Method 8270 (SIM)
- Percent Moisture,
- Semivolatile Organic Compounds by EPA Method 8270E
- Total Metals by EPA Method 6020B
- Total Organic Carbon by EPA 9060
- Total Volatile Solids by SM 2540
- Total Solids, Sulfide by Puget Sound Estuary Program (PSEP) 1986
- Sulfide by SM 4500-S2 D
- Butyl Tins by EPA 8270E-SIM

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

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 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 sediment samples included in this QA/QC review were analyzed within the method recommended holding time with the exception of:

- Samples MP-2-SS, MP-3-SS, MP-5-SS, MP-6-SS, HP-5-SS, HP-6-SS and HP-7-SS were analyzed for Sulfide by SM 4500-S2 D beyond the EPA-recommended holding time for unpreserved samples.

The samples analyzed for butyl tins were initially run within holding time, but required re-extraction/analysis due to low surrogate recovery for sample: BL-1-SB-4 and BL-4-SS. The samples were re-extracted and analyzed beyond the EPA-recommended holding time. The results from the reanalysis should be included in the report and are considered estimated with a low bias due to the holding time violation.

The non-detect sulfide results reported for samples MP-2-SS, MP-3-SS, MP-5-SS, MP-6-SS, HP-5-SS, HP-6-SS and HP-7-SS were flagged 'UJ' and should be considered estimated with a low bias due to being analyzed outside the recommended holding time.

The non-detect butyltin results for samples BL-1-SB-4 and BL-4-SS have been qualified as 'UJ' to indicate the analytes were analyzed for but not detected and the reported quantitation limits should be considered approximate and may be inaccurate due to the re-extraction and reanalysis beyond the EPA recommended holding time after a low surrogate recovery was reported in the initial analysis.

The detections for butyltins reported for samples BL-1-SB-4 and BL-4-SS should be considered estimated with a low bias due to the re-extraction and reanalysis beyond the EPA recommended holding time after a low surrogate recovery was reported in the initial analysis.

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

Due to laboratory error during the sample login process, multiple containers of samples OF-1-SS and OF-1-SB-4 were logged in and analyzed as separate samples resulting in multiple data sets being reported for the butyltins analysis. The results from the higher run were included in the report for sample OF-1-SS. The reported results for both of the data sets are provided in the lab report for sample OF-1-SB-4 were ND.

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. Minor discrepancies were found between container labels and the chain of custody received. The samples were logged in using the information contained on the chain of custody record.

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. 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. Dilutions were performed when the initial analytical results exceeded the calibration range of the instrument resulting in elevated reporting limits.

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.

All method blanks are within method limits and do not contain any flags that suggest results may be biased high or low.

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.

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

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 or Matrix Spike Sample (MS) and Matrix Spike Duplicate (PSD) samples 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.

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. All surrogate recoveries were within control limits, with the exception of:

- Low surrogate recovery was reported for DRO/TPH/Heavy Oil analysis of sample OF-1-SB-4'
- Low surrogate recovery was reported for the PAH 8270 SIM and SVOCs by 8270 analyses of sample OF-1-SS.
- Low surrogate recovery was reported for one of the butyltin analyses of sample OF1-SS, the reported results should be considered estimated with a low bias.

Based on the low surrogate recoveries, the reported results for butyltin for sample OF-1-SS, DRO/TPH/Heavy Oil for samples OF-1-SB-4' and for PAH 8270 SIM and SVOCs by 8270 for sample OF-1-SS are qualified as estimated, with a low bias. The detected results have been flagged at J- and the non-detect results have been flagged as UJ.

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 environmental sample concentration. This comparison is expressed as a percent recovery. Matrix spike recoveries were within control limits, with the exception of:

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

- High recovery was reported in the matrix spike duplicate for Diesel and Heavy Oil by NWTPH-Dx/Dx Ext. analysis of sample HP-7-SB-3'. The associated results reported for HP-7-SB-3' were non-detect; therefore, the data are not impacted.
- Low recoveries were report for the matrix spike duplicate for Sulfide by SM 4500-S2 D-00 (PSEP) of sample BL-1-SS. Sulfide was not detected in sample BL-1-SS.
- Low recovery for the butyltin ion was reported for the matrix spike samples of sample BL-4-SS.

The non-detect result for sulfide in sample BL-1-SS has been flagged 'UJ' due to low matrix spike recovery.

The result for the butyltin ion in sample BL-4-SS should be considered estimated 'J-' with a low bias.

4.4.4 Continuing Calibration Verification

Calibration verification samples are analyzed at method-specified intervals to assess the performance and accuracy of the instrumentation. The laboratory reported the continuing calibration verification for all samples were within calibration limits.

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.

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 with the following exception:

Appendix D – Laboratory Reports and Quality Assurance/Quality Assurance Review

- High RPD for the butyltin ion was reported for the matrix spike samples of sample BL-4-SS.

The result for butyltin in sample BL-4-SS was previously qualified as estimated for low matrix spike recovery as noted above.

4.5.3 Field Duplicate

A field duplicate is a second field sample collected from a selected sample location. Field duplicate samples serve as a check on laboratory precision and sampling quality, as well as potential variability of the sample matrix. The field duplicate is analyzed and compared to the original sample to assess precision. This comparison can be expressed by the RPD between the original and duplicate samples. Only detections five times greater than the reporting limit are controlled and used for quality control purposes. Field duplicates were collected for sediment samples and RPDs were within the 30% control limit.

5.0 Conclusion

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



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

19 October 2023

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

RE: TBT in sediments (TBT in sediments)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
23I0030

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Kelly Bottem, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: 12310030		Turn-around Requested: Standard		Date: 8/31/23	
AR Client Company: Apex Companies LLC		Phone:		Page: 1 of 1	
Client Contact: Anders Utter		No. of Coolers: 1		Cooler Temps: 5.4	
Client Project Name: Dagmar Marina		Analysis Requested			
Client Project #:					
Samplers: Molly Strain + Jasmine Haar		Notes/Comments: Analyze for tert, tri, di, and monobutyltin			
Sample ID	Date	Time	Matrix	No. Containers	organo-metallic B2-B-Sim
B2-1-SS	8-28	1238	SD	1	X
B2-2-SS	↓	1310	↓	1	X
B2-3-SS	↓	1255 1210	SD	1	X
B2-4-SS	↓	1333	↓	1	X
B2-1-SB-4'	8-29	1120	↓	1	X
B2-1-SB-6'	↓	1122	↓	1	X
B2-1-SB-8'	↓	1125	↓	1	X
OF-1-SS	8-30	1030	↓	2	X
OF-1-SB-4	↓	1722	↓	2	X
Comments/Special Instructions					
Relinquished by: (Signature) <i>[Signature]</i>		Received by: (Signature) <i>[Signature]</i>		Relinquished by: (Signature)	
Printed Name: Molly Strain		Printed Name: Jacob Walte		Printed Name:	
Company: Apex		Company: AR LLC		Company:	
Date & Time: 8/31/23 13:47 13:30		Date & Time: 8/31/23 1347		Date & Time:	



Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Limits of Liability: Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hard copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.

Chain of Custody Record & Laboratory Analysis Request

AR Assigned Number: **23IU030**

Turn-around Requested: **Standard**

AR Client Company: **Apex Companies LLC**

Client Contact: **Anders Utter**

Client Project Name: **Dagmar Marina**

Client Project #:

Date: **8/31/23**

Page: **1** of **1**

No. of Coolers: **1**

Cooler Temps:



Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6202 (fax)

Sample ID	Date	Time	Matrix	No. Containers	organo-metallic	8270-SIM	Analysis Requested								Notes/Comments
BZ-1-SS	8-28	1238	SD	1	X										Analyze for tert, tri, di, and monobutyltin
BL-2-SS		1310	↓	1	X										
BL-3-SS		1255	SD	1	X										
BL-4-SS		1333		1	X										
BL-1-SB-4'	8-29	1120		1	X										
BL-1-SB-6'		1122		1	X										
BL-1-SB-8'		1125		1	X										Archive
OF-1-SS	8-30	1030		2	X										Archive
OF-1-SB-4		1722	↓	2	X										

Comments/Special Instructions

Relinquished by:
(Signature) *[Signature]*
Printed Name: **Molly Strain**
Company: **Apex**
Date & Time: **8/31/23 13:30**

Received by:
(Signature)
Printed Name:
Company:
Date & Time:

Relinquished by:
(Signature)
Printed Name:
Company:
Date & Time:

Received by:
(Signature)
Printed Name:
Company:
Date & Time:

Limit of Liability: Analytical Resources, LLC (AR) will perform all requested services in accordance with appropriate methodology following AR Standard Operating Procedures and the AR Quality Assurance Program. This program meets standards for the industry. The total liability of AR, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by AR release AR from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between AR and the Client.

Sample Retention Policy: Unless specified by work order or contract, all water/soil samples submitted to AR will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission and copy data, whichever is longer. Sediment samples submitted under PSDDA/PSEP/SMS protocol will be stored frozen for up to one year and then discarded.



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BL-1-SS	23I0030-01	Solid	28-Aug-2023 12:38	31-Aug-2023 13:47
BL-2-SS	23I0030-02	Solid	28-Aug-2023 13:10	31-Aug-2023 13:47
BL-3-SS	23I0030-03	Solid	28-Aug-2023 12:55	31-Aug-2023 13:47
BL-4-SS	23I0030-04	Solid	28-Aug-2023 13:33	31-Aug-2023 13:47
BL-1-SB-4	23I0030-05	Solid	29-Aug-2023 11:20	31-Aug-2023 13:47
OF-1-SS	23I0030-08	Solid	30-Aug-2023 10:30	31-Aug-2023 13:47
OF-1-SS	23I0030-09	Solid	30-Aug-2023 10:30	31-Aug-2023 13:47
OF-1-SB-4	23I0030-10	Solid	30-Aug-2023 17:22	31-Aug-2023 13:47
OF-1-SB-4	23I0030-11	Solid	30-Aug-2023 17:22	31-Aug-2023 13:47



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

Work Order Case Narrative

Butyl Tin(s) - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times with the exception of the re-extracted samples 23I0030-04 and 05. The samples were originally extracted within the holding time and re-extracted outside of the holding time due to low surrogate recoveries.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits with the exception of surrogates flagged on the associated forms. The samples 23I0030-04 and 05 were re-extracted for low surrogate recoveries.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits with the exception of analytes flagged on the associated forms.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits with the exception of analytes flagged on the associated forms.



WORK ORDER

23I0030

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: APEX Companies LLC

Project Manager: Kelly Bottem

Project: TBT in sediments

Project Number: TBT in sediments

Report To:

APEX Companies LLC

Anders Utter

3015 SW 1st Ave

Portland, OR 97201

Phone: (503) 924-4704

Fax:

Invoice To:

APEX Companies LLC

Anders Utter

3015 SW 1st Ave

Portland, OR 97201

Phone : (503) 924-4704

Fax:

Date Due: 14-Sep-2023 18:00 (10 day TAT)

Received By: Jacob Walter

Date Received: 31-Aug-2023 13:47

Logged In By: Sean Rahman

Date Logged In: 04-Sep-2023 09:46

Samples Received at: 5.4°C

Intact, properly signed and dated custody seals attached to outside of cooler(s).....No
Custody papers properly filled out(in, signed, analyses requested, etc).....Yes
Was sufficient ice used (if appropriate).....Yes
All bottles arrived in good condition(unbroken).....Yes
Number of containers listed on COC match number received.....Yes
Correct bottles used for the requested analyses.....Yes
Analyses/bottles require preservation (attach preservation sheet excluding VOC).....No
Sample split at ARL.....No

Custody papers included with the cooler..... Yes
Was a temperature blank included in the cooler..... No
All bottles sealed in individual plastic bags..... No
All bottle labels complete and legible..... Yes
Bottle labels and tags agree with COC..... Yes
All VOC vials free of air bubbles..... No
Sufficient amount of sample sent in each bottle..... Yes

Analysis	Due	TAT	Expires	Comments
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WORK ORDER

23I0030

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: APEX Companies LLC

Project Manager: Kelly Bottem

Project: TBT in sediments

Project Number: TBT in sediments

Analysis	Due	TAT	Expires	Comments
23I0030-01 BL-1-SS [Solid] Sampled 28-Aug-2023 12:38 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	25-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
23I0030-02 BL-2-SS [Solid] Sampled 28-Aug-2023 13:10 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	25-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
23I0030-03 BL-3-SS [Solid] Sampled 28-Aug-2023 12:55 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	25-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
23I0030-04 BL-4-SS [Solid] Sampled 28-Aug-2023 13:33 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	25-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	11-Sep-2023 23:59	
23I0030-05 BL-1-SB-4 [Solid] Sampled 29-Aug-2023 11:20 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	12-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	26-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	12-Sep-2023 23:59	
23I0030-06 BL-1-SB-6 [Solid] Sampled 29-Aug-2023 11:22 (GMT-08:00) Pacific Time (US & Canada)				
<i>A = Glass WM, Clear, 8 oz</i>				
Hold Sample (No Analysis)	14-Sep-2023 15:00	10	28-Aug-2024 11:22	



WORK ORDER

2310030

Samples will be discarded 90 days after submission of a final report unless other instructions are received

Client: APEX Companies LLC

Project Manager: Kelly Bottem

Project: TBT in sediments

Project Number: TBT in sediments

Analysis	Due	TAT	Expires	Comments
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2310030-07 BL-1-SB-8 [Solid] Sampled 29-Aug-2023 11:25 (GMT-08:00) Pacific Time (US & Canada)

A = Glass W/M, Clear, 8 oz

Hold Sample (No Analysis)	14-Sep-2023 15:00	10	28-Aug-2024 11:25	
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2310030-08 OF-1-SS [Solid] Sampled 30-Aug-2023 10:30 (GMT-08:00) Pacific Time (US & Canada)

A = Glass W/M, Clear, 4 oz

8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	13-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	27-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	13-Sep-2023 23:59	

2310030-09 OF-1-SS [Solid] Sampled 30-Aug-2023 10:30 (GMT-08:00) Pacific Time (US & Canada)

A = Glass W/M, Clear, 4 oz

8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	13-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	27-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	13-Sep-2023 23:59	

2310030-10 OF-1-SB-4 [Solid] Sampled 30-Aug-2023 17:22 (GMT-08:00) Pacific Time (US & Canada)

A = Glass W/M, Clear, 4 oz

8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	13-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	27-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	13-Sep-2023 23:59	

2310030-11 OF-1-SB-4 [Solid] Sampled 30-Aug-2023 17:22 (GMT-08:00) Pacific Time (US & Canada)

A = Glass W/M, Clear, 4 oz

8270E-SIM Butyl Tins	14-Sep-2023 15:00	10	13-Sep-2023 23:59	
Solids, Total, Dried at 103 -105 °C, Soli	14-Sep-2023 15:00	10	27-Sep-2023 23:59	cancel this test
Solids, Total, PSEP (Extractions)	14-Sep-2023 15:00	10	13-Sep-2023 23:59	

Reviewed By

Date

Page 3 of 3



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex Companies

COC No(s): _____ (NA)

Assigned ARI Job No: 23I0030

Project Name: Deeymar Member

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? _____

YES NO

Were custody papers included with the cooler? _____

YES NO

Were custody papers properly filled out (ink, signed, etc.) _____

YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1347

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 3009708

Cooler Accepted by: SR

Date: 08/31/23

Time: 1347

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? _____

YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? _____

NA YES NO

How were bottles sealed in plastic bags? _____

Individually Grouped Not

Did all bottles arrive in good condition (unbroken)? _____

YES NO

Were all bottle labels complete and legible? _____

YES NO

Did the number of containers listed on COC match with the number of containers received? _____

YES NO

Did all bottle labels and tags agree with custody papers? _____

YES NO

Were all bottles used correct for the requested analyses? _____

YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...

NA YES NO

Were all VOC vials free of air bubbles? _____

NA YES NO

Was sufficient amount of sample sent in each bottle? _____

YES NO

Date VOC Trip Blank was made at ARI: _____

NA YES NO

Were the sample(s) split by ARI? NA

YES

Date/Time: _____

Equipment: _____

Split by: _____

Samples Logged by: SR

Date: 9-4-23

Time: 9:46

Labels checked by: _____

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Sample ID OF-1-55
listed sample time as 10:30 on COC
and 10:50 on sample labels, COC time was
used

By: SR

Date: 9-4-23



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-1-SS
23I0030-01 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/28/2023 12:38

Analyzed: 09/25/2023 15:43

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 7.65 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-01 A 01

Dry Weight: 5.02 g

% Solids: 65.57

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-01 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.449	3.85	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.72	5.76	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.88	4.07	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	4.98	4.98	ND	ug/kg	U
Surrogate: Triphenyltin				30-160 %	66.2	%	
Surrogate: Tripropyltin				30-160 %	64.2	%	



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-2-SS
23I0030-02 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/28/2023 13:10

Analyzed: 09/25/2023 16:00

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 6.99 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-02 A 01

Dry Weight: 5.00 g

% Solids: 71.58

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-02 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.450	3.86	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.78	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.08	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	5.00	5.00	ND	ug/kg	U
Surrogate: Tripentyltin					30-160 %	67.0	%
Surrogate: Tripropyltin					30-160 %	65.3	%



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-3-SS
23I0030-03 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/28/2023 12:55

Analyzed: 09/25/2023 16:18

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 6.3 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-03 A 01

Dry Weight: 5.05 g

% Solids: 80.11

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-03 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.446	3.82	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.71	5.73	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.87	4.04	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	4.95	4.95	ND	ug/kg	U
Surrogate: Tripentyltin					30-160 %	64.2	%
Surrogate: Tripropyltin					30-160 %	68.8	%



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-4-SS
23I0030-04 (Solid)

Butyl Tins

Method: EPA 8270E-SIM			Sampled: 08/28/2023 13:33		
Instrument: NT12 Analyst: JZ			Analyzed: 09/25/2023 16:35		
Sample Preparation:	Preparation Method: EPA 3546 (Microwave)			Extract ID: 23I0030-04 A 01	
	Preparation Batch: BLI0134	Sample Size: 6.22 g (wet)		Dry Weight: 5.01 g	
	Prepared: 09/08/2023	Final Volume: 0.5 mL		% Solids: 80.52	
Sample Cleanup:	Cleanup Method: Silica Gel			Extract ID: 23I0030-04 A 01	
	Cleanup Batch: CLI0143	Initial Volume: 0.5 uL			
	Cleaned: 21-Sep-2023	Final Volume: 0.5 uL			

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.449	3.85	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.77	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.07	6.14	ug/kg	
Tetrabutyltin	1461-25-2	1	4.99	4.99	ND	ug/kg	U
<i>Surrogate: Triphenyltin</i>				30-160 %	90.0	%	
<i>Surrogate: Tripropyltin</i>				30-160 %		%	*, U



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-4-SS
23I0030-04RE1 (Solid)

Butyl Tins

Method: EPA 8270E-SIM

Sampled: 08/28/2023 13:33

Instrument: NT12 Analyst: JZ

Analyzed: 10/18/2023 16:22

Sample Preparation:

Preparation Method: EPA 3546 (Microwave)

Extract ID: 23I0030-04RE1 A 02

Preparation Batch: BLJ0012

Sample Size: 5 g (wet)

Dry Weight: 4.03 g

Prepared: 10/06/2023

Final Volume: 0.5 mL

% Solids: 80.52

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.559	4.79	ND	ug/kg	H, U
Dibutyltin Ion	14488-53-0	1	2.15	7.18	ND	ug/kg	H, U
Butyltin Ion	78763-54-9	1	2.35	5.07	ND	ug/kg	H, U
Tetrabutyltin	1461-25-2	1	6.21	6.21	ND	ug/kg	H, U
Surrogate: Triphenyltin				30-160 %	92.6	%	H
Surrogate: Tripropyltin				30-160 %	81.3	%	H



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-1-SB-4
23I0030-05 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/29/2023 11:20

Analyzed: 09/25/2023 17:28

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 6.63 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-05 A 01

Dry Weight: 5.01 g

% Solids: 75.54

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-05 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.449	3.85	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.77	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.07	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	4.99	4.99	ND	ug/kg	U
Surrogate: Tripentyltin				30-160 %	86.3	%	
Surrogate: Tripropyltin				30-160 %		%	*, U



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

BL-1-SB-4
23I0030-05RE1 (Solid)

Butyl Tins

Method: EPA 8270E-SIM

Sampled: 08/29/2023 11:20

Instrument: NT12 Analyst: JZ

Analyzed: 10/18/2023 16:39

Sample Preparation:

Preparation Method: EPA 3546 (Microwave)

Extract ID: 23I0030-05RE1 A 02

Preparation Batch: BLJ0012

Sample Size: 5 g (wet)

Dry Weight: 3.78 g

Prepared: 10/06/2023

Final Volume: 0.5 mL

% Solids: 75.54

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.596	5.11	4.03	ug/kg	H, J
Dibutyltin Ion	14488-53-0	1	2.29	7.65	ND	ug/kg	H, U
Butyltin Ion	78763-54-9	1	2.50	5.40	ND	ug/kg	H, U
Tetrabutyltin	1461-25-2	1	6.62	6.62	ND	ug/kg	H, U
<i>Surrogate: Triphenyltin</i>				30-160 %	105	%	H
<i>Surrogate: Tripropyltin</i>				30-160 %	79.1	%	H



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

OF-1-SS
23I0030-08 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/30/2023 10:30

Analyzed: 09/25/2023 17:46

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 8.85 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-08 A 01

Dry Weight: 5.01 g

% Solids: 56.60

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-08 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.449	3.85	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.77	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.07	2.45	ug/kg	J
Tetrabutyltin	1461-25-2	1	4.99	4.99	ND	ug/kg	U
Surrogate: Tripentyltin					30-160 %	64.0	%
Surrogate: Tripropyltin					30-160 %	60.7	%



APEX Companies LLC
3015 SW 1st Ave
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Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

OF-1-SS
23I0030-09 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/30/2023 10:30

Analyzed: 09/25/2023 18:03

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 8.46 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-09 A 01

Dry Weight: 5.00 g

% Solids: 59.11

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-09 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.450	3.86	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.78	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.08	3.44	ug/kg	J
Tetrabutyltin	1461-25-2	1	5.00	5.00	ND	ug/kg	U
Surrogate: Tripentyltin					30-160 %	30.1	%
Surrogate: Tripropyltin					30-160 %	26.6	% *



APEX Companies LLC
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Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

OF-1-SB-4
23I0030-10 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/30/2023 17:22

Analyzed: 09/25/2023 18:21

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 7.91 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-10 A 01

Dry Weight: 5.00 g

% Solids: 63.21

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-10 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.450	3.86	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.78	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.08	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	5.00	5.00	ND	ug/kg	U
Surrogate: Tripentyltin				30-160 %	47.8	%	
Surrogate: Tripropyltin				30-160 %	47.8	%	



APEX Companies LLC
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Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

OF-1-SB-4
23I0030-11 (Solid)

Butyl Tins

Method: EPA 8270E-SIM
Instrument: NT12 Analyst: JZ

Sampled: 08/30/2023 17:22

Analyzed: 09/25/2023 18:38

Sample Preparation: Preparation Method: EPA 3546 (Microwave)
Preparation Batch: BLI0134 Sample Size: 7.92 g (wet)
Prepared: 09/08/2023 Final Volume: 0.5 mL

Extract ID: 23I0030-11 A 01

Dry Weight: 5.01 g

% Solids: 63.23

Sample Cleanup: Cleanup Method: Silica Gel
Cleanup Batch: CLI0143 Initial Volume: 0.5 uL
Cleaned: 21-Sep-2023 Final Volume: 0.5 uL

Extract ID: 23I0030-11 A 01

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Tributyltin Ion	36643-28-4	1	0.449	3.85	ND	ug/kg	U
Dibutyltin Ion	14488-53-0	1	1.73	5.77	ND	ug/kg	U
Butyltin Ion	78763-54-9	1	1.89	4.07	ND	ug/kg	U
Tetrabutyltin	1461-25-2	1	4.99	4.99	ND	ug/kg	U
Surrogate: Tripentyltin					30-160 %	48.7	%
Surrogate: Tripropyltin					30-160 %	42.7	%



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3015 SW 1st Ave
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Reported:
19-Oct-2023 11:54

Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLI0134-BLK1)											
Prepared: 08-Sep-2023 Analyzed: 25-Sep-2023 14:50											
Tributyltin Ion	ND	0.450	3.86	ug/kg							U
Dibutyltin Ion	ND	1.73	5.78	ug/kg							U
Butyltin Ion	ND	1.89	4.08	ug/kg							U
Tetrabutyltin	ND	5.00	5.00	ug/kg							U
Surrogate: Triphenyltin	37.8			ug/kg	45.2		83.6	30-160			
Surrogate: Tripropyltin	37.0			ug/kg	43.7		84.5	30-160			



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Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
LCS (BLI0134-BS1)					Prepared: 08-Sep-2023 Analyzed: 25-Sep-2023 15:07					
Tributyltin Ion	29.4	0.450	3.86	ug/kg	44.6		66.1	30-160		
Dibutyltin Ion	21.3	1.73	5.78	ug/kg	38.4		55.6	30-160		
Butyltin Ion	17.7	1.89	4.08	ug/kg	31.2		56.7	30-160		
Surrogate: Triphenyltin	33.5			ug/kg	45.2		74.1	30-160		
Surrogate: Tripropyltin	29.1			ug/kg	43.7		66.5	30-160		



APEX Companies LLC
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Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BLI0134-BSD1)						Prepared: 08-Sep-2023 Analyzed: 25-Sep-2023 15:25					
Tributyltin Ion	41.0	0.450	3.86	ug/kg	44.6		92.0	30-160	32.80	30	*
Dibutyltin Ion	26.8	1.73	5.78	ug/kg	38.4		69.9	30-160	22.80	30	
Butyltin Ion	22.5	1.89	4.08	ug/kg	31.2		72.3	30-160	24.10	30	
Surrogate: Triphenyltin	39.1			ug/kg	45.2		86.6	30-160			
Surrogate: Tripropyltin	37.2			ug/kg	43.7		85.1	30-160			



APEX Companies LLC
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19-Oct-2023 11:54

Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLI0134-MS1)		Source: 23I0030-04		Prepared: 08-Sep-2023 Analyzed: 25-Sep-2023 16:53							
Tributyltin Ion	53.1	0.559	4.79	ug/kg	55.3	ND	96.0	30-160			
Dibutyltin Ion	20.1	2.15	7.18	ug/kg	47.6	ND	42.1	30-160			
Butyltin Ion	11.0	2.35	5.07	ug/kg	38.7	6.14	12.6	30-160			*
Surrogate: Triphenyltin	44.9			ug/kg	56.1	40.6	79.9	30-160			
Surrogate: Tripropyltin	0.00			ug/kg	54.3	0.00	0.0 %	30-160			U

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BLI0134-MSD1)		Source: 23I0030-04		Prepared: 08-Sep-2023 Analyzed: 25-Sep-2023 17:11							
Tributyltin Ion	36.5	0.559	4.79	ug/kg	55.3	ND	65.9	30-160	37.10	30	*
Dibutyltin Ion	28.5	2.15	7.18	ug/kg	47.6	ND	59.8	30-160	34.80	30	*
Butyltin Ion	14.7	2.35	5.07	ug/kg	38.7	6.14	22.2	30-160	28.80	30	*
Surrogate: Triphenyltin	60.3			ug/kg	56.1	40.6	108	30-160			
Surrogate: Tripropyltin	0.00			ug/kg	54.3	0.00	0.0 %	30-160			*, U

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



APEX Companies LLC
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Project: TBT in sediments
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19-Oct-2023 11:54

Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLI0134 - EPA 8270E-SIM

Butyl Tins - Quality Control

Batch BLJ0012 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BLJ0012-BLK1)					Prepared: 06-Oct-2023 Analyzed: 18-Oct-2023 15:30					
Tributyltin Ion	ND	0.450	3.86	ug/kg						U
Dibutyltin Ion	ND	1.73	5.78	ug/kg						U
Butyltin Ion	ND	1.89	4.08	ug/kg						U
Tetrabutyltin	ND	5.00	5.00	ug/kg						U
Surrogate: Triphenyltin	48.5			ug/kg	45.2		107	30-160		
Surrogate: Tripropyltin	51.3			ug/kg	43.7		117	30-160		



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19-Oct-2023 11:54

Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLJ0012 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BLJ0012-BS1)						Prepared: 06-Oct-2023 Analyzed: 18-Oct-2023 15:47					
Tributyltin Ion	49.5	0.450	3.86	ug/kg	44.6		111	30-160			
Dibutyltin Ion	30.7	1.73	5.78	ug/kg	38.4		80.1	30-160			
Butyltin Ion	25.8	1.89	4.08	ug/kg	31.2		82.7	30-160			
Surrogate: Triphenyltin	48.0			ug/kg	45.2		106	30-160			
Surrogate: Tripropyltin	46.0			ug/kg	43.7		105	30-160			



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Analysis by: Analytical Resources, LLC

Butyl Tins - Quality Control

Batch BLJ0012 - EPA 8270E-SIM

Instrument: NT12 Analyst: JZ

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BLJ0012-BSD1)						Prepared: 06-Oct-2023 Analyzed: 18-Oct-2023 16:04					
Tributyltin Ion	47.1	0.450	3.86	ug/kg	44.6		106	30-160	5.08	30	
Dibutyltin Ion	32.5	1.73	5.78	ug/kg	38.4		84.7	30-160	5.61	30	
Butyltin Ion	25.6	1.89	4.08	ug/kg	31.2		82.1	30-160	0.82	30	
Surrogate: Triphenyltin	49.7			ug/kg	45.2		110	30-160			
Surrogate: Tripropyltin	42.9			ug/kg	43.7		98.1	30-160			



APEX Companies LLC
3015 SW 1st Ave
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Project: TBT in sediments
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Reported:
19-Oct-2023 11:54

Certified Analyses included in this Report

Analyte	Certifications
EPA 8270E-SIM in Solid	
Tributyltin Ion	WADOE, DoD-ELAP, NELAP
Dibutyltin Ion	WADOE, DoD-ELAP, NELAP
Butyltin Ion	WADOE, NELAP
Tetrabutyltin	NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024



APEX Companies LLC
3015 SW 1st Ave
Portland OR, 97201

Project: TBT in sediments
Project Number: TBT in sediments
Project Manager: Anders Utter

Reported:
19-Oct-2023 11:54

Notes and Definitions

*	Flagged value is not within established control limits.
H	Hold time violation - Hold time was exceeded.
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



3600 Fremont Ave. N.
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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: 2308437

October 06, 2023

Attention Anders Utter:

Fremont Analytical, Inc. received 38 sample(s) on 8/31/2023 for the analyses presented in the following report.

Ammonia by SM 4500 NH3 E

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

Grain Size by ASTM D422

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample Moisture (Percent Moisture)

Semivolatile Organic Compounds by EPA Method 8270E

Total Metals by EPA Method 6020B

Total Organic Carbon by EPA 9060

Total Volatile Solids by SM 2540

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

CC:
John Foxwell
Molly Strain

*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
Work Order: 2308437

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308437-001	BL-1-SS	08/28/2023 12:38 PM	08/31/2023 11:15 AM
2308437-002	BL-2-SS	08/28/2023 1:10 PM	08/31/2023 11:15 AM
2308437-003	BL-3-SS	08/28/2023 12:55 PM	08/31/2023 11:15 AM
2308437-004	BL-4-SS	08/28/2023 1:33 PM	08/31/2023 11:15 AM
2308437-005	RB-1-SS	08/28/2023 2:53 PM	08/31/2023 11:15 AM
2308437-006	RB-2-SS	08/28/2023 4:24 PM	08/31/2023 11:15 AM
2308437-007	MP-2-SS	08/28/2023 3:50 PM	08/31/2023 11:15 AM
2308437-008	MP-3-SS	08/28/2023 3:40 PM	08/31/2023 11:15 AM
2308437-009	MP-5-SS	08/28/2023 3:14 PM	08/31/2023 11:15 AM
2308437-010	MP-6-SS	08/28/2023 2:43 PM	08/31/2023 11:15 AM
2308437-011	HP-5-SS	08/28/2023 4:06 PM	08/31/2023 11:15 AM
2308437-012	HP-6-SS	08/28/2023 4:56 PM	08/31/2023 11:15 AM
2308437-013	HP-7-SS	08/28/2023 5:00 PM	08/31/2023 11:15 AM
2308437-014	S. Marina	08/28/2023 4:34 PM	08/31/2023 11:15 AM
2308437-015	N. Marina	08/28/2023 3:45 PM	08/31/2023 11:15 AM
2308437-016	BL	08/28/2023 2:47 PM	08/31/2023 11:15 AM
2308437-017	BL-1-SB-4'	08/29/2023 11:20 AM	08/31/2023 11:15 AM
2308437-018	BL-1-SB-6'	08/29/2023 11:22 AM	08/31/2023 11:15 AM
2308437-019	BL-1-SB-8'	08/29/2023 11:25 AM	08/31/2023 11:15 AM
2308437-020	MP-5-SB-2'	08/29/2023 12:00 PM	08/31/2023 11:15 AM
2308437-021	HP-6-SB-3'	08/29/2023 2:35 PM	08/31/2023 11:15 AM
2308437-022	HP-6-SB-5'	08/29/2023 2:37 PM	08/31/2023 11:15 AM
2308437-023	HP-6-SB-7.5'	08/29/2023 2:40 PM	08/31/2023 11:15 AM
2308437-024	MP-6-SB-2'	08/30/2023 10:00 AM	08/31/2023 11:15 AM
2308437-025	MP-6-SB-5'	08/30/2023 10:04 AM	08/31/2023 11:15 AM
2308437-026	HP-1-SS	08/30/2023 10:41 AM	08/31/2023 11:15 AM
2308437-027	HP-2-SS	08/30/2023 10:32 AM	08/31/2023 11:15 AM
2308437-028	OF-1-SS	08/30/2023 10:50 AM	08/31/2023 11:15 AM
2308437-029	HP-7-SB-3'	08/29/2023 3:43 PM	08/31/2023 11:15 AM
2308437-030	HP-7-SB-5'	08/29/2023 3:45 PM	08/31/2023 11:15 AM
2308437-031	HP-7-SB-8'	08/29/2023 3:47 PM	08/31/2023 11:15 AM
2308437-032	OF-1-SB-2'	08/30/2023 5:20 PM	08/31/2023 11:15 AM
2308437-033	OF-1-SB-4'	08/30/2023 5:22 PM	08/31/2023 11:15 AM
2308437-034	OF-1-SB-9'	08/30/2023 5:24 PM	08/31/2023 11:15 AM

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

CLIENT: Apex Companies, LLC
Project: Dagmars Marina
Work Order: 2308437

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2308437-035	HP-8-SB-1	08/30/2023 4:36 PM	08/31/2023 11:15 AM
2308437-036	HP-8-SB-2	08/30/2023 4:38 PM	08/31/2023 11:15 AM
2308437-037	HP-8-SB-6	08/30/2023 4:40 PM	08/31/2023 11:15 AM
2308437-038	DUP-01	08/30/2023 12:00 PM	08/31/2023 11:15 AM

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.

2308437-001B

TEST_SUB has been Sub Contracted.

2308437-002B

TEST_SUB has been Sub Contracted.

2308437-003B

TEST_SUB has been Sub Contracted.

2308437-004B

TEST_SUB has been Sub Contracted.

2308437-005B

TEST_SUB has been Sub Contracted.

2308437-006B

TEST_SUB has been Sub Contracted.

2308437-007B

TEST_SUB has been Sub Contracted.

2308437-008B

TEST_SUB has been Sub Contracted.

2308437-009B

TEST_SUB has been Sub Contracted.

2308437-010B

TEST_SUB has been Sub Contracted.

2308437-011B

TEST_SUB has been Sub Contracted.

2308437-012B

TEST_SUB has been Sub Contracted.

2308437-013B

TEST_SUB has been Sub Contracted.

2308437-017B

TEST_SUB has been Sub Contracted.

2308437-020B

TEST_SUB has been Sub Contracted.

2308437-021B

TEST_SUB has been Sub Contracted.

CLIENT: Apex Companies, LLC

Project: Dagmars Marina

2308437-024B

TEST_SUB has been Sub Contracted.

2308437-026B

TEST_SUB has been Sub Contracted.

2308437-027B

TEST_SUB has been Sub Contracted.

2308437-028B

TEST_SUB has been Sub Contracted.

2308437-029B

TEST_SUB has been Sub Contracted.

2308437-033B

TEST_SUB has been Sub Contracted.

2308437-036B

TEST_SUB has been Sub Contracted.

2308437-038B

TEST_SUB has been Sub Contracted.

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: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:38:00 PM

Project: Dagmars Marina

Lab ID: 2308437-001

Matrix: Sediment

Client Sample ID: BL-1-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.8		mg/Kg-dry	1	9/5/2023 6:51:07 PM
Heavy Oil	ND	99.6		mg/Kg-dry	1	9/5/2023 6:51:07 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 6:51:07 PM
Surr: 2-Fluorobiphenyl	86.4	50 - 150		%Rec	1	9/5/2023 6:51:07 PM
Surr: o-Terphenyl	74.8	50 - 150		%Rec	1	9/5/2023 6:51:07 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Fluoranthene	0.0248	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Pyrene	ND	0.0398		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Benz(a)anthracene	0.0256	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Chrysene	0.0265	0.0199		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Benzo(b)fluoranthene	0.0254	0.0249		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Indeno(1,2,3-cd)pyrene	ND	0.0398		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Dibenz(a,h)anthracene	ND	0.0498		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Benzo(g,h,i)perylene	ND	0.0498		mg/Kg-dry	1	9/13/2023 1:49:33 AM
Surr: 2-Fluorobiphenyl	83.0	22.2 - 146		%Rec	1	9/13/2023 1:49:33 AM
Surr: Terphenyl-d14 (surr)	107	20.2 - 159		%Rec	1	9/13/2023 1:49:33 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Bis(2-chloroethyl) ether	ND	0.0498		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Chlorophenol	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
1,3-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
1,2-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benzyl alcohol	ND	0.149		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Methylphenol (o-cresol)	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:38:00 PM

Project: Dagmars Marina

Lab ID: 2308437-001

Matrix: Sediment

Client Sample ID: BL-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
N-Nitrosodi-n-propylamine	ND	0.0797		mg/Kg-dry	1	9/7/2023 5:01:35 PM
3&4-Methylphenol (m, p-cresol)	0.0466	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Nitrobenzene	ND	0.0498		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Isophorone	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Naphthalene	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Hexachlorocyclopentadiene	ND	0.0996		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2-Nitroaniline	ND	0.0498		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,6-Dinitrotoluene	ND	0.0398		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
2,4-Dinitrotoluene	ND	0.0598		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Diethylphthalate	ND	0.747		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/7/2023 5:01:35 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/7/2023 5:01:35 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:38:00 PM

Project: Dagmars Marina

Lab ID: 2308437-001

Matrix: Sediment

Client Sample ID: BL-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Fluoranthene	ND	0.0299	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Pyrene	ND	0.149	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Butyl Benzylphthalate	ND	0.0498	mg/Kg-dry	1	9/7/2023 5:01:35 PM
bis(2-Ethylhexyl)adipate	ND	0.199	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benz(a)anthracene	ND	0.0299	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Chrysene	ND	0.0498	mg/Kg-dry	1	9/7/2023 5:01:35 PM
bis (2-Ethylhexyl) phthalate	0.137	0.0398	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Di-n-octyl phthalate	ND	0.0747	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benzo(b)fluoranthene	ND	0.0996	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benzo(k)fluoranthene	ND	0.0299	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benzo(a)pyrene	ND	0.0398	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Indeno(1,2,3-cd)pyrene	ND	0.199	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Dibenz(a,h)anthracene	ND	0.0996	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Benzo(g,h,i)perylene	ND	0.0996	mg/Kg-dry	1	9/7/2023 5:01:35 PM
Surr: 2,4,6-Tribromophenol	80.7	33.1 - 127	%Rec	1	9/7/2023 5:01:35 PM
Surr: 2-Fluorobiphenyl	80.2	35.2 - 141	%Rec	1	9/7/2023 5:01:35 PM
Surr: Nitrobenzene-d5	77.1	15.6 - 158	%Rec	1	9/7/2023 5:01:35 PM
Surr: Phenol-d6	65.0	28.2 - 141	%Rec	1	9/7/2023 5:01:35 PM
Surr: p-Terphenyl	77.1	41.2 - 138	%Rec	1	9/7/2023 5:01:35 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	7.26	0.185	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Barium	21.3	0.371	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Cadmium	0.0838	0.0148	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Chromium	24.5	0.185	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Copper	22.1	0.556	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Lead	5.59	0.742	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Mercury	ND	0.148	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Nickel	26.0	0.185	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Selenium	ND	0.742	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Silver	0.0541	0.0148	mg/Kg-dry	1	9/5/2023 4:38:00 PM
Zinc	48.3	2.60	mg/Kg-dry	1	9/5/2023 4:38:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	41.1	0.500	wt%	1	9/5/2023 8:39:42 AM
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Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:38:00 PM

Project: Dagmars Marina

Lab ID: 2308437-001

Matrix: Sediment

Client Sample ID: BL-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	0.773	0.150		%-dry	1	9/13/2023 12:35:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	18.4	1.69		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	59.6	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	3.34	3.00		%	1	9/1/2023 3:00:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:10:00 PM

Project: Dagmars Marina

Lab ID: 2308437-002

Matrix: Sediment

Client Sample ID: BL-2-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	50.0	mg/Kg-dry	1	9/5/2023 7:02:04 PM
Heavy Oil	ND	100	mg/Kg-dry	1	9/5/2023 7:02:04 PM
Total Petroleum Hydrocarbons	ND	150	mg/Kg-dry	1	9/5/2023 7:02:04 PM
Surr: 2-Fluorobiphenyl	90.5	50 - 150	%Rec	1	9/5/2023 7:02:04 PM
Surr: o-Terphenyl	82.2	50 - 150	%Rec	1	9/5/2023 7:02:04 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
2-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
1-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Acenaphthylene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Acenaphthene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Fluorene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Phenanthrene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Anthracene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Fluoranthene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Pyrene	ND	0.0400	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Benz(a)anthracene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Chrysene	ND	0.0200	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Benzo(b)fluoranthene	ND	0.0250	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Benzo(k)fluoranthene	ND	0.0250	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Benzo(a)pyrene	ND	0.0300	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Indeno(1,2,3-cd)pyrene	ND	0.0400	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Dibenz(a,h)anthracene	ND	0.0500	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Benzo(g,h,i)perylene	ND	0.0500	mg/Kg-dry	1	9/13/2023 2:18:23 AM
Surr: 2-Fluorobiphenyl	100	22.2 - 146	%Rec	1	9/13/2023 2:18:23 AM
Surr: Terphenyl-d14 (surr)	130	20.2 - 159	%Rec	1	9/13/2023 2:18:23 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Bis(2-chloroethyl) ether	ND	0.0500	mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Chlorophenol	ND	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM
1,3-Dichlorobenzene	ND	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM
1,4-Dichlorobenzene	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
1,2-Dichlorobenzene	ND	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benzyl alcohol	ND	0.150	mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Methylphenol (o-cresol)	ND	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:10:00 PM

Project: Dagmars Marina

Lab ID: 2308437-002

Matrix: Sediment

Client Sample ID: BL-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0400		mg/Kg-dry	1	9/7/2023 5:31:46 PM
N-Nitrosodi-n-propylamine	ND	0.0800		mg/Kg-dry	1	9/7/2023 5:31:46 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Nitrobenzene	ND	0.0500		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Isophorone	ND	0.0400		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Nitrophenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4-Dimethylphenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Bis(2-chloroethoxy)methane	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4-Dichlorophenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
1,2,4-Trichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Naphthalene	ND	0.0400		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4-Chloroaniline	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Hexachlorobutadiene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4-Chloro-3-methylphenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
1-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Hexachlorocyclopentadiene	ND	0.100		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4,6-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4,5-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Chloronaphthalene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2-Nitroaniline	ND	0.0500		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Acenaphthene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Dimethylphthalate	ND	3.50		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,6-Dinitrotoluene	ND	0.0400		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Acenaphthylene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4-Dinitrophenol	ND	0.300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Dibenzofuran	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
2,4-Dinitrotoluene	ND	0.0600		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Fluorene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4-Chlorophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Diethylphthalate	ND	0.750		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/7/2023 5:31:46 PM
4-Bromophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Hexachlorobenzene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Phenanthrene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Anthracene	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM
Carbazole	ND	0.0300		mg/Kg-dry	1	9/7/2023 5:31:46 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:10:00 PM

Project: Dagmars Marina

Lab ID: 2308437-002

Matrix: Sediment

Client Sample ID: BL-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Fluoranthene	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Pyrene	ND	0.150	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Butyl Benzylphthalate	ND	0.0500	mg/Kg-dry	1	9/7/2023 5:31:46 PM
bis(2-Ethylhexyl)adipate	ND	0.200	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benz(a)anthracene	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Chrysene	ND	0.0500	mg/Kg-dry	1	9/7/2023 5:31:46 PM
bis (2-Ethylhexyl) phthalate	0.235	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Di-n-octyl phthalate	ND	0.0750	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benzo(b)fluoranthene	ND	0.100	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benzo(k)fluoranthene	ND	0.0300	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benzo(a)pyrene	ND	0.0400	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Indeno(1,2,3-cd)pyrene	ND	0.200	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Dibenz(a,h)anthracene	ND	0.100	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Benzo(g,h,i)perylene	ND	0.100	mg/Kg-dry	1	9/7/2023 5:31:46 PM
Surr: 2,4,6-Tribromophenol	97.5	33.1 - 127	%Rec	1	9/7/2023 5:31:46 PM
Surr: 2-Fluorobiphenyl	95.0	35.2 - 141	%Rec	1	9/7/2023 5:31:46 PM
Surr: Nitrobenzene-d5	92.0	15.6 - 158	%Rec	1	9/7/2023 5:31:46 PM
Surr: Phenol-d6	79.5	28.2 - 141	%Rec	1	9/7/2023 5:31:46 PM
Surr: p-Terphenyl	94.9	41.2 - 138	%Rec	1	9/7/2023 5:31:46 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	6.68	0.172	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Barium	21.4	0.344	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Cadmium	0.0675	0.0138	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Chromium	21.9	0.172	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Copper	19.7	0.516	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Lead	4.69	0.689	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Mercury	ND	0.138	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Nickel	24.4	0.172	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Selenium	ND	0.689	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Silver	0.0403	0.0138	mg/Kg-dry	1	9/5/2023 4:41:00 PM
Zinc	45.1	2.41	mg/Kg-dry	1	9/5/2023 4:41:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	36.9	0.500	wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:10:00 PM

Project: Dagmars Marina

Lab ID: 2308437-002

Matrix: Sediment

Client Sample ID: BL-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	0.479	0.150		%-dry	1	9/13/2023 1:35:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	9.67	1.57		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	63.0	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:55:00 PM

Project: Dagmars Marina

Lab ID: 2308437-003

Matrix: Sediment

Client Sample ID: BL-3-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	60.5		mg/Kg-dry	1	9/5/2023 7:13:10 PM
Heavy Oil	ND	121		mg/Kg-dry	1	9/5/2023 7:13:10 PM
Total Petroleum Hydrocarbons	ND	182		mg/Kg-dry	1	9/5/2023 7:13:10 PM
Surr: 2-Fluorobiphenyl	91.8	50 - 150		%Rec	1	9/5/2023 7:13:10 PM
Surr: o-Terphenyl	95.0	50 - 150		%Rec	1	9/5/2023 7:13:10 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
2-Methylnaphthalene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
1-Methylnaphthalene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Acenaphthylene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Acenaphthene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Fluorene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Phenanthrene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Anthracene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Fluoranthene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Pyrene	ND	0.0496		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Benz(a)anthracene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Chrysene	ND	0.0248		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Benzo(b)fluoranthene	ND	0.0310		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Benzo(k)fluoranthene	ND	0.0310		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Benzo(a)pyrene	ND	0.0372		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Indeno(1,2,3-cd)pyrene	ND	0.0496		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Dibenz(a,h)anthracene	ND	0.0620		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Benzo(g,h,i)perylene	ND	0.0620		mg/Kg-dry	1	9/13/2023 2:47:17 AM
Surr: 2-Fluorobiphenyl	104	22.2 - 146		%Rec	1	9/13/2023 2:47:17 AM
Surr: Terphenyl-d14 (surr)	136	20.2 - 159		%Rec	1	9/13/2023 2:47:17 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Bis(2-chloroethyl) ether	ND	0.0620		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Chlorophenol	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
1,3-Dichlorobenzene	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
1,4-Dichlorobenzene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
1,2-Dichlorobenzene	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benzyl alcohol	ND	0.186		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Methylphenol (o-cresol)	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:55:00 PM

Project: Dagmars Marina

Lab ID: 2308437-003

Matrix: Sediment

Client Sample ID: BL-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
N-Nitrosodi-n-propylamine	ND	0.0992		mg/Kg-dry	1	9/7/2023 6:01:58 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Nitrobenzene	ND	0.0620		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Isophorone	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Nitrophenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4-Dimethylphenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Bis(2-chloroethoxy)methane	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4-Dichlorophenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
1,2,4-Trichlorobenzene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Naphthalene	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4-Chloroaniline	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Hexachlorobutadiene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4-Chloro-3-methylphenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Methylnaphthalene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
1-Methylnaphthalene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Hexachlorocyclopentadiene	ND	0.124		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4,6-Trichlorophenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4,5-Trichlorophenol	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Chloronaphthalene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2-Nitroaniline	ND	0.0620		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Acenaphthene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Dimethylphthalate	ND	4.34		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,6-Dinitrotoluene	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Acenaphthylene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4-Dinitrophenol	ND	0.372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Dibenzofuran	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
2,4-Dinitrotoluene	ND	0.0744		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4-Nitrophenol	ND	0.248		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Fluorene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4-Chlorophenyl phenyl ether	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Diethylphthalate	ND	0.930		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4,6-Dinitro-2-methylphenol	ND	0.310		mg/Kg-dry	1	9/7/2023 6:01:58 PM
4-Bromophenyl phenyl ether	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Hexachlorobenzene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Pentachlorophenol	ND	0.248		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Phenanthrene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Anthracene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Carbazole	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:55:00 PM

Project: Dagmars Marina

Lab ID: 2308437-003

Matrix: Sediment

Client Sample ID: BL-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Fluoranthene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Pyrene	ND	0.186		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Butyl Benzylphthalate	ND	0.0620		mg/Kg-dry	1	9/7/2023 6:01:58 PM
bis(2-Ethylhexyl)adipate	ND	0.248		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benz(a)anthracene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Chrysene	ND	0.0620		mg/Kg-dry	1	9/7/2023 6:01:58 PM
bis (2-Ethylhexyl) phthalate	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Di-n-octyl phthalate	ND	0.0930		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benzo(b)fluoranthene	ND	0.124		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benzo(k)fluoranthene	ND	0.0372		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benzo(a)pyrene	ND	0.0496		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Indeno(1,2,3-cd)pyrene	ND	0.248		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Dibenz(a,h)anthracene	ND	0.124		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Benzo(g,h,i)perylene	ND	0.124		mg/Kg-dry	1	9/7/2023 6:01:58 PM
Surr: 2,4,6-Tribromophenol	99.7	33.1 - 127		%Rec	1	9/7/2023 6:01:58 PM
Surr: 2-Fluorobiphenyl	99.4	35.2 - 141		%Rec	1	9/7/2023 6:01:58 PM
Surr: Nitrobenzene-d5	92.9	15.6 - 158		%Rec	1	9/7/2023 6:01:58 PM
Surr: Phenol-d6	82.1	28.2 - 141		%Rec	1	9/7/2023 6:01:58 PM
Surr: p-Terphenyl	98.2	41.2 - 138		%Rec	1	9/7/2023 6:01:58 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	5.84	0.134		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Barium	15.9	0.267		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Cadmium	0.0420	0.0107		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Chromium	16.8	0.134		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Copper	12.4	0.401		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Lead	3.16	0.534		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Mercury	ND	0.107		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Nickel	20.1	0.134		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Selenium	ND	0.534		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Silver	0.0115	0.0107		mg/Kg-dry	1	9/5/2023 4:43:00 PM
Zinc	37.2	1.87		mg/Kg-dry	1	9/5/2023 4:43:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	19.7	0.500		wt%	1	9/5/2023 8:39:42 AM
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Client: Apex Companies, LLC

Collection Date: 8/28/2023 12:55:00 PM

Project: Dagmars Marina

Lab ID: 2308437-003

Matrix: Sediment

Client Sample ID: BL-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 1:49:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.24		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	78.5	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:33:00 PM

Project: Dagmars Marina

Lab ID: 2308437-004

Matrix: Sediment

Client Sample ID: BL-4-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.7		mg/Kg-dry	1	9/5/2023 7:46:02 PM
Heavy Oil	ND	99.4		mg/Kg-dry	1	9/5/2023 7:46:02 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 7:46:02 PM
Surr: 2-Fluorobiphenyl	75.2	50 - 150		%Rec	1	9/5/2023 7:46:02 PM
Surr: o-Terphenyl	75.9	50 - 150		%Rec	1	9/5/2023 7:46:02 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Indeno(1,2,3-cd)pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Dibenz(a,h)anthracene	ND	0.0499		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Benzo(g,h,i)perylene	ND	0.0499		mg/Kg-dry	1	9/13/2023 3:16:15 AM
Surr: 2-Fluorobiphenyl	102	22.2 - 146		%Rec	1	9/13/2023 3:16:15 AM
Surr: Terphenyl-d14 (surr)	130	20.2 - 159		%Rec	1	9/13/2023 3:16:15 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Bis(2-chloroethyl) ether	ND	0.0499		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Chlorophenol	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
1,3-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
1,2-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Methylphenol (o-cresol)	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:33:00 PM

Project: Dagmars Marina

Lab ID: 2308437-004

Matrix: Sediment

Client Sample ID: BL-4-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
N-Nitrosodi-n-propylamine	ND	0.0798		mg/Kg-dry	1	9/7/2023 6:32:27 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Nitrobenzene	ND	0.0499		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Isophorone	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Naphthalene	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Hexachlorocyclopentadiene	ND	0.0997		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2-Nitroaniline	ND	0.0499		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,6-Dinitrotoluene	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
2,4-Dinitrotoluene	ND	0.0598		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Diethylphthalate	ND	0.748		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/7/2023 6:32:27 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:33:00 PM

Project: Dagmars Marina

Lab ID: 2308437-004

Matrix: Sediment

Client Sample ID: BL-4-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Pyrene	ND	0.150		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Butyl Benzylphthalate	ND	0.0499		mg/Kg-dry	1	9/7/2023 6:32:27 PM
bis(2-Ethylhexyl)adipate	ND	0.199		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Chrysene	ND	0.0499		mg/Kg-dry	1	9/7/2023 6:32:27 PM
bis (2-Ethylhexyl) phthalate	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Di-n-octyl phthalate	ND	0.0748		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benzo(b)fluoranthene	ND	0.0997		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benzo(a)pyrene	ND	0.0399		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Indeno(1,2,3-cd)pyrene	ND	0.199		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Dibenz(a,h)anthracene	ND	0.0997		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Benzo(g,h,i)perylene	ND	0.0997		mg/Kg-dry	1	9/7/2023 6:32:27 PM
Surr: 2,4,6-Tribromophenol	93.1	33.1 - 127		%Rec	1	9/7/2023 6:32:27 PM
Surr: 2-Fluorobiphenyl	96.2	35.2 - 141		%Rec	1	9/7/2023 6:32:27 PM
Surr: Nitrobenzene-d5	93.7	15.6 - 158		%Rec	1	9/7/2023 6:32:27 PM
Surr: Phenol-d6	81.4	28.2 - 141		%Rec	1	9/7/2023 6:32:27 PM
Surr: p-Terphenyl	94.1	41.2 - 138		%Rec	1	9/7/2023 6:32:27 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	5.43	0.151		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Barium	16.0	0.301		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Cadmium	0.0464	0.0120		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Chromium	16.8	0.151		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Copper	12.7	0.452		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Lead	3.17	0.602		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Mercury	ND	0.120		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Nickel	19.4	0.151		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Selenium	ND	0.602		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Silver	0.0132	0.0120		mg/Kg-dry	1	9/5/2023 4:46:00 PM
Zinc	37.0	2.11		mg/Kg-dry	1	9/5/2023 4:46:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	27.5	0.500		wt%	1	9/5/2023 8:39:42 AM
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Client: Apex Companies, LLC

Collection Date: 8/28/2023 1:33:00 PM

Project: Dagmars Marina

Lab ID: 2308437-004

Matrix: Sediment

Client Sample ID: BL-4-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 2:06:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.37		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	73.3	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:53:00 PM

Project: Dagmars Marina

Lab ID: 2308437-005

Matrix: Sediment

Client Sample ID: RB-1-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	61.2		mg/Kg-dry	1	9/5/2023 7:56:58 PM
Heavy Oil	ND	122		mg/Kg-dry	1	9/5/2023 7:56:58 PM
Total Petroleum Hydrocarbons	ND	184		mg/Kg-dry	1	9/5/2023 7:56:58 PM
Surr: 2-Fluorobiphenyl	75.1	50 - 150		%Rec	1	9/5/2023 7:56:58 PM
Surr: o-Terphenyl	78.0	50 - 150		%Rec	1	9/5/2023 7:56:58 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
2-Methylnaphthalene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
1-Methylnaphthalene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Acenaphthylene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Acenaphthene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Fluorene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Phenanthrene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Anthracene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Fluoranthene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Pyrene	ND	0.0502		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Benz(a)anthracene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Chrysene	ND	0.0251		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Benzo(b)fluoranthene	ND	0.0314		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Benzo(k)fluoranthene	ND	0.0314		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Benzo(a)pyrene	ND	0.0376		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Indeno(1,2,3-cd)pyrene	ND	0.0502		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Dibenz(a,h)anthracene	ND	0.0627		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Benzo(g,h,i)perylene	ND	0.0627		mg/Kg-dry	1	9/13/2023 3:45:07 AM
Surr: 2-Fluorobiphenyl	95.9	22.2 - 146		%Rec	1	9/13/2023 3:45:07 AM
Surr: Terphenyl-d14 (surr)	121	20.2 - 159		%Rec	1	9/13/2023 3:45:07 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Bis(2-chloroethyl) ether	ND	0.0627		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Chlorophenol	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
1,3-Dichlorobenzene	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
1,4-Dichlorobenzene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
1,2-Dichlorobenzene	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benzyl alcohol	ND	0.188		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Methylphenol (o-cresol)	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM

Original



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:53:00 PM

Project: Dagmars Marina

Lab ID: 2308437-005

Matrix: Sediment

Client Sample ID: RB-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
N-Nitrosodi-n-propylamine	ND	0.100		mg/Kg-dry	1	9/7/2023 7:03:02 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Nitrobenzene	ND	0.0627		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Isophorone	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Nitrophenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4-Dimethylphenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Bis(2-chloroethoxy)methane	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4-Dichlorophenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
1,2,4-Trichlorobenzene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Naphthalene	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4-Chloroaniline	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Hexachlorobutadiene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4-Chloro-3-methylphenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Methylnaphthalene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
1-Methylnaphthalene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Hexachlorocyclopentadiene	ND	0.125		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4,6-Trichlorophenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4,5-Trichlorophenol	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Chloronaphthalene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2-Nitroaniline	ND	0.0627		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Acenaphthene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Dimethylphthalate	ND	4.39		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,6-Dinitrotoluene	ND	0.0502		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Acenaphthylene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4-Dinitrophenol	ND	0.376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Dibenzofuran	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
2,4-Dinitrotoluene	ND	0.0753		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4-Nitrophenol	ND	0.251		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Fluorene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4-Chlorophenyl phenyl ether	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Diethylphthalate	ND	0.941		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4,6-Dinitro-2-methylphenol	ND	0.314		mg/Kg-dry	1	9/7/2023 7:03:02 PM
4-Bromophenyl phenyl ether	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Hexachlorobenzene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Pentachlorophenol	ND	0.251		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Phenanthrene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Anthracene	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM
Carbazole	ND	0.0376		mg/Kg-dry	1	9/7/2023 7:03:02 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:53:00 PM

Project: Dagmars Marina

Lab ID: 2308437-005

Matrix: Sediment

Client Sample ID: RB-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0376	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Fluoranthene	ND	0.0376	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Pyrene	ND	0.188	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Butyl Benzylphthalate	ND	0.0627	mg/Kg-dry	1	9/7/2023 7:03:02 PM
bis(2-Ethylhexyl)adipate	ND	0.251	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benz(a)anthracene	ND	0.0376	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Chrysene	ND	0.0627	mg/Kg-dry	1	9/7/2023 7:03:02 PM
bis (2-Ethylhexyl) phthalate	ND	0.0502	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Di-n-octyl phthalate	ND	0.0941	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benzo(b)fluoranthene	ND	0.125	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benzo(k)fluoranthene	ND	0.0376	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benzo(a)pyrene	ND	0.0502	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Indeno(1,2,3-cd)pyrene	ND	0.251	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Dibenz(a,h)anthracene	ND	0.125	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Benzo(g,h,i)perylene	ND	0.125	mg/Kg-dry	1	9/7/2023 7:03:02 PM
Surr: 2,4,6-Tribromophenol	85.3	33.1 - 127	%Rec	1	9/7/2023 7:03:02 PM
Surr: 2-Fluorobiphenyl	91.3	35.2 - 141	%Rec	1	9/7/2023 7:03:02 PM
Surr: Nitrobenzene-d5	87.2	15.6 - 158	%Rec	1	9/7/2023 7:03:02 PM
Surr: Phenol-d6	75.5	28.2 - 141	%Rec	1	9/7/2023 7:03:02 PM
Surr: p-Terphenyl	88.8	41.2 - 138	%Rec	1	9/7/2023 7:03:02 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	5.00	0.137	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Barium	15.2	0.274	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Cadmium	0.0408	0.0109	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Chromium	17.7	0.137	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Copper	12.4	0.410	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Lead	3.13	0.547	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Mercury	ND	0.109	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Nickel	19.2	0.137	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Selenium	ND	0.547	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Silver	ND	0.0109	mg/Kg-dry	1	9/5/2023 4:48:00 PM
Zinc	35.5	1.92	mg/Kg-dry	1	9/5/2023 4:48:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	20.6	0.500	wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:53:00 PM

Project: Dagmars Marina

Lab ID: 2308437-005

Matrix: Sediment

Client Sample ID: RB-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 2:19:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.26		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	78.1	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2308437-006

Matrix: Sediment

Client Sample ID: RB-2-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	61.6		mg/Kg-dry	1	9/5/2023 8:18:59 PM
Heavy Oil	ND	123		mg/Kg-dry	1	9/5/2023 8:18:59 PM
Total Petroleum Hydrocarbons	ND	185		mg/Kg-dry	1	9/5/2023 8:18:59 PM
Surr: 2-Fluorobiphenyl	71.8	50 - 150		%Rec	1	9/5/2023 8:18:59 PM
Surr: o-Terphenyl	76.0	50 - 150		%Rec	1	9/5/2023 8:18:59 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	0.0359	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
2-Methylnaphthalene	0.0386	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
1-Methylnaphthalene	0.0380	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Acenaphthylene	0.0352	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Acenaphthene	0.0492	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Fluorene	0.0470	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Phenanthrene	0.0501	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Anthracene	0.0371	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Fluoranthene	0.0437	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Pyrene	ND	0.0492		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Benz(a)anthracene	0.0487	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Chrysene	0.0534	0.0246		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Benzo(b)fluoranthene	0.0527	0.0307		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Benzo(k)fluoranthene	0.0427	0.0307		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Benzo(a)pyrene	0.0450	0.0369		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Indeno(1,2,3-cd)pyrene	0.0519	0.0492		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Dibenz(a,h)anthracene	ND	0.0615		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Benzo(g,h,i)perylene	ND	0.0615		mg/Kg-dry	1	9/13/2023 4:13:58 AM
Surr: 2-Fluorobiphenyl	109	22.2 - 146		%Rec	1	9/13/2023 4:13:58 AM
Surr: Terphenyl-d14 (surr)	135	20.2 - 159		%Rec	1	9/13/2023 4:13:58 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Bis(2-chloroethyl) ether	ND	0.0615		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Chlorophenol	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
1,3-Dichlorobenzene	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
1,4-Dichlorobenzene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
1,2-Dichlorobenzene	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benzyl alcohol	ND	0.184		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Methylphenol (o-cresol)	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2308437-006

Matrix: Sediment

Client Sample ID: RB-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
N-Nitrosodi-n-propylamine	ND	0.0983		mg/Kg-dry	1	9/7/2023 7:33:36 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Nitrobenzene	ND	0.0615		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Isophorone	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Nitrophenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4-Dimethylphenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Bis(2-chloroethoxy)methane	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4-Dichlorophenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
1,2,4-Trichlorobenzene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Naphthalene	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4-Chloroaniline	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Hexachlorobutadiene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4-Chloro-3-methylphenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Methylnaphthalene	0.0372	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
1-Methylnaphthalene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Hexachlorocyclopentadiene	ND	0.123		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4,6-Trichlorophenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4,5-Trichlorophenol	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Chloronaphthalene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2-Nitroaniline	ND	0.0615		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Acenaphthene	0.0396	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Dimethylphthalate	ND	4.30		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,6-Dinitrotoluene	ND	0.0492		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Acenaphthylene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4-Dinitrophenol	ND	0.369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Dibenzofuran	0.0401	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
2,4-Dinitrotoluene	ND	0.0738		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4-Nitrophenol	ND	0.246		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Fluorene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4-Chlorophenyl phenyl ether	0.0424	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Diethylphthalate	ND	0.922		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4,6-Dinitro-2-methylphenol	ND	0.307		mg/Kg-dry	1	9/7/2023 7:33:36 PM
4-Bromophenyl phenyl ether	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Hexachlorobenzene	0.0404	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Pentachlorophenol	ND	0.246		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Phenanthrene	0.0423	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Anthracene	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM
Carbazole	ND	0.0369		mg/Kg-dry	1	9/7/2023 7:33:36 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2308437-006

Matrix: Sediment

Client Sample ID: RB-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	0.0375	0.0369	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Fluoranthene	ND	0.0369	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Pyrene	ND	0.184	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Butyl Benzylphthalate	ND	0.0615	mg/Kg-dry	1	9/7/2023 7:33:36 PM
bis(2-Ethylhexyl)adipate	ND	0.246	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benz(a)anthracene	ND	0.0369	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Chrysene	ND	0.0615	mg/Kg-dry	1	9/7/2023 7:33:36 PM
bis (2-Ethylhexyl) phthalate	ND	0.0492	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Di-n-octyl phthalate	ND	0.0922	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benzo(b)fluoranthene	ND	0.123	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benzo(k)fluoranthene	0.0370	0.0369	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benzo(a)pyrene	ND	0.0492	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Indeno(1,2,3-cd)pyrene	ND	0.246	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Dibenz(a,h)anthracene	ND	0.123	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Benzo(g,h,i)perylene	ND	0.123	mg/Kg-dry	1	9/7/2023 7:33:36 PM
Surr: 2,4,6-Tribromophenol	97.4	33.1 - 127	%Rec	1	9/7/2023 7:33:36 PM
Surr: 2-Fluorobiphenyl	104	35.2 - 141	%Rec	1	9/7/2023 7:33:36 PM
Surr: Nitrobenzene-d5	96.7	15.6 - 158	%Rec	1	9/7/2023 7:33:36 PM
Surr: Phenol-d6	90.0	28.2 - 141	%Rec	1	9/7/2023 7:33:36 PM
Surr: p-Terphenyl	98.8	41.2 - 138	%Rec	1	9/7/2023 7:33:36 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	5.31	0.137	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Barium	14.9	0.273	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Cadmium	0.0431	0.0109	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Chromium	16.4	0.137	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Copper	11.7	0.410	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Lead	2.92	0.546	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Mercury	ND	0.109	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Nickel	19.5	0.137	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Selenium	ND	0.546	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Silver	ND	0.0109	mg/Kg-dry	1	9/5/2023 4:50:00 PM
Zinc	36.1	1.91	mg/Kg-dry	1	9/5/2023 4:50:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	20.4	0.500	wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:24:00 PM

Project: Dagmars Marina

Lab ID: 2308437-006

Matrix: Sediment

Client Sample ID: RB-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 3:04:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.25		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	78.0	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:50:00 PM

Project: Dagmars Marina

Lab ID: 2308437-007

Matrix: Sediment

Client Sample ID: MP-2-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	58.6		mg/Kg-dry	1	9/5/2023 8:29:57 PM
Heavy Oil	ND	117		mg/Kg-dry	1	9/5/2023 8:29:57 PM
Total Petroleum Hydrocarbons	ND	176		mg/Kg-dry	1	9/5/2023 8:29:57 PM
Surr: 2-Fluorobiphenyl	76.4	50 - 150		%Rec	1	9/5/2023 8:29:57 PM
Surr: o-Terphenyl	80.1	50 - 150		%Rec	1	9/5/2023 8:29:57 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
2-Methylnaphthalene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
1-Methylnaphthalene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Acenaphthylene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Acenaphthene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Fluorene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Phenanthrene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Anthracene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Fluoranthene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Pyrene	ND	0.0476		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Benz(a)anthracene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Chrysene	ND	0.0238		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Benzo(b)fluoranthene	ND	0.0298		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Benzo(k)fluoranthene	ND	0.0298		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Benzo(a)pyrene	ND	0.0357		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Indeno(1,2,3-cd)pyrene	ND	0.0476		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Dibenz(a,h)anthracene	ND	0.0595		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Benzo(g,h,i)perylene	ND	0.0595		mg/Kg-dry	1	9/13/2023 4:42:51 AM
Surr: 2-Fluorobiphenyl	97.6	22.2 - 146		%Rec	1	9/13/2023 4:42:51 AM
Surr: Terphenyl-d14 (surr)	126	20.2 - 159		%Rec	1	9/13/2023 4:42:51 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Bis(2-chloroethyl) ether	ND	0.0595		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Chlorophenol	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
1,3-Dichlorobenzene	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
1,4-Dichlorobenzene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
1,2-Dichlorobenzene	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benzyl alcohol	ND	0.179		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Methylphenol (o-cresol)	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:50:00 PM

Project: Dagmars Marina

Lab ID: 2308437-007

Matrix: Sediment

Client Sample ID: MP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
N-Nitrosodi-n-propylamine	ND	0.0952		mg/Kg-dry	1	9/7/2023 8:04:20 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Nitrobenzene	ND	0.0595		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Isophorone	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Nitrophenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4-Dimethylphenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Bis(2-chloroethoxy)methane	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4-Dichlorophenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
1,2,4-Trichlorobenzene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Naphthalene	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4-Chloroaniline	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Hexachlorobutadiene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4-Chloro-3-methylphenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Methylnaphthalene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
1-Methylnaphthalene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Hexachlorocyclopentadiene	ND	0.119		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4,6-Trichlorophenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4,5-Trichlorophenol	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Chloronaphthalene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2-Nitroaniline	ND	0.0595		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Acenaphthene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Dimethylphthalate	ND	4.17		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,6-Dinitrotoluene	ND	0.0476		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Acenaphthylene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4-Dinitrophenol	ND	0.357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Dibenzofuran	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
2,4-Dinitrotoluene	ND	0.0714		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4-Nitrophenol	ND	0.238		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Fluorene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4-Chlorophenyl phenyl ether	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Diethylphthalate	ND	0.893		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4,6-Dinitro-2-methylphenol	ND	0.298		mg/Kg-dry	1	9/7/2023 8:04:20 PM
4-Bromophenyl phenyl ether	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Hexachlorobenzene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Pentachlorophenol	ND	0.238		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Phenanthrene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Anthracene	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM
Carbazole	ND	0.0357		mg/Kg-dry	1	9/7/2023 8:04:20 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:50:00 PM

Project: Dagmars Marina

Lab ID: 2308437-007

Matrix: Sediment

Client Sample ID: MP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0357	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Fluoranthene	ND	0.0357	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Pyrene	ND	0.179	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Butyl Benzylphthalate	ND	0.0595	mg/Kg-dry	1	9/7/2023 8:04:20 PM
bis(2-Ethylhexyl)adipate	ND	0.238	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benz(a)anthracene	ND	0.0357	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Chrysene	ND	0.0595	mg/Kg-dry	1	9/7/2023 8:04:20 PM
bis (2-Ethylhexyl) phthalate	ND	0.0476	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Di-n-octyl phthalate	ND	0.0893	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benzo(b)fluoranthene	ND	0.119	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benzo(k)fluoranthene	ND	0.0357	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benzo(a)pyrene	ND	0.0476	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Indeno(1,2,3-cd)pyrene	ND	0.238	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Dibenz(a,h)anthracene	ND	0.119	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Benzo(g,h,i)perylene	ND	0.119	mg/Kg-dry	1	9/7/2023 8:04:20 PM
Surr: 2,4,6-Tribromophenol	86.3	33.1 - 127	%Rec	1	9/7/2023 8:04:20 PM
Surr: 2-Fluorobiphenyl	90.2	35.2 - 141	%Rec	1	9/7/2023 8:04:20 PM
Surr: Nitrobenzene-d5	87.5	15.6 - 158	%Rec	1	9/7/2023 8:04:20 PM
Surr: Phenol-d6	74.3	28.2 - 141	%Rec	1	9/7/2023 8:04:20 PM
Surr: p-Terphenyl	91.6	41.2 - 138	%Rec	1	9/7/2023 8:04:20 PM

Total Metals by EPA Method 6020B

Batch ID: 41387

Analyst: JR

Arsenic	5.13	0.133	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Barium	16.6	0.266	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Cadmium	0.0430	0.0106	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Chromium	16.9	0.133	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Copper	11.2	0.398	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Lead	2.88	0.531	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Mercury	ND	0.106	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Nickel	18.0	0.133	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Selenium	ND	0.531	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Silver	ND	0.0106	mg/Kg-dry	1	9/5/2023 4:53:00 PM
Zinc	34.3	1.86	mg/Kg-dry	1	9/5/2023 4:53:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	16.3	0.500	wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:50:00 PM

Project: Dagmars Marina

Lab ID: 2308437-007

Matrix: Sediment

Client Sample ID: MP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 3:19:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.18		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	82.3	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:40:00 PM

Project: Dagmars Marina

Lab ID: 2308437-008

Matrix: Sediment

Client Sample ID: MP-3-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	57.5		mg/Kg-dry	1	9/5/2023 8:40:55 PM
Heavy Oil	ND	115		mg/Kg-dry	1	9/5/2023 8:40:55 PM
Total Petroleum Hydrocarbons	ND	172		mg/Kg-dry	1	9/5/2023 8:40:55 PM
Surr: 2-Fluorobiphenyl	81.1	50 - 150		%Rec	1	9/5/2023 8:40:55 PM
Surr: o-Terphenyl	81.4	50 - 150		%Rec	1	9/5/2023 8:40:55 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
2-Methylnaphthalene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
1-Methylnaphthalene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Acenaphthylene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Acenaphthene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Fluorene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Phenanthrene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Anthracene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Fluoranthene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Pyrene	ND	0.0477		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Benz(a)anthracene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Chrysene	ND	0.0239		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Benzo(b)fluoranthene	ND	0.0298		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Benzo(k)fluoranthene	ND	0.0298		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Benzo(a)pyrene	ND	0.0358		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Indeno(1,2,3-cd)pyrene	ND	0.0477		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Dibenz(a,h)anthracene	ND	0.0596		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Benzo(g,h,i)perylene	ND	0.0596		mg/Kg-dry	1	9/13/2023 6:38:25 AM
Surr: 2-Fluorobiphenyl	96.4	22.2 - 146		%Rec	1	9/13/2023 6:38:25 AM
Surr: Terphenyl-d14 (surr)	122	20.2 - 159		%Rec	1	9/13/2023 6:38:25 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Bis(2-chloroethyl) ether	ND	0.0596		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Chlorophenol	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
1,3-Dichlorobenzene	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
1,4-Dichlorobenzene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
1,2-Dichlorobenzene	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benzyl alcohol	ND	0.179		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Methylphenol (o-cresol)	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:40:00 PM

Project: Dagmars Marina

Lab ID: 2308437-008

Matrix: Sediment

Client Sample ID: MP-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
N-Nitrosodi-n-propylamine	ND	0.0954		mg/Kg-dry	1	9/7/2023 9:35:50 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Nitrobenzene	ND	0.0596		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Isophorone	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Nitrophenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4-Dimethylphenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Bis(2-chloroethoxy)methane	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4-Dichlorophenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
1,2,4-Trichlorobenzene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Naphthalene	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4-Chloroaniline	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Hexachlorobutadiene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4-Chloro-3-methylphenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Methylnaphthalene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
1-Methylnaphthalene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Hexachlorocyclopentadiene	ND	0.119		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4,6-Trichlorophenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4,5-Trichlorophenol	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Chloronaphthalene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2-Nitroaniline	ND	0.0596		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Acenaphthene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Dimethylphthalate	ND	4.17		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,6-Dinitrotoluene	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Acenaphthylene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4-Dinitrophenol	ND	0.358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Dibenzofuran	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
2,4-Dinitrotoluene	ND	0.0716		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4-Nitrophenol	ND	0.239		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Fluorene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4-Chlorophenyl phenyl ether	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Diethylphthalate	ND	0.895		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4,6-Dinitro-2-methylphenol	ND	0.298		mg/Kg-dry	1	9/7/2023 9:35:50 PM
4-Bromophenyl phenyl ether	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Hexachlorobenzene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Pentachlorophenol	ND	0.239		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Phenanthrene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Anthracene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Carbazole	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:40:00 PM

Project: Dagmars Marina

Lab ID: 2308437-008

Matrix: Sediment

Client Sample ID: MP-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Fluoranthene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Pyrene	ND	0.179		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Butyl Benzylphthalate	ND	0.0596		mg/Kg-dry	1	9/7/2023 9:35:50 PM
bis(2-Ethylhexyl)adipate	ND	0.239		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benz(a)anthracene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Chrysene	ND	0.0596		mg/Kg-dry	1	9/7/2023 9:35:50 PM
bis (2-Ethylhexyl) phthalate	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Di-n-octyl phthalate	ND	0.0895		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benzo(b)fluoranthene	ND	0.119		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benzo(k)fluoranthene	ND	0.0358		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benzo(a)pyrene	ND	0.0477		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Indeno(1,2,3-cd)pyrene	ND	0.239		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Dibenz(a,h)anthracene	ND	0.119		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Benzo(g,h,i)perylene	ND	0.119		mg/Kg-dry	1	9/7/2023 9:35:50 PM
Surr: 2,4,6-Tribromophenol	84.8	33.1 - 127		%Rec	1	9/7/2023 9:35:50 PM
Surr: 2-Fluorobiphenyl	91.0	35.2 - 141		%Rec	1	9/7/2023 9:35:50 PM
Surr: Nitrobenzene-d5	86.4	15.6 - 158		%Rec	1	9/7/2023 9:35:50 PM
Surr: Phenol-d6	72.6	28.2 - 141		%Rec	1	9/7/2023 9:35:50 PM
Surr: p-Terphenyl	88.3	41.2 - 138		%Rec	1	9/7/2023 9:35:50 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	5.65	0.248		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Barium	17.1	0.496		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Cadmium	0.0530	0.0198		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Chromium	18.3	0.248		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Copper	13.9	0.744		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Lead	3.20	0.991		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Mercury	ND	0.198		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Nickel	20.6	0.248		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Selenium	ND	0.991		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Silver	0.0243	0.0198		mg/Kg-dry	1	9/6/2023 1:53:00 PM
Zinc	38.2	3.47		mg/Kg-dry	1	9/6/2023 1:53:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	17.3	0.500		wt%	1	9/5/2023 8:39:42 AM
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Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:40:00 PM

Project: Dagmars Marina

Lab ID: 2308437-008

Matrix: Sediment

Client Sample ID: MP-3-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 3:33:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.20		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	80.4	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:14:00 PM

Project: Dagmars Marina

Lab ID: 2308437-009

Matrix: Sediment

Client Sample ID: MP-5-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.8		mg/Kg-dry	1	9/5/2023 9:35:41 PM
Heavy Oil	ND	99.6		mg/Kg-dry	1	9/5/2023 9:35:41 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 9:35:41 PM
Surr: 2-Fluorobiphenyl	74.7	50 - 150		%Rec	1	9/5/2023 9:35:41 PM
Surr: o-Terphenyl	78.2	50 - 150		%Rec	1	9/5/2023 9:35:41 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Indeno(1,2,3-cd)pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Dibenz(a,h)anthracene	ND	0.0498		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Benzo(g,h,i)perylene	ND	0.0498		mg/Kg-dry	1	9/13/2023 7:07:18 AM
Surr: 2-Fluorobiphenyl	106	22.2 - 146		%Rec	1	9/13/2023 7:07:18 AM
Surr: Terphenyl-d14 (surr)	133	20.2 - 159		%Rec	1	9/13/2023 7:07:18 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Bis(2-chloroethyl) ether	ND	0.0498		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Chlorophenol	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
1,3-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
1,2-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benzyl alcohol	ND	0.149		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Methylphenol (o-cresol)	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:14:00 PM

Project: Dagmars Marina

Lab ID: 2308437-009

Matrix: Sediment

Client Sample ID: MP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
N-Nitrosodi-n-propylamine	ND	0.0797		mg/Kg-dry	1	9/7/2023 10:06:20 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Nitrobenzene	ND	0.0498		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Isophorone	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Naphthalene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Hexachlorocyclopentadiene	ND	0.0996		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2-Nitroaniline	ND	0.0498		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,6-Dinitrotoluene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
2,4-Dinitrotoluene	ND	0.0598		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Diethylphthalate	ND	0.747		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/7/2023 10:06:20 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:14:00 PM

Project: Dagmars Marina

Lab ID: 2308437-009

Matrix: Sediment

Client Sample ID: MP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Pyrene	ND	0.149		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Butyl Benzylphthalate	ND	0.0498		mg/Kg-dry	1	9/7/2023 10:06:20 PM
bis(2-Ethylhexyl)adipate	ND	0.199		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Chrysene	ND	0.0498		mg/Kg-dry	1	9/7/2023 10:06:20 PM
bis (2-Ethylhexyl) phthalate	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Di-n-octyl phthalate	ND	0.0747		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benzo(b)fluoranthene	ND	0.0996		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benzo(a)pyrene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Indeno(1,2,3-cd)pyrene	ND	0.199		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Dibenz(a,h)anthracene	ND	0.0996		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Benzo(g,h,i)perylene	ND	0.0996		mg/Kg-dry	1	9/7/2023 10:06:20 PM
Surr: 2,4,6-Tribromophenol	90.5	33.1 - 127		%Rec	1	9/7/2023 10:06:20 PM
Surr: 2-Fluorobiphenyl	103	35.2 - 141		%Rec	1	9/7/2023 10:06:20 PM
Surr: Nitrobenzene-d5	98.4	15.6 - 158		%Rec	1	9/7/2023 10:06:20 PM
Surr: Phenol-d6	82.5	28.2 - 141		%Rec	1	9/7/2023 10:06:20 PM
Surr: p-Terphenyl	97.4	41.2 - 138		%Rec	1	9/7/2023 10:06:20 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	5.65	0.251		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Barium	17.8	0.503		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Cadmium	0.0548	0.0201		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Chromium	18.0	0.251		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Copper	16.7	0.754		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Lead	3.28	1.01		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Mercury	ND	0.201		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Nickel	21.6	0.251		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Selenium	ND	1.01		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Silver	ND	0.0201		mg/Kg-dry	1	9/6/2023 2:05:00 PM
Zinc	41.0	3.52		mg/Kg-dry	1	9/6/2023 2:05:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	26.3	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
 Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 3:14:00 PM

Project: Dagmars Marina

Lab ID: 2308437-009

Matrix: Sediment

Client Sample ID: MP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 3:51:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.34		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	75.3	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-010

Matrix: Sediment

Client Sample ID: MP-6-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.8		mg/Kg-dry	1	9/5/2023 9:46:34 PM
Heavy Oil	ND	99.5		mg/Kg-dry	1	9/5/2023 9:46:34 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 9:46:34 PM
Surr: 2-Fluorobiphenyl	90.9	50 - 150		%Rec	1	9/5/2023 9:46:34 PM
Surr: o-Terphenyl	81.7	50 - 150		%Rec	1	9/5/2023 9:46:34 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
2-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
1-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Acenaphthylene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Acenaphthene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Fluorene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Phenanthrene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Anthracene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Fluoranthene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Benz(a)anthracene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Chrysene	ND	0.0200		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Benzo(b)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Benzo(k)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.0399		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Dibenz(a,h)anthracene	ND	0.0499		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Benzo(g,h,i)perylene	ND	0.0499		mg/Kg-dry	1	9/13/2023 7:36:14 AM
Surr: 2-Fluorobiphenyl	81.5	22.2 - 146		%Rec	1	9/13/2023 7:36:14 AM
Surr: Terphenyl-d14 (surr)	106	20.2 - 159		%Rec	1	9/13/2023 7:36:14 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Bis(2-chloroethyl) ether	ND	0.0499		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Chlorophenol	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
1,3-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
1,2-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Methylphenol (o-cresol)	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-010

Matrix: Sediment

Client Sample ID: MP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
N-Nitrosodi-n-propylamine	ND	0.0799		mg/Kg-dry	1	9/7/2023 10:36:46 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Nitrobenzene	ND	0.0499		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Isophorone	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Naphthalene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Hexachlorocyclopentadiene	ND	0.0998		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2-Nitroaniline	ND	0.0499		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,6-Dinitrotoluene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
2,4-Dinitrotoluene	ND	0.0599		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Diethylphthalate	ND	0.749		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/7/2023 10:36:46 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-010

Matrix: Sediment

Client Sample ID: MP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Pyrene	ND	0.150		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Butyl Benzylphthalate	ND	0.0499		mg/Kg-dry	1	9/7/2023 10:36:46 PM
bis(2-Ethylhexyl)adipate	ND	0.200		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Chrysene	ND	0.0499		mg/Kg-dry	1	9/7/2023 10:36:46 PM
bis (2-Ethylhexyl) phthalate	0.102	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Di-n-octyl phthalate	ND	0.0749		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benzo(b)fluoranthene	ND	0.0998		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benzo(a)pyrene	ND	0.0399		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Indeno(1,2,3-cd)pyrene	ND	0.200		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Dibenz(a,h)anthracene	ND	0.0998		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Benzo(g,h,i)perylene	ND	0.0998		mg/Kg-dry	1	9/7/2023 10:36:46 PM
Surr: 2,4,6-Tribromophenol	76.7	33.1 - 127		%Rec	1	9/7/2023 10:36:46 PM
Surr: 2-Fluorobiphenyl	78.4	35.2 - 141		%Rec	1	9/7/2023 10:36:46 PM
Surr: Nitrobenzene-d5	73.4	15.6 - 158		%Rec	1	9/7/2023 10:36:46 PM
Surr: Phenol-d6	59.1	28.2 - 141		%Rec	1	9/7/2023 10:36:46 PM
Surr: p-Terphenyl	78.1	41.2 - 138		%Rec	1	9/7/2023 10:36:46 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	13.1	0.298		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Barium	27.5	0.596		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Cadmium	0.0793	0.0238		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Chromium	28.0	0.298		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Copper	22.6	0.894		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Lead	6.44	1.19		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Mercury	ND	0.238		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Nickel	31.0	0.298		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Selenium	ND	1.19		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Silver	0.0262	0.0238		mg/Kg-dry	1	9/6/2023 2:07:00 PM
Zinc	55.5	4.17		mg/Kg-dry	1	9/6/2023 2:07:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	37.9	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 2:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-010

Matrix: Sediment

Client Sample ID: MP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	0.345	0.150		%-dry	1	9/13/2023 4:02:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	9.66	1.60		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86408 Analyst: NR

Total Solids	64.0	3.00		%	1	9/1/2023 3:00:00 PM
Total Volatile Solids	ND	3.00		%	1	9/1/2023 3:00:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:06:00 PM

Project: Dagmars Marina

Lab ID: 2308437-011

Matrix: Sediment

Client Sample ID: HP-5-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	56.0		mg/Kg-dry	1	9/5/2023 9:57:29 PM
Heavy Oil	ND	112		mg/Kg-dry	1	9/5/2023 9:57:29 PM
Total Petroleum Hydrocarbons	ND	168		mg/Kg-dry	1	9/5/2023 9:57:29 PM
Surr: 2-Fluorobiphenyl	85.9	50 - 150		%Rec	1	9/5/2023 9:57:29 PM
Surr: o-Terphenyl	90.4	50 - 150		%Rec	1	9/5/2023 9:57:29 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
2-Methylnaphthalene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
1-Methylnaphthalene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Acenaphthylene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Acenaphthene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Fluorene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Phenanthrene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Anthracene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Fluoranthene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Pyrene	ND	0.0442		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Benz(a)anthracene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Chrysene	ND	0.0221		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Benzo(b)fluoranthene	ND	0.0276		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Benzo(k)fluoranthene	ND	0.0276		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Benzo(a)pyrene	ND	0.0332		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Indeno(1,2,3-cd)pyrene	ND	0.0442		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Dibenz(a,h)anthracene	ND	0.0553		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Benzo(g,h,i)perylene	ND	0.0553		mg/Kg-dry	1	9/13/2023 8:05:06 AM
Surr: 2-Fluorobiphenyl	93.3	22.2 - 146		%Rec	1	9/13/2023 8:05:06 AM
Surr: Terphenyl-d14 (surr)	121	20.2 - 159		%Rec	1	9/13/2023 8:05:06 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Bis(2-chloroethyl) ether	ND	0.0553		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Chlorophenol	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
1,3-Dichlorobenzene	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
1,4-Dichlorobenzene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
1,2-Dichlorobenzene	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benzyl alcohol	ND	0.166		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Methylphenol (o-cresol)	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:06:00 PM

Project: Dagmars Marina

Lab ID: 2308437-011

Matrix: Sediment

Client Sample ID: HP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
N-Nitrosodi-n-propylamine	ND	0.0884		mg/Kg-dry	1	9/7/2023 11:07:17 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Nitrobenzene	ND	0.0553		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Isophorone	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Nitrophenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4-Dimethylphenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Bis(2-chloroethoxy)methane	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4-Dichlorophenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
1,2,4-Trichlorobenzene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Naphthalene	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4-Chloroaniline	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Hexachlorobutadiene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4-Chloro-3-methylphenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Methylnaphthalene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
1-Methylnaphthalene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Hexachlorocyclopentadiene	ND	0.111		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4,6-Trichlorophenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4,5-Trichlorophenol	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Chloronaphthalene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2-Nitroaniline	ND	0.0553		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Acenaphthene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Dimethylphthalate	ND	3.87		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,6-Dinitrotoluene	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Acenaphthylene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4-Dinitrophenol	ND	0.332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Dibenzofuran	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
2,4-Dinitrotoluene	ND	0.0663		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4-Nitrophenol	ND	0.221		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Fluorene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4-Chlorophenyl phenyl ether	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Diethylphthalate	ND	0.829		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4,6-Dinitro-2-methylphenol	ND	0.276		mg/Kg-dry	1	9/7/2023 11:07:17 PM
4-Bromophenyl phenyl ether	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Hexachlorobenzene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Pentachlorophenol	ND	0.221		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Phenanthrene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Anthracene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Carbazole	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:06:00 PM

Project: Dagmars Marina

Lab ID: 2308437-011

Matrix: Sediment

Client Sample ID: HP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Fluoranthene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Pyrene	ND	0.166		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Butyl Benzylphthalate	ND	0.0553		mg/Kg-dry	1	9/7/2023 11:07:17 PM
bis(2-Ethylhexyl)adipate	ND	0.221		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benz(a)anthracene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Chrysene	ND	0.0553		mg/Kg-dry	1	9/7/2023 11:07:17 PM
bis (2-Ethylhexyl) phthalate	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Di-n-octyl phthalate	ND	0.0829		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benzo(b)fluoranthene	ND	0.111		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benzo(k)fluoranthene	ND	0.0332		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benzo(a)pyrene	ND	0.0442		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Indeno(1,2,3-cd)pyrene	ND	0.221		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Dibenz(a,h)anthracene	ND	0.111		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Benzo(g,h,i)perylene	ND	0.111		mg/Kg-dry	1	9/7/2023 11:07:17 PM
Surr: 2,4,6-Tribromophenol	76.1	33.1 - 127		%Rec	1	9/7/2023 11:07:17 PM
Surr: 2-Fluorobiphenyl	88.3	35.2 - 141		%Rec	1	9/7/2023 11:07:17 PM
Surr: Nitrobenzene-d5	82.1	15.6 - 158		%Rec	1	9/7/2023 11:07:17 PM
Surr: Phenol-d6	65.8	28.2 - 141		%Rec	1	9/7/2023 11:07:17 PM
Surr: p-Terphenyl	87.0	41.2 - 138		%Rec	1	9/7/2023 11:07:17 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	5.77	0.231		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Barium	18.1	0.461		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Cadmium	0.0475	0.0185		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Chromium	20.1	0.231		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Copper	13.0	0.692		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Lead	2.95	0.923		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Mercury	ND	0.185		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Nickel	20.4	0.231		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Selenium	ND	0.923		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Silver	ND	0.0185		mg/Kg-dry	1	9/6/2023 2:14:00 PM
Zinc	38.0	3.23		mg/Kg-dry	1	9/6/2023 2:14:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	11.9	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:06:00 PM

Project: Dagmars Marina

Lab ID: 2308437-011

Matrix: Sediment

Client Sample ID: HP-5-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	ND	0.150		%-dry	1	9/13/2023 4:20:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	ND	1.12		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	85.5	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	ND	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:56:00 PM

Project: Dagmars Marina

Lab ID: 2308437-012

Matrix: Sediment

Client Sample ID: HP-6-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.9		mg/Kg-dry	1	9/5/2023 10:08:25 PM
Heavy Oil	ND	99.7		mg/Kg-dry	1	9/5/2023 10:08:25 PM
Total Petroleum Hydrocarbons	ND	150		mg/Kg-dry	1	9/5/2023 10:08:25 PM
Surr: 2-Fluorobiphenyl	64.7	50 - 150		%Rec	1	9/5/2023 10:08:25 PM
Surr: o-Terphenyl	52.9	50 - 150		%Rec	1	9/5/2023 10:08:25 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Pyrene	ND	0.0398		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Indeno(1,2,3-cd)pyrene	ND	0.0398		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Dibenz(a,h)anthracene	ND	0.0498		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Benzo(g,h,i)perylene	ND	0.0498		mg/Kg-dry	1	9/15/2023 5:58:02 PM
Surr: 2-Fluorobiphenyl	78.0	22.2 - 146		%Rec	1	9/15/2023 5:58:02 PM
Surr: Terphenyl-d14 (surr)	83.7	20.2 - 159		%Rec	1	9/15/2023 5:58:02 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Bis(2-chloroethyl) ether	ND	0.0498		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Chlorophenol	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
1,3-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
1,2-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benzyl alcohol	ND	0.149		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Methylphenol (o-cresol)	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:56:00 PM

Project: Dagmars Marina

Lab ID: 2308437-012

Matrix: Sediment

Client Sample ID: HP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
N-Nitrosodi-n-propylamine	ND	0.0797		mg/Kg-dry	1	9/7/2023 11:37:42 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Nitrobenzene	ND	0.0498		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Isophorone	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Naphthalene	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Hexachlorocyclopentadiene	ND	0.0996		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2-Nitroaniline	ND	0.0498		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,6-Dinitrotoluene	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
2,4-Dinitrotoluene	ND	0.0597		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Diethylphthalate	ND	0.747		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/7/2023 11:37:42 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:56:00 PM

Project: Dagmars Marina

Lab ID: 2308437-012

Matrix: Sediment

Client Sample ID: HP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Pyrene	ND	0.149		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Butyl Benzylphthalate	ND	0.0498		mg/Kg-dry	1	9/7/2023 11:37:42 PM
bis(2-Ethylhexyl)adipate	ND	0.199		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Chrysene	ND	0.0498		mg/Kg-dry	1	9/7/2023 11:37:42 PM
bis (2-Ethylhexyl) phthalate	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Di-n-octyl phthalate	ND	0.0747		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benzo(b)fluoranthene	ND	0.0996		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benzo(a)pyrene	ND	0.0398		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Indeno(1,2,3-cd)pyrene	ND	0.199		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Dibenz(a,h)anthracene	ND	0.0996		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Benzo(g,h,i)perylene	ND	0.0996		mg/Kg-dry	1	9/7/2023 11:37:42 PM
Surr: 2,4,6-Tribromophenol	75.9	33.1 - 127		%Rec	1	9/7/2023 11:37:42 PM
Surr: 2-Fluorobiphenyl	83.7	35.2 - 141		%Rec	1	9/7/2023 11:37:42 PM
Surr: Nitrobenzene-d5	80.4	15.6 - 158		%Rec	1	9/7/2023 11:37:42 PM
Surr: Phenol-d6	61.4	28.2 - 141		%Rec	1	9/7/2023 11:37:42 PM
Surr: p-Terphenyl	79.9	41.2 - 138		%Rec	1	9/7/2023 11:37:42 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	7.42	0.291		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Barium	22.6	0.583		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Cadmium	0.0659	0.0233		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Chromium	27.7	0.291		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Copper	20.4	0.874		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Lead	5.82	1.17		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Mercury	ND	0.233		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Nickel	28.0	0.291		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Selenium	ND	1.17		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Silver	0.0233	0.0233		mg/Kg-dry	1	9/6/2023 2:17:00 PM
Zinc	50.4	4.08		mg/Kg-dry	1	9/6/2023 2:17:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	34.0	0.500		wt%	1	9/5/2023 8:39:42 AM
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Client: Apex Companies, LLC

Collection Date: 8/28/2023 4:56:00 PM

Project: Dagmars Marina

Lab ID: 2308437-012

Matrix: Sediment

Client Sample ID: HP-6-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Total Organic Carbon by EPA 9060

Batch ID: 41460 Analyst: SS

Total Organic Carbon	0.357	0.150		%-dry	1	9/13/2023 4:31:00 PM
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	8.60	1.49		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	72.0	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	ND	3.00		%	1	9/11/2023 3:49:00 PM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 5:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-013

Matrix: Sediment

Client Sample ID: HP-7-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.9	mg/Kg-dry	1	9/5/2023 10:19:20 PM
Heavy Oil	ND	99.9	mg/Kg-dry	1	9/5/2023 10:19:20 PM
Total Petroleum Hydrocarbons	ND	150	mg/Kg-dry	1	9/5/2023 10:19:20 PM
Surr: 2-Fluorobiphenyl	59.9	50 - 150	%Rec	1	9/5/2023 10:19:20 PM
Surr: o-Terphenyl	50.2	50 - 150	%Rec	1	9/5/2023 10:19:20 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
2-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
1-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Acenaphthylene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Acenaphthene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Fluorene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Phenanthrene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Anthracene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Fluoranthene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Pyrene	ND	0.0401	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Benz(a)anthracene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Chrysene	ND	0.0200	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Benzo(b)fluoranthene	ND	0.0250	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Benzo(k)fluoranthene	ND	0.0250	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Benzo(a)pyrene	ND	0.0300	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.0401	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Dibenz(a,h)anthracene	ND	0.0501	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Benzo(g,h,i)perylene	ND	0.0501	mg/Kg-dry	1	9/15/2023 6:27:31 PM
Surr: 2-Fluorobiphenyl	70.7	22.2 - 146	%Rec	1	9/15/2023 6:27:31 PM
Surr: Terphenyl-d14 (surr)	77.4	20.2 - 159	%Rec	1	9/15/2023 6:27:31 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0300	mg/Kg-dry	1	9/8/2023 12:08:09 AM
Bis(2-chloroethyl) ether	ND	0.0501	mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Chlorophenol	ND	0.0401	mg/Kg-dry	1	9/8/2023 12:08:09 AM
1,3-Dichlorobenzene	ND	0.0401	mg/Kg-dry	1	9/8/2023 12:08:09 AM
1,4-Dichlorobenzene	ND	0.0300	mg/Kg-dry	1	9/8/2023 12:08:09 AM
1,2-Dichlorobenzene	ND	0.0401	mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benzyl alcohol	ND	0.150	mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Methylphenol (o-cresol)	ND	0.0401	mg/Kg-dry	1	9/8/2023 12:08:09 AM

Client: Apex Companies, LLC

Collection Date: 8/28/2023 5:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-013

Matrix: Sediment

Client Sample ID: HP-7-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
N-Nitrosodi-n-propylamine	ND	0.0801		mg/Kg-dry	1	9/8/2023 12:08:09 AM
3&4-Methylphenol (m, p-cresol)	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Nitrobenzene	ND	0.0501		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Isophorone	ND	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Nitrophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4-Dimethylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Bis(2-chloroethoxy)methane	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4-Dichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
1,2,4-Trichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Naphthalene	ND	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4-Chloroaniline	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Hexachlorobutadiene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4-Chloro-3-methylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
1-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Hexachlorocyclopentadiene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4,6-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4,5-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Chloronaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2-Nitroaniline	ND	0.0501		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Acenaphthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Dimethylphthalate	ND	3.50		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,6-Dinitrotoluene	ND	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Acenaphthylene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4-Dinitrophenol	ND	0.300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Dibenzofuran	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
2,4-Dinitrotoluene	ND	0.0601		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Fluorene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4-Chlorophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Diethylphthalate	ND	0.751		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/8/2023 12:08:09 AM
4-Bromophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Hexachlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Phenanthrene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Carbazole	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 5:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-013

Matrix: Sediment

Client Sample ID: HP-7-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Pyrene	ND	0.150		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Butyl Benzylphthalate	ND	0.0501		mg/Kg-dry	1	9/8/2023 12:08:09 AM
bis(2-Ethylhexyl)adipate	ND	0.200		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benz(a)anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Chrysene	ND	0.0501		mg/Kg-dry	1	9/8/2023 12:08:09 AM
bis (2-Ethylhexyl) phthalate	0.100	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Di-n-octyl phthalate	ND	0.0751		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benzo(b)fluoranthene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benzo(k)fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benzo(a)pyrene	ND	0.0401		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Indeno(1,2,3-cd)pyrene	ND	0.200		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Dibenz(a,h)anthracene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Benzo(g,h,i)perylene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:08:09 AM
Surr: 2,4,6-Tribromophenol	71.7	33.1 - 127		%Rec	1	9/8/2023 12:08:09 AM
Surr: 2-Fluorobiphenyl	77.5	35.2 - 141		%Rec	1	9/8/2023 12:08:09 AM
Surr: Nitrobenzene-d5	73.1	15.6 - 158		%Rec	1	9/8/2023 12:08:09 AM
Surr: Phenol-d6	59.8	28.2 - 141		%Rec	1	9/8/2023 12:08:09 AM
Surr: p-Terphenyl	75.6	41.2 - 138		%Rec	1	9/8/2023 12:08:09 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	7.64	0.262		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Barium	22.2	0.524		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Cadmium	0.0629	0.0210		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Chromium	25.2	0.262		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Copper	19.8	0.786		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Lead	5.35	1.05		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Mercury	ND	0.210		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Nickel	26.6	0.262		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Selenium	ND	1.05		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Silver	ND	0.0210		mg/Kg-dry	1	9/6/2023 2:19:00 PM
Zinc	46.6	3.67		mg/Kg-dry	1	9/6/2023 2:19:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	37.2	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/28/2023 5:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-013

Matrix: Sediment

Client Sample ID: HP-7-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41403 Analyst: AM

Nitrogen, Ammonia	7.74	1.59		mg/Kg-dry	1	9/7/2023 12:00:00 PM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	67.8	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	ND	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/29/2023 11:20:00 AM

Project: Dagmars Marina

Lab ID: 2308437-017

Matrix: Sediment

Client Sample ID: BL-1-SB-4'

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.9		mg/Kg-dry	1	9/5/2023 10:30:24 PM
Heavy Oil	ND	99.7		mg/Kg-dry	1	9/5/2023 10:30:24 PM
Total Petroleum Hydrocarbons	ND	150		mg/Kg-dry	1	9/5/2023 10:30:24 PM
Surr: 2-Fluorobiphenyl	80.7	50 - 150		%Rec	1	9/5/2023 10:30:24 PM
Surr: o-Terphenyl	68.6	50 - 150		%Rec	1	9/5/2023 10:30:24 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
2-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
1-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Acenaphthylene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Acenaphthene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Fluorene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Phenanthrene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Anthracene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Fluoranthene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Pyrene	ND	0.0400		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Benz(a)anthracene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Chrysene	ND	0.0200		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Benzo(b)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Benzo(k)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Benzo(a)pyrene	ND	0.0300		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Indeno(1,2,3-cd)pyrene	ND	0.0400		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Dibenz(a,h)anthracene	ND	0.0500		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Benzo(g,h,i)perylene	ND	0.0500		mg/Kg-dry	1	9/15/2023 6:56:56 PM
Surr: 2-Fluorobiphenyl	81.5	22.2 - 146		%Rec	1	9/15/2023 6:56:56 PM
Surr: Terphenyl-d14 (surr)	91.7	20.2 - 159		%Rec	1	9/15/2023 6:56:56 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Bis(2-chloroethyl) ether	ND	0.0500		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Chlorophenol	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
1,3-Dichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
1,4-Dichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
1,2-Dichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Methylphenol (o-cresol)	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM

Original

Client: Apex Companies, LLC

Collection Date: 8/29/2023 11:20:00 AM

Project: Dagmars Marina

Lab ID: 2308437-017

Matrix: Sediment

Client Sample ID: BL-1-SB-4'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
N-Nitrosodi-n-propylamine	ND	0.0801		mg/Kg-dry	1	9/8/2023 12:38:27 AM
3&4-Methylphenol (m, p-cresol)	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Nitrobenzene	ND	0.0500		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Isophorone	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Nitrophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4-Dimethylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Bis(2-chloroethoxy)methane	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4-Dichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
1,2,4-Trichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Naphthalene	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4-Chloroaniline	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Hexachlorobutadiene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4-Chloro-3-methylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
1-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Hexachlorocyclopentadiene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4,6-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4,5-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Chloronaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2-Nitroaniline	ND	0.0500		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Acenaphthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Dimethylphthalate	ND	3.50		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,6-Dinitrotoluene	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Acenaphthylene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4-Dinitrophenol	ND	0.300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Dibenzofuran	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
2,4-Dinitrotoluene	ND	0.0601		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Fluorene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4-Chlorophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Diethylphthalate	ND	0.751		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/8/2023 12:38:27 AM
4-Bromophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Hexachlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Phenanthrene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Carbazole	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM

Client: Apex Companies, LLC

Collection Date: 8/29/2023 11:20:00 AM

Project: Dagmars Marina

Lab ID: 2308437-017

Matrix: Sediment

Client Sample ID: BL-1-SB-4'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Pyrene	ND	0.150		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Butyl Benzylphthalate	0.0516	0.0500		mg/Kg-dry	1	9/8/2023 12:38:27 AM
bis(2-Ethylhexyl)adipate	ND	0.200		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benz(a)anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Chrysene	ND	0.0500		mg/Kg-dry	1	9/8/2023 12:38:27 AM
bis (2-Ethylhexyl) phthalate	0.695	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Di-n-octyl phthalate	ND	0.0751		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benzo(b)fluoranthene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benzo(k)fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benzo(a)pyrene	ND	0.0400		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Indeno(1,2,3-cd)pyrene	ND	0.200		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Dibenz(a,h)anthracene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Benzo(g,h,i)perylene	ND	0.100		mg/Kg-dry	1	9/8/2023 12:38:27 AM
Surr: 2,4,6-Tribromophenol	89.9	33.1 - 127		%Rec	1	9/8/2023 12:38:27 AM
Surr: 2-Fluorobiphenyl	86.9	35.2 - 141		%Rec	1	9/8/2023 12:38:27 AM
Surr: Nitrobenzene-d5	86.1	15.6 - 158		%Rec	1	9/8/2023 12:38:27 AM
Surr: Phenol-d6	66.5	28.2 - 141		%Rec	1	9/8/2023 12:38:27 AM
Surr: p-Terphenyl	87.6	41.2 - 138		%Rec	1	9/8/2023 12:38:27 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	8.16	0.252		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Barium	26.7	0.504		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Cadmium	0.105	0.0201		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Chromium	27.5	0.252		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Copper	21.3	0.755		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Lead	5.72	1.01		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Mercury	ND	0.201		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Nickel	25.1	0.252		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Selenium	ND	1.01		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Silver	0.0408	0.0201		mg/Kg-dry	1	9/6/2023 2:22:00 PM
Zinc	46.5	3.53		mg/Kg-dry	1	9/6/2023 2:22:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	29.1	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/29/2023 11:20:00 AM

Project: Dagmars Marina

Lab ID: 2308437-017

Matrix: Sediment

Client Sample ID: BL-1-SB-4'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	12.6	1.32		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	72.2	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	3.27	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-020
Client Sample ID: MP-5-SB-2'

Collection Date: 8/29/2023 12:00:00 PM

Matrix: Sediment

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

Batch ID: 41391 Analyst: AP

Diesel Range Organics	ND	59.6		mg/Kg-dry	1	9/5/2023 10:41:19 PM
Heavy Oil	ND	119		mg/Kg-dry	1	9/5/2023 10:41:19 PM
Total Petroleum Hydrocarbons	ND	179		mg/Kg-dry	1	9/5/2023 10:41:19 PM
Surr: 2-Fluorobiphenyl	81.8	50 - 150		%Rec	1	9/5/2023 10:41:19 PM
Surr: o-Terphenyl	82.8	50 - 150		%Rec	1	9/5/2023 10:41:19 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392 Analyst: SK

Naphthalene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
2-Methylnaphthalene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
1-Methylnaphthalene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Acenaphthylene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Acenaphthene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Fluorene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Phenanthrene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Anthracene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Fluoranthene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Pyrene	ND	0.0479		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Benz(a)anthracene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Chrysene	ND	0.0240		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Benzo(b)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Benzo(a)pyrene	ND	0.0359		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Indeno(1,2,3-cd)pyrene	ND	0.0479		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Dibenz(a,h)anthracene	ND	0.0599		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Benzo(g,h,i)perylene	ND	0.0599		mg/Kg-dry	1	9/15/2023 7:26:16 PM
Surr: 2-Fluorobiphenyl	84.0	22.2 - 146		%Rec	1	9/15/2023 7:26:16 PM
Surr: Terphenyl-d14 (surr)	92.1	20.2 - 159		%Rec	1	9/15/2023 7:26:16 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393 Analyst: SH

Phenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Bis(2-chloroethyl) ether	ND	0.0599		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Chlorophenol	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
1,3-Dichlorobenzene	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
1,4-Dichlorobenzene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
1,2-Dichlorobenzene	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benzyl alcohol	ND	0.180		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Methylphenol (o-cresol)	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM

Original

Client: Apex Companies, LLC

Collection Date: 8/29/2023 12:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-020

Matrix: Sediment

Client Sample ID: MP-5-SB-2'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
N-Nitrosodi-n-propylamine	ND	0.0958		mg/Kg-dry	1	9/8/2023 1:08:51 AM
3&4-Methylphenol (m, p-cresol)	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Nitrobenzene	ND	0.0599		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Isophorone	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Nitrophenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4-Dimethylphenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Bis(2-chloroethoxy)methane	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4-Dichlorophenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
1,2,4-Trichlorobenzene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Naphthalene	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4-Chloroaniline	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Hexachlorobutadiene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4-Chloro-3-methylphenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Methylnaphthalene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
1-Methylnaphthalene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Hexachlorocyclopentadiene	ND	0.120		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4,6-Trichlorophenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4,5-Trichlorophenol	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Chloronaphthalene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2-Nitroaniline	ND	0.0599		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Acenaphthene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Dimethylphthalate	ND	4.19		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,6-Dinitrotoluene	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Acenaphthylene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4-Dinitrophenol	ND	0.359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Dibenzofuran	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
2,4-Dinitrotoluene	ND	0.0719		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4-Nitrophenol	ND	0.240		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Fluorene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4-Chlorophenyl phenyl ether	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Diethylphthalate	ND	0.898		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4,6-Dinitro-2-methylphenol	ND	0.299		mg/Kg-dry	1	9/8/2023 1:08:51 AM
4-Bromophenyl phenyl ether	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Hexachlorobenzene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Pentachlorophenol	ND	0.240		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Phenanthrene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Anthracene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Carbazole	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-020
Client Sample ID: MP-5-SB-2'

Collection Date: 8/29/2023 12:00:00 PM

Matrix: Sediment

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Fluoranthene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Pyrene	ND	0.180		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Butyl Benzylphthalate	ND	0.0599		mg/Kg-dry	1	9/8/2023 1:08:51 AM
bis(2-Ethylhexyl)adipate	ND	0.240		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benz(a)anthracene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Chrysene	ND	0.0599		mg/Kg-dry	1	9/8/2023 1:08:51 AM
bis (2-Ethylhexyl) phthalate	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Di-n-octyl phthalate	ND	0.0898		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benzo(b)fluoranthene	ND	0.120		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benzo(k)fluoranthene	ND	0.0359		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benzo(a)pyrene	ND	0.0479		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Indeno(1,2,3-cd)pyrene	ND	0.240		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Dibenz(a,h)anthracene	ND	0.120		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Benzo(g,h,i)perylene	ND	0.120		mg/Kg-dry	1	9/8/2023 1:08:51 AM
Surr: 2,4,6-Tribromophenol	85.8	33.1 - 127		%Rec	1	9/8/2023 1:08:51 AM
Surr: 2-Fluorobiphenyl	90.0	35.2 - 141		%Rec	1	9/8/2023 1:08:51 AM
Surr: Nitrobenzene-d5	85.1	15.6 - 158		%Rec	1	9/8/2023 1:08:51 AM
Surr: Phenol-d6	65.7	28.2 - 141		%Rec	1	9/8/2023 1:08:51 AM
Surr: p-Terphenyl	89.7	41.2 - 138		%Rec	1	9/8/2023 1:08:51 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	5.01	0.246		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Barium	17.5	0.493		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Cadmium	0.0364	0.0197		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Chromium	15.2	0.246		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Copper	11.6	0.739		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Lead	2.65	0.985		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Mercury	ND	0.197		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Nickel	16.5	0.246		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Selenium	ND	0.985		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Silver	ND	0.0197		mg/Kg-dry	1	9/6/2023 2:24:00 PM
Zinc	34.7	3.45		mg/Kg-dry	1	9/6/2023 2:24:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	18.8	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-020
Client Sample ID: MP-5-SB-2'

Collection Date: 8/29/2023 12:00:00 PM

Matrix: Sediment

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<u>Ammonia by SM 4500 NH3 E</u>				Batch ID: 41452		Analyst: SS
Nitrogen, Ammonia	2.54	1.17		mg/Kg-dry	1	9/13/2023 9:00:00 AM
<u>Total Volatile Solids by SM 2540</u>				Batch ID: R86527		Analyst: AM
Total Solids	83.2	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	ND	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-021
Client Sample ID: HP-6-SB-3'

Collection Date: 8/29/2023 2:35:00 PM

Matrix: Sediment

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

Batch ID: 41391 Analyst: AP

Diesel Range Organics	ND	49.8		mg/Kg-dry	1	9/5/2023 10:52:13 PM
Heavy Oil	ND	99.5		mg/Kg-dry	1	9/5/2023 10:52:13 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 10:52:13 PM
Surr: 2-Fluorobiphenyl	144	50 - 150		%Rec	1	9/5/2023 10:52:13 PM
Surr: o-Terphenyl	134	50 - 150		%Rec	1	9/5/2023 10:52:13 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392 Analyst: SK

Naphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
2-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
1-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Acenaphthylene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Acenaphthene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Fluorene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Phenanthrene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Anthracene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Fluoranthene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Pyrene	ND	0.0400		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Benz(a)anthracene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Chrysene	ND	0.0200		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Benzo(b)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Benzo(k)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Benzo(a)pyrene	ND	0.0300		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.0400		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Dibenz(a,h)anthracene	ND	0.0500		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Benzo(g,h,i)perylene	ND	0.0500		mg/Kg-dry	1	9/18/2023 11:27:14 AM
Surr: 2-Fluorobiphenyl	33.1	22.2 - 146		%Rec	1	9/18/2023 11:27:14 AM
Surr: Terphenyl-d14 (surr)	30.6	20.2 - 159		%Rec	1	9/18/2023 11:27:14 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393 Analyst: SH

Phenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Bis(2-chloroethyl) ether	ND	0.0500		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Chlorophenol	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
1,3-Dichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
1,4-Dichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
1,2-Dichlorobenzene	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Methylphenol (o-cresol)	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/29/2023 2:35:00 PM

Project: Dagmars Marina

Lab ID: 2308437-021

Matrix: Sediment

Client Sample ID: HP-6-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
N-Nitrosodi-n-propylamine	ND	0.0800		mg/Kg-dry	1	9/8/2023 9:21:43 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Nitrobenzene	ND	0.0500		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Isophorone	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Nitrophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4-Dimethylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Bis(2-chloroethoxy)methane	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4-Dichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
1,2,4-Trichlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Naphthalene	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4-Chloroaniline	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Hexachlorobutadiene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4-Chloro-3-methylphenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
1-Methylnaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Hexachlorocyclopentadiene	ND	0.100		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4,6-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4,5-Trichlorophenol	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Chloronaphthalene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2-Nitroaniline	ND	0.0500		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Acenaphthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Dimethylphthalate	ND	3.50		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,6-Dinitrotoluene	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Acenaphthylene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4-Dinitrophenol	ND	0.300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Dibenzofuran	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
2,4-Dinitrotoluene	ND	0.0600		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Fluorene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4-Chlorophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Diethylphthalate	ND	0.750		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/8/2023 9:21:43 PM
4-Bromophenyl phenyl ether	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Hexachlorobenzene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Phenanthrene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Carbazole	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM

Client: Apex Companies, LLC

Collection Date: 8/29/2023 2:35:00 PM

Project: Dagmars Marina

Lab ID: 2308437-021

Matrix: Sediment

Client Sample ID: HP-6-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Pyrene	ND	0.150		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Butyl Benzylphthalate	ND	0.0500		mg/Kg-dry	1	9/8/2023 9:21:43 PM
bis(2-Ethylhexyl)adipate	ND	0.200		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benz(a)anthracene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Chrysene	ND	0.0500		mg/Kg-dry	1	9/8/2023 9:21:43 PM
bis (2-Ethylhexyl) phthalate	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Di-n-octyl phthalate	ND	0.0750		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benzo(b)fluoranthene	ND	0.100		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benzo(k)fluoranthene	ND	0.0300		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benzo(a)pyrene	ND	0.0400		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Indeno(1,2,3-cd)pyrene	ND	0.200		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Dibenz(a,h)anthracene	ND	0.100		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Benzo(g,h,i)perylene	ND	0.100		mg/Kg-dry	1	9/8/2023 9:21:43 PM
Surr: 2,4,6-Tribromophenol	75.7	33.1 - 127		%Rec	1	9/8/2023 9:21:43 PM
Surr: 2-Fluorobiphenyl	76.7	35.2 - 141		%Rec	1	9/8/2023 9:21:43 PM
Surr: Nitrobenzene-d5	73.4	15.6 - 158		%Rec	1	9/8/2023 9:21:43 PM
Surr: Phenol-d6	67.5	28.2 - 141		%Rec	1	9/8/2023 9:21:43 PM
Surr: p-Terphenyl	71.0	41.2 - 138		%Rec	1	9/8/2023 9:21:43 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	9.53	0.284		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Barium	30.5	0.567		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Cadmium	0.0840	0.0227		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Chromium	31.7	0.284		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Copper	23.3	0.851		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Lead	4.61	1.13		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Mercury	ND	0.227		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Nickel	29.7	0.284		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Selenium	ND	1.13		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Silver	0.0369	0.0227		mg/Kg-dry	1	9/6/2023 2:26:00 PM
Zinc	47.4	3.97		mg/Kg-dry	1	9/6/2023 2:26:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	26.5	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/29/2023 2:35:00 PM

Project: Dagmars Marina

Lab ID: 2308437-021

Matrix: Sediment

Client Sample ID: HP-6-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	16.9	1.27		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	72.4	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	3.43	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:00:00 AM

Project: Dagmars Marina

Lab ID: 2308437-024

Matrix: Sediment

Client Sample ID: MP-6-SB-2'

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.9		mg/Kg-dry	1	9/5/2023 11:03:08 PM
Heavy Oil	ND	99.8		mg/Kg-dry	1	9/5/2023 11:03:08 PM
Total Petroleum Hydrocarbons	ND	150		mg/Kg-dry	1	9/5/2023 11:03:08 PM
Surr: 2-Fluorobiphenyl	73.9	50 - 150		%Rec	1	9/5/2023 11:03:08 PM
Surr: o-Terphenyl	63.6	50 - 150		%Rec	1	9/5/2023 11:03:08 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Pyrene	ND	0.0398		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Benzo(a)pyrene	ND	0.0298		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Indeno(1,2,3-cd)pyrene	ND	0.0398		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Dibenz(a,h)anthracene	ND	0.0497		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Benzo(g,h,i)perylene	ND	0.0497		mg/Kg-dry	1	9/18/2023 11:56:20 AM
Surr: 2-Fluorobiphenyl	36.3	22.2 - 146		%Rec	1	9/18/2023 11:56:20 AM
Surr: Terphenyl-d14 (surr)	33.6	20.2 - 159		%Rec	1	9/18/2023 11:56:20 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Bis(2-chloroethyl) ether	ND	0.0497		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Chlorophenol	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
1,3-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
1,4-Dichlorobenzene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
1,2-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benzyl alcohol	ND	0.149		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Methylphenol (o-cresol)	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:00:00 AM

Project: Dagmars Marina

Lab ID: 2308437-024

Matrix: Sediment

Client Sample ID: MP-6-SB-2'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
N-Nitrosodi-n-propylamine	ND	0.0796		mg/Kg-dry	1	9/8/2023 9:52:19 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Nitrobenzene	ND	0.0497		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Isophorone	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Nitrophenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4-Dimethylphenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Bis(2-chloroethoxy)methane	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4-Dichlorophenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
1,2,4-Trichlorobenzene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Naphthalene	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4-Chloroaniline	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Hexachlorobutadiene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4-Chloro-3-methylphenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Methylnaphthalene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
1-Methylnaphthalene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Hexachlorocyclopentadiene	ND	0.0994		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4,6-Trichlorophenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4,5-Trichlorophenol	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Chloronaphthalene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2-Nitroaniline	ND	0.0497		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Acenaphthene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Dimethylphthalate	ND	3.48		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,6-Dinitrotoluene	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Acenaphthylene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4-Dinitrophenol	ND	0.298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Dibenzofuran	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
2,4-Dinitrotoluene	ND	0.0597		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Fluorene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4-Chlorophenyl phenyl ether	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Diethylphthalate	ND	0.746		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/8/2023 9:52:19 PM
4-Bromophenyl phenyl ether	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Hexachlorobenzene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Phenanthrene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Anthracene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Carbazole	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:00:00 AM

Project: Dagmars Marina

Lab ID: 2308437-024

Matrix: Sediment

Client Sample ID: MP-6-SB-2'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Fluoranthene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Pyrene	ND	0.149		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Butyl Benzylphthalate	ND	0.0497		mg/Kg-dry	1	9/8/2023 9:52:19 PM
bis(2-Ethylhexyl)adipate	ND	0.199		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benz(a)anthracene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Chrysene	ND	0.0497		mg/Kg-dry	1	9/8/2023 9:52:19 PM
bis (2-Ethylhexyl) phthalate	0.0588	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Di-n-octyl phthalate	ND	0.0746		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benzo(b)fluoranthene	ND	0.0994		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benzo(k)fluoranthene	ND	0.0298		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benzo(a)pyrene	ND	0.0398		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Indeno(1,2,3-cd)pyrene	ND	0.199		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Dibenz(a,h)anthracene	ND	0.0994		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Benzo(g,h,i)perylene	ND	0.0994		mg/Kg-dry	1	9/8/2023 9:52:19 PM
Surr: 2,4,6-Tribromophenol	80.7	33.1 - 127		%Rec	1	9/8/2023 9:52:19 PM
Surr: 2-Fluorobiphenyl	80.6	35.2 - 141		%Rec	1	9/8/2023 9:52:19 PM
Surr: Nitrobenzene-d5	73.8	15.6 - 158		%Rec	1	9/8/2023 9:52:19 PM
Surr: Phenol-d6	64.5	28.2 - 141		%Rec	1	9/8/2023 9:52:19 PM
Surr: p-Terphenyl	73.7	41.2 - 138		%Rec	1	9/8/2023 9:52:19 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	7.55	0.302		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Barium	32.1	0.604		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Cadmium	0.0985	0.0242		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Chromium	28.4	0.302		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Copper	26.0	0.906		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Lead	5.87	1.21		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Mercury	ND	0.242		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Nickel	31.3	0.302		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Selenium	ND	1.21		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Silver	0.0320	0.0242		mg/Kg-dry	1	9/6/2023 2:29:00 PM
Zinc	52.2	4.23		mg/Kg-dry	1	9/6/2023 2:29:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	35.3	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:00:00 AM

Project: Dagmars Marina

Lab ID: 2308437-024

Matrix: Sediment

Client Sample ID: MP-6-SB-2'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	9.37	1.45		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	66.1	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	ND	3.00		%	1	9/11/2023 3:49:00 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:41:00 AM

Project: Dagmars Marina

Lab ID: 2308437-026

Matrix: Sediment

Client Sample ID: HP-1-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	49.8		mg/Kg-dry	1	9/5/2023 11:14:04 PM
Heavy Oil	ND	99.5		mg/Kg-dry	1	9/5/2023 11:14:04 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/5/2023 11:14:04 PM
Surr: 2-Fluorobiphenyl	62.0	50 - 150		%Rec	1	9/5/2023 11:14:04 PM
Surr: o-Terphenyl	51.3	50 - 150		%Rec	1	9/5/2023 11:14:04 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
2-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
1-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Acenaphthylene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Acenaphthene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Fluorene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Phenanthrene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Anthracene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Fluoranthene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Pyrene	ND	0.0399		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Benz(a)anthracene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Chrysene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Benzo(b)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Benzo(k)fluoranthene	ND	0.0250		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Indeno(1,2,3-cd)pyrene	ND	0.0399		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Dibenz(a,h)anthracene	ND	0.0499		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Benzo(g,h,i)perylene	ND	0.0499		mg/Kg-dry	1	9/18/2023 12:25:25 PM
Surr: 2-Fluorobiphenyl	26.9	22.2 - 146		%Rec	1	9/18/2023 12:25:25 PM
Surr: Terphenyl-d14 (surr)	35.3	20.2 - 159		%Rec	1	9/18/2023 12:25:25 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Bis(2-chloroethyl) ether	ND	0.0499		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Chlorophenol	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
1,3-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
1,2-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Methylphenol (o-cresol)	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:41:00 AM

Project: Dagmars Marina

Lab ID: 2308437-026

Matrix: Sediment

Client Sample ID: HP-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
N-Nitrosodi-n-propylamine	ND	0.0798		mg/Kg-dry	1	9/8/2023 10:22:49 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Nitrobenzene	ND	0.0499		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Isophorone	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Naphthalene	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Hexachlorocyclopentadiene	ND	0.0998		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2-Nitroaniline	ND	0.0499		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,6-Dinitrotoluene	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
2,4-Dinitrotoluene	ND	0.0599		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4-Nitrophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Diethylphthalate	ND	0.749		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4,6-Dinitro-2-methylphenol	ND	0.250		mg/Kg-dry	1	9/8/2023 10:22:49 PM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Pentachlorophenol	ND	0.200		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:41:00 AM

Project: Dagmars Marina

Lab ID: 2308437-026

Matrix: Sediment

Client Sample ID: HP-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Fluoranthene	0.0302	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Pyrene	ND	0.150		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Butyl Benzylphthalate	ND	0.0499		mg/Kg-dry	1	9/8/2023 10:22:49 PM
bis(2-Ethylhexyl)adipate	ND	0.200		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Chrysene	ND	0.0499		mg/Kg-dry	1	9/8/2023 10:22:49 PM
bis (2-Ethylhexyl) phthalate	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Di-n-octyl phthalate	ND	0.0749		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benzo(b)fluoranthene	ND	0.0998		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benzo(a)pyrene	ND	0.0399		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.200		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Dibenz(a,h)anthracene	ND	0.0998		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Benzo(g,h,i)perylene	ND	0.0998		mg/Kg-dry	1	9/8/2023 10:22:49 PM
Surr: 2,4,6-Tribromophenol	86.1	33.1 - 127		%Rec	1	9/8/2023 10:22:49 PM
Surr: 2-Fluorobiphenyl	68.7	35.2 - 141		%Rec	1	9/8/2023 10:22:49 PM
Surr: Nitrobenzene-d5	71.0	15.6 - 158		%Rec	1	9/8/2023 10:22:49 PM
Surr: Phenol-d6	70.5	28.2 - 141		%Rec	1	9/8/2023 10:22:49 PM
Surr: p-Terphenyl	90.2	41.2 - 138		%Rec	1	9/8/2023 10:22:49 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	11.4	0.294		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Barium	33.6	0.588		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Cadmium	0.101	0.0235		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Chromium	35.0	0.294		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Copper	31.7	0.882		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Lead	8.29	1.18		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Mercury	ND	0.235		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Nickel	34.7	0.294		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Selenium	ND	1.18		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Silver	0.0594	0.0235		mg/Kg-dry	1	9/6/2023 2:31:00 PM
Zinc	66.6	4.12		mg/Kg-dry	1	9/6/2023 2:31:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	40.1	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:41:00 AM

Project: Dagmars Marina

Lab ID: 2308437-026

Matrix: Sediment

Client Sample ID: HP-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	19.8	1.61		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	57.9	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	4.22	3.00		%	1	9/11/2023 3:49:00 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:32:00 AM

Project: Dagmars Marina

Lab ID: 2308437-027

Matrix: Sediment

Client Sample ID: HP-2-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	50.0		mg/Kg-dry	1	9/5/2023 11:24:59 PM
Heavy Oil	ND	100		mg/Kg-dry	1	9/5/2023 11:24:59 PM
Total Petroleum Hydrocarbons	ND	150		mg/Kg-dry	1	9/5/2023 11:24:59 PM
Surr: 2-Fluorobiphenyl	85.3	50 - 150		%Rec	1	9/5/2023 11:24:59 PM
Surr: o-Terphenyl	76.7	50 - 150		%Rec	1	9/5/2023 11:24:59 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
2-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
1-Methylnaphthalene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Acenaphthylene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Acenaphthene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Fluorene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Phenanthrene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Anthracene	ND	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Fluoranthene	0.162	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Pyrene	0.0638	0.0400		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Benz(a)anthracene	0.0893	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Chrysene	0.139	0.0200		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Benzo(b)fluoranthene	0.159	0.0250		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Benzo(k)fluoranthene	0.0482	0.0250		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Benzo(a)pyrene	0.0760	0.0300		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Indeno(1,2,3-cd)pyrene	ND	0.0400		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Dibenz(a,h)anthracene	ND	0.0500		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Benzo(g,h,i)perylene	ND	0.0500		mg/Kg-dry	1	9/18/2023 12:54:27 PM
Surr: 2-Fluorobiphenyl	29.3	22.2 - 146		%Rec	1	9/18/2023 12:54:27 PM
Surr: Terphenyl-d14 (surr)	29.1	20.2 - 159		%Rec	1	9/18/2023 12:54:27 PM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Bis(2-chloroethyl) ether	ND	0.0494		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Chlorophenol	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
1,3-Dichlorobenzene	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
1,4-Dichlorobenzene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
1,2-Dichlorobenzene	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benzyl alcohol	ND	0.148		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Methylphenol (o-cresol)	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:32:00 AM

Project: Dagmars Marina

Lab ID: 2308437-027

Matrix: Sediment

Client Sample ID: HP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Hexachloroethane	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
N-Nitrosodi-n-propylamine	ND	0.0791		mg/Kg-dry	1	9/8/2023 10:53:17 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Nitrobenzene	ND	0.0494		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Isophorone	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Nitrophenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4-Dimethylphenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Bis(2-chloroethoxy)methane	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4-Dichlorophenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
1,2,4-Trichlorobenzene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Naphthalene	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4-Chloroaniline	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Hexachlorobutadiene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4-Chloro-3-methylphenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Methylnaphthalene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
1-Methylnaphthalene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Hexachlorocyclopentadiene	ND	0.0989		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4,6-Trichlorophenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4,5-Trichlorophenol	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Chloronaphthalene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2-Nitroaniline	ND	0.0494		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Acenaphthene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Dimethylphthalate	ND	3.46		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,6-Dinitrotoluene	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Acenaphthylene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4-Dinitrophenol	ND	0.297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Dibenzofuran	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
2,4-Dinitrotoluene	ND	0.0593		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4-Nitrophenol	ND	0.198		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Fluorene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4-Chlorophenyl phenyl ether	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Diethylphthalate	ND	0.742		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4,6-Dinitro-2-methylphenol	ND	0.247		mg/Kg-dry	1	9/8/2023 10:53:17 PM
4-Bromophenyl phenyl ether	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Hexachlorobenzene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Pentachlorophenol	ND	0.198		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Phenanthrene	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Anthracene	0.0341	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Carbazole	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:32:00 AM

Project: Dagmars Marina

Lab ID: 2308437-027

Matrix: Sediment

Client Sample ID: HP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Di-n-butylphthalate	ND	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Fluoranthene	0.351	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Pyrene	ND	0.148		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Butyl Benzylphthalate	ND	0.0494		mg/Kg-dry	1	9/8/2023 10:53:17 PM
bis(2-Ethylhexyl)adipate	ND	0.198		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benz(a)anthracene	0.211	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Chrysene	0.267	0.0494		mg/Kg-dry	1	9/8/2023 10:53:17 PM
bis (2-Ethylhexyl) phthalate	ND	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Di-n-octyl phthalate	ND	0.0742		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benzo(b)fluoranthene	0.291	0.0989		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benzo(k)fluoranthene	0.0958	0.0297		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benzo(a)pyrene	0.158	0.0396		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Indeno(1,2,3-cd)pyrene	ND	0.198		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Dibenz(a,h)anthracene	ND	0.0989		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Benzo(g,h,i)perylene	ND	0.0989		mg/Kg-dry	1	9/8/2023 10:53:17 PM
Surr: 2,4,6-Tribromophenol	67.7	33.1 - 127		%Rec	1	9/8/2023 10:53:17 PM
Surr: 2-Fluorobiphenyl	66.8	35.2 - 141		%Rec	1	9/8/2023 10:53:17 PM
Surr: Nitrobenzene-d5	63.8	15.6 - 158		%Rec	1	9/8/2023 10:53:17 PM
Surr: Phenol-d6	51.2	28.2 - 141		%Rec	1	9/8/2023 10:53:17 PM
Surr: p-Terphenyl	65.3	41.2 - 138		%Rec	1	9/8/2023 10:53:17 PM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	7.95	0.375		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Barium	22.7	0.750		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Cadmium	0.0660	0.0300		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Chromium	25.0	0.375		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Copper	21.6	1.12		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Lead	5.74	1.50		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Mercury	ND	0.300		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Nickel	26.8	0.375		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Selenium	ND	1.50		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Silver	ND	0.0300		mg/Kg-dry	1	9/6/2023 2:34:00 PM
Zinc	46.0	5.25		mg/Kg-dry	1	9/6/2023 2:34:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86308

Analyst: MP

Percent Moisture	48.3	0.500		wt%	1	9/5/2023 8:39:42 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:32:00 AM

Project: Dagmars Marina

Lab ID: 2308437-027

Matrix: Sediment

Client Sample ID: HP-2-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	16.4	1.90		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	60.8	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	3.42	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:50:00 AM

Project: Dagmars Marina

Lab ID: 2308437-028

Matrix: Sediment

Client Sample ID: OF-1-SS

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

Batch ID: 41391

Analyst: AP

Diesel Range Organics	ND	50.2		mg/Kg-dry	1	9/5/2023 11:36:05 PM
Heavy Oil	ND	100		mg/Kg-dry	1	9/5/2023 11:36:05 PM
Total Petroleum Hydrocarbons	ND	151		mg/Kg-dry	1	9/5/2023 11:36:05 PM
Surr: 2-Fluorobiphenyl	87.0	50 - 150		%Rec	1	9/5/2023 11:36:05 PM
Surr: o-Terphenyl	85.4	50 - 150		%Rec	1	9/5/2023 11:36:05 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41392

Analyst: SK

Naphthalene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
2-Methylnaphthalene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
1-Methylnaphthalene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Acenaphthylene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Acenaphthene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Fluorene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Phenanthrene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Anthracene	ND	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Fluoranthene	0.0271	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Pyrene	ND	0.0390		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Benz(a)anthracene	0.0211	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Chrysene	0.0700	0.0195		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Benzo(b)fluoranthene	ND	0.0244		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Benzo(k)fluoranthene	ND	0.0244		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Benzo(a)pyrene	ND	0.0292		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Indeno(1,2,3-cd)pyrene	ND	0.0390		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Dibenz(a,h)anthracene	ND	0.0487		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Benzo(g,h,i)perylene	ND	0.0487		mg/Kg-dry	1	9/18/2023 1:25:50 PM
Surr: 2-Fluorobiphenyl	10.5	22.2 - 146	S	%Rec	1	9/18/2023 1:25:50 PM
Surr: Terphenyl-d14 (surr)	32.5	20.2 - 159		%Rec	1	9/18/2023 1:25:50 PM

NOTES:

S - Outlying surrogate recovery attributed to matrix interference.

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Phenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Bis(2-chloroethyl) ether	ND	0.0487		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Chlorophenol	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
1,3-Dichlorobenzene	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
1,4-Dichlorobenzene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
1,2-Dichlorobenzene	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM

Original

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:50:00 AM

Project: Dagmars Marina

Lab ID: 2308437-028

Matrix: Sediment

Client Sample ID: OF-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Benzyl alcohol	ND	0.146		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Methylphenol (o-cresol)	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Hexachloroethane	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
N-Nitrosodi-n-propylamine	ND	0.0780		mg/Kg-dry	1	9/8/2023 11:23:46 PM
3&4-Methylphenol (m, p-cresol)	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Nitrobenzene	ND	0.0487		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Isophorone	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Nitrophenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4-Dimethylphenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Bis(2-chloroethoxy)methane	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4-Dichlorophenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
1,2,4-Trichlorobenzene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Naphthalene	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4-Chloroaniline	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Hexachlorobutadiene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4-Chloro-3-methylphenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Methylnaphthalene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
1-Methylnaphthalene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Hexachlorocyclopentadiene	ND	0.0975		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4,6-Trichlorophenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4,5-Trichlorophenol	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Chloronaphthalene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2-Nitroaniline	ND	0.0487		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Acenaphthene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Dimethylphthalate	ND	3.41		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,6-Dinitrotoluene	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Acenaphthylene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4-Dinitrophenol	ND	0.292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Dibenzofuran	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
2,4-Dinitrotoluene	ND	0.0585		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4-Nitrophenol	ND	0.195		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Fluorene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4-Chlorophenyl phenyl ether	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Diethylphthalate	ND	0.731		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4,6-Dinitro-2-methylphenol	ND	0.244		mg/Kg-dry	1	9/8/2023 11:23:46 PM
4-Bromophenyl phenyl ether	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Hexachlorobenzene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Pentachlorophenol	ND	0.195		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Phenanthrene	0.0392	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 10:50:00 AM

Project: Dagmars Marina

Lab ID: 2308437-028

Matrix: Sediment

Client Sample ID: OF-1-SS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41393

Analyst: SH

Anthracene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Carbazole	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Di-n-butylphthalate	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Fluoranthene	0.0651	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Pyrene	ND	0.146		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Butyl Benzylphthalate	ND	0.0487		mg/Kg-dry	1	9/8/2023 11:23:46 PM
bis(2-Ethylhexyl)adipate	ND	0.195		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Benz(a)anthracene	0.0513	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Chrysene	0.148	0.0487		mg/Kg-dry	1	9/8/2023 11:23:46 PM
bis (2-Ethylhexyl) phthalate	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Di-n-octyl phthalate	ND	0.0731		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Benzo(b)fluoranthene	ND	0.0975		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Benzo(k)fluoranthene	ND	0.0292		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Benzo(a)pyrene	ND	0.0390		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Indeno(1,2,3-cd)pyrene	ND	0.195		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Dibenz(a,h)anthracene	ND	0.0975		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Benzo(g,h,i)perylene	ND	0.0975		mg/Kg-dry	1	9/8/2023 11:23:46 PM
Surr: 2,4,6-Tribromophenol	78.6	33.1 - 127		%Rec	1	9/8/2023 11:23:46 PM
Surr: 2-Fluorobiphenyl	26.4	35.2 - 141	S	%Rec	1	9/8/2023 11:23:46 PM
Surr: Nitrobenzene-d5	38.9	15.6 - 158		%Rec	1	9/8/2023 11:23:46 PM
Surr: Phenol-d6	58.5	28.2 - 141		%Rec	1	9/8/2023 11:23:46 PM
Surr: p-Terphenyl	81.2	41.2 - 138		%Rec	1	9/8/2023 11:23:46 PM

NOTES:

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

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	12.0	0.395		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Barium	27.5	0.791		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Cadmium	0.0901	0.0316		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Chromium	26.6	0.395		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Copper	25.9	1.19		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Lead	6.01	1.58		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Mercury	ND	0.316		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Nickel	28.1	0.395		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Selenium	ND	1.58		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Silver	0.0348	0.0316		mg/Kg-dry	1	9/6/2023 2:36:00 PM
Zinc	52.3	5.53		mg/Kg-dry	1	9/6/2023 2:36:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-028
Client Sample ID: OF-1-SS

Collection Date: 8/30/2023 10:50:00 AM

Matrix: Sediment

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Sample Moisture (Percent Moisture)

Batch ID: R86308 Analyst: MP

Percent Moisture	50.2	0.500		wt%	1	9/5/2023 8:39:42 AM
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	20.5	1.83		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86527 Analyst: AM

Total Solids	54.8	3.00		%	1	9/11/2023 3:49:00 PM
Total Volatile Solids	4.33	3.00		%	1	9/11/2023 3:49:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-029
Client Sample ID: HP-7-SB-3'

Collection Date: 8/29/2023 3:43:00 PM

Matrix: Sediment

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

Batch ID: 41406 Analyst: AP

Diesel Range Organics	ND	53.1		mg/Kg-dry	1	9/6/2023 5:56:23 PM
Heavy Oil	ND	106		mg/Kg-dry	1	9/6/2023 5:56:23 PM
Total Petroleum Hydrocarbons	ND	159		mg/Kg-dry	1	9/6/2023 5:56:23 PM
Surr: 2-Fluorobiphenyl	80.2	50 - 150		%Rec	1	9/6/2023 5:56:23 PM
Surr: o-Terphenyl	64.4	50 - 150		%Rec	1	9/6/2023 5:56:23 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41418 Analyst: RG

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Pyrene	ND	0.0398		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Indeno(1,2,3-cd)pyrene	ND	0.0398		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Dibenz(a,h)anthracene	ND	0.0498		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Benzo(g,h,i)perylene	ND	0.0498		mg/Kg-dry	1	9/19/2023 1:02:03 AM
Surr: 2-Fluorobiphenyl	34.0	22.2 - 146		%Rec	1	9/19/2023 1:02:03 AM
Surr: Terphenyl-d14 (surr)	31.1	20.2 - 159		%Rec	1	9/19/2023 1:02:03 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421 Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Bis(2-chloroethyl) ether	ND	0.0498		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Chlorophenol	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
1,3-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
1,2-Dichlorobenzene	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benzyl alcohol	ND	0.149		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Methylphenol (o-cresol)	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM

Original

Client: Apex Companies, LLC

Collection Date: 8/29/2023 3:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-029

Matrix: Sediment

Client Sample ID: HP-7-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421

Analyst: SH

Hexachloroethane	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
N-Nitrosodi-n-propylamine	ND	0.0797		mg/Kg-dry	1	9/9/2023 12:55:01 AM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Nitrobenzene	ND	0.0498		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Isophorone	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Naphthalene	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Hexachlorocyclopentadiene	ND	0.0996		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2-Nitroaniline	ND	0.0498		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,6-Dinitrotoluene	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
2,4-Dinitrotoluene	ND	0.0598		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Diethylphthalate	ND	0.747		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/9/2023 12:55:01 AM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Anthracene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Carbazole	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM

Client: Apex Companies, LLC

Collection Date: 8/29/2023 3:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-029

Matrix: Sediment

Client Sample ID: HP-7-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421

Analyst: SH

Di-n-butylphthalate	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Fluoranthene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Pyrene	ND	0.149		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Butyl Benzylphthalate	ND	0.0498		mg/Kg-dry	1	9/9/2023 12:55:01 AM
bis(2-Ethylhexyl)adipate	ND	0.199		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benz(a)anthracene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Chrysene	ND	0.0498		mg/Kg-dry	1	9/9/2023 12:55:01 AM
bis (2-Ethylhexyl) phthalate	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Di-n-octyl phthalate	ND	0.0747		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benzo(b)fluoranthene	ND	0.0996		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benzo(k)fluoranthene	ND	0.0299		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benzo(a)pyrene	ND	0.0398		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Indeno(1,2,3-cd)pyrene	ND	0.199		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Dibenz(a,h)anthracene	ND	0.0996		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Benzo(g,h,i)perylene	ND	0.0996		mg/Kg-dry	1	9/9/2023 12:55:01 AM
Surr: 2,4,6-Tribromophenol	48.5	33.1 - 127		%Rec	1	9/9/2023 12:55:01 AM
Surr: 2-Fluorobiphenyl	55.6	35.2 - 141		%Rec	1	9/9/2023 12:55:01 AM
Surr: Nitrobenzene-d5	53.5	15.6 - 158		%Rec	1	9/9/2023 12:55:01 AM
Surr: Phenol-d6	44.6	28.2 - 141		%Rec	1	9/9/2023 12:55:01 AM
Surr: p-Terphenyl	49.5	41.2 - 138		%Rec	1	9/9/2023 12:55:01 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	11.5	0.262		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Barium	33.8	0.524		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Cadmium	0.0801	0.0209		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Chromium	34.4	0.262		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Copper	23.2	0.785		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Lead	5.66	1.05		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Mercury	ND	0.209		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Nickel	31.0	0.262		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Selenium	ND	1.05		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Silver	0.0346	0.0209		mg/Kg-dry	1	9/6/2023 2:43:00 PM
Zinc	53.8	3.66		mg/Kg-dry	1	9/6/2023 2:43:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86309

Analyst: MP

Percent Moisture	28.2	0.500		wt%	1	9/5/2023 8:40:21 AM
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Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/29/2023 3:43:00 PM

Project: Dagmars Marina

Lab ID: 2308437-029

Matrix: Sediment

Client Sample ID: HP-7-SB-3'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	7.36	1.37		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86624 Analyst: NR

Total Solids	72.0	3.00	H	%	1	9/14/2023 5:45:00 PM
Total Volatile Solids	3.54	3.00	H	%	1	9/14/2023 5:45:00 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 5:22:00 PM

Project: Dagmars Marina

Lab ID: 2308437-033

Matrix: Sediment

Client Sample ID: OF-1-SB-4'

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

Batch ID: 41406

Analyst: AP

Diesel Range Organics	ND	51.9		mg/Kg-dry	1	9/7/2023 9:54:32 AM
Heavy Oil	ND	104		mg/Kg-dry	1	9/7/2023 9:54:32 AM
Total Petroleum Hydrocarbons	ND	156		mg/Kg-dry	1	9/7/2023 9:54:32 AM
Surr: 2-Fluorobiphenyl	40.4	50 - 150	S	%Rec	1	9/7/2023 9:54:32 AM
Surr: o-Terphenyl	34.1	50 - 150	S	%Rec	1	9/7/2023 9:54:32 AM

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: 41418

Analyst: RG

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Pyrene	ND	0.0399		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Indeno(1,2,3-cd)pyrene	ND	0.0399		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Dibenz(a,h)anthracene	ND	0.0499		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Benzo(g,h,i)perylene	ND	0.0499		mg/Kg-dry	1	9/19/2023 1:30:49 AM
Surr: 2-Fluorobiphenyl	33.7	22.2 - 146		%Rec	1	9/19/2023 1:30:49 AM
Surr: Terphenyl-d14 (surr)	31.5	20.2 - 159		%Rec	1	9/19/2023 1:30:49 AM

Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421

Analyst: SH

Phenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Bis(2-chloroethyl) ether	ND	0.0499		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Chlorophenol	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
1,3-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
1,4-Dichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
1,2-Dichlorobenzene	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 5:22:00 PM

Project: Dagmars Marina

Lab ID: 2308437-033

Matrix: Sediment

Client Sample ID: OF-1-SB-4'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421

Analyst: SH

Benzyl alcohol	ND	0.150		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Methylphenol (o-cresol)	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Hexachloroethane	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
N-Nitrosodi-n-propylamine	ND	0.0798		mg/Kg-dry	1	9/9/2023 1:25:17 AM
3&4-Methylphenol (m, p-cresol)	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Nitrobenzene	ND	0.0499		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Isophorone	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Nitrophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4-Dimethylphenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Bis(2-chloroethoxy)methane	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4-Dichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
1,2,4-Trichlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Naphthalene	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4-Chloroaniline	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Hexachlorobutadiene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4-Chloro-3-methylphenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
1-Methylnaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Hexachlorocyclopentadiene	ND	0.0997		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4,6-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4,5-Trichlorophenol	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Chloronaphthalene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2-Nitroaniline	ND	0.0499		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Acenaphthene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Dimethylphthalate	ND	3.49		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,6-Dinitrotoluene	ND	0.0399		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Acenaphthylene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4-Dinitrophenol	ND	0.299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Dibenzofuran	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
2,4-Dinitrotoluene	ND	0.0598		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4-Nitrophenol	ND	0.199		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Fluorene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4-Chlorophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Diethylphthalate	ND	0.748		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4,6-Dinitro-2-methylphenol	ND	0.249		mg/Kg-dry	1	9/9/2023 1:25:17 AM
4-Bromophenyl phenyl ether	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Hexachlorobenzene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Pentachlorophenol	ND	0.199		mg/Kg-dry	1	9/9/2023 1:25:17 AM
Phenanthrene	ND	0.0299		mg/Kg-dry	1	9/9/2023 1:25:17 AM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 5:22:00 PM

Project: Dagmars Marina

Lab ID: 2308437-033

Matrix: Sediment

Client Sample ID: OF-1-SB-4'

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 41421

Analyst: SH

Anthracene	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Carbazole	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Di-n-butylphthalate	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Fluoranthene	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Pyrene	ND	0.150	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Butyl Benzylphthalate	ND	0.0499	mg/Kg-dry	1	9/9/2023 1:25:17 AM
bis(2-Ethylhexyl)adipate	ND	0.199	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Benz(a)anthracene	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Chrysene	ND	0.0499	mg/Kg-dry	1	9/9/2023 1:25:17 AM
bis (2-Ethylhexyl) phthalate	ND	0.0399	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Di-n-octyl phthalate	ND	0.0748	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Benzo(b)fluoranthene	ND	0.0997	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Benzo(k)fluoranthene	ND	0.0299	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Benzo(a)pyrene	ND	0.0399	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Indeno(1,2,3-cd)pyrene	ND	0.199	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Dibenz(a,h)anthracene	ND	0.0997	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Benzo(g,h,i)perylene	ND	0.0997	mg/Kg-dry	1	9/9/2023 1:25:17 AM
Surr: 2,4,6-Tribromophenol	51.7	33.1 - 127	%Rec	1	9/9/2023 1:25:17 AM
Surr: 2-Fluorobiphenyl	57.8	35.2 - 141	%Rec	1	9/9/2023 1:25:17 AM
Surr: Nitrobenzene-d5	54.8	15.6 - 158	%Rec	1	9/9/2023 1:25:17 AM
Surr: Phenol-d6	43.7	28.2 - 141	%Rec	1	9/9/2023 1:25:17 AM
Surr: p-Terphenyl	51.3	41.2 - 138	%Rec	1	9/9/2023 1:25:17 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	10.4	0.309	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Barium	31.9	0.619	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Cadmium	0.0730	0.0247	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Chromium	43.5	0.309	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Copper	24.9	0.928	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Lead	6.52	1.24	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Mercury	ND	0.247	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Nickel	39.4	0.309	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Selenium	ND	1.24	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Silver	0.0260	0.0247	mg/Kg-dry	1	9/6/2023 2:46:00 PM
Zinc	59.2	4.33	mg/Kg-dry	1	9/6/2023 2:46:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-033
Client Sample ID: OF-1-SB-4'

Collection Date: 8/30/2023 5:22:00 PM

Matrix: Sediment

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R86309		Analyst: MP
Percent Moisture	33.2	0.500		wt%	1	9/5/2023 8:40:21 AM
<u>Ammonia by SM 4500 NH3 E</u>				Batch ID: 41452		Analyst: SS
Nitrogen, Ammonia	26.8	1.40		mg/Kg-dry	1	9/13/2023 9:00:00 AM
<u>Total Volatile Solids by SM 2540</u>				Batch ID: R86624		Analyst: NR
Total Solids	64.2	3.00	H	%	1	9/14/2023 5:45:00 PM
Total Volatile Solids	5.02	3.00	H	%	1	9/14/2023 5:45:00 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 4:38:00 PM

Project: Dagmars Marina

Lab ID: 2308437-036

Matrix: Sediment

Client Sample ID: HP-8-SB-2

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

Batch ID: 41414

Analyst: SK

Diesel Range Organics	ND	49.7		mg/Kg-dry	1	9/7/2023 3:44:09 PM
Heavy Oil	ND	99.5		mg/Kg-dry	1	9/7/2023 3:44:09 PM
Total Petroleum Hydrocarbons	ND	149		mg/Kg-dry	1	9/7/2023 3:44:09 PM
Surr: 2-Fluorobiphenyl	55.7	50 - 150		%Rec	1	9/7/2023 3:44:09 PM
Surr: o-Terphenyl	50.1	50 - 150		%Rec	1	9/7/2023 3:44:09 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41418

Analyst: RG

Naphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
2-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
1-Methylnaphthalene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Acenaphthylene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Acenaphthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Fluorene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Phenanthrene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Fluoranthene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Pyrene	ND	0.0398		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Benz(a)anthracene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Chrysene	ND	0.0199		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Benzo(b)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Benzo(k)fluoranthene	ND	0.0249		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Benzo(a)pyrene	ND	0.0299		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Indeno(1,2,3-cd)pyrene	ND	0.0398		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Dibenz(a,h)anthracene	ND	0.0498		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Benzo(g,h,i)perylene	ND	0.0498		mg/Kg-dry	1	9/19/2023 1:59:37 AM
Surr: 2-Fluorobiphenyl	23.0	22.2 - 146		%Rec	1	9/19/2023 1:59:37 AM
Surr: Terphenyl-d14 (surr)	20.9	20.2 - 159		%Rec	1	9/19/2023 1:59:37 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	11.4	0.242		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Barium	38.0	0.485		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Cadmium	0.122	0.0194		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Chromium	45.6	0.242		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Copper	34.7	0.727		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Lead	7.24	0.969		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Mercury	ND	0.194		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Nickel	40.6	0.242		mg/Kg-dry	1	9/6/2023 2:48:00 PM

Original



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC
Project: Dagmars Marina
Lab ID: 2308437-036
Client Sample ID: HP-8-SB-2

Collection Date: 8/30/2023 4:38:00 PM

Matrix: Sediment

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

Batch ID: 41395 Analyst: JR

Selenium	ND	0.969		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Silver	0.0761	0.0194		mg/Kg-dry	1	9/6/2023 2:48:00 PM
Zinc	69.0	3.39		mg/Kg-dry	1	9/6/2023 2:48:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86309 Analyst: MP

Percent Moisture	26.3	0.500		wt%	1	9/5/2023 8:40:21 AM
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Ammonia by SM 4500 NH3 E

Batch ID: 41452 Analyst: SS

Nitrogen, Ammonia	17.3	1.28		mg/Kg-dry	1	9/13/2023 9:00:00 AM
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Total Volatile Solids by SM 2540

Batch ID: R86624 Analyst: NR

Total Solids	72.4	3.00	H	%	1	9/14/2023 5:45:00 PM
Total Volatile Solids	4.32	3.00	H	%	1	9/14/2023 5:45:00 PM

Client: Apex Companies, LLC

Collection Date: 8/30/2023 12:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-038

Matrix: Sediment

Client Sample ID: DUP-01

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

Batch ID: 41414

Analyst: SK

Diesel Range Organics	ND	49.9	mg/Kg-dry	1	9/7/2023 3:55:13 PM
Heavy Oil	ND	99.7	mg/Kg-dry	1	9/7/2023 3:55:13 PM
Total Petroleum Hydrocarbons	ND	150	mg/Kg-dry	1	9/7/2023 3:55:13 PM
Surr: 2-Fluorobiphenyl	62.0	50 - 150	%Rec	1	9/7/2023 3:55:13 PM
Surr: o-Terphenyl	66.2	50 - 150	%Rec	1	9/7/2023 3:55:13 PM

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Batch ID: 41418

Analyst: RG

Naphthalene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
2-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
1-Methylnaphthalene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Acenaphthylene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Acenaphthene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Fluorene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Phenanthrene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Anthracene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Fluoranthene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Pyrene	ND	0.0401	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Benz(a)anthracene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Chrysene	ND	0.0200	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Benzo(b)fluoranthene	ND	0.0251	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Benzo(k)fluoranthene	ND	0.0251	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Benzo(a)pyrene	ND	0.0301	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Indeno(1,2,3-cd)pyrene	ND	0.0401	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Dibenz(a,h)anthracene	ND	0.0501	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Benzo(g,h,i)perylene	ND	0.0501	mg/Kg-dry	1	9/19/2023 2:28:21 AM
Surr: 2-Fluorobiphenyl	24.5	22.2 - 146	%Rec	1	9/19/2023 2:28:21 AM
Surr: Terphenyl-d14 (surr)	22.2	20.2 - 159	%Rec	1	9/19/2023 2:28:21 AM

Total Metals by EPA Method 6020B

Batch ID: 41395

Analyst: JR

Arsenic	8.03	0.280	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Barium	25.5	0.561	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Cadmium	0.0510	0.0224	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Chromium	35.5	0.280	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Copper	20.7	0.841	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Lead	5.19	1.12	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Mercury	ND	0.224	mg/Kg-dry	1	9/6/2023 2:50:00 PM
Nickel	30.7	0.280	mg/Kg-dry	1	9/6/2023 2:50:00 PM



Analytical Report

Work Order: 2308437
Date Reported: 10/6/2023

Client: Apex Companies, LLC

Collection Date: 8/30/2023 12:00:00 PM

Project: Dagmars Marina

Lab ID: 2308437-038

Matrix: Sediment

Client Sample ID: DUP-01

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

Batch ID: 41395 Analyst: JR

Selenium	ND	1.12		mg/Kg-dry	1	9/6/2023 2:50:00 PM
Silver	ND	0.0224		mg/Kg-dry	1	9/6/2023 2:50:00 PM
Zinc	47.3	3.92		mg/Kg-dry	1	9/6/2023 2:50:00 PM

Sample Moisture (Percent Moisture)

Batch ID: R86309 Analyst: MP

Percent Moisture	29.2	0.500		wt%	1	9/5/2023 8:40:21 AM
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Total Volatile Solids by SM 2540

Batch ID: R86624 Analyst: NR

Total Solids	63.6	3.00	H	%	1	9/14/2023 5:45:00 PM
Total Volatile Solids	5.02	3.00	H	%	1	9/14/2023 5:45:00 PM

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Ammonia by SM 4500 NH3 E

Sample ID: MB-41403	SampType: MBLK	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86417		
Client ID: MBLKS	Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803527		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.00									

Sample ID: LCS-41403	SampType: LCS	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86417		
Client ID: LCSS	Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803528		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	20.2	1.00	20.00	0	101	86.6	115				

Sample ID: 2308437-001ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86417		
Client ID: BL-1-SS	Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803530		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	18.1	1.68						18.35	1.47	30	

Sample ID: 2308437-001AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86417		
Client ID: BL-1-SS	Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803531		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	48.2	1.69	33.77	18.35	88.3	35.1	114				

Sample ID: 2308437-001AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86417		
Client ID: BL-1-SS	Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803532		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	49.1	1.68	33.57	18.35	91.7	35.1	114	48.18	1.93	20	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Ammonia by SM 4500 NH3 E

Sample ID: 2308437-012ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/5/2023			RunNo: 86417		
Client ID: HP-6-SS		Batch ID: 41403					Analysis Date: 9/7/2023			SeqNo: 1803544	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.44	1.51						8.596	9.35	30	

Sample ID: 2308437-012AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86417		
Client ID: HP-6-SS		Batch ID: 41403			Analysis Date: 9/7/2023				SeqNo: 1803545		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	34.9	1.50	29.92	8.596	88.1	35.1	114				

Sample ID: MB-41452	SampType: MBLK	Units: mg/Kg			Prep Date: 9/12/2023			RunNo: 86482			
Client ID: MBLKS	Batch ID: 41452				Analysis Date: 9/13/2023			SeqNo: 1804752			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.00									

Sample ID: LCS-41452	SampType: LCS	Units: mg/Kg				Prep Date: 9/12/2023			RunNo: 86482		
Client ID: LCSS	Batch ID: 41452					Analysis Date: 9/13/2023			SeqNo: 1804753		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	21.1	1.00	20.00	0	105	86.6	115				

Sample ID: 2308437-026ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 9/12/2023			RunNo: 86482		
Client ID: HP-1-SS		Batch ID: 41452					Analysis Date: 9/13/2023			SeqNo: 1804759	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	20.8	1.58						19.82	4.85	30	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

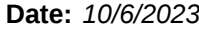
Ammonia by SM 4500 NH3 E

Sample ID: 2308437-027AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/12/2023	RunNo: 86482					
Client ID: HP-2-SS	Batch ID: 41452				Analysis Date: 9/13/2023	SeqNo: 1804761					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia	51.5	1.84	36.81	16.38	95.4	35.1	114				
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Sample ID: 2308437-027AMSD	SampType: MSD	Units: mg/Kg-dry			Prep Date: 9/12/2023			RunNo: 86482			
Client ID: HP-2-SS	Batch ID: 41452				Analysis Date: 9/13/2023			SeqNo: 1804762			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Ammonia	50.8	1.84	36.74	16.38	93.6	35.1	114	51.49	1.42	20	
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QC SUMMARY REPORT

Total Organic Carbon by EPA 9060

Sample ID: 2308437-001AMSD		SampType: MSD			Units: %-dry		Prep Date: 9/12/2023		RunNo: 86563		
Client ID: BL-1-SS		Batch ID: 41460			Analysis Date: 9/13/2023				SeqNo: 1805987		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.57	0.150	1.000	0.7730	79.6	75	125	1.549	1.28	20	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Total Organic Carbon by EPA 9060

Sample ID: 2308437-012ADUP	SampType: DUP	Units: %-dry			Prep Date: 9/12/2023			RunNo: 86563			
Client ID: HP-6-SS	Batch ID: 41460				Analysis Date: 9/13/2023			SeqNo: 1806001			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	0.368	0.150						0.3570	3.03	20	

Sample ID: 2308437-012AMS	SampType: MS	Units: %-dry			Prep Date: 9/12/2023			RunNo: 86563			
Client ID: HP-6-SS	Batch ID: 41460				Analysis Date: 9/13/2023			SeqNo: 1806002			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	1.31	0.150	1.000	0.3570	95.7	75	125				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: MB-41387	SampType: MBLK	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86347			
Client ID: MBLKS	Batch ID: 41387				Analysis Date: 9/5/2023			SeqNo: 1802031			
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									
Mercury	ND	0.200									
Nickel	ND	0.250									
Selenium	ND	1.00									
Silver	ND	0.0200									
Zinc	ND	3.50									

Sample ID: LCS-41387	SampType: LCS	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86347		
Client ID: LCSS	Batch ID: 41387					Analysis Date: 9/5/2023			SeqNo: 1802032		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.2	0.250	50.00	0	86.5	80	120				
Barium	40.9	0.500	50.00	0	81.8	80	120				
Cadmium	2.11	0.0200	2.500	0	84.5	80	120				
Chromium	44.6	0.250	50.00	0	89.3	80	120				
Copper	43.5	0.750	50.00	0	86.9	80	120				
Lead	22.7	1.00	25.00	0	91.0	80	120				
Mercury	1.06	0.200	1.250	0	84.4	80	120				
Nickel	46.7	0.250	50.00	0	93.4	80	120				
Selenium	4.39	1.00	5.000	0	87.8	80	120				
Silver	2.08	0.0200	2.500	0	83.2	80	120				
Zinc	43.9	3.50	50.00	0	87.7	80	120				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2309008-001AMS	SampType: MS	Units: mg/Kg-dry		Prep Date: 9/5/2023	RunNo: 86347						
Client ID: BATCH	Batch ID: 41387			Analysis Date: 9/5/2023	SeqNo: 1802035						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	38.0	0.182	36.46	3.442	94.8	75	125				
Barium	163	0.365	36.46	139.5	65.2	75	125				S
Cadmium	2.07	0.0146	1.823	0.1612	105	75	125				
Chromium	58.7	0.182	36.46	24.48	93.8	75	125				
Copper	76.1	0.547	36.46	49.28	73.5	75	125				S
Lead	29.0	0.729	18.23	9.501	107	75	125				
Mercury	0.862	0.146	0.9114	0.03049	91.3	75	125				
Nickel	52.1	0.182	36.46	17.00	96.2	75	125				
Selenium	3.79	0.729	3.646	0.3927	93.2	75	125				
Silver	1.77	0.0146	1.823	0.04174	95.0	75	125				
Zinc	207	2.55	36.46	139.5	186	75	125				ES

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

Sample ID: 2309008-001AMSD	SampType: MSD	Units: mg/Kg-dry		Prep Date: 9/5/2023	RunNo: 86347						
Client ID: BATCH	Batch ID: 41387			Analysis Date: 9/5/2023	SeqNo: 1802036						
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	36.0	0.179	35.83	3.442	90.8	75	125	38.02	5.48	20	
Barium	138	0.358	35.83	139.5	-4.93	75	125	163.3	17.0	20	S
Cadmium	1.92	0.0143	1.791	0.1612	98.0	75	125	2.067	7.59	20	
Chromium	53.7	0.179	35.83	24.48	81.6	75	125	58.68	8.88	20	
Copper	96.4	0.537	35.83	49.28	131	75	125	76.08	23.5	20	RS
Lead	28.8	0.717	17.91	9.501	108	75	125	29.01	0.647	20	
Mercury	0.925	0.143	0.8956	0.03049	99.8	75	125	0.8622	6.99	20	
Nickel	50.3	0.179	35.83	17.00	93.0	75	125	52.08	3.42	20	
Selenium	3.63	0.717	3.583	0.3927	90.4	75	125	3.791	4.30	20	
Silver	1.68	0.0143	1.791	0.04174	91.4	75	125	1.774	5.45	20	
Zinc	134	2.51	35.83	139.5	-14.4	75	125	207.4	42.8	20	RS

NOTES:

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.

SR - Outlying spike recovery(ies) and high RPD due to sample inhomogeneity.

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: MB-41395		SampType: MBLK		Units: mg/Kg		Prep Date: 9/5/2023		RunNo: 86354			
Client ID: MBLKS		Batch ID: 41395				Analysis Date: 9/6/2023		SeqNo: 1802133			
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									
Mercury	ND	0.200									
Nickel	ND	0.250									
Selenium	ND	1.00									
Silver	ND	0.0200									
Zinc	ND	3.50									

Sample ID: LCS-41395		SampType: LCS		Units: mg/Kg		Prep Date: 9/5/2023		RunNo: 86354			
Client ID: LCSS		Batch ID: 41395				Analysis Date: 9/6/2023		SeqNo: 1802134			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	49.4	0.250	50.00	0	98.8	80	120				
Barium	48.5	0.500	50.00	0	97.1	80	120				
Cadmium	2.48	0.0200	2.500	0	99.3	80	120				
Chromium	53.3	0.250	50.00	0	107	80	120				
Copper	52.2	0.750	50.00	0	104	80	120				
Lead	27.2	1.00	25.00	0	109	80	120				
Mercury	1.26	0.200	1.250	0	101	80	120				
Nickel	51.6	0.250	50.00	0	103	80	120				
Selenium	5.20	1.00	5.000	0	104	80	120				
Silver	2.36	0.0200	2.500	0	94.4	80	120				
Zinc	49.5	3.50	50.00	0	98.9	80	120				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Total Metals by EPA Method 6020B

Sample ID: 2308437-008AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86354			
Client ID: MP-3-SS		Batch ID: 41395				Analysis Date: 9/6/2023		SeqNo: 1802137			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	50.6	0.238	47.62	5.645	94.4	75	125				
Barium	63.3	0.476	47.62	17.06	97.1	75	125				
Cadmium	2.48	0.0190	2.381	0.05304	102	75	125				
Chromium	63.5	0.238	47.62	18.32	94.8	75	125				
Copper	52.9	0.714	47.62	13.86	82.0	75	125				
Lead	27.1	0.952	23.81	3.196	100	75	125				
Mercury	1.21	0.190	1.190	0.04560	98.0	75	125				
Nickel	62.1	0.238	47.62	20.57	87.1	75	125				
Selenium	4.87	0.952	4.762	0.2801	96.3	75	125				
Silver	2.31	0.0190	2.381	0.02429	96.0	75	125				
Zinc	82.2	3.33	47.62	38.20	92.4	75	125				

Sample ID: 2308437-008AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/5/2023			RunNo: 86354		
Client ID: MP-3-SS		Batch ID: 41395		Analysis Date: 9/6/2023						SeqNo: 1802152	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	52.9	0.244	48.77	5.645	96.8	75	125	50.61	4.34	20	
Barium	70.2	0.488	48.77	17.06	109	75	125	63.31	10.3	20	
Cadmium	2.57	0.0195	2.438	0.05304	103	75	125	2.477	3.63	20	
Chromium	64.4	0.244	48.77	18.32	94.5	75	125	63.46	1.52	20	
Copper	57.2	0.732	48.77	13.86	89.0	75	125	52.90	7.89	20	
Lead	29.0	0.975	24.38	3.196	106	75	125	27.11	6.65	20	
Mercury	1.27	0.195	1.219	0.04560	100	75	125	1.212	4.41	20	
Nickel	65.2	0.244	48.77	20.57	91.6	75	125	62.05	4.98	20	
Selenium	4.91	0.975	4.877	0.2801	95.0	75	125	4.866	0.952	20	
Silver	2.43	0.0195	2.438	0.02429	98.6	75	125	2.310	4.97	20	
Zinc	85.7	3.41	48.77	38.20	97.4	75	125	82.19	4.17	20	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

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

Sample ID: MB-41391	SampType: MBLK	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86378			
Client ID: MBLKS	Batch ID: 41391	Analysis Date: 9/5/2023						SeqNo: 1802490			
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	9.97		10.00		99.7	50	150				
Surr: o-Terphenyl	9.73		10.00		97.3	50	150				

Sample ID: LCS-41391		SampType: LCS			Units: mg/Kg		Prep Date: 9/5/2023			RunNo: 86378		
Client ID: LCSS		Batch ID: 41391			Analysis Date: 9/5/2023			SeqNo: 1802491				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	480	150	500.0	0	96.0	78.5	123				
Surr: 2-Fluorobiphenyl	9.82		10.00		98.2	50	150				
Surr: o-Terphenyl	11.7		10.00		117	50	150				

Sample ID: 2308437-003AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86378		
Client ID: BL-3-SS		Batch ID: 41391			Analysis Date: 9/5/2023				SeqNo: 1802495		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	550	182	606.2	0	90.7	47.9	143				
Surr: 2-Fluorobiphenyl	7.94		12.12		65.5	50	150				
Surr: o-Terphenyl	11.5		12.12		94.9	50	150				

Sample ID: 2308437-003AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 9/5/2023			RunNo: 86378		
Client ID: BL-3-SS		Batch ID: 41391			Analysis Date: 9/5/2023			SeqNo: 1802496				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	588	182	605.6	0	97.1	47.9	143	549.7	6.71	30	
Surr: 2-Fluorobiphenyl	8.73		12.11		72.1	50	150		0		
Surr: o-Terphenyl	12.1		12.11		100	50	150		0		

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

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

Sample ID: 2308437-005ADUP		SampType: DUP			Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86378		
Client ID: RB-1-SS		Batch ID: 41391			Analysis Date: 9/5/2023				SeqNo: 1802499		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	ND	60.9						0		30	
Heavy Oil	ND	122						0		30	
Total Petroleum Hydrocarbons	ND	183						0		30	
Surr: 2-Fluorobiphenyl	8.76		12.19		71.9	50	150		0		
Surr: o-Terphenyl	9.30		12.19		76.3	50	150		0		

Sample ID: MB-41391		SampType: MBLK			Units: mg/Kg		Prep Date: 9/5/2023			RunNo: 86511		
Client ID: MBLKS		Batch ID: 41391			Analysis Date: 9/6/2023					SeqNo: 1805203		
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	9.95		10.00		99.5	50	150				
Surr: o-Terphenyl	10.1		10.00		101	50	150				

Sample ID: LCS-41391		SampType: LCS			Units: mg/Kg		Prep Date: 9/5/2023		RunNo: 86511		
Client ID: LCSS		Batch ID: 41391			Analysis Date: 9/6/2023				SeqNo: 1805204		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	457	150	500.0	0	91.3	78.5	123				
Surr: 2-Fluorobiphenyl	9.15		10.00		91.5	50	150				
Surr: o-Terphenyl	10.6		10.00		106	50	150				

Sample ID: MB-41406		SampType: MBLK			Units: mg/Kg		Prep Date: 9/6/2023			RunNo: 86370		
Client ID: MBLKS		Batch ID: 41406			Analysis Date: 9/6/2023					SeqNo: 1802418		
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									

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

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

Sample ID: MB-41406	SampType: MBLK	Units: mg/Kg				Prep Date: 9/6/2023				RunNo: 86370		
Client ID: MBLKS	Batch ID: 41406					Analysis Date: 9/6/2023				SeqNo: 1802418		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.5		10.00		105	50	150				
Surr: o-Terphenyl	10.4		10.00		104	50	150				

Sample ID: LCS-41406		SampType: LCS			Units: mg/Kg		Prep Date: 9/6/2023			RunNo: 86370		
Client ID: LCSS		Batch ID: 41406			Analysis Date: 9/6/2023					SeqNo: 1802419		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	519	150	500.0	0	104	78.5	123				
Surr: 2-Fluorobiphenyl	10.5		10.00		105	50	150				
Surr: o-Terphenyl	12.0		10.00		120	50	150				

Sample ID: 2308437-029AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 9/6/2023		RunNo: 86370		
Client ID: HP-7-SB-3'		Batch ID: 41406			Analysis Date: 9/6/2023				SeqNo: 1802421		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	576	158	526.7	0	109	47.9	143				
Surr: 2-Fluorobiphenyl	10.0		10.53		95.4	50	150				
Surr: o-Terphenyl	12.7		10.53		121	50	150				

Sample ID: 2308437-029AMSD		SampType: MSD			Units: mg/Kg-dry		Prep Date: 9/6/2023			RunNo: 86370		
Client ID: HP-7-SB-3'		Batch ID: 41406			Analysis Date: 9/6/2023					SeqNo: 1802422		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	913	155	517.3	0	176	47.9	143	576.0	45.2	30	RS
Surr: 2-Fluorobiphenyl	15.3		10.35		147	50	150		0		
Surr: o-Terphenyl	16.5		10.35		159	50	150		0		S

NOTES:

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.
 SR - Outlying spike recovery(ies) and high RPD due to sample inhomogeneity.

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

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

Sample ID: 2308437-033ADUP	SampType: DUP	Units: mg/Kg-dry			Prep Date: 9/6/2023			RunNo: 86370			
Client ID: OF-1-SB-4'	Batch ID: 41406				Analysis Date: 9/7/2023			SeqNo: 1802431			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.2						0		30	
Heavy Oil	ND	100						0		30	
Total Petroleum Hydrocarbons	ND	151						0		30	
Surr: 2-Fluorobiphenyl	3.39		10.04		33.8	50	150		0		S
Surr: o-Terphenyl	3.65		10.04		36.4	50	150		0		S

NOTES:

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

Sample ID: MB-41414	SampType: MBLK	Units: mg/Kg			Prep Date: 9/6/2023			RunNo: 86393			
Client ID: MBLKS	Batch ID: 41414				Analysis Date: 9/7/2023			SeqNo: 1803022			
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	10.6		10.00		106	50	150				
Surr: o-Terphenyl	10.2		10.00		102	50	150				

Sample ID: LCS-41414	SampType: LCS	Units: mg/Kg				Prep Date: 9/6/2023			RunNo: 86393		
Client ID: LCSS	Batch ID: 41414	Analysis Date: 9/7/2023						SeqNo: 1803023			
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	99.4	78.5	123				
Surr: 2-Fluorobiphenyl	9.85		10.00		98.5	50	150				
Surr: o-Terphenyl	12.2		10.00		122	50	150				

Sample ID: LCSD-41414		SampType: LCSD			Units: mg/Kg		Prep Date: 9/6/2023		RunNo: 86393		
Client ID: LCSS02		Batch ID: 41414			Analysis Date: 9/7/2023				SeqNo: 1803024		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	493	150	500.0	0	98.7	78.5	123	497.2	0.769	30	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

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

Sample ID: LCSD-41414		SampType: LCSD			Units: mg/Kg		Prep Date: 9/6/2023			RunNo: 86393		
Client ID: LCSS02		Batch ID: 41414			Analysis Date: 9/7/2023				SeqNo: 1803024			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 2-Fluorobiphenyl	9.15		10.00		91.5	50	150		0			
Surr: o-Terphenyl	12.0		10.00		120	50	150		0			

Sample ID: 2309041-004AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/6/2023			RunNo: 86393		
Client ID: BATCH	Batch ID: 41414	Analysis Date: 9/7/2023						SeqNo: 1803026			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	679	157	521.7	0	130	47.9	143				
Surr: 2-Fluorobiphenyl	13.6		10.43		130	50	150				
Surr: o-Terphenyl	15.5		10.43		149	50	150				

Sample ID: 2309041-004AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/6/2023			RunNo: 86393		
Client ID: BATCH		Batch ID: 41414		Analysis Date: 9/7/2023					SeqNo: 1803027		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	599	154	512.9	0	117	47.9	143	679.4	12.6	30	
Surr: 2-Fluorobiphenyl	12.4		10.26		121	50	150		0		
Surr: o-Terphenyl	14.4		10.26		140	50	150		0		

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-41418	SampType: MBLK	Units: µg/Kg				Prep Date: 9/7/2023			RunNo: 86399		
Client ID: MBLKS	Batch ID: 41418					Analysis Date: 9/8/2023			SeqNo: 1803159		
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	850		1,000		85.0	22.2	146				
Surr: Terphenyl-d14 (surr)	756		1,000		75.6	20.2	159				

Sample ID: LCS-41418	SampType: LCS	Units: µg/Kg				Prep Date: 9/7/2023			RunNo: 86399		
Client ID: LCSS	Batch ID: 41418	Analysis Date: 9/8/2023							SeqNo: 1803185		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,370	20.0	2,000	0	68.3	63.8	120				
2-Methylnaphthalene	1,300	20.0	2,000	0	65.0	57	118				
1-Methylnaphthalene	1,330	20.0	2,000	0	66.6	56.6	119				
Acenaphthene	1,240	20.0	2,000	0	62.0	58.4	123				
Acenaphthylene	1,300	20.0	2,000	0	65.1	60.8	123				
Phenanthrene	1,190	20.0	2,000	0	59.6	54.6	123				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-41418	SampType: LCS	Units: µg/Kg				Prep Date: 9/7/2023			RunNo: 86399		
Client ID: LCSS	Batch ID: 41418	Analysis Date: 9/8/2023							SeqNo: 1803185		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1,230	20.0	2,000	0	61.7	59.7	120				
Anthracene	1,190	20.0	2,000	0	59.5	55.4	124				
Fluoranthene	1,120	20.0	2,000	0	56.1	55.3	132				
Pyrene	1,160	40.0	2,000	0	57.9	57.1	130				
Benz(a)anthracene	1,150	20.0	2,000	0	57.6	56.9	128				
Chrysene	1,270	20.0	2,000	0	63.4	52.9	130				
Benzo(b)fluoranthene	1,180	25.0	2,000	0	59.0	55.1	122				
Benzo(k)fluoranthene	1,170	25.0	2,000	0	58.4	55.3	129				
Benzo(a)pyrene	1,260	30.0	2,000	0	62.9	59.8	138				
Indeno(1,2,3-cd)pyrene	1,380	40.0	2,000	0	69.2	55.3	123				
Dibenz(a,h)anthracene	1,410	50.0	2,000	0	70.4	54.8	125				
Benzo(g,h,i)perylene	1,330	50.0	2,000	0	66.5	52.7	123				
Surr: 2-Fluorobiphenyl	880		1,000		88.0	22.2	146				
Surr: Terphenyl-d14 (surr)	781		1,000		78.1	20.2	159				

Sample ID: 2309041-001AMS	SampType: MS	Units: µg/Kg-dry			Prep Date: 9/7/2023			RunNo: 86399			
Client ID: BATCH	Batch ID: 41418				Analysis Date: 9/8/2023			SeqNo: 1803190			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,480	20.1	2,011	0	73.6	44.9	136				
2-Methylnaphthalene	1,410	20.1	2,011	0	70.0	39.2	132				
1-Methylnaphthalene	1,440	20.1	2,011	0	71.8	40.9	133				
Acenaphthene	1,340	20.1	2,011	0	66.6	44.4	135				
Acenaphthylene	1,400	20.1	2,011	0	69.8	43.8	135				
Phenanthrene	1,330	20.1	2,011	5.163	65.7	43	136				
Fluorene	1,360	20.1	2,011	0	67.9	44.2	135				
Anthracene	1,300	20.1	2,011	0	64.8	53.1	131				
Fluoranthene	1,210	20.1	2,011	0	60.4	39.6	148				
Pyrene	1,250	40.2	2,011	0	61.9	65.4	129				S
Benz(a)anthracene	1,220	20.1	2,011	0	60.6	40.5	148				
Chrysene	1,400	20.1	2,011	0	69.5	38.3	141				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2309041-001AMS		SampType: MS		Units: µg/Kg-dry		Prep Date: 9/7/2023		RunNo: 86399			
Client ID: BATCH		Batch ID: 41418				Analysis Date: 9/8/2023		SeqNo: 1803190			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	1,300	25.1	2,011	0	64.4	37.2	140				
Benzo(k)fluoranthene	1,280	25.1	2,011	0	63.5	38.8	141				
Benzo(a)pyrene	1,390	30.2	2,011	0	68.9	69.8	135				S
Indeno(1,2,3-cd)pyrene	1,490	40.2	2,011	0	74.3	42.5	128				
Dibenz(a,h)anthracene	1,520	50.3	2,011	0	75.7	42.6	129				
Benzo(g,h,i)perylene	1,430	50.3	2,011	0	71.1	35.2	128				
Surr: 2-Fluorobiphenyl	902		1,006		89.6	22.2	146				
Surr: Terphenyl-d14 (surr)	795		1,006		79.1	20.2	159				

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2309041-001AMSD	SampType: MSD	Units: µg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86399		
Client ID: BATCH	Batch ID: 41418	Analysis Date: 9/8/2023							SeqNo: 1803191		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,400	18.4	1,845	0	75.8	44.9	136	1,481	5.74	30	
2-Methylnaphthalene	1,330	18.4	1,845	0	71.8	39.2	132	1,408	6.03	30	
1-Methylnaphthalene	1,360	18.4	1,845	0	73.7	40.9	133	1,444	6.01	30	
Acenaphthene	1,260	18.4	1,845	0	68.0	44.4	135	1,340	6.50	30	
Acenaphthylene	1,330	18.4	1,845	0	72.1	43.8	135	1,405	5.51	30	
Phenanthrene	1,260	18.4	1,845	5.163	68.2	43	136	1,326	4.78	30	
Fluorene	1,280	18.4	1,845	0	69.2	44.2	135	1,365	6.70	30	
Anthracene	1,290	18.4	1,845	0	69.8	53.1	131	1,303	1.18	30	
Fluoranthene	1,180	18.4	1,845	0	63.9	39.6	148	1,214	2.96	30	
Pyrene	1,210	36.9	1,845	0	65.6	65.4	129	1,246	2.95	30	
Benz(a)anthracene	1,180	18.4	1,845	0	63.8	40.5	148	1,219	3.57	30	
Chrysene	1,310	18.4	1,845	0	71.2	38.3	141	1,398	6.22	30	
Benzo(b)fluoranthene	1,220	23.1	1,845	0	65.9	37.2	140	1,295	6.29	30	
Benzo(k)fluoranthene	1,200	23.1	1,845	0	64.9	38.8	141	1,278	6.54	30	
Benzo(a)pyrene	1,310	27.7	1,845	0	71.2	69.8	135	1,387	5.49	30	
Indeno(1,2,3-cd)pyrene	1,420	36.9	1,845	0	77.0	42.5	128	1,495	5.06	30	
Dibenz(a,h)anthracene	1,430	46.1	1,845	0	77.4	42.6	129	1,522	6.42	30	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2309041-001AMSD	SampType: MSD	Units: µg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86399		
Client ID: BATCH	Batch ID: 41418	Analysis Date: 9/8/2023							SeqNo: 1803191		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	1,360	46.1	1,845	0	73.6	35.2	128	1,430	5.12	30	
Surr: 2-Fluorobiphenyl	831		922.4		90.1	22.2	146		0		
Surr: Terphenyl-d14 (surr)	753		922.4		81.6	20.2	159		0		

Sample ID: MB-41418	SampType: MBLK	Units: mg/Kg			Prep Date: 9/7/2023			RunNo: 86481			
Client ID: MBLKS	Batch ID: 41418				Analysis Date: 9/12/2023			SeqNo: 1804819			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0200									
2-Methylnaphthalene	ND	0.0200									
1-Methylnaphthalene	ND	0.0200									
Acenaphthene	ND	0.0200									
Acenaphthylene	ND	0.0200									
Phenanthrene	ND	0.0200									
Fluorene	ND	0.0200									
Anthracene	ND	0.0200									
Fluoranthene	ND	0.0200									
Pyrene	ND	0.0400									
Benz(a)anthracene	ND	0.0200									
Chrysene	ND	0.0200									
Benzo(b)fluoranthene	ND	0.0250									
Benzo(k)fluoranthene	ND	0.0250									
Benzo(a)pyrene	ND	0.0300									
Indeno(1,2,3-cd)pyrene	ND	0.0400									
Dibenz(a,h)anthracene	ND	0.0500									
Benzo(g,h,i)perylene	ND	0.0500									
Surr: 2-Fluorobiphenyl	1.13		1.000		113	22.2	146				
Surr: Terphenyl-d14 (surr)	1.41		1.000		141	20.2	159				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-41418		SampType: LCS		Units: mg/Kg		Prep Date: 9/7/2023		RunNo: 86481			
Client ID: LCSS		Batch ID: 41418				Analysis Date: 9/12/2023		SeqNo: 1804830			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.94	0.0200	2.000	0	96.9	63.8	120				
2-Methylnaphthalene	1.97	0.0200	2.000	0	98.4	57	118				
1-Methylnaphthalene	2.00	0.0200	2.000	0	100	56.6	119				
Acenaphthene	2.00	0.0200	2.000	0	99.8	58.4	123				
Acenaphthylene	2.00	0.0200	2.000	0	100	60.8	123				
Phenanthrene	2.14	0.0200	2.000	0	107	54.6	123				
Fluorene	2.10	0.0200	2.000	0	105	59.7	120				
Anthracene	1.85	0.0200	2.000	0	92.5	55.4	124				
Fluoranthene	2.17	0.0200	2.000	0	108	55.3	132				
Pyrene	2.23	0.0400	2.000	0	112	57.1	130				
Benz(a)anthracene	2.37	0.0200	2.000	0	119	56.9	128				
Chrysene	2.07	0.0200	2.000	0	103	52.9	130				
Benzo(b)fluoranthene	2.07	0.0250	2.000	0	103	55.1	122				
Benzo(k)fluoranthene	2.14	0.0250	2.000	0	107	55.3	129				
Benzo(a)pyrene	2.18	0.0300	2.000	0	109	59.8	138				
Indeno(1,2,3-cd)pyrene	2.23	0.0400	2.000	0	111	55.3	123				
Dibenz(a,h)anthracene	2.23	0.0500	2.000	0	111	54.8	125				
Benzo(g,h,i)perylene	1.83	0.0500	2.000	0	91.5	52.7	123				
Surr: 2-Fluorobiphenyl	1.34		1.000		134	22.2	146				
Surr: Terphenyl-d14 (surr)	1.56		1.000		156	20.2	159				

Sample ID: MB-41392		SampType: MBLK		Units: mg/Kg		Prep Date: 9/5/2023		RunNo: 86574			
Client ID: MBLKS		Batch ID: 41392				Analysis Date: 9/13/2023		SeqNo: 1806260			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0200									
2-Methylnaphthalene	ND	0.0200									
1-Methylnaphthalene	ND	0.0200									
Acenaphthene	ND	0.0200									
Acenaphthylene	ND	0.0200									
Phenanthrene	ND	0.0200									

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-41392	SampType: MBLK	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86574		
Client ID: MBLKS	Batch ID: 41392	Analysis Date: 9/13/2023							SeqNo: 1806260		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	ND	0.0200									
Anthracene	ND	0.0200									
Fluoranthene	ND	0.0200									
Pyrene	ND	0.0400									
Benz(a)anthracene	ND	0.0200									
Chrysene	ND	0.0200									
Benzo(b)fluoranthene	ND	0.0250									
Benzo(k)fluoranthene	ND	0.0250									
Benzo(a)pyrene	ND	0.0300									
Indeno(1,2,3-cd)pyrene	ND	0.0400									
Dibenz(a,h)anthracene	ND	0.0500									
Benzo(g,h,i)perylene	ND	0.0500									
Surr: 2-Fluorobiphenyl	1.14		1.000		114	22.2	146				
Surr: Terphenyl-d14 (surr)	1.46		1.000		146	20.2	159				

Sample ID: LCS-41392	SampType: LCS	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86574			
Client ID: LCSS	Batch ID: 41392				Analysis Date: 9/13/2023			SeqNo: 1806261			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.58	0.0200	2.000	0	78.8	63.8	120				
2-Methylnaphthalene	1.61	0.0200	2.000	0	80.6	57	118				
1-Methylnaphthalene	1.64	0.0200	2.000	0	82.0	56.6	119				
Acenaphthene	1.64	0.0200	2.000	0	82.1	58.4	123				
Acenaphthylene	1.63	0.0200	2.000	0	81.5	60.8	123				
Phenanthrene	1.81	0.0200	2.000	0	90.5	54.6	123				
Fluorene	1.76	0.0200	2.000	0	88.1	59.7	120				
Anthracene	1.70	0.0200	2.000	0	85.1	55.4	124				
Fluoranthene	1.87	0.0200	2.000	0	93.5	55.3	132				
Pyrene	1.96	0.0400	2.000	0	97.9	57.1	130				
Benz(a)anthracene	2.03	0.0200	2.000	0	102	56.9	128				
Chrysene	1.79	0.0200	2.000	0	89.4	52.9	130				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-41392	SampType: LCS	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86574		
Client ID: LCSS	Batch ID: 41392	Analysis Date: 9/13/2023						SeqNo: 1806261			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	1.87	0.0250	2.000	0	93.3	55.1	122				
Benzo(k)fluoranthene	1.80	0.0250	2.000	0	89.9	55.3	129				
Benzo(a)pyrene	1.92	0.0300	2.000	0	95.8	59.8	138				
Indeno(1,2,3-cd)pyrene	1.92	0.0400	2.000	0	96.1	55.3	123				
Dibenz(a,h)anthracene	1.93	0.0500	2.000	0	96.7	54.8	125				
Benzo(g,h,i)perylene	1.58	0.0500	2.000	0	78.9	52.7	123				
Surr: 2-Fluorobiphenyl	1.18		1.000		118	22.2	146				
Surr: Terphenyl-d14 (surr)	1.43		1.000		143	20.2	159				

Sample ID: 2308437-007AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86574		
Client ID: MP-2-SS	Batch ID: 41392	Analysis Date: 9/13/2023							SeqNo: 1806269		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2.11	0.0238	2.376	0	88.9	44.9	136				
2-Methylnaphthalene	2.18	0.0238	2.376	0	91.6	39.2	132				
1-Methylnaphthalene	2.20	0.0238	2.376	0	92.6	40.9	133				
Acenaphthene	2.19	0.0238	2.376	0	92.1	44.4	135				
Acenaphthylene	2.20	0.0238	2.376	0	92.4	43.8	135				
Phenanthrene	2.35	0.0238	2.376	0	99.0	43	136				
Fluorene	2.34	0.0238	2.376	0	98.4	44.2	135				
Anthracene	2.16	0.0238	2.376	0	90.8	53.1	131				
Fluoranthene	2.41	0.0238	2.376	0	101	39.6	148				
Pyrene	2.53	0.0475	2.376	0	106	65.4	129				
Benz(a)anthracene	2.63	0.0238	2.376	0	111	40.5	148				
Chrysene	2.33	0.0238	2.376	0	98.1	38.3	141				
Benzo(b)fluoranthene	2.39	0.0297	2.376	0	101	37.2	140				
Benzo(k)fluoranthene	2.32	0.0297	2.376	0	97.7	38.8	141				
Benzo(a)pyrene	2.48	0.0356	2.376	0	104	69.8	135				
Indeno(1,2,3-cd)pyrene	2.45	0.0475	2.376	0	103	42.5	128				
Dibenz(a,h)anthracene	2.47	0.0594	2.376	0	104	42.6	129				
Benzo(g,h,i)perylene	2.02	0.0594	2.376	0	85.1	35.2	128				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2308437-007AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86574			
Client ID: MP-2-SS		Batch ID: 41392				Analysis Date: 9/13/2023		SeqNo: 1806269			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	1.47		1.188		123	22.2	146				
Surr: Terphenyl-d14 (surr)	1.71		1.188		144	20.2	159				

Sample ID: 2308437-007AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/5/2023			RunNo: 86574			
Client ID: MP-2-SS		Batch ID: 41392		Analysis Date: 9/13/2023							SeqNo: 1806270	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Naphthalene	2.21	0.0238	2.379	0	92.9	44.9	136	2.112	4.56	30		
2-Methylnaphthalene	2.27	0.0238	2.379	0	95.3	39.2	132	2.177	4.03	30		
1-Methylnaphthalene	2.29	0.0238	2.379	0	96.2	40.9	133	2.200	3.95	30		
Acenaphthene	2.28	0.0238	2.379	0	95.9	44.4	135	2.188	4.23	30		
Acenaphthylene	2.30	0.0238	2.379	0	96.8	43.8	135	2.195	4.78	30		
Phenanthrene	2.56	0.0238	2.379	0	108	43	136	2.352	8.50	30		
Fluorene	2.44	0.0238	2.379	0	102	44.2	135	2.338	4.09	30		
Anthracene	2.40	0.0238	2.379	0	101	53.1	131	2.159	10.4	30		
Fluoranthene	2.61	0.0238	2.379	0	110	39.6	148	2.408	7.96	30		
Pyrene	2.71	0.0476	2.379	0	114	65.4	129	2.527	6.98	30		
Benz(a)anthracene	2.86	0.0238	2.379	0	120	40.5	148	2.631	8.18	30		
Chrysene	2.51	0.0238	2.379	0	105	38.3	141	2.332	7.28	30		
Benzo(b)fluoranthene	2.60	0.0297	2.379	0	109	37.2	140	2.395	8.26	30		
Benzo(k)fluoranthene	2.58	0.0297	2.379	0	108	38.8	141	2.321	10.5	30		
Benzo(a)pyrene	2.69	0.0357	2.379	0	113	69.8	135	2.478	8.22	30		
Indeno(1,2,3-cd)pyrene	2.69	0.0476	2.379	0	113	42.5	128	2.451	9.14	30		
Dibenz(a,h)anthracene	2.71	0.0595	2.379	0	114	42.6	129	2.469	9.41	30		
Benzo(g,h,i)perylene	2.22	0.0595	2.379	0	93.5	35.2	128	2.022	9.45	30		
Surr: 2-Fluorobiphenyl	1.47		1.189		123	22.2	146		0			
Surr: Terphenyl-d14 (surr)	1.78		1.189		150	20.2	159		0			

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-41393	SampType: MBLK	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86419		
Client ID: MBLKS	Batch ID: 41393	Analysis Date: 9/7/2023							SeqNo: 1803549		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.0300									
Bis(2-chloroethyl) ether	ND	0.0500									
2-Chlorophenol	ND	0.0400									
1,3-Dichlorobenzene	ND	0.0400									
1,4-Dichlorobenzene	ND	0.0300									
1,2-Dichlorobenzene	ND	0.0400									
Benzyl alcohol	ND	0.150									
2-Methylphenol (o-cresol)	ND	0.0400									
Hexachloroethane	ND	0.0400									
N-Nitrosodi-n-propylamine	ND	0.0800									
3&4-Methylphenol (m, p-cresol)	ND	0.0300									
Nitrobenzene	ND	0.0500									
Isophorone	ND	0.0400									
2-Nitrophenol	ND	0.0300									
2,4-Dimethylphenol	ND	0.0300									
Bis(2-chloroethoxy)methane	ND	0.0300									
2,4-Dichlorophenol	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0300									
Naphthalene	ND	0.0400									
4-Chloroaniline	ND	0.0300									
Hexachlorobutadiene	ND	0.0300									
4-Chloro-3-methylphenol	ND	0.0300									
2-Methylnaphthalene	ND	0.0300									
1-Methylnaphthalene	ND	0.0300									
Hexachlorocyclopentadiene	ND	0.100									
2,4,6-Trichlorophenol	ND	0.0300									
2,4,5-Trichlorophenol	ND	0.0300									
2-Chloronaphthalene	ND	0.0300									
2-Nitroaniline	ND	0.0500									
Acenaphthene	ND	0.0300									
Dimethylphthalate	ND	3.50									
2,6-Dinitrotoluene	ND	0.0400									

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-41393	SampType: MBLK	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86419			
Client ID: MBLKS	Batch ID: 41393				Analysis Date: 9/7/2023			SeqNo: 1803549			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	ND	0.0300									
2,4-Dinitrophenol	ND	0.300									
Dibenzofuran	ND	0.0300									
2,4-Dinitrotoluene	ND	0.0600									
4-Nitrophenol	ND	0.200									
Fluorene	ND	0.0300									
4-Chlorophenyl phenyl ether	ND	0.0300									
Diethylphthalate	ND	0.750									
4,6-Dinitro-2-methylphenol	ND	0.250									
4-Bromophenyl phenyl ether	ND	0.0300									
Hexachlorobenzene	ND	0.0300									
Pentachlorophenol	ND	0.200									
Phenanthrene	ND	0.0300									
Anthracene	ND	0.0300									
Carbazole	ND	0.0300									
Di-n-butylphthalate	ND	0.0300									
Fluoranthene	ND	0.0300									
Pyrene	ND	0.150									
Butyl Benzylphthalate	ND	0.0500									
bis(2-Ethylhexyl)adipate	ND	0.200									
Benz(a)anthracene	ND	0.0300									
Chrysene	ND	0.0500									
bis (2-Ethylhexyl) phthalate	ND	0.0400									
Di-n-octyl phthalate	ND	0.0750									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.0300									
Benzo(a)pyrene	ND	0.0400									
Indeno(1,2,3-cd)pyrene	ND	0.200									
Dibenz(a,h)anthracene	ND	0.100									
Benzo(g,h,i)perylene	ND	0.100									
Surr: 2,4,6-Tribromophenol	1.96		2.000		98.1	5	140				
Surr: 2-Fluorobiphenyl	1.11		1.000		111	18.4	133				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-41393		SampType: MBLK		Units: mg/Kg		Prep Date: 9/5/2023		RunNo: 86419			
Client ID: MBLKS		Batch ID: 41393				Analysis Date: 9/7/2023		SeqNo: 1803549			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	1.08		1.000		108	5	151				
Surr: Phenol-d6	1.97		2.000		98.5	5	151				
Surr: p-Terphenyl	1.05		1.000		105	6.75	142				

Sample ID: 2308437-007AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/5/2023			RunNo: 86419			
Client ID: MP-2-SS	Batch ID: 41393	Analysis Date: 9/7/2023						SeqNo: 1803558			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.85	0.0356	2.376	0	77.7	12	137				
Bis(2-chloroethyl) ether	1.90	0.0594	2.376	0	80.0	16.7	126				
2-Chlorophenol	1.81	0.0475	2.376	0	76.3	30.9	113				
1,3-Dichlorobenzene	1.88	0.0475	2.376	0	78.9	28.1	113				
1,4-Dichlorobenzene	1.89	0.0356	2.376	0	79.5	29.6	113				
1,2-Dichlorobenzene	1.87	0.0475	2.376	0	78.5	27.8	115				
Benzyl alcohol	0.393	0.178	2.376	0	16.6	5	164				
2-Methylphenol (o-cresol)	1.60	0.0475	2.376	0	67.2	16.1	126				
Hexachloroethane	1.85	0.0475	2.376	0	78.0	15.1	130				
N-Nitrosodi-n-propylamine	1.82	0.0950	2.376	0	76.4	5	160				
3&4-Methylphenol (m, p-cresol)	1.71	0.0356	2.376	0	71.9	14.4	126				
Nitrobenzene	1.92	0.0594	2.376	0	80.9	5	157				
Isophorone	1.78	0.0475	2.376	0	74.9	5	151				
2-Nitrophenol	2.05	0.0356	2.376	0	86.4	29.2	119				
2,4-Dimethylphenol	1.19	0.0356	2.376	0	50.1	9.12	109				
Bis(2-chloroethoxy)methane	1.89	0.0356	2.376	0	79.7	11.6	134				
2,4-Dichlorophenol	1.49	0.0356	2.376	0	62.8	24.2	123				
1,2,4-Trichlorobenzene	1.89	0.0356	2.376	0	79.6	24.8	120				
Naphthalene	1.87	0.0475	2.376	0	78.9	23.9	120				
4-Chloroaniline	1.33	0.0356	2.376	0	56.1	2.66	113				
Hexachlorobutadiene	1.97	0.0356	2.376	0	83.1	22.5	127				
4-Chloro-3-methylphenol	1.76	0.0356	2.376	0	74.2	5.72	142				
2-Methylnaphthalene	1.82	0.0356	2.376	0	76.4	24.7	117				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308437-007AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 9/5/2023			RunNo: 86419			
Client ID: MP-2-SS	Batch ID: 41393	Analysis Date: 9/7/2023						SeqNo: 1803558			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1.83	0.0356	2.376	0	77.0	28.5	118				
Hexachlorocyclopentadiene	0.874	0.119	2.376	0	36.8	5	128				
2,4,6-Trichlorophenol	1.80	0.0356	2.376	0	75.7	12.8	132				
2,4,5-Trichlorophenol	1.63	0.0356	2.376	0	68.8	16	128				
2-Chloronaphthalene	1.85	0.0356	2.376	0	77.7	26.9	120				
2-Nitroaniline	2.00	0.0594	2.376	0	84.3	13.4	141				
Acenaphthene	1.83	0.0356	2.376	0	77.1	24.8	121				
Dimethylphthalate	1.89	4.16	2.376	0	79.3	25.4	121				
2,6-Dinitrotoluene	2.00	0.0475	2.376	0	84.1	28.7	122				
Acenaphthylene	1.88	0.0356	2.376	0	79.0	28.7	124				
2,4-Dinitrophenol	3.79	0.356	4.752	0	79.8	5	147				
Dibenzofuran	1.88	0.0356	2.376	0	79.3	27	118				
2,4-Dinitrotoluene	2.04	0.0713	2.376	0	85.9	23.2	123				
4-Nitrophenol	1.38	0.238	2.376	0	58.3	5	126				
Fluorene	1.89	0.0356	2.376	0	79.7	26.9	118				
4-Chlorophenyl phenyl ether	1.90	0.0356	2.376	0	80.1	22.7	123				
Diethylphthalate	1.89	0.891	2.376	0	79.7	27.7	114				
4,6-Dinitro-2-methylphenol	2.36	0.297	2.376	0	99.5	5	168				
4-Bromophenyl phenyl ether	1.88	0.0356	2.376	0	79.3	27.7	116				
Hexachlorobenzene	1.94	0.0356	2.376	0	81.7	32.6	106				
Pentachlorophenol	1.89	0.238	2.376	0	79.6	5	144				
Phenanthrene	1.83	0.0356	2.376	0	76.9	23	117				
Anthracene	1.76	0.0356	2.376	0	74.1	21	120				
Carbazole	1.85	0.0356	2.376	0	77.7	22.4	121				
Di-n-butylphthalate	1.80	0.0356	2.376	0	75.6	21	122				
Fluoranthene	1.82	0.0356	2.376	0	76.8	21.9	123				
Pyrene	1.83	0.178	2.376	0	76.8	21.2	124				
Butyl Benzylphthalate	1.83	0.0594	2.376	0	77.1	22.6	123				
bis(2-Ethylhexyl)adipate	1.78	0.238	2.376	0	75.1	24.4	116				
Benz(a)anthracene	1.92	0.0356	2.376	0	80.8	18.6	133				
Chrysene	1.88	0.0594	2.376	0	79.3	13.9	125				
bis (2-Ethylhexyl) phthalate	1.79	0.0475	2.376	0	75.4	21.3	120				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308437-007AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86419			
Client ID: MP-2-SS		Batch ID: 41393				Analysis Date: 9/7/2023		SeqNo: 1803558			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-n-octyl phthalate	1.83	0.0891	2.376	0	77.0	30.6	117				
Benzo(b)fluoranthene	1.76	0.119	2.376	0	74.2	22.8	120				
Benzo(k)fluoranthene	1.88	0.0356	2.376	0	79.2	11.1	123				
Benzo(a)pyrene	1.87	0.0475	2.376	0	78.7	12.9	134				
Indeno(1,2,3-cd)pyrene	1.81	0.238	2.376	0	76.0	20.6	138				
Dibenz(a,h)anthracene	1.78	0.119	2.376	0	75.1	5	145				
Benzo(g,h,i)perylene	1.75	0.119	2.376	0	73.5	5.96	134				
Surr: 2,4,6-Tribromophenol	2.46		2.376		103	33.1	127				
Surr: 2-Fluorobiphenyl	1.19		1.188		100	35.2	141				
Surr: Nitrobenzene-d5	1.19		1.188		100	15.6	158				
Surr: Phenol-d6	2.12		2.376		89.4	28.2	141				
Surr: p-Terphenyl	1.19		1.188		99.7	41.2	138				

Sample ID: 2308437-007AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/5/2023		RunNo: 86419			
Client ID: MP-2-SS		Batch ID: 41393				Analysis Date: 9/7/2023		SeqNo: 1803559			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.87	0.0357	2.379	0	78.6	12	137	1.847	1.25	50	
Bis(2-chloroethyl) ether	1.97	0.0595	2.379	0	82.7	16.7	126	1.901	3.41	50	
2-Chlorophenol	1.92	0.0476	2.379	0	80.9	30.9	113	1.814	5.89	50	
1,3-Dichlorobenzene	1.95	0.0476	2.379	0	82.0	28.1	113	1.875	3.92	50	
1,4-Dichlorobenzene	1.96	0.0357	2.379	0	82.4	29.6	113	1.890	3.67	50	
1,2-Dichlorobenzene	1.97	0.0476	2.379	0	82.8	27.8	115	1.866	5.40	50	
Benzyl alcohol	0.444	0.178	2.379	0	18.7	5	164	0.3933	12.0	50	
2-Methylphenol (o-cresol)	1.67	0.0476	2.379	0	70.2	16.1	126	1.597	4.40	50	
Hexachloroethane	1.90	0.0476	2.379	0	79.8	15.1	130	1.854	2.35	50	
N-Nitrosodi-n-propylamine	1.92	0.0951	2.379	0	80.8	5	160	1.815	5.67	50	
3&4-Methylphenol (m, p-cresol)	1.70	0.0357	2.379	0	71.6	14.4	126	1.709	0.341	50	
Nitrobenzene	1.98	0.0595	2.379	0	83.1	5	157	1.923	2.78	50	
Isophorone	1.85	0.0476	2.379	0	77.6	5	151	1.780	3.68	50	
2-Nitrophenol	2.15	0.0357	2.379	0	90.3	29.2	119	2.053	4.54	50	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308437-007AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86419		
Client ID: MP-2-SS	Batch ID: 41393	Analysis Date: 9/7/2023							SeqNo: 1803559		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dimethylphenol	1.25	0.0357	2.379	0	52.6	9.12	109	1.191	4.91	50	
Bis(2-chloroethoxy)methane	1.94	0.0357	2.379	0	81.5	11.6	134	1.893	2.33	50	
2,4-Dichlorophenol	1.53	0.0357	2.379	0	64.3	24.2	123	1.491	2.54	50	
1,2,4-Trichlorobenzene	1.99	0.0357	2.379	0	83.5	24.8	120	1.891	4.86	50	
Naphthalene	1.96	0.0476	2.379	0	82.5	23.9	120	1.874	4.58	50	
4-Chloroaniline	1.28	0.0357	2.379	0	53.7	2.66	113	1.334	4.36	50	
Hexachlorobutadiene	2.01	0.0357	2.379	0	84.6	22.5	127	1.974	1.93	50	
4-Chloro-3-methylphenol	1.86	0.0357	2.379	0	78.1	5.72	142	1.763	5.21	50	
2-Methylnaphthalene	1.96	0.0357	2.379	0	82.3	24.7	117	1.816	7.46	50	
1-Methylnaphthalene	1.89	0.0357	2.379	0	79.6	28.5	118	1.830	3.38	50	
Hexachlorocyclopentadiene	0.958	0.119	2.379	0	40.3	5	128	0.8745	9.10	50	
2,4,6-Trichlorophenol	1.91	0.0357	2.379	0	80.5	12.8	132	1.799	6.18	50	
2,4,5-Trichlorophenol	1.74	0.0357	2.379	0	73.0	16	128	1.634	6.11	50	
2-Chloronaphthalene	1.94	0.0357	2.379	0	81.5	26.9	120	1.845	4.96	50	
2-Nitroaniline	2.12	0.0595	2.379	0	88.9	13.4	141	2.002	5.52	50	
Acenaphthene	1.94	0.0357	2.379	0	81.6	24.8	121	1.833	5.70	50	
Dimethylphthalate	2.08	4.16	2.379	0	87.4	25.4	121	0		50	
2,6-Dinitrotoluene	2.12	0.0476	2.379	0	89.3	28.7	122	1.998	6.09	50	
Acenaphthylene	1.96	0.0357	2.379	0	82.2	28.7	124	1.877	4.10	50	
2,4-Dinitrophenol	4.20	0.357	4.757	0	88.4	5	147	3.793	10.3	50	
Dibenzofuran	2.00	0.0357	2.379	0	83.9	27	118	1.884	5.72	50	
2,4-Dinitrotoluene	2.21	0.0714	2.379	0	92.7	23.2	123	2.041	7.73	50	
4-Nitrophenol	1.48	0.238	2.379	0	62.4	5	126	1.384	6.90	50	
Fluorene	2.00	0.0357	2.379	0	83.9	26.9	118	1.895	5.17	50	
4-Chlorophenyl phenyl ether	2.00	0.0357	2.379	0	84.1	22.7	123	1.903	5.00	50	
Diethylphthalate	2.05	0.892	2.379	0	86.2	27.7	114	1.894	7.96	50	
4,6-Dinitro-2-methylphenol	2.61	0.297	2.379	0	110	5	168	2.363	9.74	50	
4-Bromophenyl phenyl ether	2.04	0.0357	2.379	0	85.7	27.7	116	1.885	7.89	50	
Hexachlorobenzene	2.07	0.0357	2.379	0	86.9	32.6	106	1.942	6.26	50	
Pentachlorophenol	2.10	0.238	2.379	0	88.1	5	144	1.892	10.2	50	
Phenanthrene	1.99	0.0357	2.379	0	83.6	23	117	1.828	8.41	50	
Anthracene	1.91	0.0357	2.379	0	80.5	21	120	1.760	8.39	50	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308437-007AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/5/2023			RunNo: 86419		
Client ID: MP-2-SS	Batch ID: 41393	Analysis Date: 9/7/2023							SeqNo: 1803559		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbazole	2.04	0.0357	2.379	0	85.8	22.4	121	1.847	9.92	50	
Di-n-butylphthalate	1.95	0.0357	2.379	0	82.0	21	122	1.797	8.12	50	
Fluoranthene	1.99	0.0357	2.379	0	83.8	21.9	123	1.824	8.89	50	
Pyrene	1.98	0.178	2.379	0	83.3	21.2	124	1.825	8.27	50	
Butyl Benzylphthalate	2.02	0.0595	2.379	0	85.0	22.6	123	1.831	9.87	50	
bis(2-Ethylhexyl)adipate	1.98	0.238	2.379	0	83.2	24.4	116	1.785	10.3	50	
Benz(a)anthracene	2.10	0.0357	2.379	0	88.1	18.6	133	1.919	8.85	50	
Chrysene	2.04	0.0595	2.379	0	85.8	13.9	125	1.883	7.99	50	
bis (2-Ethylhexyl) phthalate	1.98	0.0476	2.379	0	83.4	21.3	120	1.792	10.2	50	
Di-n-octyl phthalate	2.02	0.0892	2.379	0	85.1	30.6	117	1.829	10.1	50	
Benzo(b)fluoranthene	1.94	0.119	2.379	0	81.7	22.8	120	1.763	9.68	50	
Benzo(k)fluoranthene	2.05	0.0357	2.379	0	86.2	11.1	123	1.881	8.55	50	
Benzo(a)pyrene	2.05	0.0476	2.379	0	86.1	12.9	134	1.871	9.06	50	
Indeno(1,2,3-cd)pyrene	1.99	0.238	2.379	0	83.8	20.6	138	1.806	9.90	50	
Dibenz(a,h)anthracene	1.94	0.119	2.379	0	81.7	5	145	1.784	8.50	50	
Benzo(g,h,i)perylene	1.92	0.119	2.379	0	80.7	5.96	134	1.747	9.46	50	
Surr: 2,4,6-Tribromophenol	2.74		2.379		115	33.1	127		0		
Surr: 2-Fluorobiphenyl	1.22		1.189		103	35.2	141		0		
Surr: Nitrobenzene-d5	1.20		1.189		101	15.6	158		0		
Surr: Phenol-d6	2.12		2.379		89.0	28.2	141		0		
Surr: p-Terphenyl	1.25		1.189		105	41.2	138		0		

Sample ID: MB-41421	SampType: MBLK	Units: mg/Kg			Prep Date: 9/7/2023			RunNo: 86485			
Client ID: MBLKS	Batch ID: 41421				Analysis Date: 9/8/2023			SeqNo: 1804787			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.0300									
Bis(2-chloroethyl) ether	ND	0.0500									
2-Chlorophenol	ND	0.0400									
1,3-Dichlorobenzene	ND	0.0400									
1,4-Dichlorobenzene	ND	0.0300									

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-41421	SampType: MBLK	Units: mg/Kg				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: MBLKS	Batch ID: 41421					Analysis Date: 9/8/2023			SeqNo: 1804787		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	0.0400									
Benzyl alcohol	ND	0.150									
2-Methylphenol (o-cresol)	ND	0.0400									
Hexachloroethane	ND	0.0400									
N-Nitrosodi-n-propylamine	ND	0.0800									
3&4-Methylphenol (m, p-cresol)	ND	0.0300									
Nitrobenzene	ND	0.0500									
Isophorone	ND	0.0400									
2-Nitrophenol	ND	0.0300									
2,4-Dimethylphenol	ND	0.0300									
Bis(2-chloroethoxy)methane	ND	0.0300									
2,4-Dichlorophenol	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0300									
Naphthalene	ND	0.0400									
4-Chloroaniline	ND	0.0300									
Hexachlorobutadiene	ND	0.0300									
4-Chloro-3-methylphenol	ND	0.0300									
2-Methylnaphthalene	ND	0.0300									
1-Methylnaphthalene	ND	0.0300									
Hexachlorocyclopentadiene	ND	0.100									
2,4,6-Trichlorophenol	ND	0.0300									
2,4,5-Trichlorophenol	ND	0.0300									
2-Chloronaphthalene	ND	0.0300									
2-Nitroaniline	ND	0.0500									
Acenaphthene	ND	0.0300									
Dimethylphthalate	ND	3.50									
2,6-Dinitrotoluene	ND	0.0400									
Acenaphthylene	ND	0.0300									
2,4-Dinitrophenol	ND	0.300									
Dibenzofuran	ND	0.0300									
2,4-Dinitrotoluene	ND	0.0600									
4-Nitrophenol	ND	0.200									

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-41421	SampType: MBLK	Units: mg/Kg			Prep Date: 9/7/2023			RunNo: 86485			
Client ID: MBLKS	Batch ID: 41421	Analysis Date: 9/8/2023						SeqNo: 1804787			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	ND	0.0300									
4-Chlorophenyl phenyl ether	ND	0.0300									
Diethylphthalate	ND	0.750									
4,6-Dinitro-2-methylphenol	ND	0.250									
4-Bromophenyl phenyl ether	ND	0.0300									
Hexachlorobenzene	ND	0.0300									
Pentachlorophenol	ND	0.200									
Phenanthrene	ND	0.0300									
Anthracene	ND	0.0300									
Carbazole	ND	0.0300									
Di-n-butylphthalate	ND	0.0300									
Fluoranthene	ND	0.0300									
Pyrene	ND	0.150									
Butyl Benzylphthalate	ND	0.0500									
bis(2-Ethylhexyl)adipate	ND	0.200									
Benz(a)anthracene	ND	0.0300									
Chrysene	ND	0.0500									
bis (2-Ethylhexyl) phthalate	ND	0.0400									
Di-n-octyl phthalate	ND	0.0750									
Benzo(b)fluoranthene	ND	0.100									
Benzo(k)fluoranthene	ND	0.0300									
Benzo(a)pyrene	ND	0.0400									
Indeno(1,2,3-cd)pyrene	ND	0.200									
Dibenz(a,h)anthracene	ND	0.100									
Benzo(g,h,i)perylene	ND	0.100									
Surr: 2,4,6-Tribromophenol	1.70		2.000		85.1	5	140				
Surr: 2-Fluorobiphenyl	1.01		1.000		101	18.4	133				
Surr: Nitrobenzene-d5	0.962		1.000		96.2	5	151				
Surr: Phenol-d6	1.84		2.000		91.8	5	151				
Surr: p-Terphenyl	0.942		1.000		94.2	6.75	142				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41421	SampType: LCS	Units: mg/Kg				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: LCSS	Batch ID: 41421	Analysis Date: 9/9/2023						SeqNo: 1804788			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.46	0.0300	2.000	0	72.8	53.8	118				
Bis(2-chloroethyl) ether	1.50	0.0500	2.000	0	75.1	54.9	122				
2-Chlorophenol	1.54	0.0400	2.000	0	76.8	60.2	114				
1,3-Dichlorobenzene	1.51	0.0400	2.000	0	75.3	59.8	114				
1,4-Dichlorobenzene	1.54	0.0300	2.000	0	76.9	60.3	115				
1,2-Dichlorobenzene	1.51	0.0400	2.000	0	75.7	58.8	116				
Benzyl alcohol	1.48	0.150	2.000	0	74.1	26.3	143				
2-Methylphenol (o-cresol)	1.36	0.0400	2.000	0	67.8	50.5	122				
Hexachloroethane	1.42	0.0400	2.000	0	71.0	56.3	117				
N-Nitrosodi-n-propylamine	1.49	0.0800	2.000	0	74.4	53.6	116				
3&4-Methylphenol (m, p-cresol)	1.44	0.0300	2.000	0	72.1	50.5	123				
Nitrobenzene	1.54	0.0500	2.000	0	77.2	58.4	115				
Isophorone	1.44	0.0400	2.000	0	72.1	56.3	113				
2-Nitrophenol	1.73	0.0300	2.000	0	86.6	60.9	115				
2,4-Dimethylphenol	0.948	0.0300	2.000	0	47.4	36.9	106				
Bis(2-chloroethoxy)methane	1.48	0.0300	2.000	0	73.8	50.2	127				
2,4-Dichlorophenol	1.27	0.0300	2.000	0	63.3	45.2	128				
1,2,4-Trichlorobenzene	1.54	0.0300	2.000	0	77.1	59.5	117				
Naphthalene	1.52	0.0400	2.000	0	75.8	60.3	114				
4-Chloroaniline	1.31	0.0300	2.000	0	65.3	46.3	112				
Hexachlorobutadiene	1.56	0.0300	2.000	0	77.9	56.3	120				
4-Chloro-3-methylphenol	1.57	0.0300	2.000	0	78.5	38.9	137				
2-Methylnaphthalene	1.49	0.0300	2.000	0	74.5	59.1	114				
1-Methylnaphthalene	1.49	0.0300	2.000	0	74.4	61.8	112				
2,4,6-Trichlorophenol	1.51	0.0300	2.000	0	75.7	49.9	124				
2,4,5-Trichlorophenol	1.42	0.0300	2.000	0	70.8	49.6	124				
2-Chloronaphthalene	1.50	0.0300	2.000	0	75.0	58.3	118				
2-Nitroaniline	1.63	0.0500	2.000	0	81.6	49.8	130				
Acenaphthene	1.50	0.0300	2.000	0	74.9	59.5	117				
Dimethylphthalate	1.57	3.50	2.000	0	78.2	72.4	110				
2,6-Dinitrotoluene	1.64	0.0400	2.000	0	82.2	60.7	117				
Acenaphthylene	1.53	0.0300	2.000	0	76.5	60.3	121				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41421	SampType: LCS	Units: mg/Kg				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: LCSS	Batch ID: 41421	Analysis Date: 9/9/2023							SeqNo: 1804788		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrophenol	2.14	0.300	4.000	0	53.5	16.7	102				
Dibenzofuran	1.48	0.0300	2.000	0	74.1	58.4	118				
2,4-Dinitrotoluene	1.65	0.0600	2.000	0	82.4	61.4	120				
4-Nitrophenol	1.43	0.200	2.000	0	71.3	49.4	129				
Fluorene	1.48	0.0300	2.000	0	74.1	59.6	116				
4-Chlorophenyl phenyl ether	1.48	0.0300	2.000	0	74.0	57.7	118				
Diethylphthalate	1.51	0.750	2.000	0	75.6	60.1	112				
4,6-Dinitro-2-methylphenol	1.74	0.250	2.000	0	86.8	11.8	141				
4-Bromophenyl phenyl ether	1.50	0.0300	2.000	0	75.1	59.4	115				
Hexachlorobenzene	1.48	0.0300	2.000	0	74.2	60	112				
Pentachlorophenol	1.42	0.200	2.000	0	71.2	19	141				
Phenanthrene	1.42	0.0300	2.000	0	71.2	58.2	116				
Anthracene	1.36	0.0300	2.000	0	68.2	54.1	118				
Carbazole	1.42	0.0300	2.000	0	70.9	57.4	121				
Di-n-butylphthalate	1.39	0.0300	2.000	0	69.6	56.9	122				
Fluoranthene	1.42	0.0300	2.000	0	70.8	56	120				
Pyrene	1.40	0.150	2.000	0	69.9	56	120				
Butyl Benzylphthalate	1.45	0.0500	2.000	0	72.7	56.9	122				
bis(2-Ethylhexyl)adipate	1.42	0.200	2.000	0	71.1	56.7	121				
Benz(a)anthracene	1.48	0.0300	2.000	0	73.8	52.5	129				
Chrysene	1.47	0.0500	2.000	0	73.5	56.1	121				
bis (2-Ethylhexyl) phthalate	1.41	0.0400	2.000	0	70.6	58.8	118				
Di-n-octyl phthalate	1.44	0.0750	2.000	0	72.1	56.7	122				
Benzo(b)fluoranthene	1.34	0.100	2.000	0	67.2	57.7	119				
Benzo(k)fluoranthene	1.45	0.0300	2.000	0	72.7	54.1	119				
Benzo(a)pyrene	1.46	0.0400	2.000	0	72.8	56.6	130				
Indeno(1,2,3-cd)pyrene	1.41	0.200	2.000	0	70.5	59.9	123				
Dibenz(a,h)anthracene	1.37	0.100	2.000	0	68.7	60.4	126				
Benzo(g,h,i)perylene	1.35	0.100	2.000	0	67.5	53.7	121				
Surr: 2,4,6-Tribromophenol	2.27		2.000		114	33.1	127				
Surr: 2-Fluorobiphenyl	1.07		1.000		107	35.2	141				
Surr: Nitrobenzene-d5	1.08		1.000		108	15.6	158				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41421		SampType: LCS			Units: mg/Kg		Prep Date: 9/7/2023		RunNo: 86485		
Client ID: LCSS		Batch ID: 41421			Analysis Date: 9/9/2023				SeqNo: 1804788		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Phenol-d6	1.98		2.000		99.1	28.2	141				
Surr: p-Terphenyl	1.02		1.000		102	41.2	138				

Sample ID: LCS-41393	SampType: LCS	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86419			
Client ID: LCSS	Batch ID: 41393	Analysis Date: 9/11/2023						SeqNo: 1803716			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.31	0.0300	2.000	0	65.4	53.8	118				
Bis(2-chloroethyl) ether	1.36	0.0500	2.000	0	67.8	54.9	122				
2-Chlorophenol	1.39	0.0400	2.000	0	69.5	60.2	114				
1,3-Dichlorobenzene	1.39	0.0400	2.000	0	69.4	59.8	114				
1,4-Dichlorobenzene	1.41	0.0300	2.000	0	70.3	60.3	115				
1,2-Dichlorobenzene	1.41	0.0400	2.000	0	70.4	58.8	116				
Benzyl alcohol	1.62	0.150	2.000	0	81.0	26.3	143				
2-Methylphenol (o-cresol)	1.25	0.0400	2.000	0	62.6	50.5	122				
Hexachloroethane	1.39	0.0400	2.000	0	69.5	56.3	117				
N-Nitrosodi-n-propylamine	1.33	0.0800	2.000	0	66.3	53.6	116				
3&4-Methylphenol (m, p-cresol)	1.33	0.0300	2.000	0	66.6	50.5	123				
Nitrobenzene	1.39	0.0500	2.000	0	69.5	58.4	115				
Isophorone	1.31	0.0400	2.000	0	65.3	56.3	113				
2-Nitrophenol	1.57	0.0300	2.000	0	78.5	60.9	115				
2,4-Dimethylphenol	0.899	0.0300	2.000	0	44.9	36.9	106				
Bis(2-chloroethoxy)methane	1.35	0.0300	2.000	0	67.6	50.2	127				
2,4-Dichlorophenol	1.26	0.0300	2.000	0	62.8	45.2	128				
1,2,4-Trichlorobenzene	1.42	0.0300	2.000	0	71.0	59.5	117				
Naphthalene	1.40	0.0400	2.000	0	70.0	60.3	114				
4-Chloroaniline	1.17	0.0300	2.000	0	58.7	46.3	112				
Hexachlorobutadiene	1.51	0.0300	2.000	0	75.4	56.3	120				
4-Chloro-3-methylphenol	1.49	0.0300	2.000	0	74.4	38.9	137				
2-Methylnaphthalene	1.37	0.0300	2.000	0	68.7	59.1	114				
1-Methylnaphthalene	1.37	0.0300	2.000	0	68.7	61.8	112				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41393	SampType: LCS	Units: mg/Kg				Prep Date: 9/5/2023			RunNo: 86419		
Client ID: LCSS	Batch ID: 41393	Analysis Date: 9/11/2023						SeqNo: 1803716			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorocyclopentadiene	0.883	0.100	2.000	0	44.1	32	113				
2,4,6-Trichlorophenol	1.45	0.0300	2.000	0	72.3	49.9	124				
2,4,5-Trichlorophenol	1.38	0.0300	2.000	0	68.8	49.6	124				
2-Chloronaphthalene	1.40	0.0300	2.000	0	70.2	58.3	118				
2-Nitroaniline	1.51	0.0500	2.000	0	75.7	49.8	130				
Acenaphthene	1.37	0.0300	2.000	0	68.6	59.5	117				
Dimethylphthalate	1.46	3.50	2.000	0	73.1	72.4	110				
2,6-Dinitrotoluene	1.55	0.0400	2.000	0	77.4	60.7	117				
Acenaphthylene	1.39	0.0300	2.000	0	69.6	60.3	121				
2,4-Dinitrophenol	1.67	0.300	4.000	0	41.7	16.7	102				
Dibenzofuran	1.38	0.0300	2.000	0	68.9	58.4	118				
2,4-Dinitrotoluene	1.57	0.0600	2.000	0	78.4	61.4	120				
4-Nitrophenol	1.55	0.200	2.000	0	77.3	49.4	129				
Fluorene	1.38	0.0300	2.000	0	69.1	59.6	116				
4-Chlorophenyl phenyl ether	1.42	0.0300	2.000	0	71.0	57.7	118				
Diethylphthalate	1.43	0.750	2.000	0	71.6	60.1	112				
4,6-Dinitro-2-methylphenol	1.54	0.250	2.000	0	77.0	11.8	141				
4-Bromophenyl phenyl ether	1.43	0.0300	2.000	0	71.7	59.4	115				
Hexachlorobenzene	1.47	0.0300	2.000	0	73.7	60	112				
Pentachlorophenol	1.13	0.200	2.000	0	56.3	19	141				
Phenanthrene	1.38	0.0300	2.000	0	68.8	58.2	116				
Anthracene	1.31	0.0300	2.000	0	65.7	54.1	118				
Carbazole	1.40	0.0300	2.000	0	70.2	57.4	121				
Di-n-butylphthalate	1.38	0.0300	2.000	0	69.2	56.9	122				
Fluoranthene	1.41	0.0300	2.000	0	70.6	56	120				
Pyrene	1.41	0.150	2.000	0	70.6	56	120				
Butyl Benzylphthalate	1.47	0.0500	2.000	0	73.4	56.9	122				
bis(2-Ethylhexyl)adipate	1.59	0.200	2.000	0	79.4	56.7	121				
Benz(a)anthracene	1.52	0.0300	2.000	0	76.2	52.5	129				
Chrysene	1.46	0.0500	2.000	0	73.2	56.1	121				
bis (2-Ethylhexyl) phthalate	1.40	0.0400	2.000	0	70.2	58.8	118				
Di-n-octyl phthalate	1.43	0.0750	2.000	0	71.5	56.7	122				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41393	SampType: LCS	Units: mg/Kg			Prep Date: 9/5/2023			RunNo: 86419			
Client ID: LCSS	Batch ID: 41393				Analysis Date: 9/11/2023			SeqNo: 1803716			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	1.40	0.100	2.000	0	69.8	57.7	119				
Benzo(k)fluoranthene	1.46	0.0300	2.000	0	73.1	54.1	119				
Benzo(a)pyrene	1.45	0.0400	2.000	0	72.7	56.6	130				
Indeno(1,2,3-cd)pyrene	1.42	0.200	2.000	0	71.0	59.9	123				
Dibenz(a,h)anthracene	1.40	0.100	2.000	0	70.1	60.4	126				
Benzo(g,h,i)perylene	1.38	0.100	2.000	0	68.8	53.7	121				
Surr: 2,4,6-Tribromophenol	2.25		2.000		113	33.1	127				
Surr: 2-Fluorobiphenyl	0.989		1.000		98.9	35.2	141				
Surr: Nitrobenzene-d5	0.971		1.000		97.1	15.6	158				
Surr: Phenol-d6	1.81		2.000		90.4	28.2	141				
Surr: p-Terphenyl	0.998		1.000		99.8	41.2	138				

Sample ID: 2308438-002AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: BATCH	Batch ID: 41421	Analysis Date: 9/11/2023							SeqNo: 1804797		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.48	0.0317	2.112	0	70.1	12	137				
Bis(2-chloroethyl) ether	1.47	0.0528	2.112	0	69.8	16.7	126				
2-Chlorophenol	1.49	0.0422	2.112	0	70.5	30.9	113				
1,3-Dichlorobenzene	1.50	0.0422	2.112	0	71.2	28.1	113				
1,4-Dichlorobenzene	1.52	0.0317	2.112	0	72.2	29.6	113				
1,2-Dichlorobenzene	1.52	0.0422	2.112	0	71.9	27.8	115				
Benzyl alcohol	0.886	0.158	2.112	0	42.0	5	164				
2-Methylphenol (o-cresol)	1.31	0.0422	2.112	0	62.0	16.1	126				
Hexachloroethane	1.71	0.0422	2.112	0	81.1	15.1	130				
N-Nitrosodi-n-propylamine	1.50	0.0845	2.112	0	71.2	5	160				
3&4-Methylphenol (m, p-cresol)	1.35	0.0317	2.112	0	63.8	14.4	126				
Nitrobenzene	1.55	0.0528	2.112	0	73.3	5	157				
Isophorone	1.59	0.0422	2.112	0	75.4	5	151				
2-Nitrophenol	1.85	0.0317	2.112	0	87.7	29.2	119				
2,4-Dimethylphenol	0.923	0.0317	2.112	0	43.7	9.12	109				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308438-002AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 9/7/2023		RunNo: 86485			
Client ID: BATCH		Batch ID: 41421				Analysis Date: 9/11/2023		SeqNo: 1804797			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bis(2-chloroethoxy)methane	1.49	0.0317	2.112	0	70.5	11.6	134				
2,4-Dichlorophenol	1.30	0.0317	2.112	0	61.7	24.2	123				
1,2,4-Trichlorobenzene	1.57	0.0317	2.112	0	74.6	24.8	120				
Naphthalene	1.77	0.0422	2.112	0.1832	75.3	23.9	120				
4-Chloroaniline	0.918	0.0317	2.112	0	43.5	2.66	113				
Hexachlorobutadiene	1.67	0.0317	2.112	0	79.3	22.5	127				
4-Chloro-3-methylphenol	2.12	0.0317	2.112	0	100	5.72	142				
2-Methylnaphthalene	2.92	0.0317	2.112	1.180	82.2	24.7	117				
1-Methylnaphthalene	2.63	0.0317	2.112	0.9463	79.6	28.5	118				
Hexachlorocyclopentadiene	0.719	0.106	2.112	0	34.0	5	128				
2,4,6-Trichlorophenol	1.63	0.0317	2.112	0	77.3	12.8	132				
2,4,5-Trichlorophenol	1.33	0.0317	2.112	0	63.2	16	128				
2-Chloronaphthalene	1.49	0.0317	2.112	0	70.7	26.9	120				
2-Nitroaniline	1.59	0.0528	2.112	0	75.5	13.4	141				
Acenaphthene	1.65	0.0317	2.112	0	78.2	24.8	121				
Dimethylphthalate	1.70	1.06	2.112	0	80.7	25.4	121				
2,6-Dinitrotoluene	1.65	0.0422	2.112	0	78.0	28.7	122				
Acenaphthylene	1.57	0.0317	2.112	0	74.5	28.7	124				
2,4-Dinitrophenol	2.94	0.317	4.223	0	69.6	5	147				
Dibenzofuran	1.59	0.0317	2.112	0	75.3	27	118				
2,4-Dinitrotoluene	1.64	0.0633	2.112	0	77.8	23.2	123				
4-Nitrophenol	2.11	0.211	2.112	0	99.9	5	126				
Fluorene	1.91	0.0317	2.112	0.3204	75.2	26.9	118				
4-Chlorophenyl phenyl ether	1.57	0.0317	2.112	0	74.4	22.7	123				
Diethylphthalate	1.64	0.792	2.112	0	77.6	27.7	114				
4,6-Dinitro-2-methylphenol	1.92	0.264	2.112	0	91.0	5	168				
4-Bromophenyl phenyl ether	1.63	0.0317	2.112	0	77.2	27.7	116				
Hexachlorobenzene	1.64	0.0317	2.112	0	77.5	32.6	106				
Pentachlorophenol	1.87	0.211	2.112	0	88.5	5	144				
Phenanthrene	2.33	0.0317	2.112	0.6971	77.1	23	117				
Anthracene	1.47	0.0317	2.112	0	69.6	21	120				
Carbazole	1.50	0.0317	2.112	0	71.2	22.4	121				

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308438-002AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: BATCH	Batch ID: 41421	Analysis Date: 9/11/2023							SeqNo: 1804797		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-n-butylphthalate	1.66	0.0317	2.112	0	78.4	21	122				
Fluoranthene	1.64	0.0317	2.112	0.01880	76.6	21.9	123				
Pyrene	1.61	0.158	2.112	0	76.0	21.2	124				
Butyl Benzylphthalate	1.90	0.0528	2.112	0	89.9	22.6	123				
bis(2-Ethylhexyl)adipate	1.77	0.211	2.112	0	83.7	24.4	116				
Benz(a)anthracene	1.73	0.0317	2.112	0.01319	81.2	18.6	133				
Chrysene	1.51	0.0528	2.112	0	71.3	13.9	125				
bis (2-Ethylhexyl) phthalate	1.67	0.0422	2.112	0.01856	78.4	21.3	120				
Di-n-octyl phthalate	1.72	0.0792	2.112	0	81.6	30.6	117				
Benzo(b)fluoranthene	1.56	0.106	2.112	0.01487	73.0	22.8	120				
Benzo(k)fluoranthene	1.52	0.0317	2.112	0	72.0	11.1	123				
Benzo(a)pyrene	1.61	0.0422	2.112	0	76.4	12.9	134				
Indeno(1,2,3-cd)pyrene	1.50	0.211	2.112	0	71.2	20.6	138				
Dibenz(a,h)anthracene	1.46	0.106	2.112	0	69.2	5	145				
Benzo(g,h,i)perylene	1.46	0.106	2.112	0	69.0	5.96	134				
Surr: 2,4,6-Tribromophenol	2.37		2.112		112	33.1	127				
Surr: 2-Fluorobiphenyl	1.00		1.056		95.1	35.2	141				
Surr: Nitrobenzene-d5	1.05		1.056		99.4	15.6	158				
Surr: Phenol-d6	1.81		2.112		85.7	28.2	141				
Surr: p-Terphenyl	1.09		1.056		103	41.2	138				

Sample ID: 2308438-002AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 9/7/2023			RunNo: 86485		
Client ID: BATCH		Batch ID: 41421		Analysis Date: 9/11/2023					SeqNo: 1804798		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1.44	0.0317	2.112	0	68.3	12	137	1.480	2.55	50	
Bis(2-chloroethyl) ether	1.44	0.0528	2.112	0	68.4	16.7	126	1.474	1.99	50	
2-Chlorophenol	1.46	0.0422	2.112	0	69.0	30.9	113	1.488	2.10	50	
1,3-Dichlorobenzene	1.48	0.0422	2.112	0	70.1	28.1	113	1.502	1.51	50	
1,4-Dichlorobenzene	1.47	0.0317	2.112	0	69.8	29.6	113	1.525	3.45	50	
1,2-Dichlorobenzene	1.45	0.0422	2.112	0	68.9	27.8	115	1.517	4.23	50	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308438-002AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: BATCH	Batch ID: 41421	Analysis Date: 9/11/2023							SeqNo: 1804798		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzyl alcohol	0.730	0.158	2.112	0	34.6	5	164	0.8858	19.3	50	
2-Methylphenol (o-cresol)	1.31	0.0422	2.112	0	62.1	16.1	126	1.308	0.169	50	
Hexachloroethane	1.64	0.0422	2.112	0	77.5	15.1	130	1.713	4.54	50	
N-Nitrosodi-n-propylamine	1.51	0.0845	2.112	0	71.5	5	160	1.504	0.424	50	
3&4-Methylphenol (m, p-cresol)	1.33	0.0317	2.112	0	63.1	14.4	126	1.348	1.19	50	
Nitrobenzene	1.49	0.0528	2.112	0	70.7	5	157	1.547	3.50	50	
Isophorone	1.59	0.0422	2.112	0	75.4	5	151	1.593	0.0685	50	
2-Nitrophenol	1.78	0.0317	2.112	0	84.3	29.2	119	1.851	3.87	50	
2,4-Dimethylphenol	0.870	0.0317	2.112	0	41.2	9.12	109	0.9227	5.87	50	
Bis(2-chloroethoxy)methane	1.46	0.0317	2.112	0	69.0	11.6	134	1.489	2.17	50	
2,4-Dichlorophenol	1.24	0.0317	2.112	0	58.7	24.2	123	1.303	4.98	50	
1,2,4-Trichlorobenzene	1.49	0.0317	2.112	0	70.4	24.8	120	1.575	5.81	50	
Naphthalene	1.76	0.0422	2.112	0.1832	74.8	23.9	120	1.773	0.567	50	
4-Chloroaniline	0.898	0.0317	2.112	0	42.5	2.66	113	0.9178	2.17	50	
Hexachlorobutadiene	1.60	0.0317	2.112	0	75.8	22.5	127	1.674	4.53	50	
4-Chloro-3-methylphenol	1.92	0.0317	2.112	0	90.7	5.72	142	2.119	10.1	50	
2-Methylnaphthalene	2.98	0.0317	2.112	1.180	85.4	24.7	117	2.916	2.30	50	
1-Methylnaphthalene	2.64	0.0317	2.112	0.9463	80.0	28.5	118	2.628	0.321	50	
Hexachlorocyclopentadiene	0.677	0.106	2.112	0	32.1	5	128	0.7187	6.01	50	
2,4,6-Trichlorophenol	1.60	0.0317	2.112	0	76.0	12.8	132	1.632	1.65	50	
2,4,5-Trichlorophenol	1.34	0.0317	2.112	0	63.4	16	128	1.334	0.286	50	
2-Chloronaphthalene	1.48	0.0317	2.112	0	69.9	26.9	120	1.493	1.05	50	
2-Nitroaniline	1.54	0.0528	2.112	0	72.7	13.4	141	1.594	3.69	50	
Acenaphthene	1.61	0.0317	2.112	0	76.1	24.8	121	1.652	2.79	50	
Dimethylphthalate	1.68	1.06	2.112	0	79.7	25.4	121	1.703	1.27	50	
2,6-Dinitrotoluene	1.64	0.0422	2.112	0	77.6	28.7	122	1.646	0.519	50	
Acenaphthylene	1.55	0.0317	2.112	0	73.3	28.7	124	1.573	1.62	50	
2,4-Dinitrophenol	2.91	0.317	4.223	0	68.9	5	147	2.938	0.969	50	
Dibenzofuran	1.60	0.0317	2.112	0	75.6	27	118	1.589	0.439	50	
2,4-Dinitrotoluene	1.94	0.0633	2.112	0	91.9	23.2	123	1.644	16.6	50	
4-Nitrophenol	2.06	0.211	2.112	0	97.8	5	126	2.110	2.21	50	
Fluorene	1.93	0.0317	2.112	0.3204	76.4	26.9	118	1.908	1.38	50	

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2308438-002AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 9/7/2023			RunNo: 86485		
Client ID: BATCH	Batch ID: 41421	Analysis Date: 9/11/2023							SeqNo: 1804798		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Chlorophenyl phenyl ether	1.55	0.0317	2.112	0	73.5	22.7	123	1.571	1.16	50	
Diethylphthalate	1.63	0.792	2.112	0	77.2	27.7	114	1.638	0.413	50	
4,6-Dinitro-2-methylphenol	1.88	0.264	2.112	0	88.9	5	168	1.921	2.27	50	
4-Bromophenyl phenyl ether	1.75	0.0317	2.112	0	82.8	27.7	116	1.631	6.97	50	
Hexachlorobenzene	1.63	0.0317	2.112	0	77.4	32.6	106	1.637	0.175	50	
Pentachlorophenol	1.82	0.211	2.112	0	86.0	5	144	1.868	2.81	50	
Phenanthrene	2.28	0.0317	2.112	0.6971	75.0	23	117	2.326	1.96	50	
Anthracene	1.62	0.0317	2.112	0	76.8	21	120	1.470	9.81	50	
Carbazole	1.47	0.0317	2.112	0	69.7	22.4	121	1.504	2.10	50	
Di-n-butylphthalate	1.63	0.0317	2.112	0	77.1	21	122	1.655	1.65	50	
Fluoranthene	1.58	0.0317	2.112	0.01880	74.1	21.9	123	1.637	3.34	50	
Pyrene	1.57	0.158	2.112	0	74.3	21.2	124	1.605	2.31	50	
Butyl Benzylphthalate	1.85	0.0528	2.112	0	87.7	22.6	123	1.898	2.45	50	
bis(2-Ethylhexyl)adipate	1.74	0.211	2.112	0	82.6	24.4	116	1.768	1.35	50	
Benz(a)anthracene	1.70	0.0317	2.112	0.01319	79.8	18.6	133	1.727	1.68	50	
Chrysene	1.50	0.0528	2.112	0	71.1	13.9	125	1.506	0.278	50	
bis (2-Ethylhexyl) phthalate	1.62	0.0422	2.112	0.01856	75.8	21.3	120	1.675	3.34	50	
Di-n-octyl phthalate	1.72	0.0792	2.112	0	81.5	30.6	117	1.723	0.0749	50	
Benzo(b)fluoranthene	1.54	0.106	2.112	0.01487	72.3	22.8	120	1.556	0.981	50	
Benzo(k)fluoranthene	1.46	0.0317	2.112	0	69.0	11.1	123	1.520	4.23	50	
Benzo(a)pyrene	1.56	0.0422	2.112	0	73.9	12.9	134	1.613	3.36	50	
Indeno(1,2,3-cd)pyrene	1.48	0.211	2.112	0	70.3	20.6	138	1.503	1.33	50	
Dibenz(a,h)anthracene	1.44	0.106	2.112	0	68.1	5	145	1.461	1.66	50	
Benzo(g,h,i)perylene	1.42	0.106	2.112	0	67.0	5.96	134	1.458	2.96	50	
Surr: 2,4,6-Tribromophenol	2.41		2.112		114	33.1	127		0		
Surr: 2-Fluorobiphenyl	0.989		1.056		93.7	35.2	141		0		
Surr: Nitrobenzene-d5	1.04		1.056		98.0	15.6	158		0		
Surr: Phenol-d6	1.72		2.112		81.6	28.2	141		0		
Surr: p-Terphenyl	1.05		1.056		99.9	41.2	138		0		

Work Order: 2308437
CLIENT: Apex Companies, LLC
Project: Dagmars Marina

QC SUMMARY REPORT

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-41421		SampType: LCS			Units: mg/Kg		Prep Date: 9/7/2023		RunNo: 86485		
Client ID: LCSS		Batch ID: 41421			Analysis Date: 9/13/2023				SeqNo: 1804809		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hexachlorocyclopentadiene	0.683	0.100	2.000	0	34.1	32	113				

Sample Log-In Check List

Client Name: APEXCO
 Logged by: Clare Griggs

Work Order Number: 2308437
 Date Received: 8/31/2023 11:15:00 AM

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
 2. How was the sample delivered? Client

Log In

3. Custody Seals present on shipping container/cooler?
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
 4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
 5. Were all items received at a temperature of >2°C to 6°C * Yes ☒ No ☐ NA ☐
 6. Sample(s) in proper container(s)? Yes ☒ No ☐
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
 8. Are samples properly preserved? Yes ☒ No ☐
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
 12. Does paperwork match bottle labels? Yes ☒ No ☐
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
 14. Is it clear what analyses were requested? Yes ☒ No ☐
 15. Were all holding times able to be met? Yes ☒ No ☐

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified:	Anders Utter	Date:	8/31/2023
By Whom:	Clare Griggs	Via:	☒ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:	Sulfides in sediment		
Client Instructions:			

17. Additional remarks:

Item Information

Item #	Temp °C
Sample	1.6

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

04 October 2023

Brianna Barnes
Fremont Analytical
3600 Fremont Avenue N.
Seattle, WA 98103

RE: Sulfide (2308437)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
23I0015

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

Shelly Fishel, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





CHAIN OF CUSTODY RECORD

Omega COCID 1817

PAGE: 1

OF: 3

ADDRESS

Fremont Analytical, Inc.
3600 Fremont Ave. N.
Seattle, WA 98103
TEL: 206-352-3790
FAX: 206-352-7178

Website: www.fremontanalytical.com

2310015

SUB CONTRACTOR: ARI	COMPANY: Analytical Resources Inc.	SPECIAL INSTRUCTIONS / COMMENTS Standard (2 week) TAT. Please email results to Brianna Barnes at bbarnes@fremontanalytical.com and Kelley Lovejoy at klovejoy@fremontanalytical.com.
ADDRESS: 4611 South 134th Place, Suite 100		
CITY, STATE, ZIP: Tukwila, WA 98168		
PHONE: (206) 695-6200	FAX: EMAIL:	
ACCOUNT #:		

ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description.
1	2308437-001B TEST_SUB	BL-1-SS	CLEAR JARS 4 O	Sediment	8/28/2023 12:38:00 PM	1	Sulfide w/ PSEP prep
2	2308437-002B TEST_SUB	BL-2-SS	CLEAR JARS 4 O	Sediment	8/28/2023 1:10:00 PM	1	Sulfide w/ PSEP prep
3	2308437-003B TEST_SUB	BL-3-SS	CLEAR JARS 4 O	Sediment	8/28/2023 12:55:00 PM	1	Sulfide w/ PSEP prep
4	2308437-004B TEST_SUB	BL-4-SS	CLEAR JARS 4 O	Sediment	8/28/2023 1:33:00 PM	1	Sulfide w/ PSEP prep
5	2308437-005B TEST_SUB	RB-1-SS	CLEAR JARS 4 O	Sediment	8/28/2023 2:53:00 PM	1	Sulfide w/ PSEP prep
6	2308437-006B TEST_SUB	RB-2-SS	CLEAR JARS 4 O	Sediment	8/28/2023 4:24:00 PM	1	Sulfide w/ PSEP prep
7	2308437-007B TEST_SUB	MP-2-SS	CLEAR JARS 4 O	Sediment	8/28/2023 3:50:00 PM	1	Sulfide w/ PSEP prep
8	2308437-008B TEST_SUB	MP-3-SS	CLEAR JARS 4 O	Sediment	8/28/2023 3:40:00 PM	1	Sulfide w/ PSEP prep
9	2308437-009B TEST_SUB	MP-5-SS	CLEAR JARS 4 O	Sediment	8/28/2023 3:14:00 PM	1	Sulfide w/ PSEP prep

Relinquished By:	Date: 9/1/23	Time: 1050	Received By:	Date: 09/01/23	Time: 14:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
TAT: Standard ☐ RUSH Next BD ☐ 2nd BD ☐ 3rd BD ☐					
Note: RUSH requests will incur surcharges!					

REPORT TRANSMITTAL DESIRED:	
☐ HARDCOPY (extra cost)	☐ FAX ☐ EMAIL ☐ ONLINE
FOR LAB USE ONLY	
Temp of samples	4.7°C Attempt to Cool? _____
Comments: _____	



CHAIN OF CUSTODY RECORD

Omega COCID 1817

PAGE: 2

OF: 3

Fremont Analytical, Inc.
3600 Fremont Ave. N.
Seattle, WA 98103
TEL: 206-352-3790
FAX: 206-352-7178
Website: www.fremontanalytical.com

2310015

SUB CONTRACTOR: ARI		COMPANY: Analytical Resources Inc.		SPECIAL INSTRUCTIONS / COMMENTS: Standard (2 week) TAT. Please email results to Brianna Barnes at bbarnes@fremontanalytical.com and Kelley Lovejoy at kloveyjoy@fremontanalytical.com.			
ADDRESS: 4611 South 134th Place, Suite 100							
CITY, STATE, ZIP: Tukwila, WA 98168							
PHONE: (206) 695-6200		FAX:		EMAIL:			
ACCOUNT #:							
ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description.
10	2308437-010B	MP-6-SS	CLEAR JARS 4 O	Sediment	8/28/2023 2:43:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
11	2308437-011B	HP-5-SS	CLEAR JARS 4 O	Sediment	8/28/2023 4:06:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
12	2308437-012B	HP-6-SS	CLEAR JARS 4 O	Sediment	8/28/2023 4:56:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
13	2308437-013B	HP-7-SS	CLEAR JARS 4 O	Sediment	8/28/2023 5:00:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
14	2308437-017B	BL-1-SB-4'	CLEAR JARS 4 O	Sediment	8/29/2023 11:20:00 AM	1	Sulfide w/ PSEP prep
	TEST_SUB						
15	2308437-020B	MP-5-SB-2'	CLEAR JARS 4 O	Sediment	8/29/2023 12:00:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
16	2308437-021B	HP-6-SB-3'	CLEAR JARS 4 O	Sediment	8/29/2023 2:35:00 PM	1	Sulfide w/ PSEP prep
	TEST_SUB						
17	2308437-024B	MP-6-SB-2'	CLEAR JARS 4 O	Sediment	8/30/2023 10:00:00 AM	1	Sulfide w/ PSEP prep
	TEST_SUB						
18	2308437-026B	HP-1-SS	CLEAR JARS 4 O	Sediment	8/30/2023 10:41:00 AM	1	Sulfide w/ PSEP prep
	TEST_SUB						

Relinquished By:	Date: 9/1/23	Time: 1050	Received By:	Date: 09/01/23	Time: 14:15	REPORT TRANSMITTAL DESIRED: ☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	FOR LAB USE ONLY	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Temp of samples 4.78 °C Attempt to Cool? _____	
TAT: Standard ☐ RUSH ☒ Next BD ☐ 2nd BD ☐ 3rd BD ☐						Comments: _____	
Note: RUSH requests will incur surcharges!							



CHAIN OF CUSTODY RECORD

Omega COCID 1817

PAGE: 3

OF: 3

ADDRESS

Fremont Analytical, Inc.
3600 Fremont Ave. N.
Seattle, WA 98103
TEL: 206-352-3790
FAX: 206-352-7178

Website: www.fremontanalytical.com

2310015

SUB CONTRACTOR: ARI	COMPANY: Analytical Resources Inc.	SPECIAL INSTRUCTIONS / COMMENTS: Standard (2 week) TAT. Please email results to Brianna Barnes at bbarnes@fremontanalytical.com and Kelley Lovejoy at kloveyjoy@fremontanalytical.com.
ADDRESS: 4611 South 134th Place, Suite 100		
CITY, STATE, ZIP: Tukwila, WA 98168		
PHONE: (206) 695-6200	FAX: EMAIL: 	
ACCOUNT #:		

ITEM #	SAMPLE ID	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	DATE COLLECTED	NUMBER OF CONTAINERS	COMMENTS: Methanol Preserved Weights HOT Sample Notation, Additional Sample Description.
19	2308437-027B TEST_SUB	HP-2-SS	CLEAR JARS 4 O	Sediment	8/30/2023 10:32:00 AM	1	Sulfide w/ PSEP prep
20	2308437-028B TEST_SUB	OF-1-SS	CLEAR JARS 4 O	Sediment	8/30/2023 10:50:00 AM	1	Sulfide w/ PSEP prep
21	2308437-029B TEST_SUB	HP-7-SB-3'	CLEAR JARS 4 O	Sediment	8/29/2023 3:43:00 PM	1	Sulfide w/ PSEP prep
22	2308437-033B TEST_SUB	OF-1-SB-4'	CLEAR JARS 4 O	Sediment	8/30/2023 5:22:00 PM	1	Sulfide w/ PSEP prep
23	2308437-036B TEST_SUB	HP-8-SB-2	CLEAR JARS 4 O	Sediment	8/30/2023 4:38:00 PM	1	Sulfide w/ PSEP prep
24	2308437-038B TEST_SUB	DUP-01	CLEAR JARS 4 O	Sediment	8/30/2023 12:00:00 PM	1	Sulfide w/ PSEP prep NR 9/1

Relinquished By:	Date: 9/11/23	Time: 10:50	Received By:	Date: 09/12/23	Time: 14:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
TAT: Standard ☐ RUSH ☐ Next BD ☐ 2nd BD ☐ 3rd BD ☐					
Note: RUSH requests will incur surcharges!					

REPORT TRANSMITTAL DESIRED:	
☐ HARDCOPY (extra cost)	☐ FAX ☐ EMAIL ☐ ONLINE
FOR LAB USE ONLY	
Temp of samples: 7.70C °C	Attempt to Cool ?
Comments:	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BL-1-SS	23I0015-01	Solid	28-Aug-2023 12:38	01-Sep-2023 14:15
BL-2-SS	23I0015-02	Solid	28-Aug-2023 13:10	01-Sep-2023 14:15
BL-3-SS	23I0015-03	Solid	28-Aug-2023 12:55	01-Sep-2023 14:15
BL-4-SS	23I0015-04	Solid	28-Aug-2023 13:33	01-Sep-2023 14:15
RB-1-SS	23I0015-05	Solid	28-Aug-2023 14:53	01-Sep-2023 14:15
RB-2-SS	23I0015-06	Solid	28-Aug-2023 16:24	01-Sep-2023 14:15
MP-2-SS	23I0015-07	Solid	28-Aug-2023 15:50	01-Sep-2023 14:15
MP-3-SS	23I0015-08	Solid	28-Aug-2023 15:40	01-Sep-2023 14:15
MP-5-SS	23I0015-09	Solid	28-Aug-2023 15:14	01-Sep-2023 14:15
MP-6-SS	23I0015-10	Solid	28-Aug-2023 14:43	01-Sep-2023 14:15
HP-5-SS	23I0015-11	Solid	28-Aug-2023 16:06	01-Sep-2023 14:15
HP-6-SS	23I0015-12	Solid	28-Aug-2023 16:56	01-Sep-2023 14:15
HP-7-SS	23I0015-13	Solid	28-Aug-2023 17:00	01-Sep-2023 14:15
BL-1-SB-4'	23I0015-14	Solid	29-Aug-2023 11:20	01-Sep-2023 14:15
MP-5-SB-2'	23I0015-15	Solid	29-Aug-2023 12:00	01-Sep-2023 14:15
HP-6-SB-3'	23I0015-16	Solid	29-Aug-2023 14:35	01-Sep-2023 14:15
HP-6-SB-2'	23I0015-17	Solid	30-Aug-2023 10:00	01-Sep-2023 14:15
HP-1-SS	23I0015-18	Solid	30-Aug-2023 10:41	01-Sep-2023 14:15
HP-2-SS	23I0015-19	Solid	30-Aug-2023 10:32	01-Sep-2023 14:15
OF-1-SS	23I0015-20	Solid	30-Aug-2023 10:50	01-Sep-2023 14:15
HP-7-SB-3'	23I0015-21	Solid	29-Aug-2023 15:43	01-Sep-2023 14:15
OF-1-SB-4'	23I0015-22	Solid	30-Aug-2023 17:22	01-Sep-2023 14:15
HP-8-SB-2	23I0015-23	Solid	30-Aug-2023 16:38	01-Sep-2023 14:15



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Work Order Case Narrative

Client: Fremont Analytical

Project: Sulfide

Project Number: 2308437

Work Order: 23I0015

Sample receipt

Samples as listed on the preceding page were received 01-Sep-2023 14:15 under ARI work order 23I0015. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times except Sulfide as flagged. The samples 23I0015-07 to 23I0015-13 were received greater than 48 hours after collection and without preservation. In the absence of preservation the hold time defaults to 48 hours. The deviations have been flagged.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits. The matrix spike (MS) percent recoveries were outside advisory control limits low and have been flagged.



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Fremont

Project Name: 2308437

COC No(s): 1817

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: NA

Assigned ARI Job No: 2310015

Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?

YES NO

Were custody papers included with the cooler?

YES NO

Were custody papers properly filled out (ink, signed, etc.)

YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 14:15

4.7

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 3009708

Cooler Accepted by: PIB

Date: 09/10/23

Time: 14:15

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?

YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: 1

Was sufficient ice used (if appropriate)?

NA YES NO

How were bottles sealed in plastic bags?

Individually Grouped Not

Did all bottles arrive in good condition (unbroken)?

YES NO

Were all bottle labels complete and legible?

YES NO

Did the number of containers listed on COC match with the number of containers received?

YES NO

Did all bottle labels and tags agree with custody papers?

YES NO

Were all bottles used correct for the requested analyses?

YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ...

NA YES NO

Were all VOC vials free of air bubbles?

NA YES NO

Was sufficient amount of sample sent in each bottle?

YES NO

Date VOC Trip Blank was made at ARI.....

NA

Were the sample(s) split
by ARI? NA YES

Date/Time: _____

Equipment: _____

Split by: _____

Samples Logged by: JS Date: 09/10/23 Time: 14:35 Labels checked by: JS

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Sulfides are unpreserved, will log accordingly,
adjusting pending information from client.

By: JS

Date: 09/10/23



WORK ORDER

23I0015

Samples will be discarded 90 days after submission of a final report unless other instructions are received.

Client: Fremont Analytical

Project Manager: Shelly Fishel

Project: Sulfide

Project Number: 2308437

Preservation Confirmation

Container ID	Container Type	pH
23I0015-01 A	Glass WM, Clear, 4 oz	
23I0015-02 A	Glass WM, Clear, 4 oz	
23I0015-03 A	Glass WM, Clear, 4 oz	
23I0015-04 A	Glass WM, Clear, 4 oz	
23I0015-05 A	Glass WM, Clear, 4 oz	
23I0015-06 A	Glass WM, Clear, 4 oz	
23I0015-07 A	Glass WM, Clear, 4 oz	
23I0015-08 A	Glass WM, Clear, 4 oz	
23I0015-09 A	Glass WM, Clear, 4 oz	
23I0015-10 A	Glass WM, Clear, 4 oz	
23I0015-11 A	Glass WM, Clear, 4 oz	
23I0015-12 A	Glass WM, Clear, 4 oz	
23I0015-13 A	Glass WM, Clear, 4 oz	
23I0015-14 A	Glass WM, Clear, 4 oz	
23I0015-15 A	Glass WM, Clear, 4 oz	
23I0015-16 A	Glass WM, Clear, 4 oz	
23I0015-17 A	Glass WM, Clear, 4 oz	
23I0015-18 A	Glass WM, Clear, 4 oz	
23I0015-19 A	Glass WM, Clear, 4 oz	
23I0015-20 A	Glass WM, Clear, 4 oz	
23I0015-21 A	Glass WM, Clear, 4 oz	
23I0015-22 A	Glass WM, Clear, 4 oz	
23I0015-23 A	Glass WM, Clear, 4 oz	

Preservation Confirmed By _____

Date _____

① added 2ml (2N) ZnOAc
to top off each.
9-1-23 16:52
CPG



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-1-SS
23I0015-01 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 12:38

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-01

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	65.42	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-1-SS
23I0015-01 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-2 Analyst: BF

Sampled: 08/28/2023 12:38
Analyzed: 09/11/2023 14:38

Sample Preparation: Preparation Method: PSEP 1986
Preparation Batch: BLI0064
Prepared: 09/04/2023

Sample Size: 5.257 g (wet)
Final Volume: 100 mL

Extract ID: 23I0015-01 A
Dry Weight: 3.44 g
% Solids: 65.42

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.45	1.45	ND	mg/kg	U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-2-SS
23I0015-02 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 13:10

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-02

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	66.19	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-2-SS
23I0015-02RE1 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-2 Analyst: BF

Sampled: 08/28/2023 13:10
Analyzed: 09/11/2023 15:01

Sample Preparation: Preparation Method: PSEP 1986
Preparation Batch: BLI0064
Prepared: 09/04/2023

Sample Size: 5.101 g (wet)
Final Volume: 100 mL

Extract ID: 23I0015-02RE1 A
Dry Weight: 3.38 g
% Solids: 66.19

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	5	7.40	7.40	61.9	mg/kg	D



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-3-SS
23I0015-03 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 12:55

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-03

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	79.93	%	



Fremont Analytical
3600 Fremont Avenue N.
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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-3-SS
23I0015-03 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-2 Analyst: BF

Sampled: 08/28/2023 12:55
Analyzed: 09/11/2023 14:40

Sample Preparation: Preparation Method: PSEP 1986
Preparation Batch: BLI0064
Prepared: 09/04/2023

Sample Size: 5.252 g (wet)
Final Volume: 100 mL

Extract ID: 23I0015-03 A
Dry Weight: 4.20 g
% Solids: 79.93

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.19	1.19	ND	mg/kg	U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-4-SS
23I0015-04 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 13:33

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-04

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	78.27	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-4-SS
23I0015-04 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-2 Analyst: BF

Sampled: 08/28/2023 13:33
Analyzed: 09/11/2023 14:40

Sample Preparation: Preparation Method: PSEP 1986
Preparation Batch: BLI0064
Prepared: 09/04/2023

Sample Size: 5.139 g (wet)
Final Volume: 100 mL

Extract ID: 23I0015-04 A
Dry Weight: 4.02 g
% Solids: 78.27

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.24	1.24	ND	mg/kg	U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

RB-1-SS
23I0015-05 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 14:53

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-05

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	79.83	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

RB-1-SS
23I0015-05 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-2 Analyst: BF

Sampled: 08/28/2023 14:53
Analyzed: 09/11/2023 14:41

Sample Preparation: Preparation Method: PSEP 1986
Preparation Batch: BLI0064
Prepared: 09/04/2023

Sample Size: 5.477 g (wet)
Final Volume: 100 mL

Extract ID: 23I0015-05 A
Dry Weight: 4.37 g
% Solids: 79.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.14	1.14	ND	mg/kg	U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

RB-2-SS
23I0015-06 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 16:24

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-06

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	83.31	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

RB-2-SS
23I0015-06 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/28/2023 16:24

Instrument: UV1800-2 Analyst: BF

Analyzed: 09/11/2023 14:41

Sample Preparation:

Preparation Method: PSEP 1986

Extract ID: 23I0015-06 A

Preparation Batch: BLI0064

Sample Size: 5.274 g (wet)

Dry Weight: 4.39 g

Prepared: 09/04/2023

Final Volume: 100 mL

% Solids: 83.31

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.14	1.14	ND	mg/kg	U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-2-SS
23I0015-07 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 15:50

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-07

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	77.83	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-2-SS
23I0015-07 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/28/2023 15:50
Analyzed: 09/12/2023 14:57

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BLI0082 Sample Size: 5.025 g (wet)
Prepared: 09/05/2023 Final Volume: 100 g
Extract ID: 23I0015-07 A
Dry Weight: 3.91 g
% Solids: 77.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.28	1.28	ND	mg/kg	H, U



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3600 Fremont Avenue N.
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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-3-SS
23I0015-08 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 15:40

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-08

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	77.56	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-3-SS
23I0015-08 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/28/2023 15:40

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 14:59

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-08 A

Preparation Batch: BLI0082

Sample Size: 5.555 g (wet)

Dry Weight: 4.31 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 77.56

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.16	1.16	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-5-SS
23I0015-09 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 15:14

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-09

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	78.21	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-5-SS
23I0015-09 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/28/2023 15:14

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 14:59

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-09 A

Preparation Batch: BLI0082

Sample Size: 5.072 g (wet)

Dry Weight: 3.97 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 78.21

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.26	1.26	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-6-SS
23I0015-10 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 14:43

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-10

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	66.77	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-6-SS
23I0015-10 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/28/2023 14:43
Analyzed: 09/12/2023 15:00

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BLI0082 Sample Size: 5.683 g (wet)
Prepared: 09/05/2023 Final Volume: 100 g
Extract ID: 23I0015-10 A
Dry Weight: 3.79 g
% Solids: 66.77

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.32	1.32	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-5-SS
23I0015-11 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 16:06

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-11

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	80.16	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-5-SS
23I0015-11 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/28/2023 16:06

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:00

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-11 A

Preparation Batch: BLI0082

Sample Size: 5.496 g (wet)

Dry Weight: 4.41 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 80.16

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.13	1.13	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SS
23I0015-12 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 16:56

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-12

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	68.67	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SS
23I0015-12 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/28/2023 16:56
Analyzed: 09/12/2023 15:01

Sample Preparation:	Preparation Method: No Prep Wet Chem	Sample Size: 5.841 g (wet)	Extract ID: 23I0015-12 A
	Preparation Batch: BLI0082	Final Volume: 100 g	Dry Weight: 4.01 g
	Prepared: 09/05/2023		% Solids: 68.67

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.25	1.25	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-7-SS
23I0015-13 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/28/2023 17:00

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-13

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	72.83	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-7-SS
23I0015-13 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/28/2023 17:00
Analyzed: 09/12/2023 15:31

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BLI0082 Sample Size: 5.724 g (wet)
Prepared: 09/05/2023 Final Volume: 100 g
Extract ID: 23I0015-13 A
Dry Weight: 4.17 g
% Solids: 72.83

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.20	1.20	ND	mg/kg	H, U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-1-SB-4'
23I0015-14 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/29/2023 11:20

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-14

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	74.69	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

BL-1-SB-4'
23I0015-14 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/29/2023 11:20

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:31

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-14 A

Preparation Batch: BLI0082

Sample Size: 5.143 g (wet)

Dry Weight: 3.84 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 74.69

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	20	26.0	26.0	219	mg/kg	D



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-5-SB-2'
23I0015-15 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/29/2023 12:00

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-15

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	80.22	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

MP-5-SB-2'
23I0015-15 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/29/2023 12:00
Analyzed: 09/12/2023 15:32

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BLI0082 Sample Size: 5.4322 g (wet)
Prepared: 09/05/2023 Final Volume: 100 g
Extract ID: 23I0015-15 A
Dry Weight: 4.36 g
% Solids: 80.22

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.15	1.15	ND	mg/kg	U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SB-3'
23I0015-16 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/29/2023 14:35

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-16

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	73.54	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SB-3'
23I0015-16 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/29/2023 14:35

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:32

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-16 A

Preparation Batch: BLI0082

Sample Size: 5.014 g (wet)

Dry Weight: 3.69 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 73.54

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	5	6.78	6.78	54.9	mg/kg	D



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SB-2'
23I0015-17 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 10:00

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-17

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	70.36	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-6-SB-2'
23I0015-17 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/30/2023 10:00

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:33

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-17 A

Preparation Batch: BLI0082

Sample Size: 5.596 g (wet)

Dry Weight: 3.94 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 70.36

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	50	63.5	63.5	763	mg/kg	D



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-1-SS
23I0015-18 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 10:41

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-18

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	60.11	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-1-SS
23I0015-18 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)
Instrument: UV1800-1 Analyst: BF

Sampled: 08/30/2023 10:41
Analyzed: 09/12/2023 15:33

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BLI0082 Sample Size: 5.058 g (wet)
Prepared: 09/05/2023 Final Volume: 100 g
Extract ID: 23I0015-18 A
Dry Weight: 3.04 g
% Solids: 60.11

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.64	1.64	ND	mg/kg	U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-2-SS
23I0015-19 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 10:32

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-19

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	62.24	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-2-SS
23I0015-19 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/30/2023 10:32

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:34

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-19 A

Preparation Batch: BLI0082

Sample Size: 5.957 g (wet)

Dry Weight: 3.71 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 62.24

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.35	1.35	ND	mg/kg	U



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

OF-1-SS
23I0015-20 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 10:50

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:10

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-20

Preparation Batch: BLI0184

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	61.24	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

OF-1-SS
23I0015-20 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/30/2023 10:50

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:34

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-20 A

Preparation Batch: BLI0082

Sample Size: 5.09 g (wet)

Dry Weight: 3.12 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 61.24

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.60	1.60	27.5	mg/kg	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-7-SB-3'
23I0015-21 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/29/2023 15:43

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:59

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-21

Preparation Batch: BLI0189

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	68.70	%	



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Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-7-SB-3'
23I0015-21 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/29/2023 15:43

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:35

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-21 A

Preparation Batch: BLI0082

Sample Size: 5.582 g (wet)

Dry Weight: 3.83 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 68.70

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.30	1.30	15.5	mg/kg	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

OF-1-SB-4'
23I0015-22 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 17:22

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:59

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-22

Preparation Batch: BLI0189

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	59.46	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

OF-1-SB-4'
23I0015-22 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/30/2023 17:22

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:35

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-22 A

Preparation Batch: BLI0082

Sample Size: 5.495 g (wet)

Dry Weight: 3.27 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 59.46

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	1	1.53	1.53	5.45	mg/kg	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-8-SB-2
23I0015-23 (Solid)

Wet Chemistry

Method: PSEP 1986

Sampled: 08/30/2023 16:38

Instrument: BAL2 Analyst: EML2

Analyzed: 09/07/2023 12:59

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-23

Preparation Batch: BLI0189

Sample Size: 5 g (wet)

Prepared: 09/07/2023

Final Volume: 5 g

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Total Solids, Sulfide		1	0.04	0.04	70.61	%	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

HP-8-SB-2
23I0015-23 (Solid)

Wet Chemistry

Method: SM 4500-S2 D-00 (PSEP)

Sampled: 08/30/2023 16:38

Instrument: UV1800-1 Analyst: BF

Analyzed: 09/12/2023 15:55

Sample Preparation:

Preparation Method: No Prep Wet Chem

Extract ID: 23I0015-23 A

Preparation Batch: BLI0082

Sample Size: 5.512 g (wet)

Dry Weight: 3.89 g

Prepared: 09/05/2023

Final Volume: 100 g

% Solids: 70.61

Analyte	CAS Number	Dilution	Detection Limit	Reporting Limit	Result	Units	Notes
Sulfide	18496-25-8	20	25.7	25.7	99.7	mg/kg	D



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BLI0064 - SM 4500-S2 D-00 (PSEP)

Instrument: UV1800-2 Analyst: BF

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLI0064-BLK1)						Prepared: 04-Sep-2023 Analyzed: 11-Sep-2023 14:36					
Sulfide	ND	1.00	1.00	mg/kg							U
LCS (BLI0064-BS1)						Prepared: 04-Sep-2023 Analyzed: 11-Sep-2023 14:37					
Sulfide	140	20.0	20.0	mg/kg	160		87.1	75-125			D
Duplicate (BLI0064-DUP1)						Source: 23I0015-01 Prepared: 04-Sep-2023 Analyzed: 11-Sep-2023 14:38					
Sulfide	ND	1.36	1.36	mg/kg		ND					U
Matrix Spike (BLI0064-MS1)						Source: 23I0015-01 Prepared: 04-Sep-2023 Analyzed: 11-Sep-2023 14:39					
Sulfide	179	29.9	29.9	mg/kg	240	ND	74.7	75-125			*, D
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											
DL (BLI0064-MS2)						Source: 23I0015-01 Prepared: 04-Sep-2023 Analyzed: 11-Sep-2023 15:00					
Sulfide	177	29.9	29.9	mg/kg	240	ND	73.7	75-125			*, D
Recovery limits for target analytes in MS/MSD QC samples are advisory only.											



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BLI0082 - SM 4500-S2 D-00 (PSEP)

Instrument: UV1800-1 Analyst: BF

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLI0082-BLK1)						Prepared: 05-Sep-2023 Analyzed: 12-Sep-2023 14:56					
Sulfide	ND	1.00	1.00	mg/kg							U
LCS (BLI0082-BS1)						Prepared: 05-Sep-2023 Analyzed: 12-Sep-2023 14:57					
Sulfide	149	20.0	20.0	mg/kg	161		92.4	75-125			D
Duplicate (BLI0082-DUP1)						Source: 23I0015-07 Prepared: 05-Sep-2023 Analyzed: 12-Sep-2023 14:58					
Sulfide	ND	1.26	1.26	mg/kg		ND					H, U
Matrix Spike (BLI0082-MS1)						Source: 23I0015-07 Prepared: 05-Sep-2023 Analyzed: 12-Sep-2023 14:58					
Sulfide	145	24.7	24.7	mg/kg	198	ND	73.0	75-125			*, H, D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BLI0184 - PSEP 1986

Instrument: BAL2 Analyst: EML2

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BLI0184-BLK1)					Prepared: 07-Sep-2023 Analyzed: 07-Sep-2023 12:10					
Total Solids, Sulfide	ND	0.04	0.04	%						U
Duplicate (BLI0184-DUP1)					Source: 23I0015-01 Prepared: 07-Sep-2023 Analyzed: 07-Sep-2023 12:10					
Total Solids, Sulfide	65.85	0.04	0.04	%		65.42		0.66	20	



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BLI0189 - PSEP 1986

Instrument: BAL2 Analyst: EML2

QC Sample/Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD Limit	Notes
Blank (BLI0189-BLK1)						Prepared: 07-Sep-2023 Analyzed: 07-Sep-2023 12:59			
Total Solids, Sulfide	ND	0.04	0.04	%					U



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Certified Analyses included in this Report

Analyte	Certifications
SM 4500-S2 D-00 (PSEP) in Solid	
Sulfide	DoD-ELAP,NELAP,WADOE

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024



Fremont Analytical
3600 Fremont Avenue N.
Seattle WA, 98103

Project: Sulfide
Project Number: 2308437
Project Manager: Brianna Barnes

Reported:
04-Oct-2023 19:42

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
H	Hold time violation - Hold time was exceeded.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.



3600 Fremont Ave. N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8-29-23 Page: 1 of 4

Project Name: Dagmar's Manna

Project No: ALT-021-0314032m

Collected by: Molly Strain

Location: Everett WA

Report To (PM): Anders Utter

Laboratory Project No (Internal): 2308437

Special Remarks:

Conventional parameters on jars = Total/dissolved: total solids, total volatile solids, and TOC. (All samples) Archived = do not analyze, hold sample

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (Specify above) ☐ Return to client

Client: Apex Companies LLC

Address: 801 NW 42nd St

City, State, Zip: Seattle, WA, 98107

Telephone:

Email(s): anders.utter@apexcos.com, John.Fawcett@apexcos.com, molly.strain@apexcos.com

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 (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 (801)	Ammonia/Sulfides	Grain Size	Comments
1 BL-1-SS	8/28	12:38	SD	3			X	X	X	X	X	X	X	X	X	X	X	total dissolved solids, and volatile solids, and TOC	
2 BL-2-SS		13:10		3			X	X	X	X	X	X	X	X	X	X	X		
3 BL-3-SS		12:55		3			X	X	X	X	X	X	X	X	X	X	X		
4 BL-4-SS		13:33		3			X	X	X	X	X	X	X	X	X	X	X		
5 PB-1-SS		14:53		3			X	X	X	X	X	X	X	X	X	X	X	samples marked "PB-1"	
6 PB-2-SS		16:24		3			X	X	X	X	X	X	X	X	X	X	X		
7 MP-2-SS		15:50		3			X	X	X	X	X	X	X	X	X	X	X		
8 MP-3-SS		15:40		3			X	X	X	X	X	X	X	X	X	X	X		
9 MP-5-SS		15:14		3			X	X	X	X	X	X	X	X	X	X	X		
10 MP-6-SS		14:43		3			X	X	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 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) Molly Strain 8/31/23 11:00

Print Name Molly Strain

Date/Time 8/31/23 11:00

Received (Signature)

Print Name Kate RTS

Date/Time 8/31/23 11:15

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

*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

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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
	Molly Strain	8/31/23 11:00		Kate Ritz	8/31/23 11:15
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
X			X		



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8-29-23 Page: 2 of 4

Project Name: Dagnamas Marina

Laboratory Project No (Internal): Z308437

Project No:

Special Remarks:
see page 1

Collected by: Molly Strain

Location: Everett WA

Report To (PM): Anders Uter

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Client: Apex Companies, LLC

Address: 801 NW 42nd St

City, State, Zip: Seattle WA 98107

Telephone:

Email(s): ~~apex~~ see previous page

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 (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)	Ammonia/Total Sulfide	Grain Size	Comments	
1 HP-5-SS	8-28	1606	STD	3			X	X	X	X	X	X	X	X	X	X	X			
2 HP-6-SS		1656		3			X	X	X	X	X	X	X	X	X	X	X			
3 HP-7-SS		1700		3			X	X	X	X	X	X	X	X	X	X	X			
4 S. Marina		1634		1																Composite
5 N. Marina		1545		1																
6 BL		1447		1																
7 BL-1-SB-4'	8-29	1120	SD	3			X	X	X	X	X	X	X	X	X	X	X			Archive
8 BL-1-SB-6'		1122		3			X	X	X	X	X	X	X	X	X	X	X			Archive
9 BL-1-SB-8'		1125		3			X	X	X	X	X	X	X	X	X	X	X			Archive
10 MP-5-SB-2'		1200		3			X	X	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 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
	Molly Strain	8/31/23 11:00		NPE PWS	8/31/23 11:15
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)

*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 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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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
	Molly Strain	8/31/23 11:00		Ane Arz	8/31/23 11:15
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time



Fremont
ANALYTICAL
AN ADVANCED TECHNOLOGY GROUP COMPANY

3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/31/23

Page: 3 of:

Laboratory Project No (Internal): 23084137

Client: Apex Companies LLC

Project No:

Special Remarks:

Address: 801 NW 42nd St

Collected by: Molly Strain + Jasmine Haar

See page 1

City, State, Zip: Seattle WA 98107

Location: Everett WA

Telephone:

Report To (PM): Anders Uter

Email(s): Molly Same as page 1

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

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 / 200.9)	Total (T) Dissolved (D)	Anions (IC)***	EDB (8011)	Ammonium / Sulfate	Comments
1 HP-6-SB-3'	8-29	1435	SD	3	X	X	X	X	X	X	X	X	X	X	X	X	Archive
2 HP-6-SB-5'		1437		3	X	X	X	X	X	X	X	X	X	X	X	X	Archive
3 HP-6-SB-7.5'		1440		3	X	X	X	X	X	X	X	X	X	X	X	X	Archive
4 MP-6-SB-2'	8-30	1000		3	X	X	X	X	X	X	X	X	X	X	X	X	Archive
5 MP-6-SB-5'		1004		3	X	X	X	X	X	X	X	X	X	X	X	X	Archive
6 HP-1-SS		1041		3	X	X	X	X	X	X	X	X	X	X	X	X	
7 HP-2-SS		1032		3	X	X	X	X	X	X	X	X	X	X	X	X	
8 OF-1-SS		1050		3	X	X	X	X	X	X	X	X	X	X	X	X	
9 HP-7-SB-3'	8-29	1543		3	X	X	X	X	X	X	X	X	X	X	X	X	
10 HP-7-SB-5'		1545		3	X	X	X	X	X	X	X	X	X	X	X	X	Archive

*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): MICA-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 Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Iodide Fluoride Nitrate+Nitrite

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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
	Molly Strain	8/31/23 11:00		Anders Uter	8/31/23 11:15
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time



3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790

Chain of Custody Record & Laboratory Services Agreement

Date: 8/31/23

Page: 41 of: 4

Laboratory Project No (internal)

2308437

Project No:

Collected by: Molly Strain + Jasmine Haan

Location: Everett WA

Report To (PM): Anders Vtten

Disposal: Samples will be disposed in 30 days unless otherwise requested.
☐ Retain volume (specify above) ☐ Return to client

Telephone:

Email(s): Same as Page 1

Email(s)

[illegible]

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: 21/7/11

一、

Relinquished (Signature)

Print Name _____

Date/Time

Received (Signature)

Print Name _____

Date/time