



August 2023
West Sound Marina Environmental Investigation



Surface and Subsurface Sediment Data Report

Prepared for North Creek Capital Fund 1, LLC

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ABBREVIATIONS

µg/kg	microgram per kilogram
AET	Apparent Effects Threshold
ARL	Analytical Resources, LLC
bml	below the mudline
BT	bioaccumulation trigger
CSL	cleanup screening level
DGPS	differential global positioning system
DMMP	Dredged Material Management Program
DNR	Department of Natural Resources
EPA	Environmental Protection Agency
mg/kg	milligram per kilogram
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
QA/QC	quality assurance/quality control
SAP	Sampling and Analysis Plan
SCO	sediment cleanup objectives
Site	West Sound Marina
SMS	Sediment Management Standards
SVOC	semivolatile organic compound
TBT	tributyltin
TOC	total organic carbon

1 Introduction

West Sound Marina (Site) is located on the east side of the West Sound on Orcas Island, Washington (Figure 1). The Site lies at the south end of Virginias Lane on the island and is immediately north of Basket and Picnic Islands in the West Sound. The marina features three main docks, a fueling dock and seaplane float, a covered boat house for long-term repair and maintenance projects, and a boat lift for short-term maintenance work such as scraping and painting. Recognized environmental conditions at the Site include sediment contamination and potentially other recognized environmental conditions in the upland area.

North Creek Capital is in the process of acquiring the Site. In accordance with the Sampling and Analysis Plan (SAP; Anchor QEA 2023), Anchor QEA conducted sampling on April 24 through 26, 2023, to characterize the presence of contamination in sediment in accordance with the Sediment Management Standards (SMS) in Chapter 173-204 of the Washington Administrative Code and the Washington State Department of Ecology's 2021 Sediment Cleanup User's Manual II. This data report presents the results of sediment sampling to assess the quality of surface and subsurface sediment at the Site relative to SMS requirements.

2 Sediment Sampling and Processing

Sediment sampling and processing methods are described in detail in the SAP (Anchor QEA 2023). A summary of sampling and processing methods, as well as deviations from the SAP, are provided in subsequent sections. Field logs are included in Appendix A.

2.1 Sediment Sampling Locations

Surface sediment samples were collected on April 24 and 26, 2023, at seven subtidal locations and four intertidal locations under the pier. Subsurface sediment cores were collected and processed April 25, 2023, at five subtidal locations. Samples were successfully collected from each location listed in the SAP. Sampling locations were selected to be spatially distributed throughout the Site to further delineate the horizontal and vertical extent of contamination measured in previous sampling events at the Site (SCS Engineers 2020; Edge Analytical 2020; Coho Environmental 2022). Proposed and actual sampling locations are shown in Figure 1. Coordinates and mudline elevations for each station are presented in Table 1.

2.2 Surface Sediment Sample Collection

Subtidal surface sediment samples were collected via boat using a power grab sampler, and intertidal underpier surface sediment samples were collected via shovel, as detailed below. All sampling activities were performed under the direction of on-site Anchor QEA field personnel.

2.2.1 Boat Grabs

Seven subtidal sediment samples were collected during high tide using a power grab sampler deployed from the research vessel Tieton operated by Gravity Marine. The vessel was equipped with a differential global positioning system (DGPS) and depth sounder.

Surface sediment grabs were collected from the seven stations shown on Figure 1; multiple grabs were collected at some stations to obtain sufficient sediment for analyses. Samples were collected in the following manner and in accordance with the SAP:

1. The vessel was maneuvered to the target station and depth to mudline was determined using a lead line.
2. The power grab sampler was decontaminated per the procedures outlined in the SAP.
3. The power grab sampler was deployed at an approximate speed of 0.3 foot per second, and the winch cable was drawn taut and as near vertical as possible.
4. Station location coordinates and depth were recorded.
5. The power grab sampler was closed to collect the sediment sample to a penetration depth of approximately 15 centimeters.

6. The sediment sample was retrieved aboard the vessel and evaluated against acceptability criteria defined in the SAP (Anchor QEA 2023).
7. Accepted samples were processed as described in Section 2.4.

Grab samples that did not meet acceptability criteria were rejected and the sample collection steps repeated until a successful grab was collected or until three grabs were collected, at which point the grab with the highest recovery was accepted. Successful grabs were obtained at all stations within a 20-foot radius of the target sample location, except for station SG-05, which was collected 43 feet from the target location.

2.2.2 Underpier Grabs

Four intertidal underpier surface locations were sampled at two depth intervals in the following manner and in accordance with the SAP:

1. Field team walked to the target location.
2. A decontaminated shovel was advanced into undisturbed sediment to a depth of 1 foot below the mudline for the 0- to 1-foot sample, and to 2 feet below the mudline for the 1- to 2-foot sample.
3. The sample was processed as described in Section 2.4.

Successful grabs were obtained at all stations for all depth intervals. Sampling locations for SG-08 and SG-09 were modified due to tidal conditions, as detailed in Section 2.5.

2.3 Subsurface Sediment Sample Collection

Five subtidal cores were collected in the following manner and in accordance with the SAP:

1. The vessel was maneuvered to the target station and depth to mudline was determined using a lead line.
2. The vibracore was deployed from the bow of the vessel using an A-frame and winch assembly. The vibracore was energized and driven to 8 feet below the mudline (bml) or refusal.
3. Once a penetration of 8 feet bml or refusal occurred, coordinates were taken and the vibracore was turned off and returned to the surface. Penetration depth was evaluated based on data from the vessel's onboard penetration monitor.
4. Upon retrieving the core, core collection information was recorded, and the core was evaluated for acceptability criteria as described in the SAP.

Cores that did not meet acceptability criteria were rejected and core collection steps repeated until a successful core was collected or three cores were collected, at which point the core with the best recovery was accepted. Cores were stored prior to upland processing in accordance with the SAP. Successful cores were collected at all stations within a 20-foot radius of the target sample location,

except for station SC-03, which was collected 43 feet west due to floats blocking access to the target location

2.4 Sample Processing and Handling

Sample processing and logging procedures for each sampling method were followed in accordance with the SAP. Samples were photographed and the physical description of the sediment was recorded on field logs. For subtidal surface sediment grabs, the upper 10 centimeters of sediment was collected and homogenized. For sediment cores and intertidal surface sediment grabs, representative material from the sample interval was collected and homogenized. Samples were homogenized in a stainless-steel bowl with a stainless-steel spoon until uniform color and texture was achieved. Laboratory-provided sample jars were then filled for all proposed analyses. Samples were sealed and placed immediately in a cooler with ice to maintain temperature at approximately 4 degrees Celsius until delivered to Analytical Resources, LLC (ARL). Appropriate chain-of-custody procedures were followed. For sediment cores, the top two intervals were submitted for analyses, and remaining intervals were archived.

2.5 Deviations from SAP

DGPS could not be used to navigate to proposed sampling locations for the underpier samples due to poor satellite signal. Location coordinates for all stations (WSM-SG-08, WSM-SG-09, WSM-SG-10, and WSM-SG-11) were approximated from field measurements to pilings. Stations WSM-SG-08 and WSM-SG-09 were collected further inland by 21 feet and 33 feet, respectively, due to tidal conditions that made target locations inaccessible.

3 Analytical Results

Chemical and physical testing was primarily conducted at ARL, an Ecology-accredited laboratory located in Tukwila, Washington. Grain size testing was conducted at AmTest Laboratories, Inc, in Kirkland, Washington. Surface and subsurface sediment samples were analyzed for grain size, total organic carbon (TOC), total solids, metals, organometals, volatile organic compounds, Semivolatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyl (PCB) Aroclors consistent with procedures detailed in the SAP (Anchor QEA 2023). Additional sediment was collected and archived at ARL for future testing, if necessary.

Analytical results are presented in Table 2 and are reported on a dry-weight basis and organic carbon-normalized basis (for non-polar organic chemicals). The laboratory data reports are included as Appendix C. Anchor QEA performed Environmental Protection Agency (EPA) Stage 2A data validation and the data validation report is included in Appendix D.

3.1 Sediment Quality Criteria Comparisons

Chemical results were compared to marine SMS criteria (Ecology 2021). The SMS contain numerical sediment contaminant concentration criteria for the protection of the benthic community developed using the Apparent Effects Threshold (AET) approach. The sediment cleanup objectives (SCO) values are the lowest AET for each chemical and are concentrations that Ecology has determined will have no adverse effects on the benthic community. The cleanup screening level (CSL) values are the second lowest AET for each chemical and are concentrations that, if exceeded, may have greater adverse effects on the benthic community. Sediment concentrations above the SCO but at or below the CSL are expected to have minor adverse effects on the benthic community.

Organic carbon-normalized criteria are available for non-polar organics and should be used for samples where TOC is between 0.5% and 3.5%. Dry-weight values are used for metals and polar organics. Dry-weight values are also available for non-polar organics when the sample TOC is outside of the 0.5% to 3.5% range.

Organotin, including tributyltin (TBT), are a class of chemicals that are potentially associated with marinas based on historical use in antifouling paints and has been detected at the Site during previous investigations (SCS Engineers 2020; Edge Analytical 2020; Coho Environmental 2022). No SMS or AET criteria are available for organometals, so tributyltin results were compared to the United States Army Corps of Engineers Dredged Material Management Program (DMMP; USACE 2021) bioaccumulation trigger (BT) of 73 micrograms per kilogram ($\mu\text{g}/\text{kg}$). A discussion of these comparisons for test results follows.

3.1.1 Under Pier, Former Tidal Grid Area, and Shoreline Area Sediments

Four samples were collected underneath the pier, including in the former tidal grid area, where previous exceedances of TBT and metals have been reported. Two samples were collected from intertidal areas, one to the north and one to the south. One sample was collected north of the pier and one sample was collected south of the pier. At each of the four under pier locations (SG-08, SG-09, SG-10, and SG-11), samples from both depth intervals (0 to 1 and 1 to 2 feet) exceeded criteria for one or more chemicals. The most frequent exceedance was for tributyltin; all samples exceeded the DMMP BT. The highest concentration is in the lower sampling interval at SG-09 in the former tidal grid area (1 to 2 feet; 1,470 µg/kg). The surface concentration (0 to 1 foot) at SG-09 is lower (90.9 µg/kg). Concentrations are also elevated in both intervals at SG-11 located near the center of the pier (0 to 1 foot: 1,420 µg/kg and 1 to 2 feet: 1,050 µg/kg). SG-08 and SG-10 each had elevated TBT concentrations above the DMMP BT, and lower interval samples had slightly higher concentrations (327 to 383 µg/kg) than surface intervals (260 to 299 µg/kg). One subtidal sample north of the pier, SG-07, also exceeded for TBT.

At two of the four underpier locations, samples exceeded criteria for metals. At SG-08, mercury concentrations exceeded the CSL in the 0- to 1-foot interval and mercury and copper concentrations exceeded the CSL in the 1- to 2-foot interval. The mercury concentration in the 1- to 2-foot interval was multiple times higher than the CSL at 4.46 milligrams per kilogram (mg/kg). At SG-09 (1 to 2 feet), the zinc concentration exceeded the SCO.

At two of the four under pier locations, samples exceeded criteria for PAHs. At SG-09, concentrations exceeded the SCO in the 1- to 2-foot interval for six PAHs and total high-molecular-weight PAHs. The 0- to 1-foot interval at SG-09 exceeded the lowest AET for fluoranthene. At SG-10, concentrations for three PAHs exceeded the SCO in the 0- to 1-foot interval and concentrations for one PAH exceeded the lowest AET in the 1- to 2-foot interval.

At one of the four underpier locations, concentrations in SG-08 (1 to 2 feet) exceeded the lowest AET for total PCB Aroclors. No other samples exceeded for total PCB Aroclors.

Sample SG-01, south of the pier, contained no exceedances.

3.1.2 Boat Lift Area Sediments

Two sediment cores were collected in the boat lift area (SC-01 and SC-02) where a previous TBT and PAH exceedance had been reported. Samples from the top interval exceeded criteria for one or more chemicals. At SC-01 (0 to 2 feet), tributyltin concentrations exceeded the DMMP BT. At SC-02 (0 to 2 feet), concentrations exceeded the CSL for copper and bis(2-ethylhexyl)phthalate and exceeded the SCO for lead and di-n-octylphthalate. No exceedances were present in the lower intervals that were analyzed for these locations (2 to 4 feet and 2 to 3.8 feet for SC-01 and SC-02, respectively).

3.1.3 Fueling Dock Area Sediments

Three surface sediment grabs and two sediment cores were collected near the fueling dock, where previous exceedances of TBT and PAHs have been reported. The sediment grab locations include SG-02, SG-03, SG-04 and the sediment core locations include SC-03 and SC-05. At one of the four sediment grab locations (SG-04), tributyltin concentrations exceeded the DMMP BT. No other sediment grab locations exceeded any criteria.

At both sediment core locations (SC-03 and SC-05), samples from the top interval exceeded the criteria for PAHs. At SC-03 (0 to 2 feet), fluoranthene concentrations exceeded the SCO. At SC-05 (0 to 2 feet), chrysene and fluoranthene concentrations exceeded the SCO. No exceedances were present in the lower intervals for these locations (2 to 3.75 feet and 2 to 4 feet for SC-03 and SC-05, respectively).

3.1.4 Central Marina Sediments

One surface sediment grab (SG-05) and one sediment core (SC-04) was collected inside the marina where previous exceedances of metals, PAHs, and TBT have been reported, including the highest recorded TBT concentration (5,500 mg/kg). No exceedances were present for the sediment grab location or in the sediment core intervals (0 to 2 feet and 2 to 3.5 feet).

3.1.5 South of Department of Natural Resources Lease Boundary

One surface sediment grab (SG-06) was collected south of the Department of Natural Resources (DNR) lease boundary and collocated with a 1997 sample where a previous PAH exceedance had been reported. No exceedances were present at this location.

3.2 Quality Assurance/Quality Control Summary

A quality assurance/quality control (QA/QC) evaluation was performed by Anchor QEA and consisted of a United States Environmental Protection Agency Stage 2A data review and validation (EPA 2009). Evaluation included reviewing completeness and compliance of laboratory and chain-of-custody documentation and of sample related QC data (e.g., matrix spike and matrix spike duplicates, method blanks, etc.). Validation was completed in accordance with the SAP and national functional guidelines for data validation (EPA 2014, 2020a, 2020b). The QA/QC data validation report is provided in Appendix D.

Three samples (WSM-SG-08-0-1-230424, WSM-SG-08-1-2-230424, and WSM-SG-09-0-1-230424) underwent re-extraction and reanalysis for phenolic compounds (a subset of SVOCs) with SMS criteria. Phenolic compound results for these samples were non-detect but were rejected during validation due to low surrogate recoveries. Surrogate recoveries during the reanalysis of samples WSM-SG-08-0-1-230424 and WSM-SG-08-1-2-230424 were acceptable and the reanalyzed results

for these samples are reported, with no SMS exceedances for SVOCs in either sample. Sample WSM-SG-09-0-1-230424 was reanalyzed, re-extracted, and reanalyzed twice more and all analyses yielded low surrogate recoveries. The low surrogate recovery is likely due to matrix interference. Results for this sample are reported from the initial analysis and associated detected sample results have been qualified "J" to indicate a potential low bias and results below detection have been rejected.

Although there is some uncertainty related to phenolic compound concentrations in WSM-SG-09-0-1-230424 due to the rejected results, other chemicals (TBT, zinc, and PAHs) exceeded SMS criteria for this sample, so the rejected results do not change the conclusions of this report.

Some results for other SVOCs were rejected due to laboratory QC issues (low laboratory control sample and matrix spike recoveries). These analytes include 3,3-dichlorobenzidine, 4-chloroaniline, and hexachloropentadiene, which do not have SMS criteria, so the rejected results do not change the conclusions of this report.

4 Conclusions

TBT, metals, PAHs, phthalates, and PCBs were detected above regulatory criteria at the West Sound Marina Site. TBT is the most prevalent, with exceedances in each shallow and deep interval at all four underpier locations. Elevated mercury and copper were present at one location, and elevated zinc was present at one location. The elevated copper concentration was similar to levels measured in the #3 Mud Beach sample (431 mg/kg), but lower than the #1 Mud Beach sample (3,210 mg/kg). Higher levels of mercury were measured in sample SG-08 (4.46 mg/kg) than previously identified in TG1 (0.53 mg/kg).

PAH and PCB contamination was not previously identified in the underpier area, but elevated concentrations of PAHs and PCBs were found in the former tidal grid and PAHs were also found underneath the catch basin during this investigation.

The underpier area has the highest frequency of exceedances, although concentrations generally increased with depth.

In the boat lift area, in addition to previously identified elevated TBT concentrations, lead, copper, and two phthalate concentrations are also elevated. Sediment core results indicate that contamination above regulatory criteria is not present deeper than two feet below the mudline.

In the fueling dock area, elevated TBT and PAH concentrations in this investigation are consistent with previous investigations. Sediment core results indicate the depth of contamination in the fueling dock area is not present deeper than two ft below the mudline.

In the central marina, two locations were sampled near a 1997 sample with the highest TBT concentration measured at the marina. No exceedances were present in samples at either the 2023 surface or the subsurface location.

Similarly, SG-06 was collocated with a 1997 sample with elevated PAHs south of the DNR lease boundary, but no exceedances were measured in the 2023 sample.

Figure 3 summarizes the extent of contamination measured above regulatory criteria in samples collected since 2020.

5 References

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Tables

Table 1
Sample Collection Data

Station ID	Attempts	Accepted Attempt Number	Date Collected	Location		Water Depth (feet)	Observed Water Level (feet MLLW)	Mudline Elevation (feet MLLW)	Recovery (feet)	Drive Penetration (feet)	Core Recovery (percent)
				Easting	Northing						
Boat Grab Samples											
WSM-SG-01	3	3	4/24/23	1126967	601330	7.7	7.07	-0.63	--	--	--
WSM-SG-02	1	1	4/24/23	1126903	601266	9.3	6.99	-2.31	--	--	--
WSM-SG-03	1	1	4/24/23	1126774	601264	12.3	7.34	-4.96	--	--	--
WSM-SG-04	1	1	4/24/23	1126732	601354	17.7	6.95	-10.75	--	--	--
WSM-SG-05	1	1	4/24/23	1126562	601454	20.9	6.98	-13.92	--	--	--
WSM-SG-06	2	2	4/24/23	1126564	601250	12.6	7.17	-5.43	--	--	--
WSM-SG-07	1	1	4/24/23	1126907	601530	7.9	7	-0.9	--	--	--
Underpier Grab Samples											
WSM-SG-08-0-1	1	1	4/24/23	1126961	601476	--	--	--	--	--	--
WSM-SG-08-1-2	1	1	4/24/23	1126961	601476	--	--	--	--	--	--
WSM-SG-09-0-1	1	1	4/24/23	1126947	601668	--	--	--	--	--	--
WSM-SG-09-1-2	1	1	4/24/23	1126947	601668	--	--	--	--	--	--
WSM-SG-10-0-1	1	1	4/26/23	1126926	601483	--	--	--	--	--	--
WSM-SG-10-1-2	1	1	4/26/23	1126926	601483	--	--	--	--	--	--
WSM-SG-11-0-1	1	1	4/26/23	1126941	601428	--	--	--	--	--	--
WSM-SG-11-1-2	1	1	4/26/23	1126941	601428	--	--	--	--	--	--
Core Samples											
WSM-SC-01	2	2	4/25/23	1126835	601422	16.2	7.16	-9.04	4.9	5	98
WSM-SC-02	1	1	4/25/23	1126886	601443	9.1	6.96	-2.14	6	8	75
WSM-SC-03	3	3	4/25/23	1126757	601350	13.2	6.25	-6.95	3.9	6	65
WSM-SC-04	1	1	4/25/23	1126620	601455	29.5	6.61	-22.89	9.5	9	105
WSM-SC-05	1	1	4/25/23	1126834	601309	7.8	6.05	-1.75	5.7	6	95

Notes:
MLLW: mean lower low water

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y SMS Marine SCO SMS Marine CSL AET Marine SCO AET Marine CSL DMMP Bioaccumulation Threshold							WSM-SC-01-230425 WSM-SC-01-0-2-230425 4/25/2023 0 - 2 ft N SE 1126835 601422	WSM-SC-01-230425 WSM-SC-01-2-4-230425 4/25/2023 2 - 4 ft N SE 1126835 601422	WSM-SC-02-230425 WSM-SC-02-0-2-230425 4/25/2023 0 - 2 ft N SE 1126886 601443	WSM-SC-02-230425 WSM-SC-02-2-3.8-230425 4/25/2023 2 - 3.8 ft N SE 1126886 601443	WSM-SC-03-230425 WSM-SC-03-0-2-230425 4/25/2023 0 - 2 ft N SE 1126757 601350
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Conventional Parameters (pct)											
Total organic carbon	SW9060AM	--	--	--	--	--	0.85	0.27	1.78	1	0.78
Total solids	SM2540G	--	--	--	--	--	66.91	78.71	66.74	68.58	71.57
Grain Size (pct)											
Clay	PSEP-PS	--	--	--	--	--	8.3	6.6	7	8.1	10
Clay, coarse	PSEP-PS	--	--	--	--	--	1.9	1.1	1.8	2.4	2.1
Clay, fine	PSEP-PS	--	--	--	--	--	5.3	4.8	4	4	6.4
Clay, medium	PSEP-PS	--	--	--	--	--	1.1	0.7	1.2	1.7	1.5
Gravel	PSEP-PS	--	--	--	--	--	3.5	15.8	24.7	22.4	20.7
Gravel, coarse	PSEP-PS	--	--	--	--	--	0.4	1.4	3.1	2	2.4
Gravel, medium	PSEP-PS	--	--	--	--	--	2.1	3.9	13.3	5.5	10.8
Gravel, very coarse	PSEP-PS	--	--	--	--	--	1	10.5	8.3	14.9	7.5
Sand	PSEP-PS	--	--	--	--	--	80.8	71.7	53	52.6	63.2
Sand, coarse	PSEP-PS	--	--	--	--	--	7.2	8.4	6.1	4.7	12.4
Sand, fine	PSEP-PS	--	--	--	--	--	30.9	24.7	19	16.9	9.6
Sand, medium	PSEP-PS	--	--	--	--	--	25.9	25.2	12.2	10.9	27.4
Sand, very coarse	PSEP-PS	--	--	--	--	--	4	6.1	8	6.8	10.6
Sand, very fine	PSEP-PS	--	--	--	--	--	12.8	7.3	7.7	13.3	3.2
Silt	PSEP-PS	--	--	--	--	--	7.5	5.8	15.2	17	6
Silt, coarse	PSEP-PS	--	--	--	--	--	0.4	0.1	3.4	9.9	0.5
Silt, fine	PSEP-PS	--	--	--	--	--	2	1.8	5.4	2.7	1.9
Silt, medium	PSEP-PS	--	--	--	--	--	3	2.6	4.4	3	2.1
Silt, very fine	PSEP-PS	--	--	--	--	--	2.1	1.3	2	1.4	1.5
Metals (mg/kg)											
Arsenic	SW6020	57	93	57	93	--	5.77	4.14	6.5	6.33	3.47
Cadmium	SW6020	5.1	6.7	5.1	6.7	--	1.47	0.75	1.05	0.77	0.74
Chromium	SW6020	260	270	260	270	--	16.1	11.1	93.6	15.4	8.85
Copper	SW6020	390	390	390	390	--	130 J	7.34 J	1820 J	24.3 J	12.2 J
Lead	SW6020	450	530	450	530	--	6.83	1.42	460	2.31	6.22
Mercury	SW7471B	0.41	0.59	0.41	0.59	--	0.0482	0.0179 J	0.0899	0.03	0.0334
Silver	SW6020	6.1	6.1	6.1	6.1	--	0.12 J	0.05 J	0.16 J	0.06 J	0.05 J
Zinc	SW6020	410	960	410	960	--	50.7	21.3	293	31	28
Organometals (mg/kg-OC)											
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	13.6	--	0.792	0.383 U	5.5
Organometals (µg/kg)											
Butyltin (ion)	SW8270ESIM	--	--	--	--	--	1.92 J	4.08 U	4.08 U	4.05 U	15.2
Dibutyltin (ion)	SW8270ESIM	--	--	--	--	--	10.3	4.07 J	5.78 U	5.73 U	27.1
Tetrabutyltin	SW8270ESIM	--	--	--	--	--	4.99 U	5.00 U	5.00 U	4.96 U	4.98 U
Tributyltin (ion)	SW8270ESIM	--	--	--	--	73	116	43.1	14.1	3.83 U	42.9
Volatile Organics (mg/kg-OC)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	3.9	6.2	--	--	--	0.59 U	--	0.28 U	0.50 U	0.64 U
Volatile Organics (µg/kg)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	11	120	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y SMS Marine SMS Marine AET Marine AET Marine DMMP Bioaccumulation Threshold							WSM-SC-03-230425 WSM-SC-03-2-3.75-230425 4/25/2023 2 - 3.75 ft N SE 1126757 601350	WSM-SC-04-230425 WSM-SC-04-0-2-230425 4/25/2023 0 - 2 ft N SE 1126620 601455	WSM-SC-04-230425 WSM-SC-04-2-3.5-230425 4/25/2023 2 - 3.5 ft N SE 1126620 601455	WSM-SC-05-230425 WSM-SC-05-0-2-230425 4/25/2023 0 - 2 ft N SE 1126834 601309	WSM-SC-05-230425 WSM-SC-05-2-4-230425 4/25/2023 2 - 4 ft N SE 1126834 601309
Chemical	Method	SCO	CSL	SCO	CSL						
Conventional Parameters (pct)											
Total organic carbon	SW9060AM	--	--	--	--	--	0.07	0.69	0.26	0.41	0.21
Total solids	SM2540G	--	--	--	--	--	79.5	69.01	76.05	73.13	80.28
Grain Size (pct)											
Clay	PSEP-PS	--	--	--	--	--	6.5	10.9	7	7.3	6.3
Clay, coarse	PSEP-PS	--	--	--	--	--	1	2.8	1.2	1.7	1
Clay, fine	PSEP-PS	--	--	--	--	--	4.9	6.1	5.2	4.5	4.7
Clay, medium	PSEP-PS	--	--	--	--	--	0.6	2	0.6	1.1	0.6
Gravel	PSEP-PS	--	--	--	--	--	44.8	5.1	19.1	13.2	40.5
Gravel, coarse	PSEP-PS	--	--	--	--	--	2	0.4	1.3	1.4	1.4
Gravel, medium	PSEP-PS	--	--	--	--	--	7.9	1.7	4.6	3.5	5.9
Gravel, very coarse	PSEP-PS	--	--	--	--	--	34.9	3	13.2	8.3	33.2
Sand	PSEP-PS	--	--	--	--	--	44.4	72.4	66.7	73.6	49
Sand, coarse	PSEP-PS	--	--	--	--	--	9.7	2.7	4.9	8.2	7.1
Sand, fine	PSEP-PS	--	--	--	--	--	6.2	32.6	24.4	18.1	15
Sand, medium	PSEP-PS	--	--	--	--	--	19	23.2	27.5	37.1	16
Sand, very coarse	PSEP-PS	--	--	--	--	--	6.7	1.5	4	5	5.3
Sand, very fine	PSEP-PS	--	--	--	--	--	2.8	12.4	5.9	5.2	5.6
Silt	PSEP-PS	--	--	--	--	--	4.3	11.6	7.2	6	4.2
Silt, coarse	PSEP-PS	--	--	--	--	--	1.3	0.3	1.4	0.1	0.1
Silt, fine	PSEP-PS	--	--	--	--	--	1	4.5	1.9	2.5	1.6
Silt, medium	PSEP-PS	--	--	--	--	--	0.8	3.8	2.2	1.5	0.9
Silt, very fine	PSEP-PS	--	--	--	--	--	1.2	3	1.7	1.9	1.6
Metals (mg/kg)											
Arsenic	SW6020	57	93	57	93	--	1.75	4.26	3.56	4.57	2.49
Cadmium	SW6020	5.1	6.7	5.1	6.7	--	0.22	1.24	0.71	1.96	0.3
Chromium	SW6020	260	270	260	270	--	10.6	14	9.64	9.18	6.93
Copper	SW6020	390	390	390	390	--	7.61 J	15.8 J	6.50 J	13.0 J	6.56 J
Lead	SW6020	450	530	450	530	--	1.16	5.11	1.7	2.42	0.82
Mercury	SW7471B	0.41	0.59	0.41	0.59	--	0.0103 J	0.0414	0.0176 J	0.0326	0.0190 J
Silver	SW6020	6.1	6.1	6.1	6.1	--	0.03 J	0.08 J	0.05 J	0.06 J	0.05 J
Zinc	SW6020	410	960	410	960	--	21	40	19.5	30.6	14
Organometals (mg/kg-OC)											
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	--	2.12	--	--	--
Organometals (µg/kg)											
Butyltin (ion)	SW8270ESIM	--	--	--	--	--	8.56 J	4.04 U	4.05 U	4.08 U	4.06 U
Dibutyltin (ion)	SW8270ESIM	--	--	--	--	--	23.9 J	3.68 J	5.74 U	4.35 J	5.76 U
Tetrabutyltin	SW8270ESIM	--	--	--	--	--	4.96 U	4.96 U	4.96 U	5.00 U	4.98 U
Tributyltin (ion)	SW8270ESIM	--	--	--	--	73	38.4 J	14.6	0.599 J	30	3.84 U
Volatile Organics (mg/kg-OC)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	3.9	6.2	--	--	--	--	0.72 U	--	--	--
Volatile Organics (µg/kg)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	11	120	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
		Sample ID					WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
		Sample Date					4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
		Depth					0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126967	1126903	1126774	1126732	1126562
		Y					601330	601266	601264	601354	601454
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Conventional Parameters (pct)											
Total organic carbon	SW9060AM	--	--	--	--	--	0.25	0.93	0.97	1.57	1.41
Total solids	SM2540G	--	--	--	--	--	73.89	55.99	57.1	54.21	53.86
Grain Size (pct)											
Clay	PSEP-PS	--	--	--	--	--	4.2	8.3	7.5	12.4	12
Clay, coarse	PSEP-PS	--	--	--	--	--	1.1	2.4	2.2	3.4	2.1
Clay, fine	PSEP-PS	--	--	--	--	--	2.4	4.2	3.8	7	8.9
Clay, medium	PSEP-PS	--	--	--	--	--	0.7	1.7	1.5	2	1
Gravel	PSEP-PS	--	--	--	--	--	3.2	9	34.9	10	5.7
Gravel, coarse	PSEP-PS	--	--	--	--	--	0.3	0.4	2	1	0.8
Gravel, medium	PSEP-PS	--	--	--	--	--	1.5	1.7	7.3	4.1	3.6
Gravel, very coarse	PSEP-PS	--	--	--	--	--	1.4	6.9	25.6	4.9	1.3
Sand	PSEP-PS	--	--	--	--	--	88.2	67.8	48.4	61.5	51
Sand, coarse	PSEP-PS	--	--	--	--	--	2.3	7.2	9.1	7.8	1.3
Sand, fine	PSEP-PS	--	--	--	--	--	45.8	21.9	7.4	15.1	22.8
Sand, medium	PSEP-PS	--	--	--	--	--	18.7	27.6	20.6	29.6	6.5
Sand, very coarse	PSEP-PS	--	--	--	--	--	1.9	3.4	8.1	4.1	2.6
Sand, very fine	PSEP-PS	--	--	--	--	--	19.5	7.7	3.2	4.9	17.8
Silt	PSEP-PS	--	--	--	--	--	4.4	14.9	9	16.3	31.4
Silt, coarse	PSEP-PS	--	--	--	--	--	0.10 U	4.6	2.3	2.2	8.4
Silt, fine	PSEP-PS	--	--	--	--	--	1.1	3.9	2.8	6	8.8
Silt, medium	PSEP-PS	--	--	--	--	--	1.9	4.2	1.5	4	10.2
Silt, very fine	PSEP-PS	--	--	--	--	--	1.4	2.2	2.4	4.1	4
Metals (mg/kg)											
Arsenic	SW6020	57	93	57	93	--	3.15	6.74	5.78	6.56	6.13
Cadmium	SW6020	5.1	6.7	5.1	6.7	--	0.5	1.69	1.01	1.59	1.53
Chromium	SW6020	260	270	260	270	--	13.4	14.2	14.9	17.7	19.7
Copper	SW6020	390	390	390	390	--	11.5 J	18.0 J	15.6 J	35.0 J	165 J
Lead	SW6020	450	530	450	530	--	2.83	4.5	3.85	6.37	8.45
Mercury	SW7471B	0.41	0.59	0.41	0.59	--	0.0204 J	0.0503 J	0.0344 J	0.0666 J	0.0661 J
Silver	SW6020	6.1	6.1	6.1	6.1	--	0.04 J	0.08 J	0.07 J	0.10 J	0.11 J
Zinc	SW6020	410	960	410	960	--	37.8	43.7	42.4	62.5	76
Organometals (mg/kg-OC)											
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	--	0.253 J	0.214 J	12.9	0.336
Organometals (µg/kg)											
Butyltin (ion)	SW8270ESIM	--	--	--	--	--	2.31 J	4.07 U	4.07 U	4.07 U	4.07 U
Dibutyltin (ion)	SW8270ESIM	--	--	--	--	--	7.59	5.77 U	5.77 U	3.68 J	5.76 U
Tetrabutyltin	SW8270ESIM	--	--	--	--	--	5.00 U	4.99 U	4.99 U	4.99 U	4.99 U
Tributyltin (ion)	SW8270ESIM	--	--	--	--	73	9.36	2.35 J	2.08 J	202	4.74
Volatile Organics (mg/kg-OC)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	3.9	6.2	--	--	--	--	0.54 U	0.52 U	0.32 U	0.35 U
Volatile Organics (µg/kg)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	11	120	--	1.6 J	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-230424	WSM-SG-08-230424	WSM-SG-09-230424
		Sample ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-0-1-230424	WSM-SG-08-1-2-230424	WSM-SG-09-0-1-230424
		Sample Date					4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
		Depth					0 - 10 cm	0 - 10 cm	0 - 1 ft	1 - 2 ft	0 - 1 ft
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126564	1126907	1126961	1126961	1126947
		Y					601250	601530	601476	601476	601668
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Conventional Parameters (pct)											
Total organic carbon	SW9060AM	--	--	--	--	--	0.56	0.67	0.23	0.19	0.26
Total solids	SM2540G	--	--	--	--	--	71.33	72.25	80.7	79	80.69
Grain Size (pct)											
Clay	PSEP-PS	--	--	--	--	--	7.1	7	5.6	5.5	4.8
Clay, coarse	PSEP-PS	--	--	--	--	--	1.2	1	1.2	0.7	0.9
Clay, fine	PSEP-PS	--	--	--	--	--	5.2	5.6	3.4	4.5	3.3
Clay, medium	PSEP-PS	--	--	--	--	--	0.7	0.4	1	0.3	0.6
Gravel	PSEP-PS	--	--	--	--	--	27.8	11.4	26.7	24.9	26.9
Gravel, coarse	PSEP-PS	--	--	--	--	--	3.2	0.7	4.6	4.7	2.5
Gravel, medium	PSEP-PS	--	--	--	--	--	14.7	3.5	14	10.2	12.6
Gravel, very coarse	PSEP-PS	--	--	--	--	--	9.9	7.2	8.1	10	11.8
Sand	PSEP-PS	--	--	--	--	--	58.6	75.2	65.9	65.8	65.9
Sand, coarse	PSEP-PS	--	--	--	--	--	14.7	1.9	5.4	15.5	11.2
Sand, fine	PSEP-PS	--	--	--	--	--	6.7	29.1	16.9	8.3	5.5
Sand, medium	PSEP-PS	--	--	--	--	--	18	31.5	30.3	27.2	37
Sand, very coarse	PSEP-PS	--	--	--	--	--	16.2	2.9	9.6	9.9	10.6
Sand, very fine	PSEP-PS	--	--	--	--	--	3	9.8	3.7	4.9	1.6
Silt	PSEP-PS	--	--	--	--	--	6.5	6.6	1.8	3.8	2.6
Silt, coarse	PSEP-PS	--	--	--	--	--	0.4	0.2	0.1	0.1	0.4
Silt, fine	PSEP-PS	--	--	--	--	--	1.7	1.8	0.5	1.4	1.4
Silt, medium	PSEP-PS	--	--	--	--	--	3	2.5	0.9	0.9	0.10 U
Silt, very fine	PSEP-PS	--	--	--	--	--	1.4	2.1	0.3	1.4	0.8
Metals (mg/kg)											
Arsenic	SW6020	57	93	57	93	--	4.04	3.22	3.00 J	9.52 J	2.00 J
Cadmium	SW6020	5.1	6.7	5.1	6.7	--	0.6	0.63	0.17	0.08 J	0.17
Chromium	SW6020	260	270	260	270	--	18.1	11.9	13.1	13.1	8.07
Copper	SW6020	390	390	390	390	--	15.1 J	27.0 J	97.6 J	483 J	65.0 J
Lead	SW6020	450	530	450	530	--	1.97	4.14	16.8 J	28.6 J	10.2 J
Mercury	SW7471B	0.41	0.59	0.41	0.59	--	0.0318 J	0.0609 J	0.660 J	4.46 J	0.0683 J
Silver	SW6020	6.1	6.1	6.1	6.1	--	0.05 J	0.05 J	0.04 J	0.06 J	0.04 J
Zinc	SW6020	410	960	410	960	--	39.6	41.5	55.3	66.6	67.9
Organometals (mg/kg-OC)											
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	0.270 J	41	--	--	--
Organometals (µg/kg)											
Butyltin (ion)	SW8270ESIM	--	--	--	--	--	4.08 U	4.99	73.4	81.6	34.2 J
Dibutyltin (ion)	SW8270ESIM	--	--	--	--	--	5.77 U	56.1	391	243	64.8 J
Tetrabutyltin	SW8270ESIM	--	--	--	--	--	4.99 U	4.99 U	12.2	4.99 U	4.96 U
Tributyltin (ion)	SW8270ESIM	--	--	--	--	73	1.51 J	275	260	383	90.9 J
Volatile Organics (mg/kg-OC)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	3.9	6.2	--	--	--	0.89 U	0.75 U	--	--	--
Volatile Organics (µg/kg)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	11	120	--	5.0 U	5.0 U	5.0 U	5.2 U	5.0 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y SMS Marine SMS Marine AET Marine AET Marine DMMP Bioaccumulation Threshold							WSM-SG-09-230424 WSM-SG-09-1-2-230424 4/24/2023 1 - 2 ft N SE 1126947 601668	WSM-SG-10-230426 WSM-SG-10-0-1-230426 4/26/2023 0 - 1 ft N SE 1126926 601483	WSM-SG-10-230426 WSM-SG-10-1-2-230426 4/26/2023 1 - 2 ft N SE 1126926 601483	WSM-SG-11-230426 WSM-SG-11-0-1-230426 4/26/2023 0 - 1 ft N SE 1126941 601428	WSM-SG-11-230426 WSM-SG-11-1-2-230426 4/26/2023 1 - 2 ft N SE 1126941 601428
Chemical	Method	SCO	CSL	SCO	CSL						
Conventional Parameters (pct)											
Total organic carbon	SW9060AM	--	--	--	--	--	0.78	0.88	0.47	0.64	0.51
Total solids	SM2540G	--	--	--	--	--	72.1	71.2	77.23	73.46	77.94
Grain Size (pct)											
Clay	PSEP-PS	--	--	--	--	--	3.5	5.5	5.3	4.3	4.4
Clay, coarse	PSEP-PS	--	--	--	--	--	1	1.4	0.9	1.2	0.9
Clay, fine	PSEP-PS	--	--	--	--	--	1.8	3.5	4	2.4	3.2
Clay, medium	PSEP-PS	--	--	--	--	--	0.7	0.6	0.4	0.7	0.3
Gravel	PSEP-PS	--	--	--	--	--	25.8	28.9	35.1	28.5	22.6
Gravel, coarse	PSEP-PS	--	--	--	--	--	3.4	4	4	3.3	3
Gravel, medium	PSEP-PS	--	--	--	--	--	10.7	13.6	18.8	9.5	13.2
Gravel, very coarse	PSEP-PS	--	--	--	--	--	11.7	11.3	12.3	15.7	6.4
Sand	PSEP-PS	--	--	--	--	--	61.7	45.1	50	62.7	67.3
Sand, coarse	PSEP-PS	--	--	--	--	--	5	3.4	3.8	3.8	3.3
Sand, fine	PSEP-PS	--	--	--	--	--	16.8	11.9	15	21.5	23.9
Sand, medium	PSEP-PS	--	--	--	--	--	23.7	11.9	13.3	23.7	16.5
Sand, very coarse	PSEP-PS	--	--	--	--	--	7.9	7.8	10.2	7.5	8.4
Sand, very fine	PSEP-PS	--	--	--	--	--	8.3	10.1	7.7	6.2	15.2
Silt	PSEP-PS	--	--	--	--	--	8.9	20.4	9.7	4.7	5.7
Silt, coarse	PSEP-PS	--	--	--	--	--	3.7	13.8	4.3	0.3	0.6
Silt, fine	PSEP-PS	--	--	--	--	--	1.9	2.2	1.5	1.2	1.2
Silt, medium	PSEP-PS	--	--	--	--	--	2	1.8	1.5	1.5	2
Silt, very fine	PSEP-PS	--	--	--	--	--	1.3	2.6	2.4	1.7	1.9
Metals (mg/kg)											
Arsenic	SW6020	57	93	57	93	--	3.13 J	3.32 J	2.94 J	3.54 J	3.74 J
Cadmium	SW6020	5.1	6.7	5.1	6.7	--	0.3	0.5	0.38	0.49	0.34
Chromium	SW6020	260	270	260	270	--	9.96	12.4	10.5	13.1	12.2
Copper	SW6020	390	390	390	390	--	198 J	72.3 J	49.2 J	65.3 J	177 J
Lead	SW6020	450	530	450	530	--	15.4 J	6.88 J	5.84 J	5.59 J	55.0 J
Mercury	SW7471B	0.41	0.59	0.41	0.59	--	0.324 J	0.116 J	0.190 J	0.0560 J	0.219 J
Silver	SW6020	6.1	6.1	6.1	6.1	--	0.07 J	0.06 J	0.05 J	0.05 J	0.07 J
Zinc	SW6020	410	960	410	960	--	776	45.5	38.8	53.3	62
Organometals (mg/kg-OC)											
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	188	34	--	222	206
Organometals (µg/kg)											
Butyltin (ion)	SW8270ESIM	--	--	--	--	--	206	8.72	17.9	30.7	65.5
Dibutyltin (ion)	SW8270ESIM	--	--	--	--	--	715	71.9	146	194	443
Tetrabutyltin	SW8270ESIM	--	--	--	--	--	23.8	5.00 U	5.00 U	16.8	18.4
Tributyltin (ion)	SW8270ESIM	--	--	--	--	73	1470	299	327	1420	1050
Volatile Organics (mg/kg-OC)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	3.9	6.2	--	--	--	0.64 U	0.57 U	--	0.78 U	0.98 U
Volatile Organics (µg/kg)											
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	11	120	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2
Sediment Chemistry Results Summary

							Location ID	WSM-SC-01-230425	WSM-SC-01-230425	WSM-SC-02-230425	WSM-SC-02-230425	WSM-SC-03-230425
							Sample ID	WSM-SC-01-0-2-230425	WSM-SC-01-2-4-230425	WSM-SC-02-0-2-230425	WSM-SC-02-2-3.8-230425	WSM-SC-03-0-2-230425
							Sample Date	4/25/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
							Depth	0 - 2 ft	2 - 4 ft	0 - 2 ft	2 - 3.8 ft	0 - 2 ft
							Sample Type	N	N	N	N	N
							Matrix	SE	SE	SE	SE	SE
							X	1126835	1126835	1126886	1126886	1126757
							Y	601422	601422	601443	601443	601350
							SMS	SMS	AET	AET	DMMP	
							Marine	Marine	Marine	Marine	Bioaccumulation	
Chemical	Method	SCO	CSL	SCO	CSL	Threshold						
Semivolatile Organics (mg/kg-OC)												
1,2,4-Trichlorobenzene	SW8270ESIM	0.81	1.8	--	--	--		0.59 U	--	0.28 U	0.50 U	0.64 U
1,2-Dichlorobenzene	SW8270ESIM	2.3	2.3	--	--	--		0.59 U	--	0.28 U	0.50 U	0.64 U
1,4-Dichlorobenzene	SW8270ESIM	3.1	9	--	--	--		0.08 J	--	0.28 U	0.50 U	0.64 U
Bis(2-ethylhexyl)phthalate	SW8270E	47	78	--	--	--		2.86 J	--	246	1.69 J	2.68 J
Butylbenzyl phthalate	SW8270ESIM	4.9	64	--	--	--		0.24 J	--	1.42	0.23 J	0.09 J
Diethyl phthalate	SW8270ESIM	61	110	--	--	--		2.34 U	--	1 U	2 U	3 U
Dimethyl phthalate	SW8270ESIM	53	53	--	--	--		0.6	--	1.56	0.50 U	0.15 J
Di-n-butyl phthalate	SW8270E	220	1700	--	--	--		2.34 U	--	52.3	1.00 J	2.56 U
Di-n-octyl phthalate	SW8270E	58	4500	--	--	--		2.34 U	--	2960	2.09	2.56 U
Hexachlorobenzene	SW8270ESIM	0.38	2.3	--	--	--		0.59 U	--	0.28 U	0.50 U	0.64 U
n-Nitrosodiphenylamine	SW8270ESIM	11	11	--	--	--		0.59 U	--	0.28 U	0.50 U	0.64 U
Semivolatile Organics (µg/kg)												
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	31	51	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	SW8270ESIM	--	--	35	50	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	SW8270ESIM	--	--	--	--	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	110	110	--		0.7 J	5.0 U	5.0 U	5.0 U	5.0 U
2,2'-Oxybis (1-chloropropane)	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
2,4,5-Trichlorophenol	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2,4,6-Trichlorophenol	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2,4-Dichlorophenol	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2,4-Dimethylphenol	SW8270ESIM	29	29	29	29	--		19.9 U	19.9 U	20.0 UJ	20.0 U	20.0 U
2,4-Dinitrophenol	SW8270E	--	--	--	--	--		199 U	199 U	200 U	200 U	200 U
2,4-Dinitrotoluene	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2,6-Dinitrotoluene	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2-Chloronaphthalene	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
2-Chlorophenol	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
2-Methylphenol (o-Cresol)	SW8270ESIM	63	63	63	63	--		5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
2-Nitroaniline	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
2-Nitrophenol	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
3,3'-Dichlorobenzidine	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
3-Nitroaniline	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
4-Bromophenyl-phenyl ether	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
4-Chloro-3-methylphenol	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
4-Chloroaniline	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
4-Chlorophenyl phenyl ether	SW8270E	--	--	--	--	--		49.8 U	49.8 U	49.9 U	49.9 U	49.9 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	670	670	670	--		13.4	23.6	11.1 J	10.7	10.7
4-Nitroaniline	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
4-Nitrophenol	SW8270E	--	--	--	--	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
Benzoic acid	SW8270ESIM	650	650	650	650	--		99.6 U	99.5 U	99.9 U	99.8 U	99.8 U
Benzyl alcohol	SW8270ESIM	57	73	57	73	--		19.9 U	19.9 U	29.2 J	20.0 U	20.0 U
Bis(2-chloroethoxy)methane	SW8270E	--	--	--	--	--		19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
Bis(2-chloroethyl)ether	SW8270E	--	--	--	--	--		49.8 U	49.8 U	49.9 U	49.9 U	49.9 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y							WSM-SC-03-230425 WSM-SC-03-2-3.75-230425 4/25/2023 2 - 3.75 ft N SE 1126757 601350	WSM-SC-04-230425 WSM-SC-04-0-2-230425 4/25/2023 0 - 2 ft N SE 1126620 601455	WSM-SC-04-230425 WSM-SC-04-2-3.5-230425 4/25/2023 2 - 3.5 ft N SE 1126620 601455	WSM-SC-05-230425 WSM-SC-05-0-2-230425 4/25/2023 0 - 2 ft N SE 1126834 601309	WSM-SC-05-230425 WSM-SC-05-2-4-230425 4/25/2023 2 - 4 ft N SE 1126834 601309
Chemical	Method	SMS Marine SCO	SMS Marine CSL	AET Marine SCO	AET Marine CSL	DMMP Bioaccumulation Threshold					
Semivolatile Organics (mg/kg-OC)											
1,2,4-Trichlorobenzene	SW8270ESIM	0.81	1.8	--	--	--	--	0.72 U	--	--	--
1,2-Dichlorobenzene	SW8270ESIM	2.3	2.3	--	--	--	--	0.72 U	--	--	--
1,4-Dichlorobenzene	SW8270ESIM	3.1	9	--	--	--	--	0.72 U	--	--	--
Bis(2-ethylhexyl)phthalate	SW8270E	47	78	--	--	--	--	1.80 J	--	--	--
Butylbenzyl phthalate	SW8270ESIM	4.9	64	--	--	--	--	0.1 J	--	--	--
Diethyl phthalate	SW8270ESIM	61	110	--	--	--	--	3 U	--	--	--
Dimethyl phthalate	SW8270ESIM	53	53	--	--	--	--	0.22 J	--	--	--
Di-n-butyl phthalate	SW8270E	220	1700	--	--	--	--	2.90 U	--	--	--
Di-n-octyl phthalate	SW8270E	58	4500	--	--	--	--	2.90 U	--	--	--
Hexachlorobenzene	SW8270ESIM	0.38	2.3	--	--	--	--	0.72 U	--	--	--
n-Nitrosodiphenylamine	SW8270ESIM	11	11	--	--	--	--	0.72 U	--	--	--
Semivolatile Organics (µg/kg)											
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	31	51	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	SW8270ESIM	--	--	35	50	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	SW8270ESIM	--	--	--	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	110	110	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,2'-Oxybis (1-chloropropane)	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2,4,5-Trichlorophenol	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2,4,6-Trichlorophenol	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2,4-Dichlorophenol	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2,4-Dimethylphenol	SW8270ESIM	29	29	29	29	--	-- R	20.0 U	20.0 U	20.0 U	20.0 U
2,4-Dinitrophenol	SW8270E	--	--	--	--	--	200 U	200 U	200 U	200 U	200 U
2,4-Dinitrotoluene	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2,6-Dinitrotoluene	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2-Chloronaphthalene	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2-Chlorophenol	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
2-Methylphenol (o-Cresol)	SW8270ESIM	63	63	63	63	--	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
2-Nitrophenol	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
3,3'-Dichlorobenzidine	SW8270E	--	--	--	--	--	-- R	100 U	99.9 U	99.9 U	99.9 U
3-Nitroaniline	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
4-Bromophenyl-phenyl ether	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
4-Chloro-3-methylphenol	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
4-Chloroaniline	SW8270E	--	--	--	--	--	-- R	100 U	99.9 U	99.9 U	99.9 U
4-Chlorophenyl phenyl ether	SW8270E	--	--	--	--	--	49.9 U	50.0 U	50.0 U	50.0 U	50.0 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	670	670	670	--	5.0 U	9.1	2.0 J	6.3	5.0 U
4-Nitroaniline	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
4-Nitrophenol	SW8270E	--	--	--	--	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
Benzoic acid	SW8270ESIM	650	650	650	650	--	99.8 U	100 U	99.9 U	99.9 U	99.9 U
Benzyl alcohol	SW8270ESIM	57	73	57	73	--	20 U	20.0 U	20.0 U	20.0 U	20.0 U
Bis(2-chloroethoxy)methane	SW8270E	--	--	--	--	--	20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Bis(2-chloroethyl)ether	SW8270E	--	--	--	--	--	49.9 U	50.0 U	50.0 U	50.0 U	50.0 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y							WSM-SG-01-230424 WSM-SG-01-230424 4/24/2023 0 - 10 cm N SE 1126967 601330	WSM-SG-02-230424 WSM-SG-02-230424 4/24/2023 0 - 10 cm N SE 1126903 601266	WSM-SG-03-230424 WSM-SG-03-230424 4/24/2023 0 - 10 cm N SE 1126774 601264	WSM-SG-04-230424 WSM-SG-04-230424 4/24/2023 0 - 10 cm N SE 1126732 601354	WSM-SG-05-230424 WSM-SG-05-230424 4/24/2023 0 - 10 cm N SE 1126562 601454
Chemical	Method	SMS Marine SCO	SMS Marine CSL	AET Marine SCO	AET Marine CSL	DMMP Bioaccumulation Threshold					
Semivolatile Organics (mg/kg-OC)											
1,2,4-Trichlorobenzene	SW8270ESIM	0.81	1.8	--	--	--	--	0.54 U	0.52 U	0.32 U	0.35 U
1,2-Dichlorobenzene	SW8270ESIM	2.3	2.3	--	--	--	--	0.54 U	0.52 U	0.32 U	0.35 U
1,4-Dichlorobenzene	SW8270ESIM	3.1	9	--	--	--	--	0.54 U	0.52 U	0.04 J	0.35 U
Bis(2-ethylhexyl)phthalate	SW8270E	47	78	--	--	--	--	6.84	0.93 J	1.49 J	3.56
Butylbenzyl phthalate	SW8270ESIM	4.9	64	--	--	--	--	0.16 J	0.52 U	0.13 J	0.085 J
Diethyl phthalate	SW8270ESIM	61	110	--	--	--	--	2 U	2 U	1.27 U	1.41 U
Dimethyl phthalate	SW8270ESIM	53	53	--	--	--	--	0.35 J	0.19 J	0.27 J	0.19 J
Di-n-butyl phthalate	SW8270E	220	1700	--	--	--	--	2.15 U	2.06 U	1.27 U	1.41 U
Di-n-octyl phthalate	SW8270E	58	4500	--	--	--	--	2.15 U	2.06 U	1.27 U	1.41 U
Hexachlorobenzene	SW8270ESIM	0.38	2.3	--	--	--	--	0.54 U	0.52 U	0.32 U	0.35 U
n-Nitrosodiphenylamine	SW8270ESIM	11	11	--	--	--	--	0.54 U	0.52 U	0.32 U	0.35 U
Semivolatile Organics (µg/kg)											
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	31	51	--	4.9 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	SW8270ESIM	--	--	35	50	--	1.5 J	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	SW8270ESIM	--	--	--	--	--	1.3 J	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	110	110	--	1.3 J	5.0 U	5.0 U	0.6 J	5.0 U
2,2'-Oxybis (1-chloropropane)	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
2,4,5-Trichlorophenol	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2,4,6-Trichlorophenol	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2,4-Dichlorophenol	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2,4-Dimethylphenol	SW8270ESIM	29	29	29	29	--	19.8 U	2.3 J	20.0 U	2.5 J	19.9 U
2,4-Dinitrophenol	SW8270E	--	--	--	--	--	198 U	200 U	200 U	199 U	199 U
2,4-Dinitrotoluene	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2,6-Dinitrotoluene	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2-Chloronaphthalene	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
2-Chlorophenol	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
2-Methylphenol (o-Cresol)	SW8270ESIM	63	63	63	63	--	4.9 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
2-Nitrophenol	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
3,3'-Dichlorobenzidine	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
3-Nitroaniline	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
4-Bromophenyl-phenyl ether	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
4-Chloro-3-methylphenol	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
4-Chloroaniline	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
4-Chlorophenyl phenyl ether	SW8270E	--	--	--	--	--	49.5 U	50.0 U	49.9 U	49.8 U	49.9 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	670	670	670	--	3.2 J	6.7	6.5	8.4	11.5
4-Nitroaniline	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
4-Nitrophenol	SW8270E	--	--	--	--	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
Benzoic acid	SW8270ESIM	650	650	650	650	--	98.9 U	100 U	99.8 U	99.5 U	99.7 U
Benzyl alcohol	SW8270ESIM	57	73	57	73	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
Bis(2-chloroethoxy)methane	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
Bis(2-chloroethyl)ether	SW8270E	--	--	--	--	--	49.5 U	50.0 U	49.9 U	49.8 U	49.9 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y							WSM-SG-06-230424 WSM-SG-06-230424 4/24/2023 0 - 10 cm N SE 1126564 601250	WSM-SG-07-230424 WSM-SG-07-230424 4/24/2023 0 - 10 cm N SE 1126907 601530	WSM-SG-08-230424 WSM-SG-08-0-1-230424 4/24/2023 0 - 1 ft N SE 1126961 601476	WSM-SG-08-230424 WSM-SG-08-1-2-230424 4/24/2023 1 - 2 ft N SE 1126961 601476	WSM-SG-09-230424 WSM-SG-09-0-1-230424 4/24/2023 0 - 1 ft N SE 1126947 601668
Chemical	Method	SMS Marine SCO	SMS Marine CSL	AET Marine SCO	AET Marine CSL	DMMP Bioaccumulation Threshold					
Semivolatile Organics (mg/kg-OC)											
1,2,4-Trichlorobenzene	SW8270ESIM	0.81	1.8	--	--	--	0.89 U	0.75 U	--	--	--
1,2-Dichlorobenzene	SW8270ESIM	2.3	2.3	--	--	--	0.89 U	0.75 U	--	--	--
1,4-Dichlorobenzene	SW8270ESIM	3.1	9	--	--	--	0.89 U	0.75 U	--	--	--
Bis(2-ethylhexyl)phthalate	SW8270E	47	78	--	--	--	1.4 J	5.42 J	--	--	--
Butylbenzyl phthalate	SW8270ESIM	4.9	64	--	--	--	0.89 U	0.75 U	--	--	--
Diethyl phthalate	SW8270ESIM	61	110	--	--	--	4 U	2.96 U	--	--	--
Dimethyl phthalate	SW8270ESIM	53	53	--	--	--	0.39 J	1.91 J	--	--	--
Di-n-butyl phthalate	SW8270E	220	1700	--	--	--	3.57 U	0.99 J	--	--	--
Di-n-octyl phthalate	SW8270E	58	4500	--	--	--	3.57 U	2.96 U	--	--	--
Hexachlorobenzene	SW8270ESIM	0.38	2.3	--	--	--	0.89 U	0.75 U	--	--	--
n-Nitrosodiphenylamine	SW8270ESIM	11	11	--	--	--	0.89 U	0.75 U	--	--	--
Semivolatile Organics (µg/kg)											
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	31	51	--	5.0 U	5.0 U	5.0 U	5.2 U	5.0 U
1,2-Dichlorobenzene	SW8270ESIM	--	--	35	50	--	5.0 U	5.0 U	1.0 J	5.2 UJ	5.0 U
1,3-Dichlorobenzene	SW8270ESIM	--	--	--	--	--	1.0 J	5.0 U	5.0 UJ	5.2 UJ	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	110	110	--	5.0 U	5.0 U	5.0 UJ	5.2 UJ	5.0 U
2,2'-Oxybis (1-chloropropane)	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
2,4,5-Trichlorophenol	SW8270E	--	--	--	--	--	100 U	99.2 U	99.3 U	99.7 U	-- R
2,4,6-Trichlorophenol	SW8270E	--	--	--	--	--	100 U	99.2 U	99.3 U	99.7 U	-- R
2,4-Dichlorophenol	SW8270E	--	--	--	--	--	100 U	99.2 U	99.3 U	99.7 U	-- R
2,4-Dimethylphenol	SW8270ESIM	29	29	29	29	--	20.0 U	19.8 U	20.0 UJ	20.7 UJ	-- R
2,4-Dinitrophenol	SW8270E	--	--	--	--	--	200 U	198 U	199 U	199 U	-- R
2,4-Dinitrotoluene	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	99.8 U
2,6-Dinitrotoluene	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	99.8 U
2-Chloronaphthalene	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
2-Chlorophenol	SW8270E	--	--	--	--	--	20.0 U	19.8 U	19.9 U	19.9 U	-- R
2-Methylphenol (o-Cresol)	SW8270ESIM	63	63	63	63	--	5.0 U	5.0 U	2.1 J	5.2 UJ	-- R
2-Nitroaniline	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	99.8 U
2-Nitrophenol	SW8270E	--	--	--	--	--	20.0 U	19.8 U	19.9 U	19.9 U	-- R
3,3'-Dichlorobenzidine	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	-- R
3-Nitroaniline	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	-- R
4-Bromophenyl-phenyl ether	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
4-Chloro-3-methylphenol	SW8270E	--	--	--	--	--	100 U	99.2 U	99.3 U	99.7 U	-- R
4-Chloroaniline	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	-- R
4-Chlorophenyl phenyl ether	SW8270E	--	--	--	--	--	50.0 U	49.6 U	50.0 U	51.7 U	49.9 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	670	670	670	--	3.8 J	1.9 J	1.5 J	1.8 J	1.8 J
4-Nitroaniline	SW8270E	--	--	--	--	--	100 U	99.2 U	100 U	103 U	-- R
4-Nitrophenol	SW8270E	--	--	--	--	--	100 U	99.2 U	99.3 U	99.7 U	-- R
Benzoic acid	SW8270ESIM	650	650	650	650	--	100 U	99.2 U	100 U	147 J	99.8 U
Benzyl alcohol	SW8270ESIM	57	73	57	73	--	20 U	19.8 U	6.3 J	9.4 J	20.0 UJ
Bis(2-chloroethoxy)methane	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Bis(2-chloroethyl)ether	SW8270E	--	--	--	--	--	50.0 U	49.6 U	50.0 U	51.7 U	49.9 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y							WSM-SG-09-230424 WSM-SG-09-1-2-230424 4/24/2023 1 - 2 ft N SE 1126947 601668	WSM-SG-10-230426 WSM-SG-10-0-1-230426 4/26/2023 0 - 1 ft N SE 1126926 601483	WSM-SG-10-230426 WSM-SG-10-1-2-230426 4/26/2023 1 - 2 ft N SE 1126926 601483	WSM-SG-11-230426 WSM-SG-11-0-1-230426 4/26/2023 0 - 1 ft N SE 1126941 601428	WSM-SG-11-230426 WSM-SG-11-1-2-230426 4/26/2023 1 - 2 ft N SE 1126941 601428
Chemical	Method	SMS Marine SCO	SMS Marine CSL	AET Marine SCO	AET Marine CSL	DMMP Bioaccumulation Threshold					
Semivolatile Organics (mg/kg-OC)											
1,2,4-Trichlorobenzene	SW8270ESIM	0.81	1.8	--	--	--	0.64 U	0.57 U	--	0.78 U	0.98 U
1,2-Dichlorobenzene	SW8270ESIM	2.3	2.3	--	--	--	0.15 J	0.57 U	--	0.78 U	0.59 J
1,4-Dichlorobenzene	SW8270ESIM	3.1	9	--	--	--	0.64 U	0.57 U	--	0.78 U	0.98 U
Bis(2-ethylhexyl)phthalate	SW8270E	47	78	--	--	--	29 J	6.08 J	--	2.64 J	5.67 J
Butylbenzyl phthalate	SW8270ESIM	4.9	64	--	--	--	1.4	1.18 J	--	0.47 J	0.92 J
Diethyl phthalate	SW8270ESIM	61	110	--	--	--	3.45 U	2 U	--	3 U	3.90 U
Dimethyl phthalate	SW8270ESIM	53	53	--	--	--	5.58	3.64 J	--	2.23	6.43
Di-n-butyl phthalate	SW8270E	220	1700	--	--	--	2.56 U	1.17 J	--	3.13 U	3.90 U
Di-n-octyl phthalate	SW8270E	58	4500	--	--	--	2.56 UJ	2.27 UJ	--	3.13 UJ	3.90 UJ
Hexachlorobenzene	SW8270ESIM	0.38	2.3	--	--	--	0.64 U	0.57 U	--	0.78 U	0.98 U
n-Nitrosodiphenylamine	SW8270ESIM	11	11	--	--	--	0.64 U	0.57 U	--	0.78 U	0.98 U
Semivolatile Organics (µg/kg)											
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	31	51	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	SW8270ESIM	--	--	35	50	--	1.2 J	5.0 U	5.0 U	5.0 U	3.0 J
1,3-Dichlorobenzene	SW8270ESIM	--	--	--	--	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	110	110	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,2'-Oxybis (1-chloropropane)	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
2,4,5-Trichlorophenol	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2,4,6-Trichlorophenol	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2,4-Dichlorophenol	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2,4-Dimethylphenol	SW8270ESIM	29	29	29	29	--	2.6 J	20.0 U	19.9 U	20.0 U	19.9 U
2,4-Dinitrophenol	SW8270E	--	--	--	--	--	200 U	200 U	199 U	200 U	199 U
2,4-Dinitrotoluene	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2,6-Dinitrotoluene	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2-Chloronaphthalene	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
2-Chlorophenol	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
2-Methylphenol (o-Cresol)	SW8270ESIM	63	63	63	63	--	1.2 J	1.3 J	1.8 J	5.0 U	1.7 J
2-Nitroaniline	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
2-Nitrophenol	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
3,3'-Dichlorobenzidine	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
3-Nitroaniline	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
4-Bromophenyl-phenyl ether	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
4-Chloro-3-methylphenol	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
4-Chloroaniline	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
4-Chlorophenyl phenyl ether	SW8270E	--	--	--	--	--	50.0 U	50.0 U	49.8 U	49.9 U	49.7 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	670	670	670	--	7.1	7.6	6.2	13.5	3.6 J
4-Nitroaniline	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
4-Nitrophenol	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
Benzoic acid	SW8270ESIM	650	650	650	650	--	72.0 J	67.6 J	99.7 U	99.8 U	99.5 U
Benzyl alcohol	SW8270ESIM	57	73	57	73	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
Bis(2-chloroethoxy)methane	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
Bis(2-chloroethyl)ether	SW8270E	--	--	--	--	--	50.0 U	50.0 U	49.8 U	49.9 U	49.7 U

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SC-01-230425	WSM-SC-01-230425	WSM-SC-02-230425	WSM-SC-02-230425	WSM-SC-03-230425
		Sample ID					WSM-SC-01-0-2-230425	WSM-SC-01-2-4-230425	WSM-SC-02-0-2-230425	WSM-SC-02-2-3.8-230425	WSM-SC-03-0-2-230425
		Sample Date					4/25/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
		Depth					0 - 2 ft	2 - 4 ft	0 - 2 ft	2 - 3.8 ft	0 - 2 ft
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126835	1126835	1126886	1126886	1126757
		Y					601422	601422	601443	601443	601350
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	1300	1900	--	24.3 J	6.6 J	4370	16.9 J	20.9 J
Butylbenzyl phthalate	SW8270ESIM	--	--	63	900	--	2.0 J	5.0 U	25.3	2.3 J	0.7 J
Diethyl phthalate	SW8270ESIM	--	--	200	1200	--	19.9 U	19.9 U	20 U	20 U	20 U
Dimethyl phthalate	SW8270ESIM	--	--	71	160	--	5.1	5.0 U	27.8	5.0 U	1.2 J
Di-n-butyl phthalate	SW8270E	--	--	1400	1400	--	19.9 U	19.9 U	931	10.0 J	20.0 U
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	SW8270E	--	--	--	--	--	199 U	199 U	200 U	200 U	200 U
Di-n-octyl phthalate	SW8270E	--	--	6200	6200	--	19.9 U	19.9 U	52600	20.9	20.0 U
Hexachlorobenzene	SW8270ESIM	--	--	22	70	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	SW8270E	--	--	--	--	--	-- R	-- R	-- R	-- R	-- R
Hexachloroethane	SW8270E	--	--	--	--	--	19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
Isophorone	SW8270E	--	--	--	--	--	19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
Nitrobenzene	SW8270E	--	--	--	--	--	19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
n-Nitrosodimethylamine	SW8270ESIM	--	--	--	--	--	24.9 UJ	24.9 UJ	25.0 UJ	25.0 UJ	25.0 UJ
n-Nitrosodi-n-propylamine	SW8270ESIM	--	--	--	--	--	19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	28	40	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	360	690	360	690	--	4.0 J	19.9 U	20.0 UJ	20.0 U	20.0 U
Phenol	SW8270ESIM	420	1200	420	1200	--	14.8	10.1	16.0 J	12.5	10.4
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	2.34 U	--	0.35 J	2.00 U	2.56 U
2-Methylnaphthalene	SW8270E	38	64	--	--	--	0.75 J	--	0.46 J	2.00 U	2.56 U
Acenaphthene	SW8270E	16	57	--	--	--	0.62 J	--	0.49 J	2.00 U	1.35 J
Acenaphthylene	SW8270E	66	66	--	--	--	1.76 J	--	1.15	2.00 U	3.68
Anthracene	SW8270E	220	1200	--	--	--	4.54	--	4.32	2.00 U	5.9
Benzo(a)anthracene	SW8270E	110	270	--	--	--	14.6	--	11.5	2.00 U	29
Benzo(a)pyrene	SW8270E	99	210	--	--	--	17.3	--	12	0.64 J	24.9
Benzo(b,j,k)fluoranthenes	SW8270E	230	450	--	--	--	56.1	--	77.5	3.99 U	145
Benzo(g,h,i)perylene	SW8270E	31	78	--	--	--	10	--	6.91	2.00 U	13.3
Carbazole	SW8270E	--	--	--	--	--	2.15 J	--	1.71	2.00 U	7.41
Chrysene	SW8270E	110	460	--	--	--	47.3	--	41.5	0.61 J	81.7
Dibenzo(a,h)anthracene	SW8270ESIM	12	33	--	--	--	5.08	--	2.37	0.50 U	6.79
Dibenzofuran	SW8270E	15	58	--	--	--	2.34 U	--	1.12 U	2.00 U	2.56 U
Fluoranthene	SW8270E	160	1200	--	--	--	55.8	--	13.3	0.64 J	162
Fluorene	SW8270E	23	79	--	--	--	2.34 U	--	0.966 J	2.00 U	2.62
Indeno(1,2,3-c,d)pyrene	SW8270E	34	88	--	--	--	11.9	--	6.12	2.00 U	15
Naphthalene	SW8270E	99	170	--	--	--	0.67 J	--	1.5	2.00 U	0.64 J
Phenanthrene	SW8270E	100	480	--	--	--	13.3	--	5.1	2.00 U	13.5
Pyrene	SW8270E	1000	1400	--	--	--	63.8	--	70.8	1.86 J	174
Total HPAH (SMS) (U = 0 max limit)		960	5300	--	--	--	280	--	240	3.8 J	650
Total LPAH (SMS) (U = 0 max limit)		370	780	--	--	--	21 J	--	14 J	2.00 U	28 J
Polycyclic Aromatic Hydrocarbons (µg/kg)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	19.9 U	19.9 U	6.3 J	20.0 U	20.0 U
2-Methylnaphthalene	SW8270E	--	--	670	670	--	6.4 J	19.9 U	8.1 J	20.0 U	20.0 U
Acenaphthene	SW8270E	--	--	500	500	--	5.3 J	19.9 U	8.7 J	20.0 U	10.5 J

Table 2
Sediment Chemistry Results Summary

							Location ID	WSM-SC-03-230425	WSM-SC-04-230425	WSM-SC-04-230425	WSM-SC-05-230425	WSM-SC-05-230425
							Sample ID	WSM-SC-03-2-3.75-230425	WSM-SC-04-0-2-230425	WSM-SC-04-2-3.5-230425	WSM-SC-05-0-2-230425	WSM-SC-05-2-4-230425
							Sample Date	4/25/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
							Depth	2 - 3.75 ft	0 - 2 ft	2 - 3.5 ft	0 - 2 ft	2 - 4 ft
							Sample Type	N	N	N	N	N
							Matrix	SE	SE	SE	SE	SE
							X	1126757	1126620	1126620	1126834	1126834
							Y	601350	601455	601455	601309	601309
							SMS Marine	SMS Marine	AET Marine	AET Marine	DMMP Bioaccumulation	
Chemical	Method	SCO	CSL	SCO	CSL	Threshold						
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	1300	1900	--		49.9 U	12.4 J	50.0 U	25.6 J	6.2 J
Butylbenzyl phthalate	SW8270ESIM	--	--	63	900	--		5.0 U	0.9 J	5.0 U	5.0 U	0.7 J
Diethyl phthalate	SW8270ESIM	--	--	200	1200	--		20 U	20 U	20 U	20 U	20 U
Dimethyl phthalate	SW8270ESIM	--	--	71	160	--		5.0 U	1.5 J	5.0 U	2.0 J	5.0 U
Di-n-butyl phthalate	SW8270E	--	--	1400	1400	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	SW8270E	--	--	--	--	--		200 U	200 U	200 U	200 U	200 U
Di-n-octyl phthalate	SW8270E	--	--	6200	6200	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Hexachlorobenzene	SW8270ESIM	--	--	22	70	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	SW8270E	--	--	--	--	--		-- R	-- R	-- R	-- R	-- R
Hexachloroethane	SW8270E	--	--	--	--	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Isophorone	SW8270E	--	--	--	--	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Nitrobenzene	SW8270E	--	--	--	--	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
n-Nitrosodimethylamine	SW8270ESIM	--	--	--	--	--		25.0 UJ	25.0 UJ	25.0 UJ	25.0 UJ	25.0 UJ
n-Nitrosodi-n-propylamine	SW8270ESIM	--	--	--	--	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	28	40	--		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	360	690	360	690	--		20.0 U	20.0 U	20.0 U	2.5 J	20.0 U
Phenol	SW8270ESIM	420	1200	420	1200	--		7	8.5	7.2	11.4	9.4
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)												
1-Methylnaphthalene	SW8270E	--	--	--	--	--		--	1.1 J	--	--	--
2-Methylnaphthalene	SW8270E	38	64	--	--	--		--	1.1 J	--	--	--
Acenaphthene	SW8270E	16	57	--	--	--		--	2.90 U	--	--	--
Acenaphthylene	SW8270E	66	66	--	--	--		--	2.90 U	--	--	--
Anthracene	SW8270E	220	1200	--	--	--		--	2.30 J	--	--	--
Benzo(a)anthracene	SW8270E	110	270	--	--	--		--	6.26	--	--	--
Benzo(a)pyrene	SW8270E	99	210	--	--	--		--	6.07	--	--	--
Benzo(b,j,k)fluoranthenes	SW8270E	230	450	--	--	--		--	25.4	--	--	--
Benzo(g,h,i)perylene	SW8270E	31	78	--	--	--		--	3.87	--	--	--
Carbazole	SW8270E	--	--	--	--	--		--	1.62 J	--	--	--
Chrysene	SW8270E	110	460	--	--	--		--	17.7	--	--	--
Dibenzo(a,h)anthracene	SW8270ESIM	12	33	--	--	--		--	1.61 J	--	--	--
Dibenzofuran	SW8270E	15	58	--	--	--		--	2.90 U	--	--	--
Fluoranthene	SW8270E	160	1200	--	--	--		--	22.5	--	--	--
Fluorene	SW8270E	23	79	--	--	--		--	2.90 U	--	--	--
Indeno(1,2,3-c,d)pyrene	SW8270E	34	88	--	--	--		--	3.94	--	--	--
Naphthalene	SW8270E	99	170	--	--	--		--	0.70 J	--	--	--
Phenanthrene	SW8270E	100	480	--	--	--		--	8.62	--	--	--
Pyrene	SW8270E	1000	1400	--	--	--		--	29.3	--	--	--
Total HPAH (SMS) (U = 0 max limit)		960	5300	--	--	--		--	117 J	--	--	--
Total LPAH (SMS) (U = 0 max limit)		370	780	--	--	--		--	10 J	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270E	--	--	--	--	--		20.0 U	7.3 J	20.0 U	20.0 U	20.0 U
2-Methylnaphthalene	SW8270E	--	--	670	670	--		20.0 U	7.4 J	20.0 U	20.0 U	20.0 U
Acenaphthene	SW8270E	--	--	500	500	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
		Sample ID					WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
		Sample Date					4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
		Depth					0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126967	1126903	1126774	1126732	1126562
		Y					601330	601266	601264	601354	601454
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	1300	1900	--	8.7 J	63.6	9.0 J	23.4 J	50.2
Butylbenzyl phthalate	SW8270ESIM	--	--	63	900	--	1.6 J	1.5 J	5.0 U	2.0 J	1.2 J
Diethyl phthalate	SW8270ESIM	--	--	200	1200	--	19.8 U	20 U	20 U	19.9 U	19.9 U
Dimethyl phthalate	SW8270ESIM	--	--	71	160	--	6.8 J	3.3 J	1.8 J	4.2 J	2.7 J
Di-n-butyl phthalate	SW8270E	--	--	1400	1400	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	SW8270E	--	--	--	--	--	198 U	200 U	200 U	199 U	199 U
Di-n-octyl phthalate	SW8270E	--	--	6200	6200	--	6.3 J	20.0 U	20.0 U	19.9 U	19.9 U
Hexachlorobenzene	SW8270ESIM	--	--	22	70	--	4.9 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	SW8270E	--	--	--	--	--	-- R	-- R	-- R	-- R	-- R
Hexachloroethane	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
Isophorone	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
Nitrobenzene	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
n-Nitrosodimethylamine	SW8270ESIM	--	--	--	--	--	24.7 UJ	25.0 UJ	25.0 UJ	24.9 UJ	24.9 UJ
n-Nitrosodi-n-propylamine	SW8270ESIM	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	19.9 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	28	40	--	4.9 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	360	690	360	690	--	4.9 J	20.0 U	20.0 U	19.9 U	19.9 U
Phenol	SW8270ESIM	420	1200	420	1200	--	7.4	9.9	13.4	11.5	10.4
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	--	2.15 U	2.06 U	1.27 U	1.00 J
2-Methylnaphthalene	SW8270E	38	64	--	--	--	--	2.15 U	2.06 U	0.39 J	1.58
Acenaphthene	SW8270E	16	57	--	--	--	--	2.15 U	2.06 U	1.27 U	1.55
Acenaphthylene	SW8270E	66	66	--	--	--	--	2.15 U	2.06 U	0.777 J	1.84
Anthracene	SW8270E	220	1200	--	--	--	--	1.1 J	2.06 U	2.44	3.27
Benzo(a)anthracene	SW8270E	110	270	--	--	--	--	3.18	0.91 J	8.73	10.4
Benzo(a)pyrene	SW8270E	99	210	--	--	--	--	2.32	0.75 J	7.6	7.23
Benzo(b,j,k)fluoranthenes	SW8270E	230	450	--	--	--	--	11	3.29 J	27.3	33
Benzo(g,h,i)perylene	SW8270E	31	78	--	--	--	--	2.32	2.06 U	6.62	5.8
Carbazole	SW8270E	--	--	--	--	--	--	2.15 U	2.06 U	1.13 J	2.59
Chrysene	SW8270E	110	460	--	--	--	--	9.09	2.12	20.8	45.2
Dibenzo(a,h)anthracene	SW8270ESIM	12	33	--	--	--	--	0.77 J	0.26 J	2.61	2.23
Dibenzofuran	SW8270E	15	58	--	--	--	--	2.15 U	2.06 U	1.27 U	3.12
Fluoranthene	SW8270E	160	1200	--	--	--	--	16	4.03	23.2	101
Fluorene	SW8270E	23	79	--	--	--	--	2.15 U	2.06 U	1.27 U	2.21
Indeno(1,2,3-c,d)pyrene	SW8270E	34	88	--	--	--	--	2.09 J	2.06 U	6.43	6.15
Naphthalene	SW8270E	99	170	--	--	--	--	2.15 U	2.06 U	0.41 J	1.66
Phenanthrene	SW8270E	100	480	--	--	--	--	4.25	1.21 J	4.23	33.3
Pyrene	SW8270E	1000	1400	--	--	--	--	11.6	3.1	22.1	67.8
Total HPAH (SMS) (U = 0 max limit)		960	5300	--	--	--	--	58 J	14 J	100	280
Total LPAH (SMS) (U = 0 max limit)		370	780	--	--	--	--	5.3 J	1.21 J	7.9 J	43.8
Polycyclic Aromatic Hydrocarbons (µg/kg)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	19.8 U	20.0 U	20.0 U	19.9 U	14.1 J
2-Methylnaphthalene	SW8270E	--	--	670	670	--	19.8 U	20.0 U	20.0 U	6.1 J	22.3
Acenaphthene	SW8270E	--	--	500	500	--	19.8 U	20.0 U	20.0 U	19.9 U	21.9

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-230424	WSM-SG-08-230424	WSM-SG-09-230424
		Sample ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-0-1-230424	WSM-SG-08-1-2-230424	WSM-SG-09-0-1-230424
		Sample Date					4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
		Depth					0 - 10 cm	0 - 10 cm	0 - 1 ft	1 - 2 ft	0 - 1 ft
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126564	1126907	1126961	1126961	1126947
		Y					601250	601530	601476	601476	601668
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	1300	1900	--	7.7 J	36.3 J	14.8 J	22.4 J	42.3 J
Butylbenzyl phthalate	SW8270ESIM	--	--	63	900	--	5.0 U	5.0 U	2.1 J	2.0 J	4.6 J
Diethyl phthalate	SW8270ESIM	--	--	200	1200	--	20 U	19.8 U	20 U	20.7 U	20.9 U
Dimethyl phthalate	SW8270ESIM	--	--	71	160	--	2.2 J	12.8 J	11.2	3.6 J	21.1 J
Di-n-butyl phthalate	SW8270E	--	--	1400	1400	--	20.0 U	6.6 J	20.0 U	6.8 J	20.0 U
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	SW8270E	--	--	--	--	--	200 U	198 U	199 U	199 U	-- R
Di-n-octyl phthalate	SW8270E	--	--	6200	6200	--	20.0 U	19.8 U	20.0 UJ	20.7 UJ	20.0 UJ
Hexachlorobenzene	SW8270ESIM	--	--	22	70	--	5.0 U	5.0 U	5.0 U	5.2 U	5.0 U
Hexachlorocyclopentadiene	SW8270E	--	--	--	--	--	-- R	-- R	100 U	103 U	99.8 U
Hexachloroethane	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Isophorone	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Nitrobenzene	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
n-Nitrosodimethylamine	SW8270ESIM	--	--	--	--	--	25.0 UJ	24.8 UJ	25.0 UJ	25.8 UJ	25.0 U
n-Nitrosodi-n-propylamine	SW8270ESIM	--	--	--	--	--	20.0 U	19.8 U	20.0 UJ	20.7 UJ	20.0 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	28	40	--	5.0 U	5.0 U	5.0 U	3.9 J	-- R
Pentachlorophenol	SW8270ESIM	360	690	360	690	--	20.0 U	19.8 U	11.2 J	64.3 J	27.9 J
Phenol	SW8270ESIM	420	1200	420	1200	--	7.7	7.3	9.3 UJ	10.4 UJ	10.3 U
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	3.57 U	2.96 U	--	--	--
2-Methylnaphthalene	SW8270E	38	64	--	--	--	3.57 U	2.96 U	--	--	--
Acenaphthene	SW8270E	16	57	--	--	--	3.57 U	2.96 U	--	--	--
Acenaphthylene	SW8270E	66	66	--	--	--	3.57 U	2.96 U	--	--	--
Anthracene	SW8270E	220	1200	--	--	--	1.5 J	2.25 J	--	--	--
Benzo(a)anthracene	SW8270E	110	270	--	--	--	7.2	7.13	--	--	--
Benzo(a)pyrene	SW8270E	99	210	--	--	--	3.84	7.24	--	--	--
Benzo(b,j,k)fluoranthenes	SW8270E	230	450	--	--	--	13.4	24.6	--	--	--
Benzo(g,h,i)perylene	SW8270E	31	78	--	--	--	3.57 U	5.25	--	--	--
Carbazole	SW8270E	--	--	--	--	--	3.57 U	1.0 J	--	--	--
Chrysene	SW8270E	110	460	--	--	--	11.6	18.1	--	--	--
Dibenzo(a,h)anthracene	SW8270ESIM	12	33	--	--	--	0.98 J	2.40 J	--	--	--
Dibenzofuran	SW8270E	15	58	--	--	--	3.57 U	2.96 U	--	--	--
Fluoranthene	SW8270E	160	1200	--	--	--	8.66	13.4	--	--	--
Fluorene	SW8270E	23	79	--	--	--	3.57 U	2.96 U	--	--	--
Indeno(1,2,3-c,d)pyrene	SW8270E	34	88	--	--	--	3.57 U	5.72	--	--	--
Naphthalene	SW8270E	99	170	--	--	--	3.57 U	2.96 U	--	--	--
Phenanthrene	SW8270E	100	480	--	--	--	3.20 J	3.79	--	--	--
Pyrene	SW8270E	1000	1400	--	--	--	6.34	13.7	--	--	--
Total HPAH (SMS) (U = 0 max limit)		960	5300	--	--	--	52 J	97.5 J	--	--	--
Total LPAH (SMS) (U = 0 max limit)		370	780	--	--	--	4.7 J	6.04 J	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
2-Methylnaphthalene	SW8270E	--	--	670	670	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Acenaphthene	SW8270E	--	--	500	500	--	20.0 U	19.8 U	20.0 U	5.6 J	20.0 U

Table 2
Sediment Chemistry Results Summary

Location ID Sample ID Sample Date Depth Sample Type Matrix X Y							WSM-SG-09-230424 WSM-SG-09-1-2-230424 4/24/2023 1 - 2 ft N SE 1126947 601668	WSM-SG-10-230426 WSM-SG-10-0-1-230426 4/26/2023 0 - 1 ft N SE 1126926 601483	WSM-SG-10-230426 WSM-SG-10-1-2-230426 4/26/2023 1 - 2 ft N SE 1126926 601483	WSM-SG-11-230426 WSM-SG-11-0-1-230426 4/26/2023 0 - 1 ft N SE 1126941 601428	WSM-SG-11-230426 WSM-SG-11-1-2-230426 4/26/2023 1 - 2 ft N SE 1126941 601428
Chemical	Method	SMS Marine SCO	SMS Marine CSL	AET Marine SCO	AET Marine CSL	DMMP Bioaccumulation Threshold					
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	1300	1900	--	230 J	53.5 J	21.5 J	16.9 J	28.9 J
Butylbenzyl phthalate	SW8270ESIM	--	--	63	900	--	10.9	10.4 J	4.9 J	3.0 J	4.7 J
Diethyl phthalate	SW8270ESIM	--	--	200	1200	--	26.9 U	20 U	19.9 U	20 U	19.9 U
Dimethyl phthalate	SW8270ESIM	--	--	71	160	--	43.5	32.0 J	12.1	14.3	32.8
Di-n-butyl phthalate	SW8270E	--	--	1400	1400	--	20.0 U	10.3 J	25.7	20.0 U	19.9 U
Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	SW8270E	--	--	--	--	--	200 U	200 U	199 U	200 U	199 U
Di-n-octyl phthalate	SW8270E	--	--	6200	6200	--	20.0 UJ	20.0 UJ	19.9 UJ	20.0 UJ	19.9 UJ
Hexachlorobenzene	SW8270ESIM	--	--	22	70	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	SW8270E	--	--	--	--	--	100 U	100 U	99.7 U	99.8 U	99.5 U
Hexachloroethane	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
Isophorone	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
Nitrobenzene	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
n-Nitrosodimethylamine	SW8270ESIM	--	--	--	--	--	25.0 U	25.0 U	24.9 U	25.0 U	24.9 U
n-Nitrosodi-n-propylamine	SW8270ESIM	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	28	40	--	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	360	690	360	690	--	72.2	22.3	4.7 J	21.2	57.4
Phenol	SW8270ESIM	420	1200	420	1200	--	28.8 U	22.0 U	19.3 U	19.8 U	19.5 U
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	2.56 U	2.27 U	--	3.13 U	3.90 U
2-Methylnaphthalene	SW8270E	38	64	--	--	--	1.1 J	0.66 J	--	3.13 U	3.90 U
Acenaphthene	SW8270E	16	57	--	--	--	2.00 J	0.84 J	--	3.13 U	3.90 U
Acenaphthylene	SW8270E	66	66	--	--	--	9.27	4.24	--	2.33 J	4.75
Anthracene	SW8270E	220	1200	--	--	--	24	11.3	--	6.86	11
Benzo(a)anthracene	SW8270E	110	270	--	--	--	58.5	54.4	--	33.4	30.4
Benzo(a)pyrene	SW8270E	99	210	--	--	--	84.9	68.1	--	29.2	53.3
Benzo(b,j,k)fluoranthenes	SW8270E	230	450	--	--	--	373	199	--	99.2	198
Benzo(g,h,i)perylene	SW8270E	31	78	--	--	--	65	38.2	--	14.8	24.7
Carbazole	SW8270E	--	--	--	--	--	27.9 J	4.67 J	--	4.78 J	9.98 J
Chrysene	SW8270E	110	460	--	--	--	220	100	--	80.6	99.2
Dibenzo(a,h)anthracene	SW8270ESIM	12	33	--	--	--	27.6	16.8 J	--	7.02	11.5
Dibenzofuran	SW8270E	15	58	--	--	--	2.79	2.27 U	--	3.13 U	3.90 U
Fluoranthene	SW8270E	160	1200	--	--	--	315	142	--	124	97.5
Fluorene	SW8270E	23	79	--	--	--	5.44	2.78	--	3.13 U	3.90 U
Indeno(1,2,3-c,d)pyrene	SW8270E	34	88	--	--	--	63.7	39.4	--	16.4	27.3
Naphthalene	SW8270E	99	170	--	--	--	2.14 J	1.1 J	--	0.75 J	1.6 J
Phenanthrene	SW8270E	100	480	--	--	--	100	24.8	--	27.2	19.1
Pyrene	SW8270E	1000	1400	--	--	--	358	224	--	124	198
Total HPAH (SMS) (U = 0 max limit)		960	5300	--	--	--	1600	882 J	--	529	740
Total LPAH (SMS) (U = 0 max limit)		370	780	--	--	--	160 J	40 J	--	37 J	36 J
Polycyclic Aromatic Hydrocarbons (µg/kg)											
1-Methylnaphthalene	SW8270E	--	--	--	--	--	20.0 U	20.0 U	19.9 U	20.0 U	19.9 U
2-Methylnaphthalene	SW8270E	--	--	670	670	--	8.3 J	5.8 J	5.6 J	20.0 U	19.9 U
Acenaphthene	SW8270E	--	--	500	500	--	15.6 J	7.4 J	19.9 U	20.0 U	19.9 U

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SC-01-230425	WSM-SC-01-230425	WSM-SC-02-230425	WSM-SC-02-230425	WSM-SC-03-230425
		Sample ID					WSM-SC-01-0-2-230425	WSM-SC-01-2-4-230425	WSM-SC-02-0-2-230425	WSM-SC-02-2-3.8-230425	WSM-SC-03-0-2-230425
		Sample Date					4/25/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
		Depth					0 - 2 ft	2 - 4 ft	0 - 2 ft	2 - 3.8 ft	0 - 2 ft
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126835	1126835	1126886	1126886	1126757
		Y					601422	601422	601443	601443	601350
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Acenaphthylene	SW8270E	--	--	1300	1300	--	15.0 J	19.9 U	20.4	20.0 U	28.7
Anthracene	SW8270E	--	--	960	960	--	38.6	19.9 U	76.9	20.0 U	46
Benzo(a)anthracene	SW8270E	--	--	1300	1600	--	124	16.0 J	205	20.0 U	230
Benzo(a)pyrene	SW8270E	--	--	1600	1600	--	147	5.0 J	210	6.4 J	194
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	3200	3600	--	477	21.4 J	1380	39.9 U	1130
Benzo(g,h,i)perylene	SW8270E	--	--	670	720	--	100	19.9 U	123	20.0 U	104
Carbazole	SW8270E	--	--	--	--	--	18.3 J	19.9 U	30.5	20.0 U	57.8
Chrysene	SW8270E	--	--	1400	2800	--	402	29.5	739	6.1 J	637
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	230	230	--	43.2	1.5 J	42.1	5.0 U	53
Dibenzofuran	SW8270E	--	--	540	540	--	19.9 U	19.9 U	20.0 U	20.0 U	20.0 U
Fluoranthene	SW8270E	--	--	1700	2500	--	474	58.6	237	6.4 J	1260
Fluorene	SW8270E	--	--	540	540	--	19.9 U	19.9 U	17.2 J	20.0 U	20.4
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	600	690	--	101	19.9 U	109	20.0 U	117
Naphthalene	SW8270E	--	--	2100	2100	--	5.7 J	19.9 U	26.7	20.0 U	5.0 J
Phenanthrene	SW8270E	--	--	1500	1500	--	113	15.4 J	90.7	20.0 U	105
Pyrene	SW8270E	--	--	2600	3300	--	542	43.2	1260	18.6 J	1360
Total HPAH (SMS) (U = 0 max limit)		--	--	12000	17000	--	2400	180 J	4300	38 J	5100
Total LPAH (SMS) (U = 0 max limit)		--	--	5200	5200	--	180 J	15.4 J	240 J	20.0 U	220 J
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Aroclor 1221	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Aroclor 1232	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Aroclor 1242	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Aroclor 1248	SW8082A	--	--	--	--	--	0.47 U	--	1.62	0.40 U	0.51 U
Aroclor 1254	SW8082A	--	--	--	--	--	0.36 J	--	2.04	0.40 U	0.44 J
Aroclor 1260	SW8082A	--	--	--	--	--	0.15 J	--	1.49 J	0.40 U	0.27 J
Aroclor 1262	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Aroclor 1268	SW8082A	--	--	--	--	--	0.47 U	--	0.22 U	0.40 U	0.51 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		12	65	--	--	--	0.52 J	--	5.16 J	0.40 U	0.71 J
PCB Aroclors (µg/kg)											
Aroclor 1016	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1221	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1232	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1242	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1248	SW8082A	--	--	--	--	--	4.0 U	4.0 U	28.8	4.0 U	4.0 U
Aroclor 1254	SW8082A	--	--	--	--	--	3.1 J	4.0 U	36.4	4.0 U	3.4 J
Aroclor 1260	SW8082A	--	--	--	--	--	1.3 J	4.0 U	26.6 J	4.0 U	2.1 J
Aroclor 1262	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1268	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		--	--	130	1000	--	4.4 J	4.0 U	91.8 J	4.0 U	5.5 J

Table 2
Sediment Chemistry Results Summary

							Location ID	WSM-SC-03-230425	WSM-SC-04-230425	WSM-SC-04-230425	WSM-SC-05-230425	WSM-SC-05-230425
							Sample ID	WSM-SC-03-2-3.75-230425	WSM-SC-04-0-2-230425	WSM-SC-04-2-3.5-230425	WSM-SC-05-0-2-230425	WSM-SC-05-2-4-230425
							Sample Date	4/25/2023	4/25/2023	4/25/2023	4/25/2023	4/25/2023
							Depth	2 - 3.75 ft	0 - 2 ft	2 - 3.5 ft	0 - 2 ft	2 - 4 ft
							Sample Type	N	N	N	N	N
							Matrix	SE	SE	SE	SE	SE
							X	1126757	1126620	1126620	1126834	1126834
							Y	601350	601455	601455	601309	601309
							SMS Marine	SMS Marine	AET Marine	AET Marine	DMMP Bioaccumulation	
Chemical	Method	SCO	CSL	SCO	CSL	Threshold						
Acenaphthylene	SW8270E	--	--	1300	1300	--		20.0 U	20.0 U	20.0 U	39.3	20.0 U
Anthracene	SW8270E	--	--	960	960	--		20.0 U	15.9 J	20.0 U	47	20.0 U
Benzo(a)anthracene	SW8270E	--	--	1300	1600	--		20.0 U	43.2	20.0 U	371	20.0 U
Benzo(a)pyrene	SW8270E	--	--	1600	1600	--		20.0 U	41.9	20.0 U	227	20.0 U
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	3200	3600	--		39.9 U	175	40.0 U	1940	40.0 U
Benzo(g,h,i)perylene	SW8270E	--	--	670	720	--		20.0 U	26.7	20.0 U	149	20.0 U
Carbazole	SW8270E	--	--	--	--	--		20.0 U	11.2 J	20.0 U	75.3	20.0 U
Chrysene	SW8270E	--	--	1400	2800	--		20.0 U	122	20.0 U	1720	20.0 U
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	230	230	--		5.0 U	11.1 J	5.0 U	75.5 J	5.0 U
Dibenzofuran	SW8270E	--	--	540	540	--		20.0 U	20.0 U	20.0 U	20.0 U	20.0 U
Fluoranthene	SW8270E	--	--	1700	2500	--		20.0 U	155	20.0 U	2290 J	20.0 U
Fluorene	SW8270E	--	--	540	540	--		20.0 U	20.0 U	20.0 U	25.6	20.0 U
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	600	690	--		20.0 U	27.2	20.0 U	170	20.0 U
Naphthalene	SW8270E	--	--	2100	2100	--		20.0 U	4.8 J	20.0 U	20.0 U	20.0 U
Phenanthrene	SW8270E	--	--	1500	1500	--		20.0 U	59.5	20.0 U	190	20.0 U
Pyrene	SW8270E	--	--	2600	3300	--		20.0 U	202	7.8 J	1750 J	20.0 U
Total HPAH (SMS) (U = 0 max limit)		--	--	12000	17000	--		39.9 U	804 J	7.8 J	8700 J	40.0 U
Total LPAH (SMS) (U = 0 max limit)		--	--	5200	5200	--		20.0 U	80 J	20.0 U	300	20.0 U
PCB Aroclors (mg/kg-OC)												
Aroclor 1016	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1221	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1232	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1242	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1248	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1254	SW8082A	--	--	--	--	--		--	0.30 J	--	--	--
Aroclor 1260	SW8082A	--	--	--	--	--		--	0.19 J	--	--	--
Aroclor 1262	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Aroclor 1268	SW8082A	--	--	--	--	--		--	0.58 U	--	--	--
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		12	65	--	--	--		--	0.49 J	--	--	--
PCB Aroclors (µg/kg)												
Aroclor 1016	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Aroclor 1221	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Aroclor 1232	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Aroclor 1242	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.6 J	4.0 U
Aroclor 1248	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Aroclor 1254	SW8082A	--	--	--	--	--		4.0 U	2.1 J	4.0 U	4.0 UJ	4.0 U
Aroclor 1260	SW8082A	--	--	--	--	--		4.0 U	1.3 J	4.0 U	4.0 UJ	4.0 U
Aroclor 1262	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Aroclor 1268	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 UJ	4.0 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		--	--	130	1000	--		4.0 U	3.4 J	4.0 U	4.6 J	4.0 U

Table 2
Sediment Chemistry Results Summary

							Location ID	WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
							Sample ID	WSM-SG-01-230424	WSM-SG-02-230424	WSM-SG-03-230424	WSM-SG-04-230424	WSM-SG-05-230424
							Sample Date	4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
							Depth	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm	0 - 10 cm
							Sample Type	N	N	N	N	N
							Matrix	SE	SE	SE	SE	SE
							X	1126967	1126903	1126774	1126732	1126562
							Y	601330	601266	601264	601354	601454
		SMS	SMS	AET	AET	DMMP						
		Marine	Marine	Marine	Marine	Bioaccumulation						
Chemical	Method	SCO	CSL	SCO	CSL	Threshold						
Acenaphthylene	SW8270E	--	--	1300	1300	--	19.8 U	20.0 U	20.0 U	12.2 J	26	
Anthracene	SW8270E	--	--	960	960	--	8.4 J	9.8 J	20.0 U	38.3	46.1	
Benzo(a)anthracene	SW8270E	--	--	1300	1600	--	32.7	29.6	8.8 J	137	146	
Benzo(a)pyrene	SW8270E	--	--	1600	1600	--	23.3	21.6	7.3 J	120	102	
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	3200	3600	--	99.4	102	31.9 J	429	460	
Benzo(g,h,i)perylene	SW8270E	--	--	670	720	--	24.2	21.6	20.0 U	104	81.8	
Carbazole	SW8270E	--	--	--	--	--	5.0 J	20.0 U	20.0 U	17.7 J	36.5	
Chrysene	SW8270E	--	--	1400	2800	--	64	84.5	20.6	327	637	
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	230	230	--	9.8 J	7.2 J	2.5 J	41	31.5	
Dibenzofuran	SW8270E	--	--	540	540	--	19.8 U	20.0 U	20.0 U	19.9 U	44	
Fluoranthene	SW8270E	--	--	1700	2500	--	186	149	39.1	364	1420	
Fluorene	SW8270E	--	--	540	540	--	19.8 U	20.0 U	20.0 U	19.9 U	31.1	
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	600	690	--	20.2	19.4 J	20.0 U	101	86.7	
Naphthalene	SW8270E	--	--	2100	2100	--	19.8 U	20.0 U	20.0 U	6.5 J	23.4	
Phenanthrene	SW8270E	--	--	1500	1500	--	57.8	39.5	11.7 J	66.4	469	
Pyrene	SW8270E	--	--	2600	3300	--	128	108	30.1	347	956	
Total HPAH (SMS) (U = 0 max limit)		--	--	12000	17000	--	590 J	540 J	140 J	2000	3900	
Total LPAH (SMS) (U = 0 max limit)		--	--	5200	5200	--	66 J	49 J	11.7 J	120 J	618	
PCB Aroclors (mg/kg-OC)												
Aroclor 1016	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1221	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1232	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1242	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1248	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1254	SW8082A	--	--	--	--	--	--	0.37 J	0.41 U	0.24 J	0.29	
Aroclor 1260	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.16 J	0.28 U	
Aroclor 1262	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Aroclor 1268	SW8082A	--	--	--	--	--	--	0.43 U	0.41 U	0.25 U	0.28 U	
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		12	65	--	--	--	--	0.37 J	0.41 U	0.39 J	0.29	
PCB Aroclors (µg/kg)												
Aroclor 1016	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1221	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1232	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1242	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1248	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1254	SW8082A	--	--	--	--	--	4.0 U	3.4 J	4.0 U	3.7 J	4.1	
Aroclor 1260	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	2.5 J	4.0 U	
Aroclor 1262	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Aroclor 1268	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		--	--	130	1000	--	4.0 U	3.4 J	4.0 U	6.2 J	4.1	

Table 2
Sediment Chemistry Results Summary

		Location ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-230424	WSM-SG-08-230424	WSM-SG-09-230424
		Sample ID					WSM-SG-06-230424	WSM-SG-07-230424	WSM-SG-08-0-1-230424	WSM-SG-08-1-2-230424	WSM-SG-09-0-1-230424
		Sample Date					4/24/2023	4/24/2023	4/24/2023	4/24/2023	4/24/2023
		Depth					0 - 10 cm	0 - 10 cm	0 - 1 ft	1 - 2 ft	0 - 1 ft
		Sample Type					N	N	N	N	N
		Matrix					SE	SE	SE	SE	SE
		X					1126564	1126907	1126961	1126961	1126947
		Y					601250	601530	601476	601476	601668
		SMS	SMS	AET	AET	DMMP					
		Marine	Marine	Marine	Marine	Bioaccumulation					
Chemical	Method	SCO	CSL	SCO	CSL	Threshold					
Acenaphthylene	SW8270E	--	--	1300	1300	--	20.0 U	19.8 U	11.9 J	11.5 J	31.4
Anthracene	SW8270E	--	--	960	960	--	8.3 J	15.1 J	27.8	23.7	67.3 J
Benzo(a)anthracene	SW8270E	--	--	1300	1600	--	40.3	47.8	157	103	594 J
Benzo(a)pyrene	SW8270E	--	--	1600	1600	--	21.5	48.5	90.2	80.4	276 J
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	3200	3600	--	75.2	165	709	366	1530 J
Benzo(g,h,i)perylene	SW8270E	--	--	670	720	--	20.0 U	35.2	156	126	270
Carbazole	SW8270E	--	--	--	--	--	20.0 U	6.9 J	40.2 J	24.9 J	75.8 J
Chrysene	SW8270E	--	--	1400	2800	--	64.7	121	414	158	940 J
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	230	230	--	5.5 J	16.1 J	52	39.8	111
Dibenzofuran	SW8270E	--	--	540	540	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Fluoranthene	SW8270E	--	--	1700	2500	--	48.5	89.7	416	184	1860
Fluorene	SW8270E	--	--	540	540	--	20.0 U	19.8 U	20.0 U	20.7 U	20.0 U
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	600	690	--	20.0 U	38.3	133	105	272
Naphthalene	SW8270E	--	--	2100	2100	--	20.0 U	19.8 U	4.5 J	11.5 J	9.0 J
Phenanthrene	SW8270E	--	--	1500	1500	--	17.9 J	25.4	63	63.7	180
Pyrene	SW8270E	--	--	2600	3300	--	35.5	91.9	323	124	1470 J
Total HPAH (SMS) (U = 0 max limit)		--	--	12000	17000	--	290 J	654 J	2450	1290	7300 J
Total LPAH (SMS) (U = 0 max limit)		--	--	5200	5200	--	26 J	40.5 J	110 J	120 J	290 J
PCB Aroclors (mg/kg-OC)											
Aroclor 1016	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1221	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1232	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1242	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1248	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1254	SW8082A	--	--	--	--	--	0.71 U	0.63	--	--	--
Aroclor 1260	SW8082A	--	--	--	--	--	0.71 U	0.27 J	--	--	--
Aroclor 1262	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Aroclor 1268	SW8082A	--	--	--	--	--	0.71 U	0.60 U	--	--	--
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		12	65	--	--	--	0.71 U	0.90 J	--	--	--
PCB Aroclors (µg/kg)											
Aroclor 1016	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1221	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1232	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1242	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1248	SW8082A	--	--	--	--	--	4.0 U	4.0 U	5.8	48.0 J	2.6 J
Aroclor 1254	SW8082A	--	--	--	--	--	4.0 U	4.2	49.9 J	179 J	4.5
Aroclor 1260	SW8082A	--	--	--	--	--	4.0 U	1.8 J	11.3	31.7 J	2.0 J
Aroclor 1262	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1268	SW8082A	--	--	--	--	--	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		--	--	130	1000	--	4.0 U	6.0 J	67 J	259 J	9.1 J

Table 2
Sediment Chemistry Results Summary

							Location ID	WSM-SG-09-230424	WSM-SG-10-230426	WSM-SG-10-230426	WSM-SG-11-230426	WSM-SG-11-230426
							Sample ID	WSM-SG-09-1-2-230424	WSM-SG-10-0-1-230426	WSM-SG-10-1-2-230426	WSM-SG-11-0-1-230426	WSM-SG-11-1-2-230426
							Sample Date	4/24/2023	4/26/2023	4/26/2023	4/26/2023	4/26/2023
							Depth	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft
							Sample Type	N	N	N	N	N
							Matrix	SE	SE	SE	SE	SE
							X	1126947	1126926	1126926	1126941	1126941
							Y	601668	601483	601483	601428	601428
							SMS Marine	SMS Marine	AET Marine	AET Marine	DMMP Bioaccumulation	
Chemical	Method	SCO	CSL	SCO	CSL	Threshold						
Acenaphthylene	SW8270E	--	--	1300	1300	--		72.3	37.3	38.5	14.9 J	24.2
Anthracene	SW8270E	--	--	960	960	--		190	99	117	43.9	56.3
Benzo(a)anthracene	SW8270E	--	--	1300	1600	--		456	479	1100	214	155
Benzo(a)pyrene	SW8270E	--	--	1600	1600	--		662	599	902	187	272
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	3200	3600	--		2910	1750	2230	635	1010
Benzo(g,h,i)perylene	SW8270E	--	--	670	720	--		510	336	373	94.8	126
Carbazole	SW8270E	--	--	--	--	--		218 J	41.1 J	29.3 J	30.6 J	50.9 J
Chrysene	SW8270E	--	--	1400	2800	--		1700	881	973	516	506
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	230	230	--		215	148 J	185	44.9	58.5
Dibenzofuran	SW8270E	--	--	540	540	--		21.8	20.0 U	19.9 U	20.0 U	19.9 U
Fluoranthene	SW8270E	--	--	1700	2500	--		2460	1250	1750	794	497
Fluorene	SW8270E	--	--	540	540	--		42.4	24.5	27	20.0 U	19.9 U
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	600	690	--		497	347	428	105	139
Naphthalene	SW8270E	--	--	2100	2100	--		16.7 J	9.4 J	8.6 J	4.8 J	8.0 J
Phenanthrene	SW8270E	--	--	1500	1500	--		900	218	129	174	97.2
Pyrene	SW8270E	--	--	2600	3300	--		2790	1970	1700	794	1010
Total HPAH (SMS) (U = 0 max limit)		--	--	12000	17000	--		12000	7760 J	9600	3380	3770
Total LPAH (SMS) (U = 0 max limit)		--	--	5200	5200	--		1200 J	400 J	320 J	240 J	190 J
PCB Aroclors (mg/kg-OC)												
Aroclor 1016	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Aroclor 1221	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Aroclor 1232	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Aroclor 1242	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Aroclor 1248	SW8082A	--	--	--	--	--		1.62	0.47	--	1.69	1.7
Aroclor 1254	SW8082A	--	--	--	--	--		2.9	0.65	--	3.58	2.94
Aroclor 1260	SW8082A	--	--	--	--	--		0.92	0.39 J	--	3.83	1.2
Aroclor 1262	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Aroclor 1268	SW8082A	--	--	--	--	--		0.51 U	0.45 U	--	0.63 U	0.78 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		12	65	--	--	--		5.4	1.5 J	--	9.09	6
PCB Aroclors (µg/kg)												
Aroclor 1016	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1221	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1232	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1242	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1248	SW8082A	--	--	--	--	--		12.6	4.1	3.8 J	10.8	8.8
Aroclor 1254	SW8082A	--	--	--	--	--		22.6	5.7	7.5	22.9	15
Aroclor 1260	SW8082A	--	--	--	--	--		7.2	3.4 J	3.5 J	24.5	6.2
Aroclor 1262	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1268	SW8082A	--	--	--	--	--		4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Total PCB Aroclors (SMS Marine 2019) (U = 0 max limit)		--	--	130	1000	--		42	13 J	15 J	58.2	30

Table 2
Sediment Chemistry Results Summary

Notes:

TOC in range (0.5% - 3.5%)

Detected concentration is greater than SMS Marine SCO

Detected concentration is greater than SMS Marine CSL

TOC out of range

Detected concentration is greater than AET Marine SCO

Detected concentration is greater than AET Marine CSL

Detected concentration is greater than DMMP Bioaccumulation Threshold

OC normalized concentration not calculated due to TOC out of range

Bold: Detected result

µg/kg : micrograms per kilogram

AET: Apparent Effects Threshold

CSL: cleanup screening level

DMMP: Dredge Material Management Program

ft: feet

J: Estimated value

mg/kg-OC : milligrams per kilogram organic carbon normalized

N : normal environmental sample

PAH : polycyclic aromatic hydrocarbons

PCB : polychlorinated biphenyls

pct : percent

R: Rejected

SE : sediment matrix

SCO: sediment cleanup objective

SMS: Sediment Management Standards

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

Totals are calculated as the sum of all detected results (U=0). If all results are not detected, the highest limit value is reported as the sum.

USEPA Stage 2A data validation was completed by Anchor QEA.

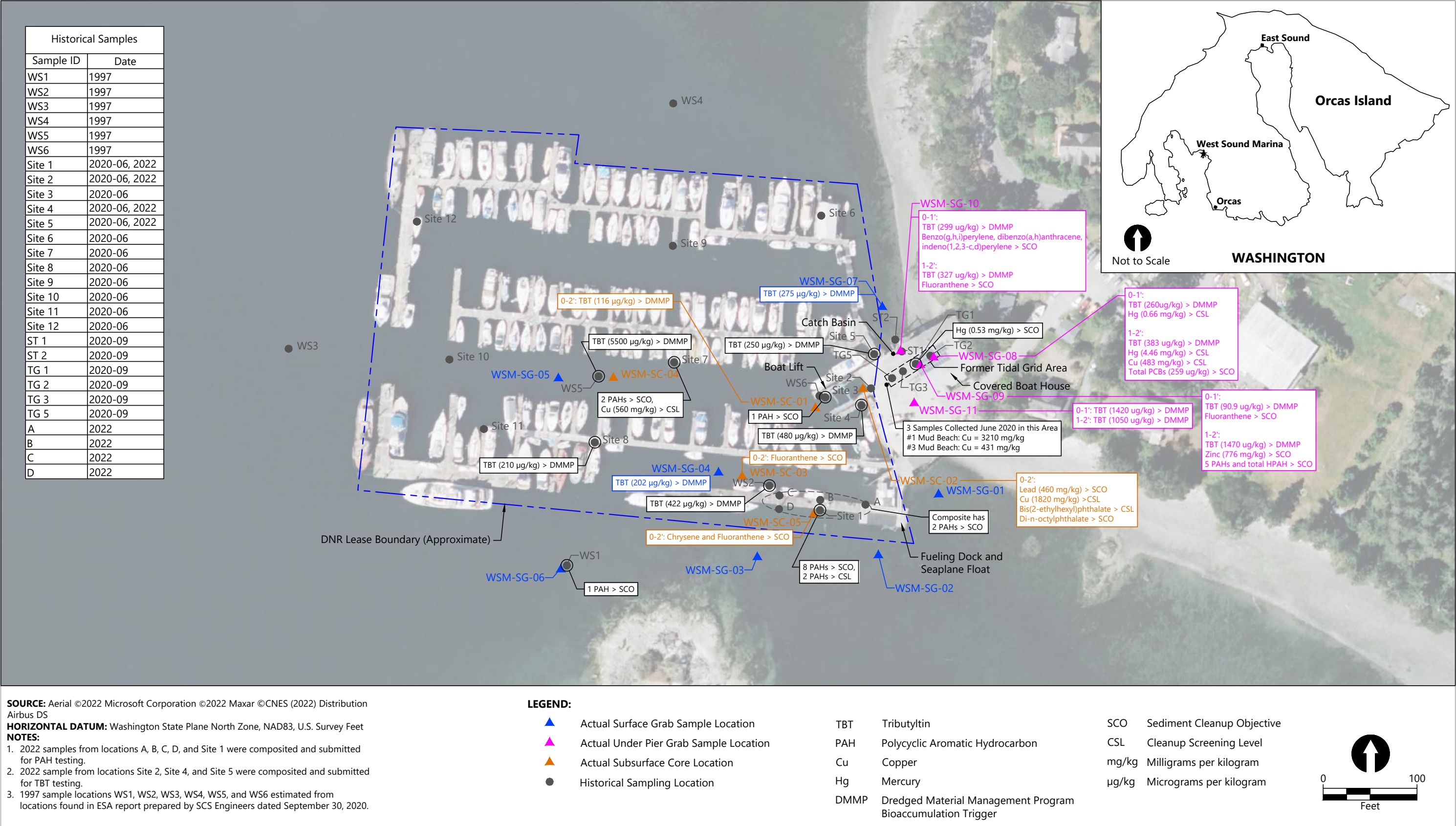
Figures



Publish Date: 2023/07/11 3:19 PM | User: dholmer
Filepath: K:\Projects\2273-North Creek Capital Fund 1, LLC\West Sound Marina Services\2273-RP-002 (SAP Actual & Proposed).dwg Figure 1



Figure 1
Proposed and Actual Locations
Surface and Subsurface Sediment Data Report
West Sound Marina Environmental Investigation



Publish Date: 2023/07/11 3:19 PM | User: dholmer
Filepath: K:\Projects\2273-North Creek Capital Fund 1, LLC\West Sound Marina Services\2273-RP-003 (SAP Exceedances).dwg Figure 2



Figure 2
Sample Locations and Exceedances
Surface and Subsurface Sediment Data Report
West Sound Marina Environmental Investigation



Publish Date: 2023/07/11 3:19 PM | User: dholmer
Filepath: K:\Projects\2273-North Creek Capital Fund 1, LLC\West Sound Marina Services\2273-RP-004 (Above Criteria).dwg Figure 3



Figure 3
Extent of Sediment Concentrations Above Regulatory Criteria
Surface and Subsurface Sediment Data Report
West Sound Marina Environmental Investigation

Appendix A

Field Forms

Notes:



Sediment Core Collection Log

Page 2 of 3

Job: WSM
Job No: _____
Field Staff: HS/LS
Contractor: Gravity
Vertical Datum: _____

Station ID: WSM-SC-01
Attempt No. 2
Date: 4/25/23
Logged By: HS
Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
Lat/Northing: 122°57'26.18

Long/Easting: 118°37'45.44

A. Water Depth

DTM Depth Sounder: N/A
DTM Lead Line: 16.2'

B. Water Level Measurements

Time: _____
Height: _____
Source: _____

C. Mudline Elevation

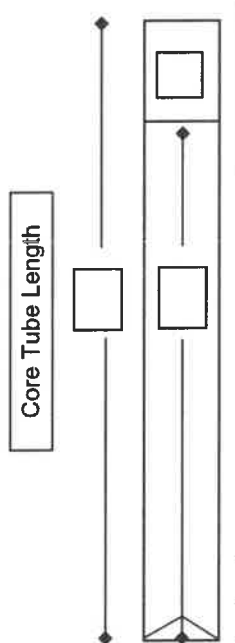
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: ☒ Yes ☐ No
Core Tube Length: 10'
Drive Penetration: 5'
Headspace Measurement: _____
Recovery Measurement: 4'11"
Recovery Percentage: 98
Total Length of Core To Process: _____

Drive Notes:

5' drive to refusal



Sections To Process:

A: _____
B: _____
C: _____
D: _____

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

top foot dark Grey
transitioning to a lighter Grey
Rock in Shoe

Notes:



Sediment Core Collection Log

Page 1 of 1

Job: WSM
Job No: _____
Field Staff: HS/LS
Contractor: Gravity
Vertical Datum: _____

Station ID: WSM-SC-02
Attempt No. Attempt 1
Date: 4/25/23
Logged By: HS
Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
Lat/Northing: 122°57.4296

Long/Easting: 48°37.75

A. Water Depth
DTM Depth Sounder: N/A
DTM Lead Line: 9.1

B. Water Level Measurements
Time: _____
Height: _____
Source: _____

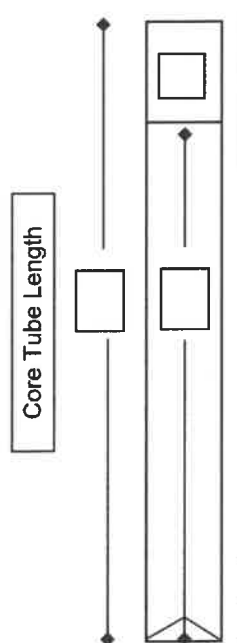
C. Mudline Elevation
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: ☒ Yes ☐ No
Core Tube Length: 10'
Drive Penetration: 8'
Headspace Measurement: 2'
Recovery Measurement: 6'
Recovery Percentage: 75%
Total Length of Core To Process: _____

Drive Notes:

Clay line feeling during drive to 7'
hit hard layer @ 7'; was able
to push past; slow drive from
7-8



Sections To Process:

A: _____
B: _____
C: _____
D: _____

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shore w/ light Gray Gravel / Sand

Notes:



Sediment Core Collection Log

Page 2 of 2

Job: WSM
Job No: _____
Field Staff: HS/LS
Contractor: Gravity
Vertical Datum: _____

Station ID: WSM-SC-03
Attempt No. 2
Date: _____
Logged By: _____
Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
Lat/Northing: 122 57.45

Long/Easting: 48 37 45

A. Water Depth

DTM Depth Sounder: N/A
DTM Lead Line: 13.8

B. Water Level Measurements

Time: _____
Height: _____
Source: _____

C. Mudline Elevation

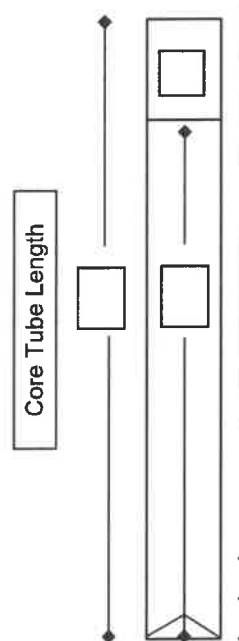
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes ☒ No ☐
Core Tube Length: 10'
Drive Penetration: 6'
Headspace Measurement: _____
Recovery Measurement: 3.45'
Recovery Percentage: 57.5%
Total Length of Core To Process: _____

Drive Notes:

hit refusal @ 6'



Sections To Process:

A: _____
B: _____
C: _____
D: _____

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Silt overlay w/ grey sand to bottom
hit refusal @ 6'

Notes:



Sediment Core Collection Log

Page ___ of ___

Job: WSM
Job No: _____
Field Staff: HS/LS
Contractor: Gravity
Vertical Datum: _____

Station ID: WSM-SC-03
Attempt No. i
Date: 4/25/23
Logged By: HS
Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:

Lat/Northing: _____

Long/Easting: _____

A. Water Depth

DTM Depth Sounder: N/A
DTM Lead Line: 15.3'

B. Water Level Measurements

Time: _____
Height: _____
Source: _____

C. Mudline Elevation

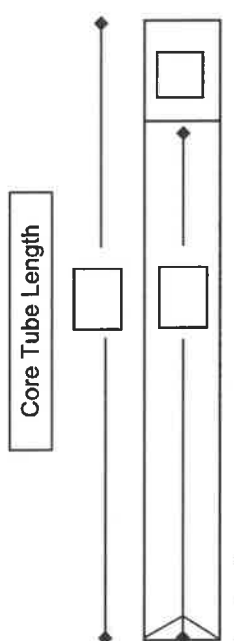
Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No
Core Tube Length: 10
Drive Penetration: 7.6'
Headspace Measurement: _____
Recovery Measurement: 4.16'
Recovery Percentage: 54%
Total Length of Core To Process: _____

Drive Notes:

falling tide -> penetration depth likely to be off



Sections To Process:

A: _____
B: _____
C: _____
D: _____

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Notes:



Sediment Core Collection Log

Page 1 of 1

Job: WSM
Job No:
Field Staff: HS/LS
Contractor: Gravity
Vertical Datum:

Station ID: WSM-SC-05
Attempt No. 1
Date: 4/25/23
Logged By: HS
Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
Lat/Northing: 122 57 26.16

Long/Easting: 483744

A. Water Depth

DTM Depth Sounder: N/A
DTM Lead Line: 7.8

B. Water Level Measurements

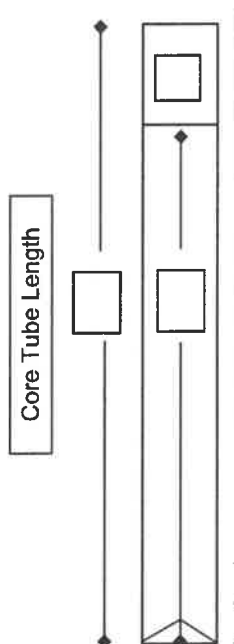
Time:
Height:
Source:

C. Mudline Elevation

Recovery Measurements (prior to cuts)

Core Collection/Recovery Details:

Core Accepted: Yes / No
Core Tube Length: 10'
Drive Penetration: 6'
Headspace Measurement:
Recovery Measurement: 5.7'
Recovery Percentage: 95%
Total Length of Core To Process:



Drive Notes:

refusal @ 6'

Sections To Process:

A:
B:
C:
D:

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

Shale w/ light grey sand silt

Notes:

 ANCHOR
QEA

Station ID: WSM-SC-02

Date/Time: 4/25/2023 13:16

Core Logged By: LS

Attempt #: 1

Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core

Diameter of Core (inches)	3.75"
---------------------------	-------

Notes:

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0	20	20		0 - 3' 10" Loose, wet, black shell hash w/ fine sand and silt, no sheen, mild sulfide odor			WSM-SC-02-0-2-230425	
0	15	40		@ 1' 4" Δ to dark grey, increased silt and decreased shell hash			WSM-SC-02-2-3.8-230425	
0	40	20		@ 2' 5" Δ to frequent clams, increasing sand w/ depth				
50	20	10		3' 10" - 6' stiff, wet, light grey gravel with coarse sand and silt, frequent clams and shell hash, occasional cobbles up to 2.5" long, no sheen, no odor			WSM-SC-02-3.8-6-230425	
VSS 4' 25" / 23								

Sediment Core Processing Log



Job: WSM Due Diligence
 Job No. 202273-01.01
 No. of Sections:
 Drive Length: 9'
 Recovery: 9.5'
 % Recovery: 105%
 Notes:

Station ID: WSM-SC-04
 Date/Time: 4/25/2023 15:00
 Core Logged By: LS
 Attempt #: 1
 Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
 Diameter of Core (inches) 3.75"

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0-3'6"	0	30	70	loose, wet, dark grey clayey sandy silt, few shells, no sheen, no odor increasing shells beginning @ 1'10", coarsens and stiffens with depth, clam shells up to 3" long notable @ 3'5", 3" long	0-3'6"	0	WSM-SC-04-0-2-230425 WSM-SC-04-2-3.5-230425	
3'6"-9'5"	0	20	80	very stiff, moist, light grey clayey silt w/ fine sand, few shell fragments, no sheen, no odor @ 6'9" Δ to interbedded fine sands and silts	3'6"-9'5"	0	WSM-SC-04-3.5-5.5-230425 WSM-SC-04-5.5-7.5-230425 WSM-SC-04-7.5-9.5-230425	

 ANCHOR
QEA

Station ID: WSM-9C-03

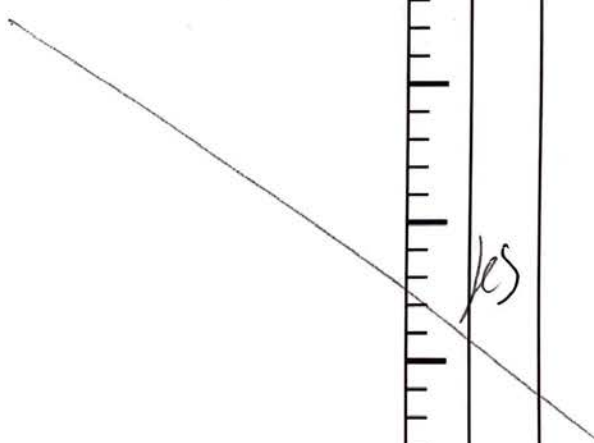
Date/Time: 4/25/24 16:30

Core Logged By: HS

Attempt #: 3

Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core

Diameter of Core (inches)

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0-3.9"	70	30		loose, wet, Grey; Sand (m-d) w/ silt, abundant shell hash whole shell up to 2" no sheen, no odor	0		Sampled 0-2 2-3.9	
10	70	20		@ 1'8" grades to light grey increase to coarser sand with gravel				
				End of core @ 3'9"				
								

Sediment Core Processing Log



Job: WSM
 Job No. _____
 No. of Sections: 1
 Drive Length: 5'
 Recovery: 4.25
 % Recovery: 85%
 Notes: refusal

Station ID: WSM-SC-01
 Date/Time: 4/25/23
 Core Logged By: HS
 Attempt #: 2
 Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core
 Diameter of Core (inches): 2.5 inch

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
		75	25	0-4.25' loose, moist, light Grey Sand (F) w/ silt. no sheen, moderate H₂S odor @ 0-2.5' moderate shells/ shell hash @ 2.5'-4.25' frequent/abundant shells / shell hash up to 4" End of core @ 4.25' <i>HS</i>			Sampled 0-2 2-4 <i>C</i>	

ANCHOR
QEA

Station ID: WSM-SC-08

Date/Time: 4/25/2023 17:20

Core Logged By: *LS*

Attempt #: 1

Type of Core ☐ Mudmole ☒ Vibracore ☐ Diver Core

Diameter of Core (inches)	3.75"
---------------------------	-------

Notes:

Recovered Length (ft)	Size % Gravel	Size % Sand	Size % Fines	Classification and Remarks (Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)	Recovered Length (ft)	PID	Sample	Summary Sketch
0-4' 10"	0	50	30	loose, wet, dark grey/black fine-medium silty sand, frequent shell hash and woody debris, fines downwards, no sheen, mild sulfide odor color Δ to light grey @ 1'	0	WSM-SC-05-0-2-230425	WSM-SC-05-2-4-230425	SS 4/25/23
4' 10" - 5' 8"	0	30	60	stiff, wet, light grey fine sandy silt, occasional shell hash, no sheen, no odor	0	WSM-SC-05-4-5.7-230425		SS 4/25/23

Daily Log



PROJECT NAME: WSM

DATE: 4/24/23

SITE ADDRESS: _____

PERSONNEL: H.S., L.S., Gravity

WEATHER: 50s

WIND FROM:

N	NE	E	SE	S	SW	W	NW
SUNNY		CLOUDY		RAIN			?

LIGHT MEDIUM HEAVY

TEMPERATURE: °F °C

(Circle appropriate units)

TIME	COMMENTS
7:30	Arrive @ Site
7:45	Health + Safety meeting
8:00	mobilize to SG-03
8:12	Attempt 1 SG-03 ACCEPTED
8:40	mobilize to SG-01
8:50	Attempt 1 SG-01 (9cm) REJECTED
8:58	Attempt 2 SG-01 (8cm) ↓
9:03	Attempt 3 SG-01 (14cm) ACCEPTED
9:25	mobilize to SG-07
9:34	Attempt 1 SG-07 ACCEPTED(1)
9:55	mobilize to SG-02
10:01	Attempt 1 SG-02 ACCEPTED
10:20	mobilize to SG-04
10:38	Attempt 1 SG-04 ACCEPTED
11:00	mobilize to SG-05
11:12	Attempt 1 SG-05 ACCEPTED
11:30	mobilize to SG-06
12:31	Attempt 1 SG-06 REJECTED
12:36	Attempt 2 SG-06 ACCEPTED
12:50	transitioning to under pier samples
14:15	mobilization to under pier samples
14:50	Sample SG-08 ⁹ Under pier 0-1 ft
	located 6 piling down 5 pilings in
	35 ft from wall 42 feet from base of pier
15:30	Sampling SG-08 ⁹ Under pier 1-2 ft
15:50	Sampling SG-08 ⁸ Under pier 0-1 16 ft
	land word of SG-08
16:15	Sampling SG-08 ⁸ 1-2 ft
16:45	Demobilized

Signature: _____

Daily Log



PROJECT NAME: WSM

DATE: 4/25/23

SITE ADDRESS:

PERSONNEL: HS/LS

WEATHER:

WIND FROM:

N	NE	E	SE	S	SW	W	NW
SUNNY		CLOUDY		RAIN			?

LIGHT

MEDIUM

HEAVY

TEMPERATURE: °F °C

(Circle appropriate units)

TIME	COMMENTS
7:30	Arrive on site
7:45	Health + Safety meeting
8:00	mobilization to SC-02 01
8:23	Started Vibe
8:34	Vibe Ended
8:40	8 foot drive → 645% recovery of 5'2"
8:45	moved 10ft, Second Attempt SC-01
8:48	Started Vibe
9:03	5' drive hit refusal → 98% recovery of 4' 11" ACCEPTED
9:20	mobilization to SC-02
9:34	Started Vibe
10:00	Vibe Ended → 8 foot drive → 75% recovery of 6' ACCEPTED
10:10	mobilization to SC-04
10:30	Started Vibe
11:00	End Vibe → 9 foot drive → ~105% recovery ~9.5' ACCEPTED
11:10	mobilization to SC-03
11:25	Started Vibe
11:50	End Vibe → 7.6' drive → 50% recovery of 3.9' 4.16'
12:00	Processing SC-01
12:30	Started Vibe attempt 2
12:50	End Vibe → 6' 54% recovery
13:16	Processing SC-02
13:35	Started Vibe Attempt 3
13:55	End Vibe → 6' drive → 65% recovery of 3.9' ACCEPTED
14:00	mobilization to SC-05
14:15	Started Vibe Attempt 1 - ACCEPTED
14:40	End Vibe → ACCEPTED 95% recovery
15:00	Processing SC-04
16:30	Processing SC-03

Signature:

[Handwritten Signature]

1 of 2

Daily Log



PROJECT NAME: WSM

DATE: 4/25/23

SITE ADDRESS: _____

PERSONNEL: HS/LS

WEATHER:

WIND FROM:

N	NE	E	SE	S	SW	W	NW
SUNNY	CLOUDY	RAIN					?

LIGHT

MEDIUM

HEAVY

TEMPERATURE: °F . °C

[Circle appropriate units]

TIME

COMMENTS

17:20

processing SC-05

18:00

End processing packing up site

18:30

bleach from site

Signature: _____

2 of 2

Daily Log



PROJECT NAME: USM

DATE: 4/26/23

SITE ADDRESS:

PERSONNEL: H&LS

WEATHER:**WIND FROM:**

N	NE	E	SE	S	SW	W	NW
SUNNY		CLOUDY		RAIN		?	

LIGHT	MEDIUM	HEAVY
-------	--------	-------

TEMPERATURE: °F °C

[Circle appropriate units]

TIME	COMMENTS
11:15	arrive on site
11:30	Health + Safety meeting
11:45	Check tides
12:00	re-package coolers
13:00	checking tides
14:30	Mobilization to SG-11
14:45	Sample 0-1 SG-11 → 11ft from corner of substructure
15:15	Sampled 1-2 SG-11 6 piling up from water
15:45	Sampled 0-1 SG-10 → between 2+3rd piling from
16:20	Sampled 1-2 SG-10 face of pier
16:50	Wrapped up sampling 3 piles up from the rampway
	gathering gear for demobilization from site
17:00	demobilize from site

Signature:

$$5 \times 4 = 20$$

Surface Sediment Collection Log

Job: WSM

Station: SG-01

Job No:

Date: 4/24/23

Field Staff: HSILS

Sample Method: Grab

Contractor: Gravity

Proposed Coordinates: Lat.

Long.

Water Height

DTM Depth Sounder: N/A

Tide Measurements

Time: -

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

DTM Lead Line: 7.7'

Height: -

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	8:50	48 3744.56	122 5724.11	<u>N</u>	9cm	
2	8:58	48 3744.6	122 5744.04	<u>N</u>	8cm	
3	9:03	48 3744	12 5724.14	<u>Y</u>	14cm	<u>Jaws close good seal overlying</u>

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

moist, loose, Grey brown, Sand w/ silt, fine grain, few-moderate shell fragments, few biota (worms), few gravel

Sample Depth: 10cm

Sample Containers: 16oz x 3 ; 8oz x 1 ; Grain Size

Analyses: see ccc

Surface Sediment Collection Log

Job: WSM Station: SG-02
 Job No: _____ Date: 4/24/23
 Field Staff: HS/LS Sample Method: Grab
 Contractor: Gravity Proposed Coordinates: Lat. _____ Long. _____

Water Height _____ Tide Measurements _____
 DTM Depth Sounder: N/A Time: -
 DTM Lead Line: 9.3' Height: -
 Sample Acceptability Criteria:
 1) Overlying water is present
 2) Water has low turbidity
 3) Sampler is not overfilled
 4) Surface is flat
 5) Desired penetration depth

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	10:01	483743.9	1225722.11	Y	16cm	Jaws close water overfill

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Vegetation overlay w/ silt brown, moist, loose, silt w/ fine sand, few shells, few gravel, moderate H₂S like odor, no green, few biota (worms, fish), semi angular cobble-fan

Sample Depth: 0-10cm

Sample Containers: 16oz XB x8oz x1, Grain size

Analyses: See coc

Surface Sediment Collection Log

Job: WSM

Station: SG-03

Job No:

Date: 4/29/23

Field Staff: HS/LS

Sample Method: Grab

Contractor: Gravity

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

DTM Depth Sounder: N/A

Time:

DTM Lead Line: 12.3

Height:

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	8:13	122 5727.03	48.3743 8	Y	18 cm	Jaws closed overlying water surface intact, good seal

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet Brown Silt w/ Sand, 100% Seaweed overlying, few shells
 no odor no sheen, few biota (worms)
 light H₂S odor
 @ 7cm Sand layer, loose, medium coarse

Sample Depth: 10 cm

Sample Containers: 16oz x3 8oz x1

Analyses: See CDC

Surface Sediment Collection Log

Job: WSM

Station: SG-04

Job No:

Date: 4/24/23

Field Staff: HS/LS

Sample Method:

Contractor: Gravity

Proposed Coordinates: Lat.

Long.

Water Height

DTM Depth Sounder: N/A

Tide Measurements

Time: -

DTM Lead Line: 17.7

Height: -

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
<u>1</u>	<u>10:38</u>	<u>483744.74</u>	<u>1225727.68</u>	<u>Y</u>	<u>20cm</u>	<u>Jaws close, good seal, water overlying</u>

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Moist, loose, brown, silt w/ sand (fine 12cm); Grey fine sand, abundant shells on surface, few twigs, no biota, no slight to moderate H₂S odor

Sample Depth: 10cm

Sample Containers: 16oz x3, 8oz x1, Grain Size

Analyses: See COC

Surface Sediment Collection Log

Job: NSM

Station: SG-05

Job No:

Date: 4/24/23

Field Staff: HS/LS

Sample Method:

Contractor:

Proposed Coordinates: Lat.

Long.

Water Height

DTM Depth Sounder:

N/A

Tide Measurements

Time:

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

DTM Lead Line:

20.9'

Height:

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	1112	483745.88	1225730.26	Y	23cm	Jaws closed Good seal Overlying water

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

moist, loose, Brown Grey Silt w/ Fine Sand, few shells
no sheen, slight H₂S odor, authogenic debris (maxen
JCS)

Sample Depth: 10cm

Sample Containers: 1002 x3; 802 x1, Grainsize

Analyses: See COC

Surface Sediment Collection Log

Job: WSM Station: SG-06
 Job No: _____ Date: 4/24/23
 Field Staff: HSILS Sample Method: _____
 Contractor: Gravity Proposed Coordinates: Lat. _____

Water Height _____ Tide Measurements _____ Long. _____
 DTM Depth Sounder: 12.31 Time: -
 DTM Lead Line: _____ Height: -
 Sample Acceptability Criteria:
 1) Overlying water is present
 2) Water has low turbidity
 3) Sampler is not overfilled
 4) Surface is flat
 5) Desired penetration depth

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	12:31	483743.7	1225730.709	N	10cm	Rocks in Jaw
2	12:36	483743.6	1225730.14	Y	17cm	Jaws Closed

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Moist, loose Grey brown, silt w/ Sand (F), few gravel, abundant shell hash, no biota, no sheen, slight H₂S odor

Sample Depth: 0-10cm

Sample Containers: 16oz x3, 8oz x1, Grain size

Analyses: See COC

Surface Sediment Collection Log

Job: WSM

Station: SG-07

Job No:

Date: 4/24/23

Field Staff: HS/LS

Sample Method: Grab

Contractor: Gravity

Proposed Coordinates: Lat.

Long.

Water Height

DTM Depth Sounder: N/A

Tide Measurements

Time: —

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

DTM Lead Line:

Height: —

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	934	48 3746	122 57 25.163	Y	15cm	Jaws close

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Silt overlay, moist, brown, Sand w/ Silt (fine), few shells, slight H₂S odor, no sheen

Sample Depth: 10cm

Sample Containers: 16oz x 3, 8oz, Grain Size

Analyses: See CEC

Surface Sediment Collection Log

Job: WSM

Station: SG-08 B-1

Job No:

Date: 4/24/23

Field Staff: HS/LS

Sample Method: Hand/Dig

Contractor: ~

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder: _____

Time: _____

1) Overlying water is present

DTM Lead Line: _____

Height: _____

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	15:30	HS				
	15:45					
0-1 ft.	15:50					

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet, loose, Dark Grey, Shell hash w/ med-course Sand
frequent Gravel, no sheen, slight +125 odor.

Sample Depth: 0-1 ft

Sample Containers: 16oz x3, 8oz, Grain size

Analyses: See COC

Surface Sediment Collection Log

Job: WSM

Station: SG-08 01-02

Job No:

Date: 4/24/23

Field Staff: HS/LS

Sample Method: hand dig

Contractor:

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder:

Time:

1) Overlying water is present

DTM Lead Line:

Height:

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1	15:30 ¹⁵ 15:30 16:15					
	15:30					
0-1 ft		1-2 ft	16:15			

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

wet/saturated, Dark Grey, Shell hash w/ med-coarse sand, frequent gravel, 10 cm cobble, no odor, no sheen, biota - clam zindus

Sample Depth: 1-2 ft

Sample Containers: 16oz x3, 8oz, Grain Size

Analyses: See COC

Surface Sediment Collection Log

Job: WSM

Station: SG-09-01

Job No:

Date: 4/24/23

Field Staff: LSHS

Sample Method: hand Dig

Contractor: N/A

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder:

Time:

1) Overlying water is present

DTM Lead Line:

Height:

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
	15:50					
0-1 foot	14:50					

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet, loose, Grey, Sand w/ shell hash, frequent Gravel, frequent clams, moderate pockets of Red/brown material, no odor, no Sheen

Sample Depth: 0-1 ft

Sample Containers:

1602 x3

802

grain size

Analyses:

see COC

Surface Sediment Collection Log

Job: WSM

Station: SG-09-1-2

Job No:

Date: 4/24/23

Field Staff: SLAS

Sample Method: Hand dig

Contractor: N/A

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder:

Time:

1) Overlying water is present

DTM Lead Line:

Height:

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes:

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
	16:15					
0-2 foot	15:30					

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet, loose Grey sand w/ abundant shell hash and Gravel, moderate Clams (w/ inch), few organic (root) (subround) Lichen no sheen, no odor

Sample Depth:

1-2 ft

Sample Containers:

16oz x 3

8oz

9 grain size

Analyses:

See COC

Surface Sediment Collection Log

Job: WSM

Station: SG-10 0-1

Job No:

Date: 4/20/23

Field Staff: LS/GAS

Sample Method: hand dig

Contractor: N/A

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder: _____

Time: _____

1) Overlying water is present

DTM Lead Line: _____

Height: _____

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
0-1 foot	15:45					

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet

Dark Grey loose, Silty Sand (fine sand, frequent shelled biota, few Gravel abundant, clam biota, few worm biota, moderate H₂S, no Sheen

Sample Depth: 01 ft

Sample Containers: 100L x 3, 80L 1 grain size

Analyses: See COC

Surface Sediment Collection Log

Job: WSM Station: SG-10 1-2
 Job No: Date: 4/26/23
 Field Staff: LSH Sample Method: Dig
 Contractor: N/A Proposed Coordinates: Lat.

Long.

Water Height
 DTM Depth Sounder: _____

Tide Measurements

Time: _____

DTM Lead Line: _____

Height: _____

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1-2 foot	16:20					

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet/Saturated, loose, dark grey, Silty Sand w/
 Gravel, abundant shell hash, abundant biota (clam)
 Cobble on bottom of sample, no green, moderate
 H₂S odor

Sample Depth: 1-2 ft

Sample Containers: 16oz x 3, 8oz, grainsize

Analyses: see CCG

Surface Sediment Collection Log

Job: WSM Station: SG-11 0-1
 Job No: _____ Date: 2/26/23
 Field Staff: HS/LS Sample Method: _____
 Contractor: NA Proposed Coordinates: Lat. _____
 Long. _____

Water Height _____
 DTM Depth Sounder: _____

Tide Measurements

Time: _____

Height: _____

Sample Acceptability Criteria:

- 1) Overlying water is present
- 2) Water has low turbidity
- 3) Sampler is not overfilled
- 4) Surface is flat
- 5) Desired penetration depth

DTM Lead Line: _____

↓ Mudline Elevation (datum): calculated after sampling

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
0-1	14:45					

Sample Description: MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

Wet loose, dark grey, silty sand, sand (F)
frequent shell hash, occasional biota (clams, worms)
no sheen, no odor

Sample Depth: 0-1 ft

Sample Containers: 16 oz. AS, 8 oz. grain size

Analyses: see coc

Surface Sediment Collection Log

Job: WISOM

Station: SG-11 1-2

Job No:

Date: 11/26/23

Field Staff: HSL/LS

Sample Method:

Contractor: N/A

Proposed Coordinates: Lat.

Long.

Water Height

Tide Measurements

Sample Acceptability Criteria:

DTM Depth Sounder: _____

Time: _____

1) Overlying water is present

DTM Lead Line: _____

Height: _____

2) Water has low turbidity

3) Sampler is not overfilled

4) Surface is flat

5) Desired penetration depth

↓ Mudline Elevation (datum): calculated after sampling

Notes: _____

Grab #	Time	Confirmed Coordinates (datum)		Sample Accept (Y/N)	Recovery Depth (in)	Comments: jaws close, good seal, winnowing, overlying water, surface intact, etc
		NAD 83 (N)	NAD 83 (E)			
1-2	15:18					

Sample Description:

MAJOR CONSTITUENT GROUP NAME. Moisture content, density/consistency, color, major constituent (%), minor constituents (%), plasticity. Amount and shape of minor constituents (e.g., wood, shells). Biota. Sheen, odor. Structure descriptions

well saturated, loose dark grey, silty sand, sand (F)
frequent shell hash, abundant gravel, few cobble ~ 1 inch
few biota (clams)

Sample Depth: 1-2 ft

Sample Containers: 16 oz x 3, 802, Geminare

Analyses: see COC

Submit a Playing It Safe Event

Project Manager: TS

☐ Emergency Procedures and Evacuation Route	☐ Lines of Authority	☐ Lifting Techniques
☐ Directions to Hospital	☐ Communication	☒ Slips, Trips, and Falls
☐ HASP Review and Location	☐ Site Security	☐ Hazard Exposure Routes
☐ Safety Equipment Location	☒ Vessel Safety Protocols	☐ Heat and Cold Stress
☐ Proper Safety Equipment Use	☐ Work Zones	☐ Overhead and Underfoot Hazards
☐ Employee Right-to-Know/ SDS Location	☐ Vehicle Safety and Driving/ Road Conditions	☐ Chemical Hazards
☒ Fire Extinguisher Location	☐ Equipment Safety and Operation	☐ Flammable Hazards
☒ Eye Wash Station Location	☐ Proper Use of PPE	☐ Biological Hazards
☐ Buddy System	☐ Decontamination Procedures	☐ Eating/Drinking/Smoking
☐ Self and Coworker Monitoring	☐ Near Miss Reporting Procedures	☐ Reviewed Prior Lessons Learned
☐ Field Team Medical Conditions for Emergency Purposes (Confidential):		

☐ Other.

Safety Comments: marina phone
out in the bay if we
need cell service

H. Sharkey	
lexus Sullivan	
John Schaefer	
Kyle Sanders	

End of Day Wellness Check

Submit a Playing It Safe Event

WSM

Project Manager:

- ☒ Lifting Techniques
- ☒ Slips, Trips, and Falls
- ☐ Hazard Exposure Routes
- ☒ Heat and Cold Stress
- ☐ Overhead and Underfoot Hazards
- ☐ Chemical Hazards
- ☐ Flammable Hazards
- ☐ Biological Hazards
- ☒ Eating/Drinking/Smoking
- ☐ Reviewed Prior Lessons Learned

☐ Other:

Safety Comments: Wakes: Core

End of Day Wellness Check

Daily Safety Briefing Form



Date: 4/26/23
Project No: _____
Project Name: WSM

Submit a
Playing It
Safe Event

Person Conducting Meeting: HS Health & Safety Officer: TS Project Manager: TS

TOPICS COVERED: Highlighted topics are required

- | | | |
|---|--|---|
| ☒ Emergency Procedures and Evacuation Route | ☒ Lines of Authority | ☒ Lifting Techniques |
| ☒ Directions to Hospital | ☒ Communication | ☒ Slips, Trips, and Falls |
| ☒ HASP Review and Location | ☒ Site Security | ☐ Hazard Exposure Routes |
| ☐ Safety Equipment Location | ☐ Vessel Safety Protocols | ☒ Heat and Cold Stress |
| ☐ Proper Safety Equipment Use | ☒ Work Zones | ☐ Overhead and Underfoot Hazards |
| ☐ Employee Right-to-Know/ SDS Location | ☐ Vehicle Safety and Driving/ Road Conditions | ☐ Chemical Hazards |
| ☐ Fire Extinguisher Location | ☐ Equipment Safety and Operation | ☐ Flammable Hazards |
| ☐ Eye Wash Station Location | ☒ Proper Use of PPE | ☐ Biological Hazards |
| ☐ Buddy System | ☒ Decontamination Procedures | ☒ Eating/Drinking/Smoking |
| ☒ Self and Coworker Monitoring | ☐ Near Miss Reporting Procedures | ☐ Reviewed Prior Lessons Learned |
| ☐ Field Team Medical Conditions for Emergency Purposes (Confidential): _____ | | |

☐ Other: _____

Weather Conditions: Cloudy ; possible rain

Daily Work Scope: under pier

Site-specific Hazards: tides, water slips + trips

Safety Comments: Slack rocks due to rain

Attendees

Printed Name

Signature

H. Sharkey
Lexis Sullivan

[Signature]
[Signature]

End of Day Wellness Check

Appendix B

Field Photos

WSM-SG-01, 0-10 cm, grab, 4/24/2023



WSM-SG-02, 0-10 cm, grab, 4/24/2023



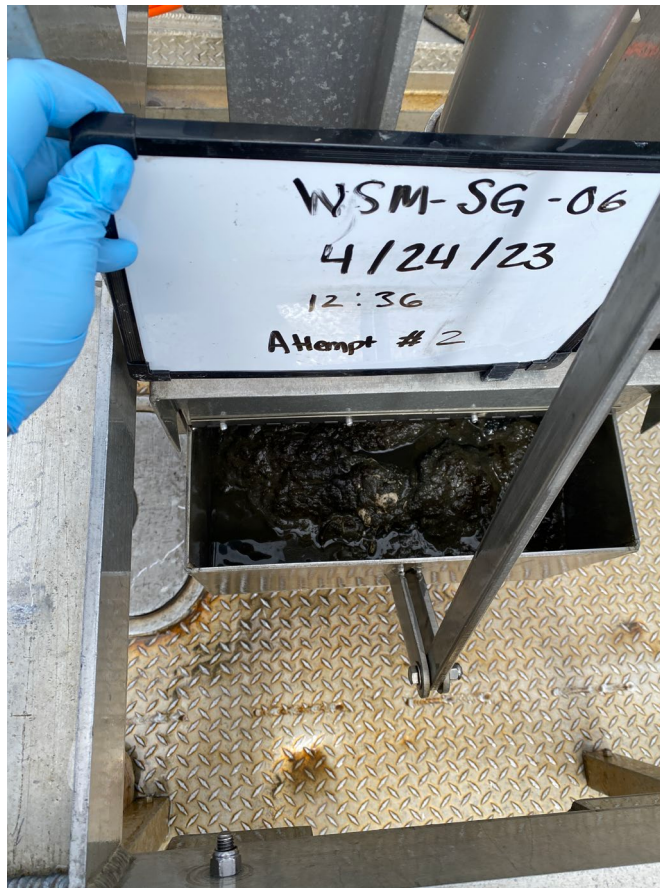
WSM-SG-03, 0-10 cm, grab, 4/24/2023



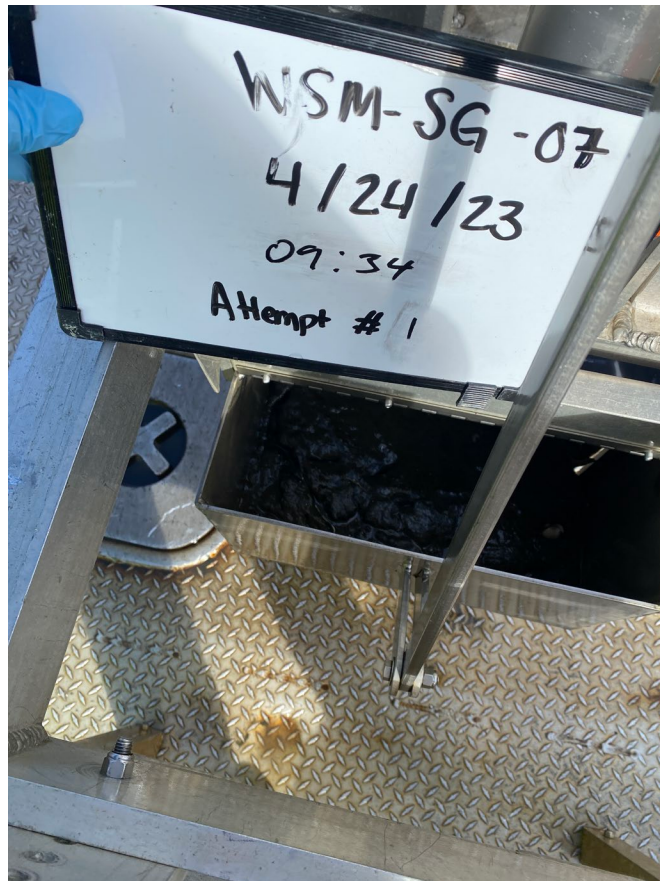
WSM-SG-05, 0-10 cm, grab, 4/24/2023



WSM-SG-06, 0-10 cm, grab, 4/24/2023



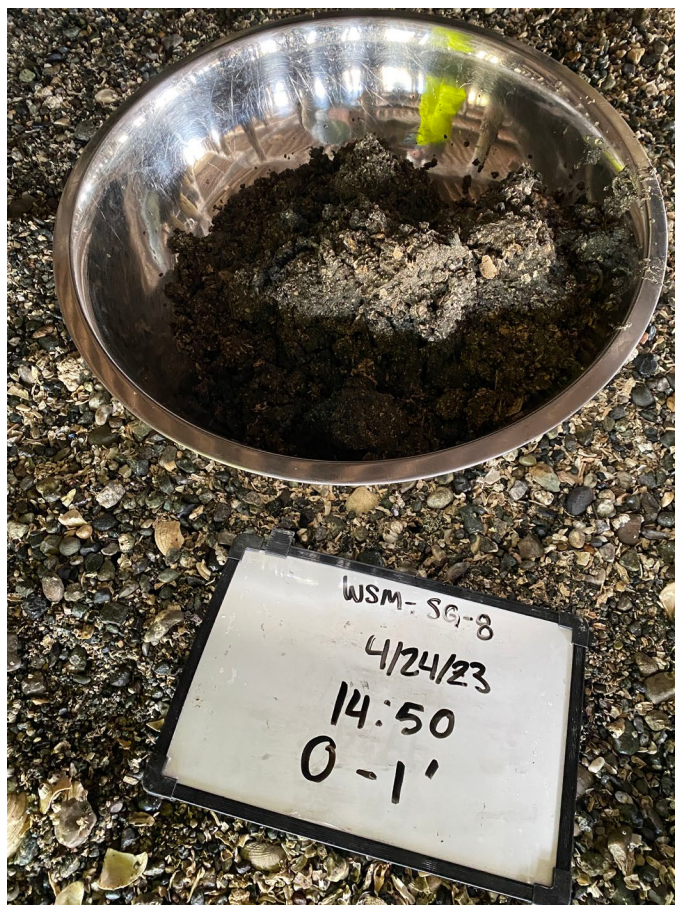
WSM-SG-07, 0-10 cm, grab, 4/24/2023



WSM-SG-08, 0-1 ft, underpier grab, 4/24/2023 (marked SG-09 in field)



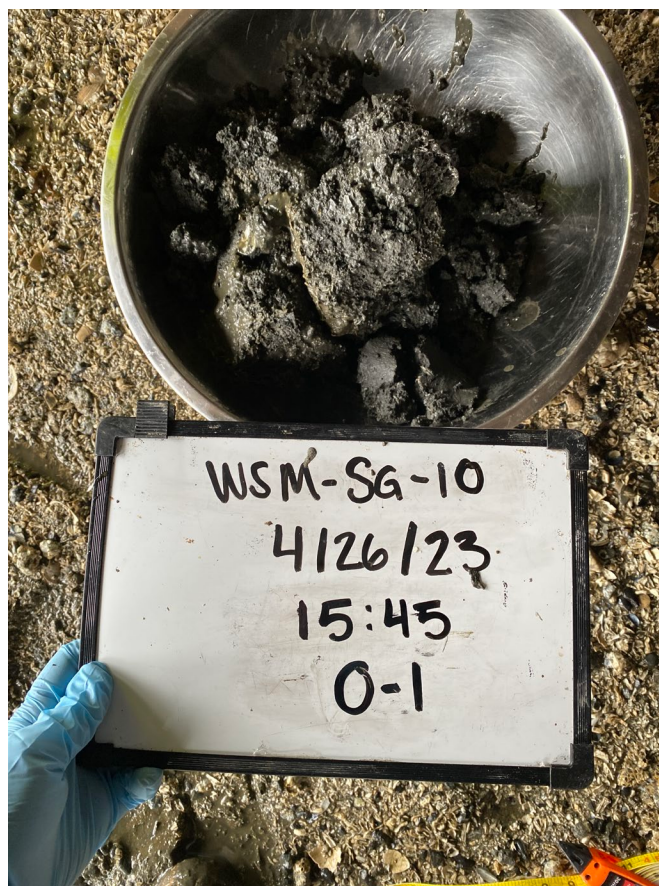
WSM-SG-09, 0-1 ft, underpier grab, 4/24/2023 (marked SG-08 in field)



WSM-SG-09, 1-2 ft, underpier grab, 4/24/2023 (marked as SG-08 in field)



WSM-SG-10, 0-1 ft, underpier grab, 4/26/2023



WSM-SG-11, 0-1 ft, underpier grab, 4/26/2023



WSM-SG-11, 1-2 ft, underpier grab, 4/26/2023



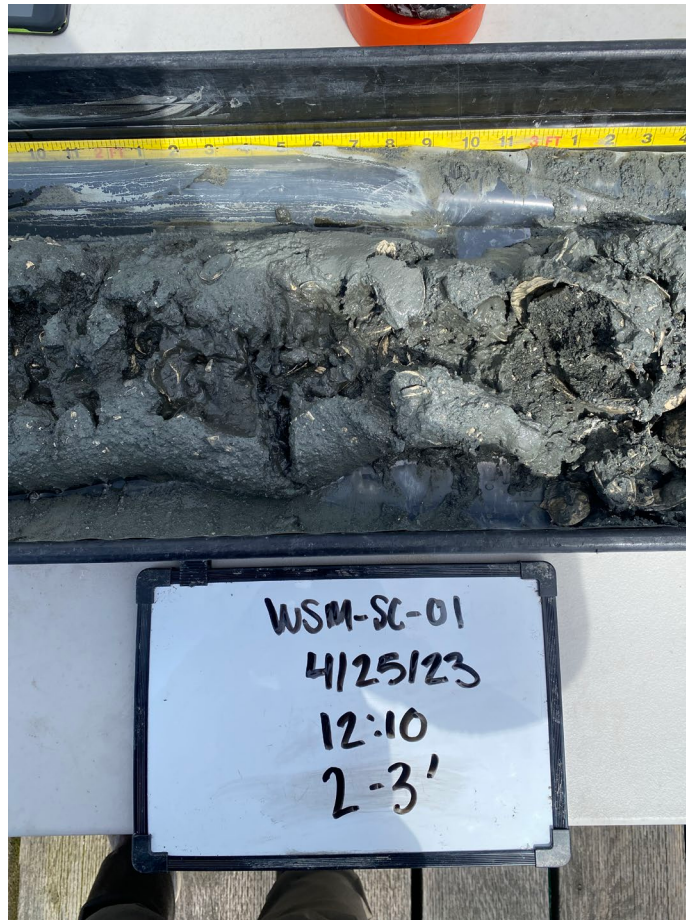
WSM-SC-01, 0-1 ft, 4/25/2023



WSM-SC-01, 1-2 ft, 4/25/2023



WSM-SC-01, 2-3 ft, 4/25/2023



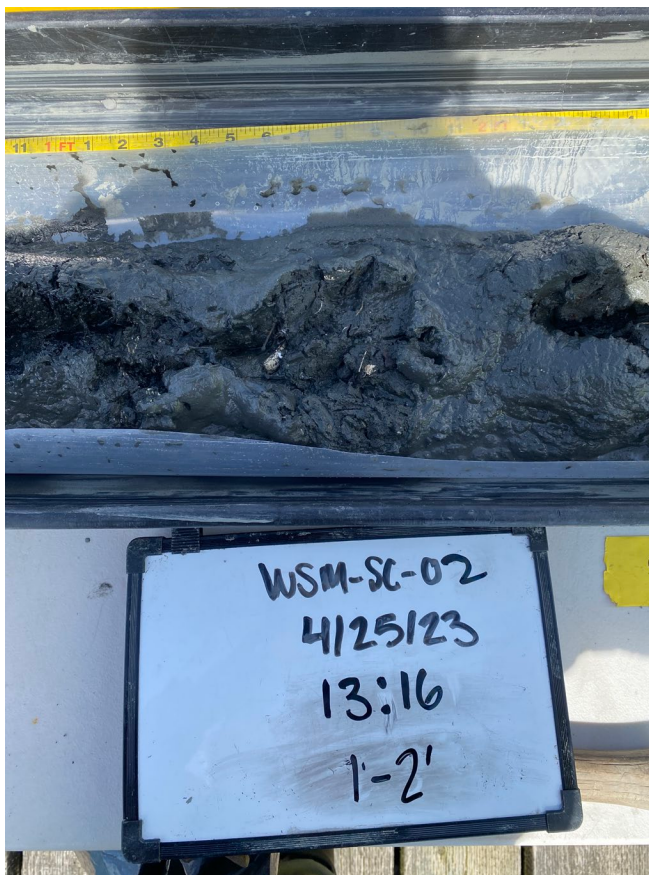
WSM-SC-01, 3-4 ft 3in, 4/25/2023



WSM-SC-02, 0-1 ft, 4/25/2023



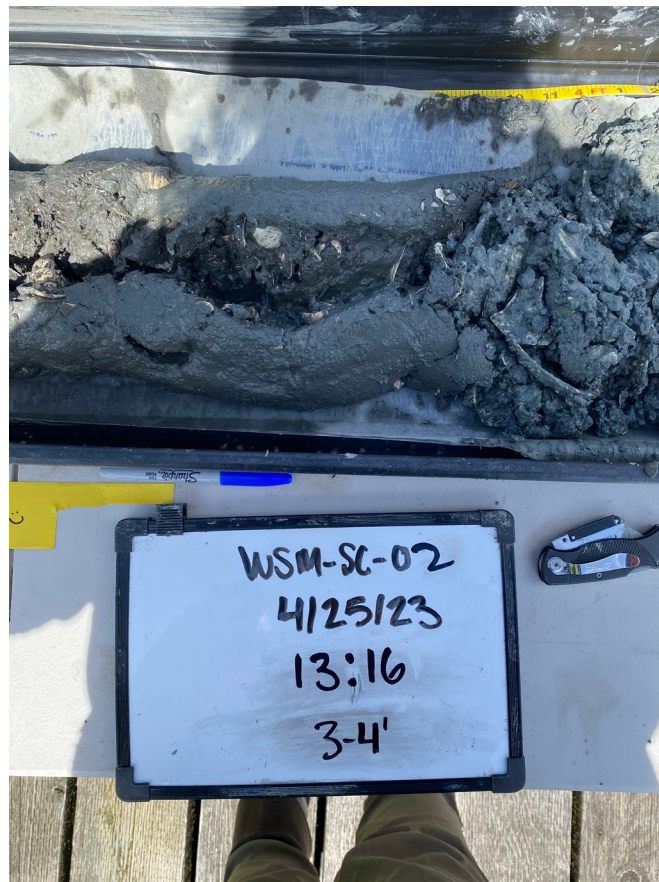
WSM-SC-02, 1-2 ft, 4/25/2023



WSM-SC-02, 2-3 ft, 4/25/2023



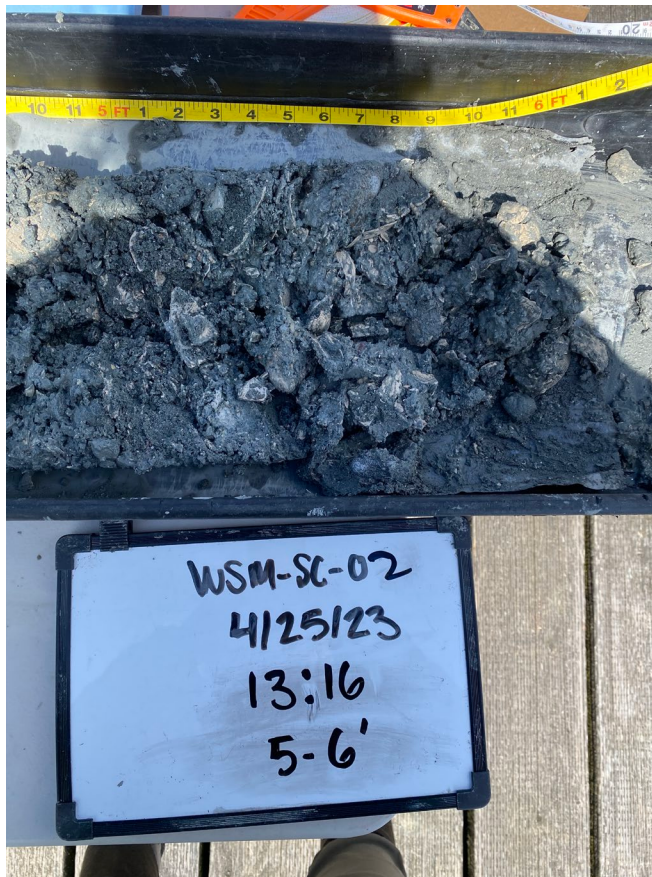
WSM-SC-02, 3-4 ft, 4/25/2023



WSM-SC-02, 4-5 ft, 4/25/2023



WSM-SC-02, 5-6 ft, 4/25/2023



WSM-SC-03, 0-1 ft, 4/25/2023



WSM-SC-03, 1-2 ft, 4/25/2023



WSM-SC-03, 2-3 ft, 4/25/2023



WSM-SC-03, 3-3 ft 9 in, 4/25/2023



WSM-SC-04, 0-1 ft, 4/25/2023



WSM-SC-04, 1-2 ft, 4/25/2023



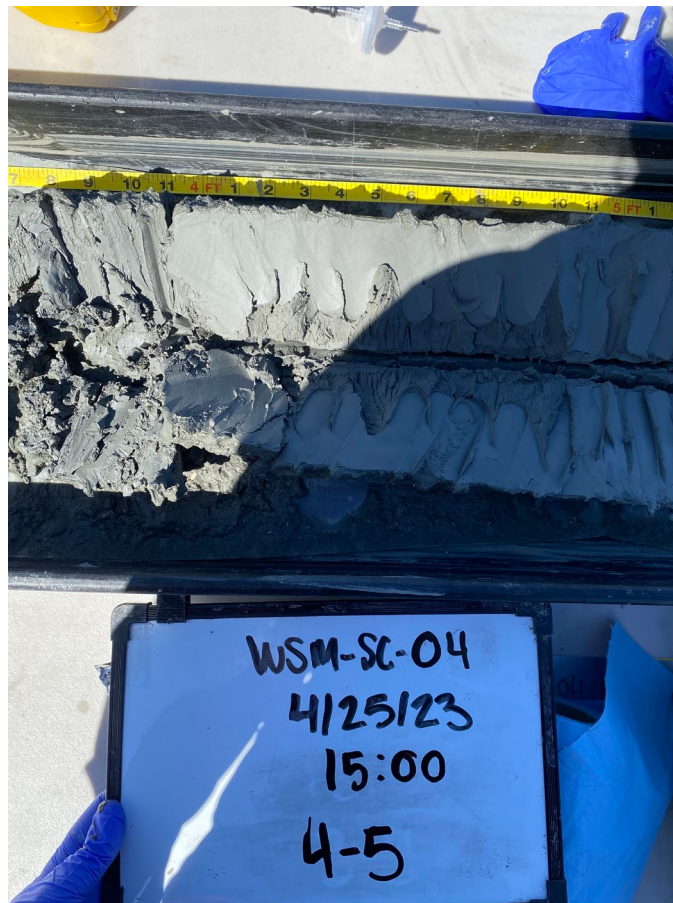
WSM-SC-04, 2-3 ft, 4/25/2023



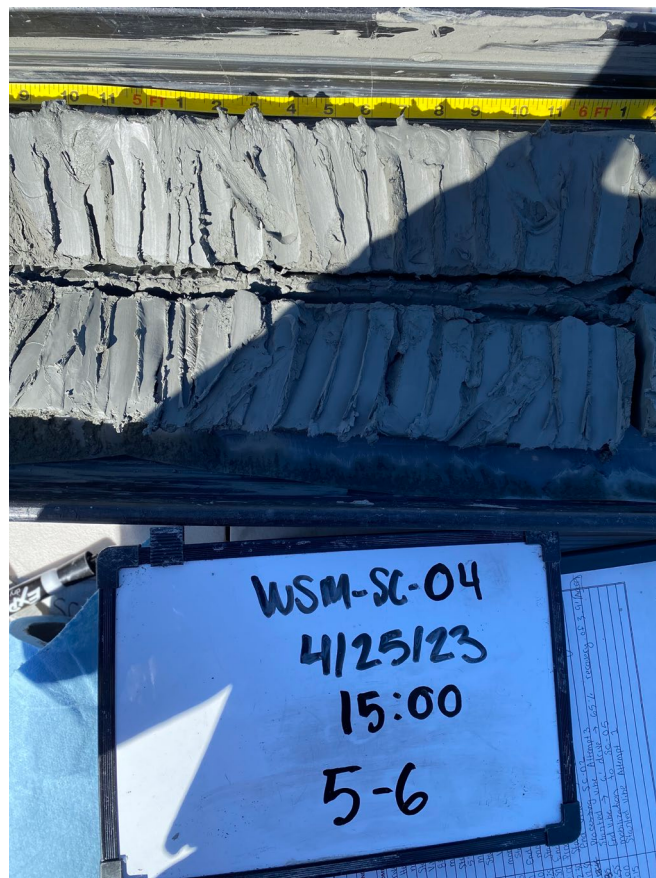
WSM-SC-04, 3-4 ft, 4/25/2023



WSM-SC-04, 4-5 ft, 4/25/2023



WSM-SC-04, 5-6 ft, 4/25/2023



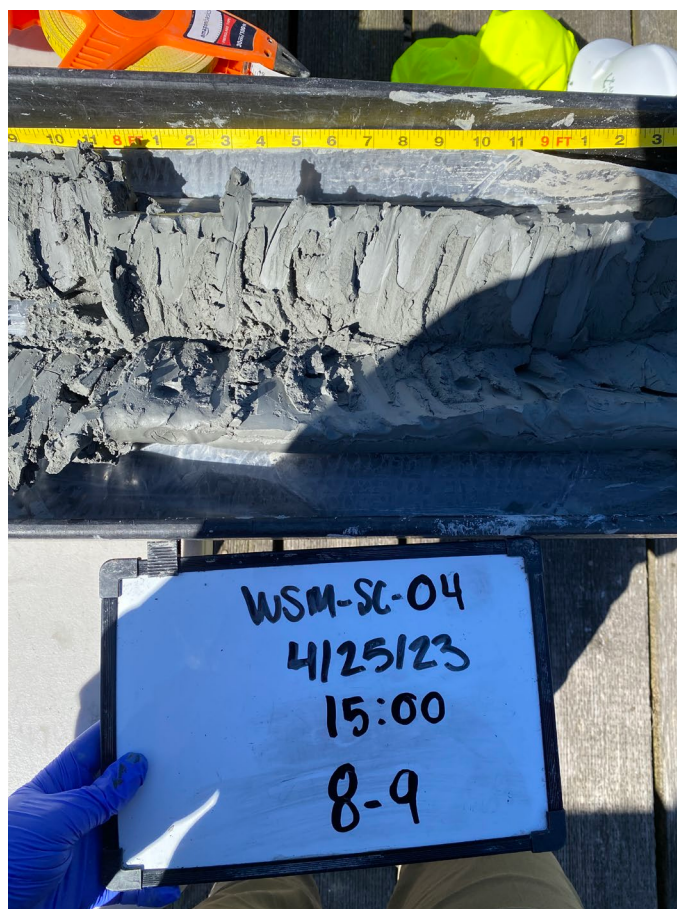
WSM-SC-04, 6-7 ft, 4/25/2023



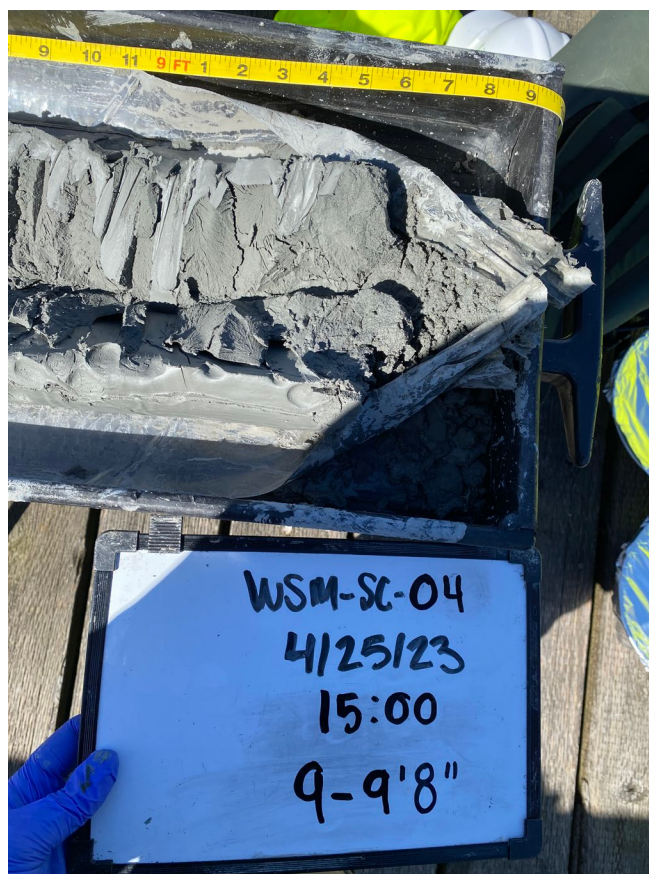
WSM-SC-04, 7-8 ft, 4/25/2023



WSM-SC-04, 8-9 ft, 4/25/2023



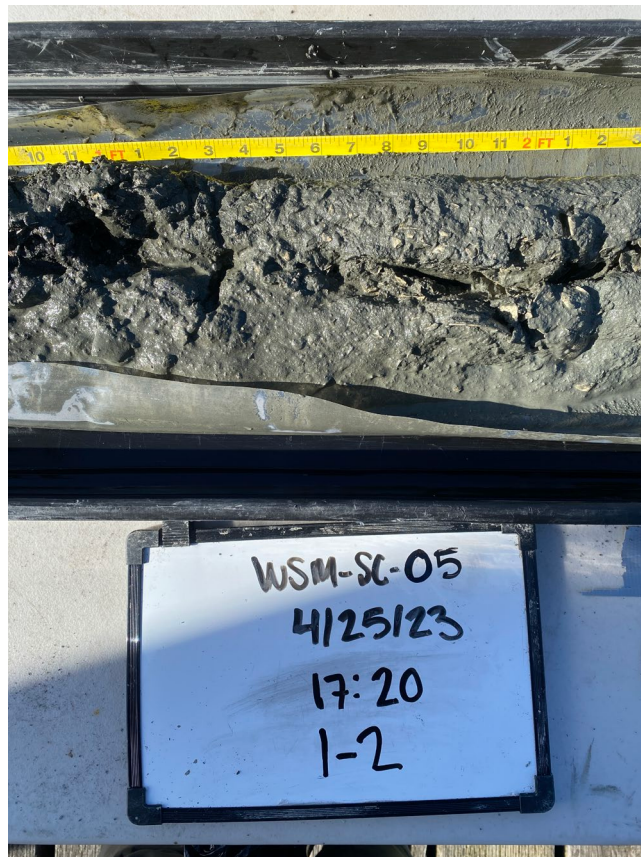
WSM-SC-04, 9-9 ft 8 in, 4/25/2023



WSM-SC-05, 0-1 ft, 4/25/2023



WSM-SC-05, 1-2 ft, 4/25/2023



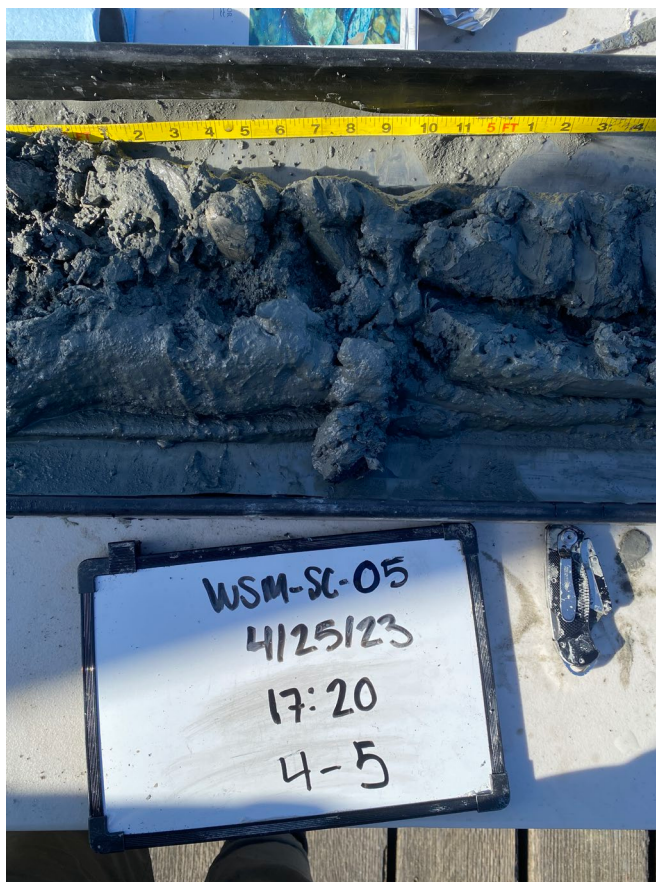
WSM-SC-05, 2-3 ft, 4/25/2023



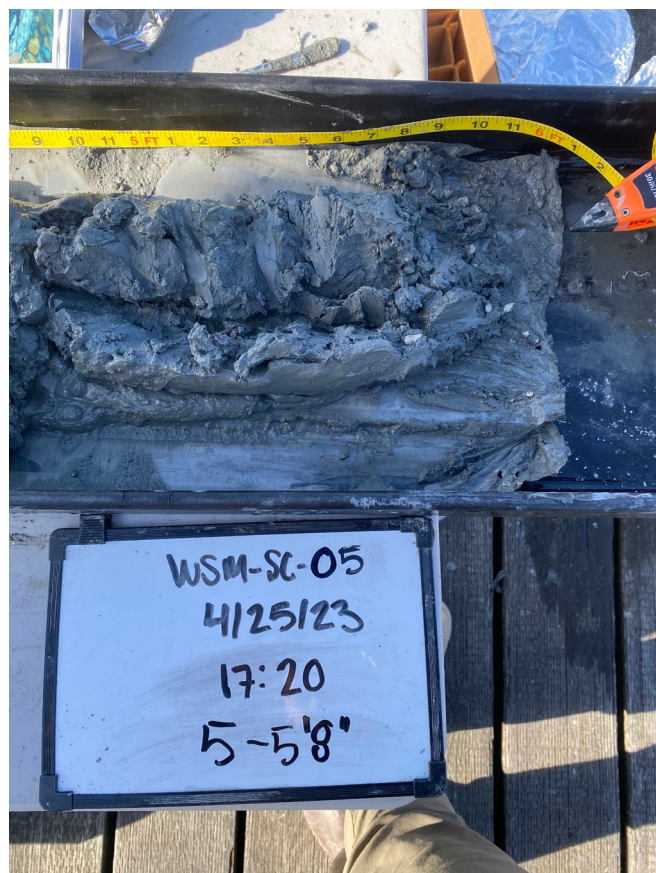
WSM-SC-05, 3-4 ft, 4/25/2023



WSM-SC-05, 4-5 ft, 4/25/2023



WSM-SC-05, 5-5 ft 8 in, 4/25/2023



Appendix C

Laboratory Data Reports

Provided under separate cover.

Appendix D

Data Validation Report

Data Validation Report-EPA Stage 2A

June 28, 2023

Project: West Sound Marina Services

Project Number: 202273-01.01

Validation ID: AQ-2023-0113

This report summarizes the review of 25 sediment samples collected April 24-26, 2023. The samples were collected by Anchor QEA, LLC, and submitted to Analytical Resources, LLC (ARL) in Tukwila, Washington. Samples were also subcontracted to AmTest Laboratories in Kirkland, Washington. The samples were analyzed for the following parameters:

- Metals by U.S. Environmental Protection Agency (USEPA) methods 6020B and 7471B
- Total solids (TS) by Standard Method (SM) 2540G
- Total organic carbon (TOC) by USEPA method 9060A
- Polychlorinated biphenyl (PCB) Aroclors by USEPA method 8082A
- Semivolatile organic compounds (SVOCs) by USEPA methods 8270E and 8270E select ion monitoring (SIM)
- Polycyclic aromatic hydrocarbons (PAHs) by USEPA method 8270E
- Butyl tins by USEPA method 8270E SIM
- Grain size by PSEP-PS

ARL sample data group (SDG) numbers 23D0663, 23D0665, 23D0682 and were reviewed in this report. Sample IDs, matrices, and analyses conducted are presented in Table 1.

Table 1
Sample IDs, Matrices, and Analyses

Sample ID	Lab Sample ID	Analyses
WSM-SG-01-230424	23D0663-01	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-02-230424	23D0663-02	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-03-230424	23D0663-03	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-04-230424	23D0663-04	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-05-230424	23D0663-05	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-06-230424	23D0663-06	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-07-230424	23D0663-07	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-01-0-2-230425	23D0665-01	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-01-2-4-230425	23D0665-02	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-02-0-2-230425	23D0665-03	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-02-2-3.8-230425	23D0665-04	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-03-0-2-230425	23D0665-06	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-03-2-3.75-230425	23D0665-07	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size

Sample ID	Lab Sample ID	Analyses
WSM-SC-04-0-2-230425	23D0665-08	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-04-2-3.5-230425	23D0665-09	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-05-0-2-230425	23D0665-13	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SC-05-2-4-230425	23D0665-14	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-08-0-1-230424	23D0682-01	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-08-1-2-230424	23D0682-02	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-09-0-1-230424	23D0682-03	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-09-1-2-230424	23D0682-04	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-10-0-1-230426	23D0682-05	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-10-1-2-230426	23D0682-06	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-11-0-1-230426	23D0682-07	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size
WSM-SG-11-1-2-230426	23D0682-08	Metals, TS, TOC, PCBs, SVOCs, PAHs, butyl tins, grain size

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Sampling and Analysis Plan, West Sound Marina: Environmental Liability Estimation (Anchor QEA 2023)
- USEPA 1986 (SW-846, Third Edition), Test Methods for Evaluating Solid Waste: Physical/Chemical Methods.
- National Functional Guidelines for Superfund Organic Methods Data Review (USEPA 2020a)
- National Functional Guidelines for Inorganic Superfund Data Review (USEPA 2020b)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody forms were signed by ARL at the time of sample receipt. Samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within the recommended holding times except for:

- Mercury was analyzed one day past the 28-day holding time in seven samples. Associated sample results have been qualified "J" to indicate a potential bias.

- The diluted analysis of sample WSM-SC-05-0-2-230425 was analyzed over one day past the 40-day holding time. Associated sample results have been qualified "J" to indicate a potential low bias.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. Method blanks were free of target analytes except for some detections in some SVOC method blanks.

- Batch BLE0083 – Benzyl alcohol, benzoic acid, and diethyl phthalate were detected between the MDL and the MRL in the method blank reported in this batch. Associated detected sample results that were less than five times (ten times for diethyl phthalate) the concentration in the blank have been qualified as non-detects.
- Batch BLE0084 – 1,3-Dichlorobenzene, 1,4-dichlorobenzene, benzoic acid, and diethyl phthalate were detected between the MDL and MRL in the method blank. Phenol was detected above the MRL in the same blank. Associated detected sample results less than 5x the method blank concentration were qualified as non-detects.
- Batch BLG0046 – 1,3-Dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, and diethyl phthalate were detected between the MDL and MRL in the method blank. Associated detected sample results less than 5x the method blank concentration were qualified as non-detects.

Field Quality Control

No field quality control samples were collected with this sample set.

Surrogate Recoveries

Surrogate recoveries were not evaluated for surrogates associated with analyses diluted five times or more because quantification becomes less accurate with increasing dilutions. Some surrogates recovered outside of control limits in the analyses of batch QC. Results are not qualified based on surrogate recoveries in QC samples alone, so no data were qualified in these instances. Sample surrogates recovered within laboratory control limits with the following exceptions:

- SVOCs:
 - 2-Fluorophenol recovered below laboratory control limits, and phenol-d5, 2-chlorophenol-d4, and 2,4,6-tribromophenol recovered below 10% in sample WSM-SG-09-0-1-230424. The sample was reanalyzed, re-extracted, and reanalyzed twice more and all analyses yielded similar results. Results have been reported from the initial analysis. Associated detected sample results have been qualified "J" to indicate a potential low bias and results below detection have been rejected.

- p-Terphenyl-d14 recovered above the control limit in the analysis of sample WSM-SG-08-0-1-230424. Since the other base-neutral surrogates recovered within control limits, no data were qualified.
- 2-Fluorophenol in sample WSM-SC-02-0-2-230425 and 2,4,6-tribromophenol in sample WSM-SG-09-1-2-230424 recovered below laboratory control limits. Since the other two phenolic surrogates recovered within control limits, no data were qualified.
- SVOC-SIM:
 - p-Terphenyl-d14 in nine samples recovered above laboratory control limits. Associated detected sample results have been qualified "J" to indicate a potential high bias.
 - 2-Fluorophenol recovered below laboratory control limits in the analyses of two samples. Associated results have been qualified "J" or "UJ" to indicate a potential low bias.
- PCBs:
 - Tetrachlorometaxylene in sample WSM-SC-05-0-2-230425 recovered below laboratory control limit on the primary column analysis. Associated results have been qualified "UJ" to indicate a potentially low bias.
 - Decachlorobiphenyl recovered above the laboratory control limit on both columns in the analysis of sample WSM-SG-08-1-2-230424. Associated detected sample results have been qualified "J" to indicate a potentially high bias.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and LCS duplicates (LCSD) were analyzed at the required frequencies. Spiked analytes not reported in project samples were not evaluated. LCS and LCSD recoveries were within laboratory control limits with the following exceptions:

- SVOC:
 - Batch BLE0083: Hexachlorocyclopentadiene recovered below 10% in the LCS/LCSD. Associated samples results were rejected. The 3,3'-dichlorobenzidine RPD value was above the laboratory control limit in the LCS/LCSD. Associated sample results were below detection, so no data were qualified.
 - Batch BLE0084: 3,3'-Dichlorobenzidine, carbazole, di-n-octylphthalate, and bis(2-ethylhexyl)phthalate had RPD values above laboratory control limits in the LCS/LCSD. Associated detected samples were qualified "J" to indicate they are estimated. Di-n-octylphthalate recovered below the control limit in the LCSD. Associated sample results have been qualified "UJ" to indicate a potentially low bias.
 - Batch BLG0046 – Fluorene had an RPD value above laboratory control limits in the LCS/LCSD. Associated detected samples were qualified "J" to indicate they are estimated.
- SVOC-SIM:

- Batch BLE0083: n-Nitrosodimethylamine recovered below laboratory control limits in the LCS/LCSD. Associated sample results were qualified “UJ” to indicate a potential low bias. Hexachlorobenzene recovered above the laboratory control limit. Associated sample results were below detection, so no data were qualified.
- Batch BLE0084: The 2,4-dimethylphenol RPD value was above the laboratory control limit. The associated detected sample result was qualified “J” to indicate it is estimated.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed for most methods. No data were qualified when parent sample results were greater than four times the spike level or when the spiked sample was analyzed at a high dilution due to a high concentration of some analytes. MS and MSDs analyzed on non-project samples were not evaluated. MS and MSD sample recoveries were within laboratory control limits with the following exceptions:

- SVOC:
 - WSM-SC-03-2-3.75-230425: 4-Chloroaniline and 3,3'-dichlorobenzidine recovered below 10% in the MS and hexachlorocyclopentadiene recovered below 10% in the MS and MSD. Associated parent sample results were below detection and have been rejected. Five analytes had RPD values above the laboratory control limit. Associated parent sample results were below detection, so no data were qualified.
 - WSM-SG-09-0-1-230424: seven analytes recovered below laboratory control limits in the MS and/or MSD. Associated parent sample results have been qualified “UJ” or “J” to indicate a potential low bias. Fifteen analytes recovered below 10% in the MS and/or MSD. Associated detected parent sample results have been qualified “J” to indicate a potential low bias and results below detection have been rejected. Four analytes had an RPD above laboratory control limits. Associated parent sample results were below detection, so no data were qualified.
- SVOC-SIM
 - WSM-SC-03-2-3.75-230425: 2-Methylphenol, n-nitrosodimethylamine, and 2,4-dimethylphenol recovered below laboratory control limits in the MS and/or MSD. Associated parent sample results have been qualified “UJ” to indicate a potential low bias. Five analytes had RPD values above the laboratory control limit. Associated parent sample results were below detection, so no data were qualified.
 - WSM-SG-09-0-1-230424: Pentachlorophenol and 4-methylphenol recovered below laboratory control limits in the MS and/or MSD. Associated parent sample results have been qualified “J” to indicate a potential low bias. 2-Methylphenol, 2,4-

dimethylphenol, and n-nitrosodiphenylamine recovered below 10% in the MS/MSD. Associated parent sample results were below detection and have been rejected. Dimethylphthalate recovered above laboratory control limits in the MSD and had an RPD above control limits. The associated parent sample result has been qualified "J" to indicate they are estimated.

- Butyl tins:
 - WSM-SC-03-2-3.75-230425: Butyltin and dibutyltin recovered below the laboratory control limit in the MS, and did not recover in the MSD analyzed on sample WSM-SC-03-2-3.75-230425. Associated parent sample results have been qualified "J" to indicate a potential low bias. Tributyltin recovered above the laboratory control limit in the MS and below the control limit in the MSD, and had an RPD above control limits. Associated parent sample results have been qualified "J" to indicate they are estimated.
 - WSM-SG-09-0-1-230424: Dibutyltin and tributyltin recovered above laboratory control limits in the MS/MSD and butyltin, recovered above the control limit in the MS., All three analyte RPD values were above control limits. Associated parent sample results have been qualified "J" to indicate they are estimated.
- PCBs: Aroclor 1016 and Aroclor 1260 recovered below laboratory control limits in the MS analyzed on sample WSM-SC-05-0-2-230425. Associated parent sample results have been qualified "J" or "UJ" to indicate a potential low bias. Aroclor 1260 had an RPD value above the control limit. The associated parent sample results were below detection, so no data were qualified.
- Metals: Lead recovered below laboratory control limits in the MS/MSD analyzed on sample WSM-SG-08-0-1-230424. Associated batch sample results have been qualified "J" to indicate a potential low bias. Copper recovered above laboratory control limits in the MS. Associated batch sample results have been qualified "J" to indicate a potential high bias. Mercury recovered below 30% in the MS/MSD. Associated batch sample results have been qualified "J" to indicate a potential low bias.
- TOC: The MS/MSD analyzed on sample WSM-SG-01-230424 had an RPD above laboratory control limits, however; the samples were spiked at two different concentrations and the RPD value between the spike levels exceeded the control limit. Since the MS/MSD recoveries were the same and within control limits, no data were qualified.

Laboratory Duplicates

Laboratory duplicates were analyzed at the required frequency or in place of MSDs. Laboratory duplicates analyzed on non-project samples were not evaluated. Results that were less than five times the MRL were evaluated by the difference between them using the control limit of $\pm 2 \times \text{MRL}$. Laboratory duplicate RPD or difference values were within laboratory-required control limits with the exceptions of copper in batches BLE0266 and BLE0399, and arsenic in batch BLE0399.. Associated batch sample results have been qualified "J" to indicate they are estimated.

Second Column Confirmation Results

All PCB results were confirmed on a second, dissimilar column analysis and RPD values were within method-specified limits, except for Aroclor 1254 results in samples WSM-SG-08-0-1-230424 and WSM-SG-08-1-2-230424, and Aroclor 1260 in sample WSM-SC-02-0-2-230425. Associated results have been qualified "J" to indicate they are estimated.

Method Reporting Limits

Reporting limits were acceptable as reported. All values were reported using the laboratory MRLs. Values were reported as undiluted or when diluted, the MRL was adjusted to reflect the dilution factor or to account for interference from coeluting compounds.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recovery values, with the exceptions noted above. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and lab duplicate RPD or difference values, with exceptions noted above. Most data are acceptable as reported or qualified. 36 results were rejected due to low LCS/LCSD, MS/MSD, and/or surrogate recovery. Completeness was 99%. See Table 2 for the qualified results.

Data Qualifier Definitions

- U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit.
- J Indicates an estimated value.
- UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated.
- R Indicates the result is rejected and unusable.

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
WSM-SC-01-0-2-230425	Metals	Copper	130 mg/kg	130J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	199U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.9U ug/kg	24.9UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	26.3J ug/kg	99.6U ug/kg	MB contamination
		Diethyl phthalate	9.6J ug/kg	19.9U ug/kg	
WSM-SC-01-2-4-230425	Metals	Copper	7.34 mg/kg	7.34J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	199U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.9U ug/kg	24.9UJ ug/kg	LCS/LCSD %R below CL
		Benzyl alcohol	6.9J ug/kg	19.9U ug/kg	MB contamination
		Diethyl phthalate	9.4J ug/kg	19.9U ug/kg	
		Dibenzo(a,h)anthracene	1.5J ug/kg	1.5J ug/kg	Surrogate %R above CL
WSM-SC-02-0-2-230425	Metals	Copper	1820 mg/kg	1820J mg/kg	Lab DUP RPD above CL
	PCBs	Aroclor 1260	26.6J ug/kg	26.6J ug/kg	Column confirmation RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Diethyl phthalate	17.9J ug/kg	20U ug/kg	MB contamination
		Benzoic acid	45.7J ug/kg	99.9U ug/kg	MB contamination; Surrogate %R below CL
		Benzyl alcohol	29.2 ug/kg	29.2J ug/kg	Surrogate %R below CL
		2,4-Dimethylphenol	20U ug/kg	20UJ ug/kg	
		4-Methylphenol (p-Cresol)	11.1 ug/kg	11.1J ug/kg	
		Phenol	16 ug/kg	16J ug/kg	
		Pentachlorophenol	20U ug/kg	20UJ ug/kg	
		2-Methylphenol (o-Cresol)	5U ug/kg	5UJ ug/kg	
WSM-SC-02-2-3.8-230425	Metals	Copper	24.3 mg/kg	24.3J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Diethyl phthalate	14J ug/kg	20U ug/kg	MB contamination
WSM-SC-03-0-2-230425	Metals	Copper	12.2 mg/kg	12.2J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Diethyl phthalate	12J ug/kg	20U ug/kg	MB contamination
WSM-SC-03-2-3.75-230425	Metals	Copper	7.61 mg/kg	7.61J mg/kg	Lab DUP RPD above CL
	SVOCs	Benzyl alcohol	18.8J ug/kg	20U ug/kg	MB contamination MB contamination
		Diethyl phthalate	8J ug/kg	20U ug/kg	
		Tributyltin (ion)	38.4 ug/kg	38.4J ug/kg	MS %R above CL; MSD %R below CL; MS/MSD RPD above CL
		2,4-Dimethylphenol	20U ug/kg	R	MS %R below CL
		2-Methylphenol (o-Cresol)	5U ug/kg	5UJ ug/kg	
		4-Chloroaniline	99.8U ug/kg	R	MS/MSD %R <10
		3,3'-Dichlorobenzidine	99.8U ug/kg	R	
		Hexachlorocyclopentadiene	200U ug/kg	R	MS/MSD %R <10; LCS/LCSD %R <10
		Butyltin (ion)	8.56 ug/kg	8.56J ug/kg	MS/MSD %R below CL
		Dibutyltin (ion)	23.9 ug/kg	23.9J ug/kg	
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	MS/MSD %R below CL; LCS/LCSD %R below CL
WSM-SC-04-0-2-230425	Metals	Copper	15.8 mg/kg	15.8J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Diethyl phthalate	9.6J ug/kg	20U ug/kg	MB contamination
		Butylbenzyl phthalate	0.9J ug/kg	0.9J ug/kg	Surrogate %R above CL
		Dibenzo(a,h)anthracene	11.1 ug/kg	11.1J ug/kg	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Dimethyl phthalate	1.5J ug/kg	1.5J ug/kg	
WSM-SC-04-2-3.5-230425	Metals	Copper	6.5 mg/kg	6.5J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Diethyl phthalate	9.2J ug/kg	20U ug/kg	MB contamination
WSM-SC-05-0-2-230425	Metals	Copper	13 mg/kg	13J mg/kg	Lab DUP RPD above CL
	PCBs	Aroclor 1254	4U ug/kg	4UJ ug/kg	MS %R below CL
		Aroclor 1242	4.6 ug/kg	4.6J ug/kg	MS and surrogate %R below CL, MS/MSD RPD above CL
		Aroclor 1260	4U ug/kg	4UJ ug/kg	MS and surrogate %R below CL
		Aroclor 1268	4U ug/kg	4UJ ug/kg	
		Aroclor 1221	4U ug/kg	4UJ ug/kg	
		Aroclor 1232	4U ug/kg	4UJ ug/kg	
		Aroclor 1248	4U ug/kg	4UJ ug/kg	
		Aroclor 1016	4U ug/kg	4UJ ug/kg	
		Aroclor 1262	4U ug/kg	4UJ ug/kg	
	SVOCs	Pyrene	1750 ug/kg	1750J ug/kg	Analyzed past holding time
		Fluoranthene	2290 ug/kg	2290J ug/kg	
		Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	14J ug/kg	99.9U ug/kg	MB contamination
		Diethyl phthalate	12.3J ug/kg	20U ug/kg	
		Dibenzo(a,h)anthracene	75.5 ug/kg	75.5J ug/kg	Surrogate %R above CL
		Dimethyl phthalate	2J ug/kg	2J ug/kg	
WSM-SC-05-2-4-230425	Metals	Copper	6.56 mg/kg	6.56J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Diethyl phthalate	13.5J ug/kg	20U ug/kg	MB contamination
WSM-SG-01-230424	Metals	Mercury	0.0204J mg/kg	0.0204J mg/kg	Holding time exceeded
		Copper	11.5 mg/kg	11.5J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	198U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.7U ug/kg	24.7UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	46.9J ug/kg	98.9U ug/kg	MB contamination
		Diethyl phthalate	8.5J ug/kg	19.8U ug/kg	
		1,2-Dichlorobenzene	1.5J ug/kg	1.5J ug/kg	Surrogate %R above CL
		1,3-Dichlorobenzene	1.3J ug/kg	1.3J ug/kg	
		1,4-Dichlorobenzene	1.3J ug/kg	1.3J ug/kg	
		Butylbenzyl phthalate	1.6J ug/kg	1.6J ug/kg	
		Dibenzo(a,h)anthracene	9.8 ug/kg	9.8J ug/kg	
		Dimethyl phthalate	6.8 ug/kg	6.8J ug/kg	
		Hexachlorobutadiene (Hexachloro-1,3-butadiene)	1.6J ug/kg	1.6J ug/kg	
WSM-SG-02-230424	Metals	Mercury	0.0503 mg/kg	0.0503J mg/kg	Holding time exceeded
		Copper	18 mg/kg	18J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	33.4J ug/kg	100U ug/kg	MB contamination
		Diethyl phthalate	7.8J ug/kg	20U ug/kg	
		2,4-Dimethylphenol	2.3J ug/kg	2.3J ug/kg	Surrogate %R above CL
		Butylbenzyl phthalate	1.5J ug/kg	1.5J ug/kg	
		Dibenzo(a,h)anthracene	7.2 ug/kg	7.2J ug/kg	
		Dimethyl phthalate	3.3J ug/kg	3.3J ug/kg	
WSM-SG-03-230424	Metals	Mercury	0.0344 mg/kg	0.0344J mg/kg	Holding time exceeded
		Copper	15.6 mg/kg	15.6J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	18.9J ug/kg	99.8U ug/kg	MB contamination
		Diethyl phthalate	10.1J ug/kg	20U ug/kg	
		Dibenzo(a,h)anthracene	2.5J ug/kg	2.5J ug/kg	Surrogate %R above CL
		Dimethyl phthalate	1.8J ug/kg	1.8J ug/kg	
WSM-SG-04-230424	Metals	Mercury	0.0666 mg/kg	0.0666J mg/kg	Holding time exceeded
		Copper	35 mg/kg	35J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	199U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.9U ug/kg	24.9UJ ug/kg	LCS/LCSD %R below CL
		Benzyl alcohol	2.9J ug/kg	19.9U ug/kg	MB contamination
		Benzoic acid	25J ug/kg	99.5U ug/kg	
		Diethyl phthalate	9.5J ug/kg	19.9U ug/kg	
WSM-SG-05-230424	Metals Metals	Mercury	0.0661 mg/kg	0.0661J mg/kg	Holding time exceeded
		Copper	165 mg/kg	165J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	199U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.9U ug/kg	24.9UJ ug/kg	LCS/LCSD %R below CL
		Benzyl alcohol	3.5J ug/kg	19.9U ug/kg	MB contamination
		Benzoic acid	20.2J ug/kg	99.7U ug/kg	
		Diethyl phthalate	8.1J ug/kg	19.9U ug/kg	
WSM-SG-06-230424	Metals	Mercury	0.0318J mg/kg	0.0318J mg/kg	Holding time exceeded
		Copper	15.1 mg/kg	15.1J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	200U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	25U ug/kg	25UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	18.7J ug/kg	100U ug/kg	MB contamination
		Benzyl alcohol	3.1J ug/kg	20U ug/kg	
		Diethyl phthalate	9.2J ug/kg	20U ug/kg	
		1,3-Dichlorobenzene	1J ug/kg	1J ug/kg	Surrogate %R above CL
		Dibenzo(a,h)anthracene	5.5 ug/kg	5.5J ug/kg	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Dimethyl phthalate	2.2J ug/kg	2.2J ug/kg	
WSM-SG-07-230424	Metals	Mercury	0.0609 mg/kg	0.0609J mg/kg	Holding time exceeded
		Copper	27 mg/kg	27J mg/kg	Lab DUP RPD above CL
	SVOCs	Hexachlorocyclopentadiene	198U ug/kg	R	LCS/LCSD %R <10
		n-Nitrosodimethylamine	24.8U ug/kg	24.8UJ ug/kg	LCS/LCSD %R below CL
		Benzoic acid	18.4J ug/kg	99.2U ug/kg	MB contamination
		Diethyl phthalate	6.8J ug/kg	19.8U ug/kg	
		Dibenzo(a,h)anthracene	16.1 ug/kg	16.1J ug/kg	Surrogate %R above CL
		Dimethyl phthalate	12.8 ug/kg	12.8J ug/kg	
WSM-SG-08-01-230424	Metals	Arsenic	3 mg/kg	3J mg/kg	Lab DUP RPD above CL
		Copper	97.6 mg/kg	97.6J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.66 mg/kg	0.66J mg/kg	MS/MSD %R <30
		Lead	16.8 mg/kg	16.8J mg/kg	MS/MSD %R below CL
	PCBs	Aroclor 1254	49.9J ug/kg	49.9J ug/kg	Column confirmation RPD above CL
	SVOCs	1,4-Dichlorobenzene	1J ug/kg	5J ug/kg	MB contamination
		1,3-Dichlorobenzene	1J ug/kg	5J ug/kg	
		1,2-Dichlorobenzene	1.1J ug/kg	1J ug/kg	Surrogate %R below CL
		Bis(2-ethylhexyl)phthalate	14.8J ug/kg	14.8J ug/kg	LCS/LCSD RPD above CL
		Carbazole	40.2 ug/kg	40.2J ug/kg	
		Di-n-octyl phthalate	20U ug/kg	20UJ ug/kg	LCSD %R below CL
		Diethyl phthalate	15.1J ug/kg	20U ug/kg	MB contamination
		Benzoic acid	58.3J ug/kg	100U ug/kg	MB contamination; Surrogate %R below CL
		Phenol	9.3 ug/kg	9.3UJ ug/kg	
	Metals	Arsenic	9.52 mg/kg	9.52J mg/kg	Lab DUP RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
WSM-SG-08-1-2-230424		Copper	483 mg/kg	483J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	4.46 mg/kg	4.46J mg/kg	MS/MSD %R <30
		Lead	28.6 mg/kg	28.6J mg/kg	MS/MSD %R below CL
	PCBs	Aroclor 1248	48 ug/kg	48J ug/kg	Surrogate %R above CL
		Aroclor 1260	31.7 ug/kg	31.7J ug/kg	
		Aroclor 1254	179J ug/kg	179J ug/kg	Surrogate %R above CL; Column confirmation RPD above CL
	SVOCs	Bis(2-ethylhexyl)phthalate	22.4J ug/kg	22.4J ug/kg	LCS/LCSD RPD above CL
		Carbazole	24.9 ug/kg	24.9J ug/kg	
		Di-n-octyl phthalate	20.7U ug/kg	20.7UJ ug/kg	LCSD %R below CL
		Diethyl phthalate	12.5J ug/kg	20.7U ug/kg	MB contamination
		Phenol	10.4 ug/kg	10.4UJ ug/kg	MB contamination; Surrogate %R below CL
		1,2-Dichlorobenzene	5.2U ug/kg	5.2UJ ug/kg	Surrogate %R below CL
		1,3-Dichlorobenzene	5.2U ug/kg	5.2UJ ug/kg	
		1,4-Dichlorobenzene	5.2U ug/kg	5.2UJ ug/kg	
		2,4-Dimethylphenol	20.7U ug/kg	20.7UJ ug/kg	
		2-Methylphenol (o-Cresol)	5.2U ug/kg	5.2UJ ug/kg	
		4-Methylphenol (p-Cresol)	1.8J ug/kg	1.8J ug/kg	
		Benzoic acid	147 ug/kg	147J ug/kg	
		Benzyl alcohol	9.4J ug/kg	9.4J ug/kg	
		n-Nitrosodimethylamine	25.8U ug/kg	25.8UJ ug/kg	
		n-Nitrosodi-n-propylamine	20.7U ug/kg	20.7UJ ug/kg	
		Pentachlorophenol	64.3 ug/kg	64.3J ug/kg	
WSM-SG-09-0-1-230424	Metals	Arsenic	2 mg/kg	2J mg/kg	Lab DUP RPD above CL
		Copper	65 mg/kg	65J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.0683 mg/kg	0.0683J mg/kg	MS/MSD %R <30

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
	SVOCs	Lead	10.2 mg/kg	10.2J mg/kg	MS/MSD %R below CL
		Bis(2-ethylhexyl)phthalate	42.3J ug/kg	42.3J ug/kg	LCS/LCSD RPD above CL
		Carbazole	75.8 ug/kg	75.8J ug/kg	
		Di-n-octyl phthalate	20U ug/kg	20UJ ug/kg	LCSD %R below CL
		Diethyl phthalate	20.9 ug/kg	20.9U ug/kg	MB contamination
		Phenol	10.3 ug/kg	10.3U ug/kg	MB contamination; Surrogate %R below CL
		Benzoic acid	51J ug/kg	99.8U ug/kg	
		2,4-Dichlorophenol	99.8U ug/kg	R	MS %R < 10, MSD %R below CL
		Benzo(a)anthracene	594 ug/kg	594J ug/kg	
		Benzo(b,j,k)fluoranthenes	1530 ug/kg	1530J ug/kg	
		4-Chloro-3-methylphenol	99.8U ug/kg	R	MS %R < 10, MSD %R below CL; Surrogate %R below CL
		4-Nitroaniline	99.8U ug/kg	R	
		Butyltin (ion)	34.2 ug/kg	34.2J ug/kg	MS %R above CL; MS/MSD RPD above CL
		Pentachlorophenol	27.9 ug/kg	27.9J ug/kg	MS %R below CL
		3,3'-Dichlorobenzidine	99.8U ug/kg	R	MS/MSD %R < 10
		3-Nitroaniline	99.8U ug/kg	R	
		4-Chloroaniline	99.8U ug/kg	R	
		Benzo(a)pyrene	276 ug/kg	276J ug/kg	
		2,4-Dimethylphenol	20U ug/kg	R	
		n-Nitrosodiphenylamine	5U ug/kg	R	
		2-Methylphenol (o-Cresol)	5U ug/kg	R	
		2,4,6-Trichlorophenol	99.8U ug/kg	R	MS/MSD %R < 10; Surrogate %R below CL
		Dibutyltin (ion)	64.8 ug/kg	64.8J ug/kg	MS/MSD %R above CL; MS/MSD RPD above CL
		Tributyltin (ion)	90.9 ug/kg	90.9J ug/kg	
		Anthracene	67.3 ug/kg	67.3J ug/kg	MS/MSD %R below CL
		4-Methylphenol (p-Cresol)	1.8J ug/kg	1.8J ug/kg	
		2-Chlorophenol	20U ug/kg	R	MS/MSD %R below CL;

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
					Surrogate %R below CL
		Pyrene	1470 ug/kg	1470J ug/kg	MS/MSD RPD above CL
		Chrysene	940 ug/kg	940J ug/kg	MSD %R <10
		Dimethyl phthalate	21.1 ug/kg	21.1J ug/kg	MSD %R above CL; MS/MSD RPD above CL
		2,4,5-Trichlorophenol	99.8U ug/kg	R	Surrogate %R below CL
		2,4-Dinitrophenol	200U ug/kg	R	
		2-Nitrophenol	20U ug/kg	R	
		4-Nitrophenol	99.8U ug/kg	R	
		Dinitro-o-cresol (4,6-Dinitro-2-methylphenol)	200U ug/kg	R	
		Benzyl alcohol	20U ug/kg	20UJ ug/kg	
WSM-SG-09-1-2-230424	Metals	Arsenic	3.13 mg/kg	3.13J mg/kg	Lab DUP RPD above CL
		Copper	198 mg/kg	198J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.324 mg/kg	0.324J mg/kg	MS/MSD %R <30
		Lead	15.4 mg/kg	15.4J mg/kg	MS/MSD %R below CL
	SVOCs	Bis(2-ethylhexyl)phthalate	230 ug/kg	230J ug/kg	LCS/LCSD RPD above CL
		Carbazole	218 ug/kg	218J ug/kg	
		2,4-Dimethylphenol	2.6J ug/kg	2.6J ug/kg	
		Di-n-octyl phthalate	20U ug/kg	20UJ ug/kg	LCSD %R below CL
		Phenol	28.8 ug/kg	28.8U ug/kg	MB contamination
		Diethyl phthalate	26.9 ug/kg	26.9U ug/kg	
		1,4-Dichlorobenzene	0.7J ug/kg	5U ug/kg	
WSM-SG-10-0-1-230426	Metals	Arsenic	3.32 mg/kg	3.32J mg/kg	Lab DUP RPD above CL
		Copper	72.3 mg/kg	72.3J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.116 mg/kg	0.116J mg/kg	MS/MSD %R <30
		Lead	6.88 mg/kg	6.88J mg/kg	MS/MSD %R below CL
	SVOCs	Bis(2-ethylhexyl)phthalate	53.5 ug/kg	53.5J ug/kg	LCS/LCSD RPD above CL
		Carbazole	41.1 ug/kg	41.1J ug/kg	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Di-n-octyl phthalate	20U ug/kg	20UJ ug/kg	LCSD %R below CL
		Diethyl phthalate	9J ug/kg	20U ug/kg	MB contamination
		Phenol	22 ug/kg	22U ug/kg	
		Butylbenzyl phthalate	10.4 ug/kg	10.4J ug/kg	Surrogate %R above CL
		Dibenzo(a,h)anthracene	148 ug/kg	148J ug/kg	
		Dimethyl phthalate	32 ug/kg	32J ug/kg	
WSM-SG-10-1-2-230426	Metals	Arsenic	2.94 mg/kg	2.94J mg/kg	Lab DUP RPD above CL
		Copper	49.2 mg/kg	49.2J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.19 mg/kg	0.19J mg/kg	MS/MSD %R <30
		Lead	5.84 mg/kg	5.84J mg/kg	MS/MSD %R below CL
	SVOCs	Bis(2-ethylhexyl)phthalate	21.5J ug/kg	21.5J ug/kg	LCS/LCSD RPD above CL
		Carbazole	29.3 ug/kg	29.3J ug/kg	
		Di-n-octyl phthalate	19.9U ug/kg	19.9UJ ug/kg	LCSD %R below CL
		Phenol	19.3 ug/kg	19.3U ug/kg	MB contamination
		Benzoic acid	52.6J ug/kg	99.7U ug/kg	
		Diethyl phthalate	18.1J ug/kg	19.9U ug/kg	
WSM-SG-11-0-1-230426	Metals	Arsenic	3.54 mg/kg	3.54J mg/kg	Lab DUP RPD above CL
		Copper	65.3 mg/kg	65.3J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.056 mg/kg	0.056J mg/kg	MS/MSD %R <30
		Lead	5.59 mg/kg	5.59J mg/kg	MS/MSD %R below CL
	SVOCs	Bis(2-ethylhexyl)phthalate	16.9J ug/kg	16.9J ug/kg	LCS/LCSD RPD above CL
		Carbazole	30.6 ug/kg	30.6J ug/kg	
		Di-n-octyl phthalate	20U ug/kg	20UJ ug/kg	LCSD %R below CL
		Phenol	19.8 ug/kg	19.8U ug/kg	MB contamination
		Benzoic acid	45.9J ug/kg	99.8U ug/kg	
		Diethyl phthalate	8.3J ug/kg	20U ug/kg	
	Metals	Arsenic	3.74 mg/kg	3.74J mg/kg	Lab DUP RPD above CL

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
WSM-SG-11-1-2-230426		Copper	177 mg/kg	177J mg/kg	MS %R above CL; Lab DUP RPD above CL
		Mercury	0.219 mg/kg	0.219J mg/kg	MS/MSD %R <30
		Lead	55 mg/kg	55J mg/kg	MS/MSD %R below CL
	SVOCs	Bis(2-ethylhexyl)phthalate	28.9J ug/kg	28.9J ug/kg	LCS/LCSD RPD above CL
		Carbazole	50.9 ug/kg	50.9J ug/kg	
		Di-n-octyl phthalate	19.9U ug/kg	19.9UJ ug/kg	LCSD %R below CL
		Phenol	19.5 ug/kg	19.5U ug/kg	MB contamination
		Benzoic acid	47.6J ug/kg	99.5U ug/kg	
		Diethyl phthalate	9.4J ug/kg	19.9U ug/kg	
		1,4-Dichlorobenzene	0.9J ug/kg	5U ug/kg	

Table 2
Data Qualifier Summary Table

Notes:

CL: control limit

mg/kg: milligram per kilogram

ug/kg: microgram per kilogram

%R: percent recovery

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