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Jeld Wen Site, Everett



Pre-Remedial Design Investigation Data Report Marine Areas of Jeld Wen Site

Prepared for JELD-WEN, Inc., and Washington State Department of Ecology

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ABBREVIATIONS

µg/kg	microgram per kilogram
AEC	Anderson Environmental Contracting, LLC
AO	Agreed Order
ARAR	Application or Relevant and Appropriate Requirements
ARL	Analytical Resources, LLC
ASTM	American Society for Testing and Materials
bml	below mudline
CAP	Cleanup Action Plan
COC	U.S. Army Corps of Engineers
cPAH	carcinogenic polycyclic aromatic hydrocarbon
CSM	conceptual site model
D/F	dioxin/furan
dw	dry weight
DQO	data quality objective
Ecology	Washington State Department of Ecology
EDR	Engineering Design Report
EGL	Anchor QEA's Environmental Geochemistry Laboratory
EMNR	Enhanced Monitored Natural Recovery
EMPC	estimated maximum possible concentration
ERCI	Equinox Research and Consulting International, Inc.
ESA	Endangered Species Act
ESTCP	Environmental Security Technology Certification Program
HSA	hollow-stem auger
IDW	inverse-distance-weighting
IHS	indicator hazardous substance
JELD_WEN	JELD-WEN, Inc.
Jeld Wen Site	JELD-WEN location at 300 West Marine View Drive, Everett, Washington 98201
LCS	laboratory control sample
LiDAR	Light Detection and Ranging
MLLW	mean lower low water
MNR	Monitored Natural Recovery
NOAA	National Oceanic and Atmospheric Administration
MS	matrix spike
MSD	matrix spike duplicate
MTCA	Model Toxics Control Act

NAD 83	North American Datum of 1983
NAVD88	North American Vertical Datum of 1988
ng/kg	nanogram per kilogram
Pace	Pace Analytical Services, LLC
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PDMS	polydimethylsiloxane
pg/L	picograms per liter
PRDI	Pre-Remedial Design Investigation
POC	point of compliance
Port	Port of Everett
PQL	practical quantitation limit
PRC	performance reference compounds
PSO	Protected Species Observer
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
REL	Remediation Level
RI/FS	<i>Final Remedial Investigation/Feasibility Study</i>
RL	Reporting Limit
RPD	Relative Percent Difference
SAP	Sampling and Analysis Plan
SCL	Sediment Cleanup Level
SCO	Sediment Cleanup Objective
SCUM	Sediment Cleanup User's Manual
SEPA	State Environmental Policy Act
SERDP	Strategic Environmental Research and Development Program
Site	Jeld Wen Site
SM	Standard Method
SMA	Sediment Management Area
SMS	Sediment Management Standards
SPME	solid phase microextraction
SPT	standard penetration test
SWAC	surface-weighted average concentration
TEQ	toxicity equivalence
TVS	total volatile solid
WAC	Washington Administrative Code

1 Introduction

This Pre-Remedial Design Investigation (PRDI) Data Report has been prepared in accordance with Agreed Order (AO) Number DE 5095 for the former E.A. Nord, Inc, door facility (i.e., Former Nord Door Facility) (through its successor-in-interest, JELD-WEN, Inc. [JELD-WEN]), located at 300 West Marine View Drive, Everett, Washington 98201 (Jeld Wen Site or Site), executed between JELD-WEN and the Washington State Department of Ecology (Ecology).

This data report is specifically described in the Second Amendment to the AO (Ecology 2023), Exhibit G: Scope of Work and Schedule, Task 2: Development of PRDI data report. As required, the PRDI data report presents data collected resulting from implementation of the Ecology-approved Step 1 and Step 2 Pre-Remedial Design Investigation Work Plans (Anchor QEA 2023, 2024) to inform the marine remedial design for cleanup of that portion of the Site (Figure 1).

This PRDI Data Report has been prepared to meet the requirements of the Model Toxics Control Cleanup Act (MTCA) and Sediment Management Standards (SMS) administered by Ecology under Chapter 173-204 and 173-340, respectively, of the Washington Administrative Code (WAC).

1.1 Background

The Site is in Snohomish County, Washington, and is bound by vacant land and tidal mudflats owned by the Port of Everett (Port) and Baywood Industrial, LLC, to the east and northeast; tidal mudflats owned by the Port to the west; West Marine View Drive and Burlington Northern Railroad to the southeast; and the Snohomish River navigation channel and Port Gardner Bay to the north and northwest (Figure 1). The Site is further defined by the extent of contamination caused by the release of hazardous substances at the Site, as described in the Final Cleanup Action Plan, Jeld Wen Site (CAP; Ecology 2023).

The upland area of the Site is built upon fill material placed in various stages beginning in the late 1800s. Areas on the eastern, northern, and southern sides of the Site were filled in various stages beginning in the late 1800s or early 1900s when the adjacent Burlington Northern Sante Fe's predecessor, Great Northern Railroad, was laying tracks along Port Gardner Bay. Historical activities at the Site have included casket manufacturing, pole treating, wood door and sash manufacturing, and fish net storage. The Knoll Area (Figure 1) was initially filled in the early to mid-1960s.

Prior to JELD-WEN's ownership, the Site had been in use as a stile and rail door plant since the mid-1940s by Nord Door. Prior to the 1940s, National Pole Company operated a pole treating plant on the eastern portion of the Site. Sound Casket Manufacturing operated a wood casket factory on the southern portion of the Site from at least 1936 until sometime prior to 1947, at which time the casket facility was operated by Northwestern Lumber & Manufacturing Co., Inc. By 1976 some of the structures associated with the former wood casket plant had been incorporated into the Nord Door

facility. A rectangular fish net storage building, and several smaller structures were present on the far southern portion of the Site (current Knoll Area), south of the casket facility, from at least 1947 through 1955. The structures were no longer present in 1967, by which time the area had been further filled creating the “knoll” feature (SLR and Anchor QEA 2021; *Final Remedial Investigation and Feasibility Study* [RI/FS])

Based on a review of historical aerial photographs and Sanborn maps, it appears that the original boiler for the Nord Door facility was an oil-fired boiler located near Norton Avenue (now West Marine View Drive). A 1955 aerial photograph and the 1957 Sanborn Map (Appendix A of SLR and Anchor QEA 2021) show that the former pole treating plant had been removed from the property and the boiler for the Nord Door facility was a wood-fired boiler. Sometime prior to 1968, the wood-fired boiler was moved to its current location in the center of the upland property, adjacent to the main manufacturing building.

JELD-WEN acquired certain assets, including the real property of the Nord Door plant, in May 1986 through the E.A. Nord bankruptcy proceeding. Continued operations associated with the Nord Door plant by JELD-WEN included buying rough green wood, sorting, stacking, drying, planing, and cutting the lumber. The finished wooden doors, rails, posts, columns, and spindles were assembled on site.

JELD-WEN ceased operations at the Nord Door plant in 2005. Various asphalt companies (Heidelberg Materials [current], Cadman, Cemex, Rinkers Materials and Sterling Asphalt) have leased and operated the northwest portion of the upland property as an asphalt batch plant since the mid-1990s. Based on public records, Heidelberg Materials has purchased a portion of the upland property in 2024. The remainder of the upland property is owned by W&W Investments, LLC (W&W Investments), which it leases to various industrial tenants. The surrounding parcels within the tide flats are owned by W&W Investments and the Port of Everett.

1.2 Cleanup Standards for Marine Sediment

The cleanup standards for marine sediment at the Site were established in the CAP. This section summarizes the contaminants of concern (COC) and cleanup standards for marine sediment. Cleanup standards consist of the following: 1) Sediment Cleanup Levels (SCLs) that are defined by the concentration of hazardous substances protective of human health and the environment; 2) pathway-specific point of compliance (POC) that designates the location at the Site where the SCLs must be met; and 3) additional regulatory requirements that apply to the cleanup action, e.g., ARAR (Applicable or Relevant and Appropriate Requirements).

This section also includes a description of selected sediment SCLs for the Site, the POCs for sediment, and Remediation Levels (RELs) from the CAP. RELs are used to identify the concentrations of

hazardous substances at which different cleanup action components will be implemented. RELs are used at this Site as a combination of cleanup action components are used to achieve the SCL at the POC.

1.2.1 Contaminants of Concern in Marine Sediment

The following chemicals were identified as COCs for sediment in the CAP based on exceedances of the applicable SMS Sediment Cleanup Objective (SCO) criteria as follows:

- **Total polychlorinated biphenyls (PCBs; Aroclors or congeners):** Concentrations exceed the SCO criterion of 130 micrograms per kilogram ($\mu\text{g}/\text{kg}$) dry weight (dw) based on benthic protection and the SCO criterion of 30 $\mu\text{g}/\text{kg}$ dw (based on protection of human health).
- **Total dioxin/furan (D/F) toxicity equivalence (TEQ):** Concentrations exceed the SCO criterion of 5 nanograms per kilogram (ng/kg) dw (based on the practical quantitation limit [PQL]).
- **Total coplanar PCB congener TEQ:** Concentrations do not exceed the site-specific SCO of 1.5 ng/kg dw (based on the PQL); however, the risk from D/F and coplanar PCB congener TEQ levels are additive. Areas with elevated PCB congener TEQ are spatially delineated within the extent total PCB and D/F TEQ exceedance area; therefore, coplanar PCB congener TEQ are COCs but are not considered an indicator hazardous substance (IHS).
- **Carcinogenic polycyclic aromatic hydrocarbon (cPAH) TEQ:** Concentrations exceed the SCO criterion of 21 $\mu\text{g}/\text{kg}$ dw (based on natural background¹). Areas where sediment exceeds the SCO are spatially delineated within the extent of the total PCB and D/F TEQ exceedance area; therefore, cPAH TEQ is a COC but is not considered an IHS. However, polycyclic aromatic hydrocarbon (PAH) source control (creosote-treated pile/structure removal) is integrated into the selected remedial action.

1.2.2 Marine Sediment Cleanup Levels

The following marine SCLs for sediment were defined in the CAP to address COCs. Applicable sediment SCLs² for the Site are summarized in Table 1.

1.2.3 Marine Sediment Point of Compliance

For marine sediments, the vertical POC is surface sediments within the biologically active zone. The biologically active zone is the depth in surface sediments where the species critical to the function, diversity, and integrity of the benthic community are located. As described in the CAP, the vertical

¹ Regional background for cPAH TEQ in Port Gardner Bay has been established as 56 $\mu\text{g}/\text{kg}$ in the Washington State Department of Ecology Sediment Cleanup User's Manual (SCUM) Table 10-2 based on the Port Gardner Bay Regional Background: Data Evaluation and Summary Report (Ecology 2014).

² The applicable SCL refers to the sediment cleanup level specified in WAC 173-204-560(2)(a).

POC at the Site is 30 centimeters (approximately 1 foot). Benthic protection is required on a point-by-point SCL basis (benthic protection criteria in accordance with the SMS).

For bioaccumulative contaminants of potential concern, such as total PCBs and D/F TEQ, the horizontal POC defined under SMS is based on the surface-weighted average concentration (SWAC). SWACs are applied to the entire Site area that exceeds the site-specific SCL. In accordance with the CAP, the SWAC compliance area encompasses all surface and near-surface sediment areas (i.e., to a depth of 1 foot below mudline) with concentrations of total PCBs and/or D/F TEQ exceeding preliminary SCO chemical criteria.

1.2.4 Marine Sediment Remediation Levels

As described in WAC 173-340-355, a cleanup action selected for a site will often involve a combination of cleanup action components, and RELs may be used to identify the concentrations (or other methods of identification) of hazardous substances at which different cleanup action components will be implemented. RELs are not cleanup levels and, by definition, these exceed cleanup levels. RELs must meet each of the minimum requirements of cleanup as specified in WAC 173-340-360.

The following concentration break points were used to establish REL values in the FS and were defined in the CAP:

- Total PCBs:
 - Monitored Natural Recovery (MNR) REL: 30 µg/kg dw (human health protection-based SCO)
 - Enhanced Monitored Natural Recovery (EMNR) REL: 117 µg/kg (hill-topping-based REL to achieve a 30 µg/kg dw SWAC)
 - Removal REL: 130 µg/kg dw (benthic protection SCO)
- D/F TEQ:
 - MNR REL: 5 ng/kg dw (PQL-based SCO)
 - EMNR REL: 8 ng/kg dw (hill-topping-based REL to achieve a 5 ng/kg dw SWAC)
 - Removal REL: 15 ng/kg dw (best professional judgment based on direct sediment contact [Ecology 2019])

Wood debris in marine sediments³ was identified in the CAP as having the potential to adversely affect the benthic community when present in sufficient quantities. Locations with less than 25% wood debris by volume are unlikely to cause adverse effects to the benthic community, and 25% has been selected as an SCL for other remediation sites managed by Ecology (Ecology 2013). Wood

³ Wood debris in marine sediments may be related to historical log rafting, log storage, and lumber processing operations not associated with the former Nord Door Facility operations.

debris by volume data were collected within the Site footprint as a component of the Step 2 PRDI implementation by sieving the 0- to 1-foot surface interval and deeper intervals as warranted at select locations (Section 2.3.5).

1.3 Summary of the Selected Cleanup Action

As described in the CAP, this PRDI collected supplemental data to inform the design of the marine sediment cleanup actions at the Site listed below. Additional removal action details are presented in the CAP.

- Demolish and dispose of two shoreline bulkheads and the remnant barge structure.
- Construct shoreline erosion protection along the top of the bank adjacent to the marine Sediment Management Area (SMA)-3 as needed.
- Monitor the natural recovery of surface sediments in SMA-1 (areas with sediment concentrations between 5 and 8 ng/kg dw D/F TEQ and areas with sediment concentrations between 30 and 117 µg/kg dw total PCBs).
- Place an EMNR layer in areas with sediment concentrations between 8 and 15 ng/kg dw D/F TEQ and in areas with sediment concentrations between 117 and 130 µg/kg dw total PCBs.
- Excavate sediments in SMA-3 (and potentially portions of SMA-2⁴) in areas with sediment concentrations above 15 ng/kg dw D/F TEQ, and in areas with sediment concentrations above 130 µg/kg dw total PCBs.
- Construct an engineered cap over a portion of SMA-3 if needed (Logway area), following excavation.

The extent of engineered caps and removal areas will be refined by the potentially liable persons and provided to Ecology for review and approval during remedial design. Requirements for shoreline protection and slope stabilization in demolition and piling removal areas and in areas adjacent to engineered caps or excavations will also be refined during remedial design, including considerations for climate change and seismic stability. Figure 2 depicts the selected marine sediment cleanup action and SMAs from the CAP. The SMAs presented in the CAP have been refined based on the PRDI results (Section 4).

1.4 Pre-Remedial Design Investigation Objectives

The PRDI was implemented in two steps with the primary objectives to inform the lateral and vertical extent of contamination for remedial design, obtain additional geotechnical and subsurface chemical concentration data to inform the remedial design of dredge/excavation prisms (i.e., depth of contamination within the refined SMAs) to achieve removal in areas exceeding RELs, and inform the

⁴ Ecology has required removal of additional PCB-impacted sediment in the SMA-2 Knoll Area. This removal area will be determined during design.

engineered cap design in the Logway portion of SMA-3. The remedial design will include SMAs designated for MNR (SMA-1), EMNR (SMA-2), removal and backfill (portions of SMA-3), and removal with follow-on engineered capping as needed (portions of SMA-3). The remedial design for the required marine sediment cleanup action at the Site will comply with the sediment cleanup standards described in Section 1.2.

2 Pre-Remedial Design Investigation Overview

2.1 Pre-Remedial Design Data Gaps

Data collected during Step 1 and Step 2 were intended to fill data gaps as outlined in the respective PRDI Work Plans (Anchor QEA 2023, 2024). The existing data collected prior to Step 1 were sufficient to characterize the nature and extent of COC contamination in the marine portions of the Site, for the purpose of the RI/FS. Further lateral delineation in EMNR and removal and/or capping areas was needed to refine these areas for the remedial design and ensure actions are protective of human health. The collection of additional surface sediment chemical concentration data sufficient to inform the remedial design of MNR areas (SMA-1), ENMR areas (SMA-2), and complete removal or partial removal and engineered capping areas (SMA-3) was collected as the Step 1 investigation.

Based on review of the Step 1 data, the following data gaps were identified and filled by the Step 2 investigation:

- Address the uncertainty regarding the presence of wood. Additional cores were collected to evaluate the presence of wood in the 0- to 1-foot interval and deeper intervals as necessary.
- Evaluate cPAH SWACs. The remedial action needs to result in a post-cleanup cPAH TEQ SWAC that meets cPAH TEQ background concentrations. The reduction will be achieved when replacing surface sediment cPAH TEQ concentrations in removal and EMNR areas with clean backfill, capping, or EMNR material. To inform this evaluation during remedial design, additional cPAH data were collected from within the Site boundary outside of areas where removal or EMNR are likely to occur. These additional cPAH data targeted areas where the inverse distance weighted (IDW) interpolation indicated higher concentrations based on the Step 1 data.
- Further delineate surface sediment D/F TEQ and PCB chemical concentrations in EMNR and removal and/or capping areas to refine these areas for the remedial design and to ensure actions are protective of human health. Defining the lateral extent of contamination was the primary objective of the Step 1 PRDI; however, as anticipated, additional surface sediment testing was needed during the Step 2 PRDI. Additionally, chemical characterization data for D/F TEQ and PCBs were needed for sediment behind the bulkheads in the Logway that will be removed as part of the cleanup action. These surface sediment chemical characterization data will inform disposal/material management and evaluate recontamination potential, during remedial design and construction.
- Collect subsurface chemical concentration data to inform the remedial design of dredge/excavation prisms (i.e., depth of contamination within the laterally refined removal and EMNR areas), achieve removal of sediment exceeding RELs, and inform engineered cap design in areas where complete removal of sediment exceeding RELs is not feasible (i.e., Logway area).

- Collect geotechnical data to characterize material physical properties within the immediately adjacent shoreline slopes to support remedial excavation design and determine potential shoring requirements.
- Collect porewater data to inform the remedial design for capping that will be protective and will not be subject to recontamination.

Section 3 discusses the data collected to address each of these data gaps as part of the PRDI.

2.2 Investigation Areas

The marine portions of the Site have been divided into three subareas (i.e., the Logway, South Shoreline and Knoll Area) based on their physical location, characteristics, and clean up actions (Figure 1). The following subsections briefly describe each area.

2.2.1 *Logway*

The Logway is defined as the channel along the northern edge of the property boundary, separating the Jeld Wen Site and the neighboring Baywood property. The Logway is a narrow inlet tide flat area with a steep armored slope to the upland portion of the Site. It contains an active outfall at the head of the inlet that discharges stormwater from the adjacent Baywood property, two historical outfalls (status unknown), two wooden bulkheads, and numerous wood pilings. Historical operations within the Logway included log storage and transloading.

2.2.2 *The South Shoreline*

The South Shoreline is defined as the marine area along the Site's South Shoreline. The South Shoreline is a tidal flat and contains 6 or 7 historical outfalls (status unknown), the remnants of a wooden barge, and numerous wood pilings. Historical operations within the South Shoreline included log rafting.

2.2.3 *Knoll Area*

An approximately 2-acre vegetated knoll is located at the southern end of the Site. The Knoll Area was created through several apparent filling operations, initially being filled to match the surrounding grade in the early to mid-1960s. Additional fill material was placed during the 1970s which created the existing "knoll" feature (Figure 1). The Knoll Area is primarily tidal flat and contains one outfall. The outfall in the Knoll Area drains Mausby Marsh. Historical operations within the Knoll Area included log storage.

2.3 Investigation Implementation Elements

The investigations conducted to implement the Step 1 and 2 PRDIs are detailed in the Step 1 PRDI Work Plan (Anchor QEA 2023) and Step 2 PRDI Work Plan (Anchor QEA 2024), respectively. The Step

1 PRDI workplan was approved conditionally by Ecology prior to the implementation of the field investigation due to time constraints, while the final work plan approval was received following the start of the field investigation. The Step 2 PRDI Work Plan was reviewed and approved by Ecology prior to the field investigation. The Step 1 PRDI was conducted by Anchor QEA from August 1 to August 17, 2023, and included surface sediment grab sampling. Following receipt of the Step 1 data, Anchor QEA and Ecology worked collaboratively to evaluate the data, identify remaining data gaps, and develop the Step 2 PRDI scope of work. The Step 2 PRDI was conducted by Anchor QEA from May 28 to June 6, 2024 (surface sediment sampling), July 17 to July 22, 2024 (subsurface sediment coring), and August 19 to 22, 2024 (wood volume sieve sampling and measurements). The following subsections describe the PRDI sampling and data collection, that was performed under both PRDI Work Plans, to meet the objectives identified in Section 1.4 and fill the data gaps specified in Section 2.1.

2.3.1 Surface Sediment D/F and PCB Delineation

Surface sediment was collected for D/F and PCB analysis across the entire Site as part of the Step 1 investigation. A total of 82 D/F and 40 PCB surface sediment samples were collected from the three marine investigation areas for additional delineation of D/F and PCBs. Sample collection during Step 1 utilized a clam gun or a 3-inch diameter polyethylene tube and targeted the 0- to 1-foot depth interval. However, refusal was encountered at some locations before reaching the 1-foot target depth. The Step 1 surface sediment samples were collected at the locations specified in the PRDI Work Plan and, except for refusals, sampled in accordance with the Step 1 PRDI Sampling and Analysis Plan (Anchor QEA, 2023). Refusal before 1 foot was encountered at 38 of the 48 Knoll Area locations, 6 of the 37 Logway locations, and 17 of the 33 Southern Shoreline locations.

Following the Step 1 data collection, the updated IDW interpolation resulted in additional areas where D/F and PCB delineation was needed. In consultation with Ecology, Step 1 locations in the Logway and the South Shoreline, where refusal was encountered before 1 foot, were excluded from the interpolations. All locations in the Knoll area were used in these interpolations because the highest COC concentrations in the Knoll Area were generally highest at the surface, decreasing with depth. A total of 35 additional D/F surface sediment samples and 10 additional PCB samples were collected during the Step 2 investigation. Additional Step 2 surface sediment samples in the South Shoreline were focused in areas of refusal during the Step 1 investigation, which impeded the ability to determine lateral extent of contamination, and in other areas where the Step 1 data had not adequately bounded REL exceedances (Section 3.1). Sample collection during Step 2 was initially attempted using a hydraulic grab sampler. In locations where Site conditions prohibited effective use of a grab sampler, 3-foot short cores were collected using vibracore sampling procedures to obtain acceptable sample depths and recoveries. The Step 2 surface sediment grabs and short cores were collected at target locations and sampled in accordance with the Step 2 PRDI SAP (Anchor QEA,

2024). The results of the surface sediment D/F and PCB PRDI delineation sampling are presented in Section 3.1.

2.3.2 Surface Sediment cPAH Evaluations

Surface sediment was collected for cPAH analysis across the entire Site as part of the Step 1 investigation. A total of 53 surface sediment samples were collected during Step 1 from the three marine investigation areas for post-cleanup cPAH SWAC evaluation. Sample collection during Step 1 utilized a clam gun or a 3-inch diameter polyethylene tube and targeted the 0 to 1-foot depth interval. However, refusal was encountered at some locations before reaching 1 foot. The Step 1 surface sediment samples were collected at target locations and, except for refusals, sampled in accordance with the Step 1 PRDI SAP (Anchor QEA 2023).

Following the Step 1 data collection, the updated IDW interpolation resulted in elevated cPAH TEQ sediment concentrations, extending beyond areas where removal to address D/F and PCB concentrations was likely to occur, mainly in the Knoll Area. As such, Step 2 surface samples were only located in portions of the Knoll Area, within the Site boundary, but outside of areas where removal or EMNR are anticipated. These areas were not impacted by the refusals from Step 1. A total of six additional surface sediment samples were collected during the Step 2 investigation. Sample collection during Step 2 was initially attempted using a hydraulic grab sampler. In locations where Site conditions prohibited effective use of a grab sampler, 3-foot short cores were collected using vibracore sampling procedures to obtain acceptable sample depths and recoveries. The Step 2 surface sediment grabs and short cores were collected at target locations and sampled in accordance with the Step 2 PRDI SAP (Anchor QEA 2024). The results of the surface sediment cPAH evaluation sampling are presented in Section 3.2.

2.3.3 Characterization of Surface Sediment Behind Bulkheads

Surface sediment was collected for D/F and PCB analysis from the two shoreline bulkheads to be removed from within the Logway. One composite surface sediment sample (0- to 0.5-foot) was collected from behind each bulkhead for chemical characterization of the sediment that will need to be removed as part of the cleanup action along with the bulkheads. The composite sample behind the southernmost bulkhead was composed of six subsamples. The composite sample behind the northernmost bulkhead was composed of three subsamples. All subsample aliquots and composite samples were collected at target locations and composited following procedures specified in the Step 2 PRDI SAP (Anchor QEA, 2024). The results of the bulkhead sediment characterization sampling are presented in Section 3.3.

2.3.4 Subsurface Sediment D/F and PCB Delineation

Subsurface sediment was collected for D/F and PCB analysis as part of the Step 1 and 2 PRDI (Table 2). A total of thirty-one sediment cores of varying lengths for subsurface sediment were collected and analyzed for vertical delineation of D/F and PCBs within the three marine investigation areas. Cores were advanced throughout the three marine investigation areas. Nine cores were collected from the Knoll Area, 16 from the South Shoreline, and six from the Logway. Sediment was collected in 1-foot intervals and homogenized before placement into jars for specific analyses and archive. Subsurface sediment cores were collected at target locations and sampled in accordance with the Step 2 PRDI SAP (Anchor QEA, 2024). Upon review of the initial subsurface sediment core data, Anchor QEA and Ecology evaluated the data and collaboratively selected additional archive sample intervals for analysis to further improve the vertical delineations. The results of the subsurface sediment D/F and PCB delineation sampling are presented in Section 3.4.

2.3.5 Wood Volume Measurements

Surface and shallow subsurface sediment was collected for analysis of wood debris content by volume as part of the Step 2 PRDI. A total of 13 subsurface short cores (0- to 3-foot) for wood volume measurements were advanced throughout the three marine investigation areas. The locations of these sieving and wood volume measurement cores were selected to provide spatial coverage throughout the area, outside of locations where removal will likely occur, to evaluate the post-cleanup conditions. Additionally, wood volume measurement locations were selected to coincide with previous Step 1 PRDI locations where refusal was encountered. By re-occupying these locations, uncertainties regarding the potential presence of wood and the cause of Step 1 PRDI refusals could be directly addressed. The 13 wood volume analysis sieving cores were advanced to the target depth or refusal as described in the Step 2 PRDI SAP (Anchor QEA, 2024).

The 0- to 1-foot interval of each core was sieved initially with the 1.0-mm sieve as described in the Step 2 PRDI SAP. Following the 1.0-mm sieve, the interval was to be sieved using a 0.5-mm sieve. After attempting to sieve the first processed sample with the 0.5-mm sieve, it was deemed infeasible by Anchor QEA and Ecology field staff to separate sand grains and wood fragments within the 0.5-mm sieve, and use of the 0.5-mm sieve was abandoned for the remainder of the sampling event. Remaining intervals were sieved using only the 1.0-mm sieve. The results of the wood volume measurement sampling are presented in Section 3.5.

2.3.6 Porewater D/F TEQ and PCB Capping Evaluation

Porewater D/F and PCB data were collected as part of the Step 2 PRDI. A total of nine sediment cores were collected for ex situ porewater evaluation using the Solid Phase Micro Extraction (SPME)

methodology. These data will be used to inform the cap design. Ex situ SPME tests were performed for the sediment samples at Anchor QEA's Environmental Geochemistry Laboratory (EGL) in Portland, Oregon.

In the test, polydimethylsiloxane (PDMS)-coated glass fibers (i.e., SPME fibers) spiked with performance reference compounds (PRCs) were deployed in surface sediments collected from the site for 34 days. PRCs are isotope-labeled dioxins and PCBs spiked to SPME fibers prior to deployment. They are used to estimate the fraction of equilibrium of the target chemicals between sediment porewater and the SPME fibers. During deployment, PRCs diffused out of the SPME fiber while target chemicals diffused into them.

After retrieval, target chemicals and PRCs were extracted and quantified at an outside analytical laboratory (SGS North America). By combining the measured loss of PRCs with equations describing mass transport, the fraction of equilibrium of target chemicals can be estimated, allowing for the estimation of bioavailable concentrations of D/Fs and PCBs. The test methodology was conducted in accordance with the EPA passive sampling manual (EPA, SERDP, and ESTCP 2017) and the Step 2 PRDI SAP. The following ex situ SPME samples were collected:

- Knoll Area: One SPME for D/F TEQ (SC-029) and two SPMEs for PCB congener analysis (PW-025 and PW-032)
- Southern Shoreline: Three SPMEs for D/F TEQ analysis (PW-004, PW-013, and PW-019)
- Logway: Three SPMEs for D/F TEQ analysis (PW-036, PW-041, PW-044)

The nine ex situ porewater evaluation cores were advanced to the target depth or refusal; samples were collected from the 2- to 3-foot interval and submitted to the laboratory for chemical analysis following methodology detailed in the Step 2 PRDI Work Plan (Anchor QEA 2024). One of the nine samples (PW-025) was lost at the analytical laboratory and, therefore, is not included in the study. The results of the porewater D/F and PCB capping evaluation sampling are presented in Section 3.6.

2.3.7 Geotechnical Data Collection

Geotechnical data to inform shoreline stability evaluations were collected from upland locations adjacent to the marine investigation areas (Table 3). Eight hollow-stem auger (HSA) borings (GT-01 through GT-08) were completed along upland shoreline locations boring locations were adjusted to prevent the impedance of Site activities or utility contacts. The borings were advanced to a depth between 20 and 42 feet with standard penetration tests (SPTs) performed and sampled every 5 feet beyond the upper 10 feet and every 2.5 feet for the upper 10 feet. Four borings were terminated before reaching the predetermined end depth due to a layer of heaving sand that proved uncontrollable with water and could not be successfully drilled through. Laboratory testing for moisture content, grain size, and Atterberg limits were selected and performed in order to characterize each unique lithology. Shelby tube samples were not collected as there was no

appropriate material encountered during drilling. All geotechnical borings were sampled following methodology detailed in the Step 2 PRDI Work Plan (Anchor QEA, 2024). The results of the geotechnical data collection sampling are presented in Section 3.7.

2.3.8 Bathymetric Survey

The bathymetric and shoreline survey was performed by eTrac (Woolpert) acting as a subcontractor to Anchor QEA. The survey was conducted using aerial and stationary Light Detection and Ranging (LiDAR) and collected on November 15 and 18, 2024, at low tides of -3.07 and -3.26 feet, respectively, as measured at the Everett, Washington, tide station (#9447659). The survey was conducted within the marine Site boundary (Figure 7) and 100-foot buffer beyond the boundary where possible. Limitations in LiDAR data collection occurred where standing water was present during low tides, as LiDAR cannot penetrate water surface; however, this data gap was determined to be minor and limited to small shallow pools within the intertidal mudflat. The survey encompassed the in-water project area and included some upland and shoreline locations, to supplement and link into existing upland survey data. LiDAR was collected with a Riegl VZ400 Terrestrial Scanner, supported by Applanix POS MV V5 Base Station. Data processing utilized Horizontal Datum/Projection of North American Datum of 1983 (NAD 83; 2011) and Vertical Datum of mean lower low water (MLLW) using North American Vertical Datum of 1988 (NAVD88) GEOID (2012B), reduced to the Everett, Washington National Oceanic and Atmospheric Administration (NOAA) Tide Station, NAVD88 with plus 2.034' for MLLW.

2.4 Permitting and Regulatory Requirements

The investigation required marine mammal monitoring and archaeological monitoring, intended to protect wildlife, cultural, and tribal resources as described below.

2.4.1 Marine Mammal Monitoring

In compliance with the Endangered Species Act (ESA), marine mammal monitoring was conducted during all in-water vibracore sampling activities for the project. Monitoring was performed in accordance with the Marine Mammal Monitoring Plan (Appendix B) by one Protected Species Observer (PSO). The PSO monitored from the sampling vessel over the course of the project. Due to the small size of the exclusion zone, the entire monitoring area for each sampling location could effectively be monitored from the vessel by one observer.

Under ESA Section 7 consultation, the project was required to monitor for two listed species and included in the following monitored lists:

- Mid-Frequency Cetaceans (Dolphins and Whales): Southern Resident killer whale distinct population segment (*Orcinus orca*) and transient killer whales

- Low-Frequency Cetaceans (Whales): Humpback whale (*Megaptera novaeangliae*) and gray whale (*Eschrichtius robustus*)
- Otariid Pinnipeds (Sea Lions/Eared): Stellar sea lion (*Eumetopias jubatus*)

No listed marine mammal species were observed during the monitoring period. A final monitoring report is provided in Appendix B.

2.4.2 Archaeological Monitoring

The Archaeological and Historic Preservation Act (16 United States Code § 496a-1) is applicable if any covered materials are discovered during excavation activities performed as a part of the selected Site cleanup action. Cultural resources were assessed by a professional archaeologist during the development of the 2022 State Environmental Policy Act (SEPA) Environmental Checklist for the Site (JELD-WEN 2022). It was determined that there is low potential to encounter archaeological/cultural resources during this sampling effort. Due to the proximity of the Site to culturally sensitive areas, an Inadvertent Discovery Plan was included in Appendix A of both Step 1 and Step 2 PRDI SAPs and was kept on Site during sampling activities.

From June 17 to 21, 2024, Equinox Research and Consulting International Inc. (ERCI) monitored as Anderson Environmental Contracting, LLC (AEC) conducted direct-push continuous boring using a Geoprobe 7822DT⁵. From June 17 to 20, 2024, ERCI archaeologist Madison N. Henley, MA, monitored 67 geoprobes. Geoprobes were terminated at 10 feet below ground surface (bgs), except for two of the geoprobes, which were terminated at 15 feet bgs. On June 21, 2024, ERCI archaeologist Fiona L. Koehnen-Hots, BA, monitored drilling of six geoprobes to a depth of 10 feet bgs. In total, 73 geoprobes were drilled in and around the warehouse. SLR Consulting collected soil samples and tested the sediments during the drilling.

From July 8 to 12, 2024, ERCI monitored as AEC conducted sonic boring using a Terra Sonic 150 Compact Crawler for drilling and installation of 12 monitoring wells and two sparge wells, installed inside of the warehouse. Soils from each sonic boring were collected in plastic core bags, which were reviewed by ERCI and SLR. The depth of disturbance of the sonic boring ranged from 13 to 57 feet bgs. Based on observed strata, the depth needed to require monitoring was increased to 30 feet bgs.

From August 19 to 22, 2024, ERCI monitored during the installation of eight HSA borings along the shoreline of the Site. Soils samples were taken using SPT and observed and documented in the sampling apparatus by the ERCI archaeologist. The archaeologist observed cuttings from the borings periodically. Anchor QEA documented and sampled soils during the drilling (Section 2.3.7). HSA

⁵ These activities were conducted as part of the upland pre-remedial design investigation and are not discussed in the data report.

borings were terminated between 20 and 42 feet bgs. The ERCI archaeological monitoring report for all observations described above is included in Appendix C.

3 Pre-Remedial Design Investigation Data Summary

The following sections present a summary of the data collected during the Step 1 and Step 2 PRDI investigations. The laboratory analytical reports are presented in Appendix F. For chemical summations, different non-detect summation methods were performed (i.e., assuming non-detect [U] equals 0, $\frac{1}{2}$, and the reporting limit). Validation reports for the PRDI data are provided in Appendix G. The reviews confirmed that the overall quality of the chemistry data was acceptable for use as described in Section 5.

3.1 Surface Sediment D/F and PCB Delineation

The following subsections summarize the results of surface sediment D/F and total PCB results by marine investigation area. Surface sediment was collected in all three marine areas during Step 1 and Step 2 of the investigation. Surface sediment was analyzed for D/F and PCBs to improve the lateral delineation of sediment exceeding the cleanup standards presented in Section 1.2. The historical RI/FS data have been combined with the PRDI data (including Step 1 and Step 2) and interpolated using the IDW algorithm as implemented within ArcGIS software. For the PRDI dataset only samples that had full recovery from 0 to 1 foot below mudline (bml) were used for the Logway and South Shoreline to supplement the RI dataset and update interpolations.

Recovery issues were encountered primarily during the Step 1 investigation and subsequent samples were collected during Step 2, to address data gaps, as described in Section 2.3. Refusal before 1 foot was encountered in all three areas of the site; however, surface samples between 0- and 1-foot bml, regardless of total depth, were used for the Knoll Area interpolation because the historical data and conceptual site model (CSM) for the Knoll Area indicate that contaminant concentrations are highest near the surface. Even though all Step 1 surface samples were used in the revised Knoll Area interpolations, an additional 5 surface grab samples, and 9 surface samples from the 0 to 1-foot interval in subsurface cores, were collected in the Knoll Area as part of the Step 2 investigation. Results from these surface samples were used in the updated interpolations following Step 2.

In the Logway, there were fewer samples with refusal (6 of the 37 locations), and these samples were not in locations that resulted in the need for additional Step 2 surface sediment data to delineate the lateral extent of REL exceedances (i.e., only subsurface sediment samples to delineate the vertical extent of contamination were required in the Logway for Step 2). It should be noted that surface samples were collected from 0 to 1 foot at the 6 locations where sediment cores were advanced to delineate the vertical extent of REL exceedances in the Logway as part of the Step 2 investigation. Results from these surface samples were used in the updated interpolations following Step 2.

Conversely, 17 out of the 33 Step 1 samples in the South Shoreline met with refusal. This resulted in the need for additional surface sediment data to delineate the lateral extent of REL exceedances during Step 2. The Step 2 surface sediment data for the South Shoreline included 4 surface sediment grab samples and 16 surface samples from the 0 to 1-foot interval in subsurface cores. Results from these surface samples were used in the updated interpolations following Step 2. The PRDI surface sediment data are presented in Tables 4 and 5.

3.1.1 Logway

There were no exceedances of the capping/removal or EMNR RELs for PCBs in the Logway. Figure 3 presents the updated D/F TEQ interpolation in the Logway. Interpolated concentrations identified four small areas requiring capping or removal, located throughout the Logway along the shoreline. One of the four areas is located at the head of the Logway and is a result of two historical samples (3SED8 and 3SED9); 3SED8 was collected from behind the bulkhead to be removed, and 3SED9 was collected from a location that has subsequently been covered by the recently installed Baywood outfall and splash pad. The remaining three areas were based on the result of a single sample at each location exceeding the REL of **15 ng/kg** D/F TEQ as follows:

1. JW-PDI-SG-084, FS2757-3SED7-A, FS2757-3SED7-B, and FS2757-3SED7-C⁶ (**21.0 J ng/kg, 42 ng/kg, 31 ng/kg, and 48.5 ng/kg**, respectively)

⁶ FS2757-3SED7-A, FS2757-3SED7-B, and FS2757-3SED7-C are shown in Figure 3 as FS2757-3SED7-composite with an average concentration of 40.5 ng/kg.

2. JW-EA02-SS07 (**17 ng/kg**)
3. JW-EA04-SS13 (**17.2 ng/kg**)

These refined removal areas are generally consistent with the CSM for D/F in the marine areas of the Site⁷ and the contaminant distribution from the CAP, although they are generally smaller in size due to the additional bounding data collected during the PRDIs. The two southernmost areas are located adjacent to historical outfalls, while the two northernmost removal areas do not correlate with any known historical outfall location. Areas with interpolated concentrations exceeding the EMNR REL also decreased in size. Figure 3 illustrates EMNR placement is only necessary within approximately 20 feet of capping/removal areas except for EMNR driven by the EA01-SS02 sample.

The final delineation and extent of capping will be defined and presented in the Engineering Design Report and Construction Plans and Specifications phases.

3.1.2 South Shoreline

There were no exceedances of the capping/removal or EMNR RELs for PCBs in the South Shoreline. Figure 4 presents the updated D/F TEQ interpolation in the South Shoreline. Interpolated concentrations within the South Shoreline are consistent with the CSM for D/F in marine areas of the Site and the CAP, with removal areas identified near the surface and approximately 30 to 75 feet out from the shoreline, adjacent to historical outfalls (Figure 4). In general, areas requiring removal and EMNR have been refined and decreased in size due to the additional bounding data collected during the PRDIs. Two additional removal areas have been identified. These areas are associated with sample SC-001 and FS2757-3SED1-Composite on the far eastern and western ends of the South Shoreline area respectively. Sample FS2757-3SED1-Composite is from the RI/FS dataset; an error with the D/F TEQ calculation was identified in the database, and it resulted in a slight increase for D/F TEQ at this location. There are now seven discrete areas, each based on the result of either one or two sample locations exceeding the REL of **15 ng/kg** D/F TEQ as follows:

1. PDI-SG-001 (**16.5 ng/kg**)
2. PDI-SG-014 (**43.2 ng/kg**)
3. EA06-SS23 (**90.6 ng/kg**)
4. SG-151_2024 (**108 ng/kg**)
5. EA07-SC-27-2013 and EA07-SS27 (**51 ng/kg and 49 ng/kg**, respectively)

⁷ The primary source of D/F to sediment is likely due to hog fuel burner emissions and/or upland manufacturing activities where upland deposits of D/F were transported to the marine sediment via surface water runoff (i.e., overland flow or current/former outfall) and direct atmospheric deposition. Some areas where stormwater draining upland areas of the Site historically discharged to surface sediment via outfall may have subsequently become buried by periodic filling events (e.g., deeper D/F concentrations identified in the Logway).

6. PDI-SG-013 (**27 ng/kg**)
7. FS2757-3SED1-Composite (**18 ng/kg**)

Areas with interpolated concentrations exceeding the EMNR REL also decreased in size. The two exceptions are areas identified for EMNR located around samples EA07-SS25 and PDI-SG-011, which extend approximately 85 to 135 feet from the shoreline.

The final delineation and extent of removal will be defined and presented in the Engineering Design Report and Construction Plans and Specifications phases.

3.1.3 *Knoll*

Surface sediment collected in the Knoll Area was analyzed for PCBs as well as D/F to improve the lateral delineation of sediment exceeding the cleanup standards presented in Section 1.2. Prior to the PRDIs, there were no areas exceeding the D/F TEQ REL for removal, only an area requiring EMNR.

Results of the updated IDW interpolation for D/F TEQ are presented in Figure 5. The PRDIs identified four isolated areas, ranging from approximately 20 to 50 feet in diameter, exceeding the REL for removal. Each of these areas was based on the result of a single sample location exceeding the REL of **15 ng/kg** D/F TEQ as follows:

1. JW-PDI-SG-034 (**16 ng/kg**)
2. JW-PDI-SG-055 (**15.4 ng/kg**)
3. JW-PDI-SG-041 (**16 ng/kg**)
4. JW-PDI-SG-044 (**35.2 ng/kg**)

The areas exceeding the REL for EMNR have changed in shape but remain similar in size based on the additional PRDI data.

Results of the updated IDW interpolation for total PCBs are presented in Figure 6. The PRDIs identified six isolated areas, ranging from approximately 25 to 80 feet in diameter, exceeding the PCB REL for removal. These areas were based on the result of one to three sample locations exceeding the REL of **130 µg/kg** as follows:

1. FS2757-3SED12-A, FS2757-3SED12-B⁸, and SC-024_2024 (**1,400 µg/kg, 49 µg/kg, and 253 µg/kg**, respectively)
2. JW-PDI-SG-052 (**148 µg/kg**)
3. JW-EA10-SS39 (**140 µg/kg**)
4. JW-PDI-SG-055 (**139 µg/kg**)
5. SC-029_2024 (**146 µg/kg**)

⁸ FS2757-3SED12-A, FS2757-3SED12-B are shown on Figure 6 as FS2757-3SED12-composite with an average concentration of 724.5 µg/kg.

6. JW-PDI-SG-118 and SC-032_2024 (184 µg/kg and 290 µg/kg)

Previously the areas exceeding the PCB REL for removal were two larger areas. The previously identified removal area in the northeastern corner of the Knoll Area has decreased in size and been refined to four smaller separate removal areas. Areas identified with concentrations exceeding the REL for EMNR have been refined to the surrounding areas of removal, reaching generally no further than 30 feet from a removal action.

The final delineation and extent of removal will be defined and presented in the Engineering Design Report and Construction Plans and Specifications phases.

3.2 Surface Sediment cPAH Evaluations

This section summarizes analytical results for the Step 1 and Step 2 PRDI surface sediment cPAH sampling. Surface sediment was collected and analyzed for cPAHs across the entire Site as part of the Step 1 investigation. Additional surface sediment cPAH data was collected in the Knoll Area as part of the Step 2 investigation. The updated surface sediment data for the cPAH TEQ SWAC evaluations are presented in Figure 7 and Table 6.

While D/F and PCB samples were collected to improve the lateral delineation of sediment exceeding the cleanup standards, cPAH samples were collected to inform remedial design evaluations of post-cleanup cPAH TEQ SWACs. As discussed in Section 2.1, the remedial action needs to result in a post-cleanup cPAH TEQ SWAC that meets the cPAH TEQ background concentration. The SWAC for cPAH TEQ within the marine site boundary was updated to include the additional PRDI data (Figure 7) and is currently 41.4 µg/kg. The estimated, theoretical, post-cleanup SWAC for the entire marine area (Figure 7) is 31.5 µg/kg⁹.

The post-cleanup SWAC will likely exceed the target background concentration of 21 µg/kg established in the CAP, after excavating and placing backfill or caps in SMA-3 and placing EMNR material in SMA-2. As a result, remedial design areas for EMNR placement will need to extend beyond the footprint of SMAs 2 and 3, to address the post-cleanup cPAH TEQ SWAC requirement. The specific areas of additional EMNR placement will be determined as part of the Engineering Design Report and Construction Plans and Specification phases.

3.3 Characterization of Surface Sediment Behind Bulkheads

Two composite samples (SG-Comp-N_2024 and SG-Comp-S_2024) were collected as described in Section 2.3.3 to inform cleanup activities associated with the demolition and disposal of the two

⁹ The post-cleanup SWAC was estimated by using an assumed replacement value of 12 µg/kg cPAH TEQ for clean imported material in SMA-2 (areas exceeding the D/F and PCB RELs for EMNR) and in SMA-3 (areas exceeding the D/F and PCB RELs for capping/removal).

shoreline bulkheads within the Logway. The composite samples were analyzed for D/F and PCBs; the results are presented in Tables 4 and 5.

No PCBs were detected in either sample composite. D/F were detected in both samples with D/F TEQ concentrations exceeding the removal threshold of 15 ng/kg (20.3 ng/kg at SG-Comp-N_2024 and 90.4 ng/kg at SG-Comp-S_2024). Removal of sediment behind bulkhead is a planned remedial activity, which will be sequenced first to prevent recontamination of surrounding MNR areas within the Logway. The concentrations of D/F in sediment behind the bulkheads will be used to determine the off-site disposal requirements for this material.

3.4 Subsurface Sediment D/F and PCB Delineation

The following subsections summarize the results of subsurface sediment D/F and total PCB results by marine investigation area. Subsurface sediment was collected in all three marine areas during Step 2 of the investigation. Subsurface sediment was analyzed for D/F and PCBs to improve the vertical delineation of sediment exceeding the cleanup standards presented in Section 1.2. The historical RI/FS data and the PRDI data are depicted as cores to show the vertical distribution (i.e., concentration and depth bml) at each sediment core location. Color-coded concentration bins match the applicable surface sediment REL for relative comparison. The PRDI subsurface sediment data are presented in Tables 4 and 5 along with surface sediment data since many of the core locations include both surface and subsurface intervals.

3.4.1 Logway

There were no surface sediment exceedances of the capping/removal or EMNR RELs for PCBs in the Logway. As such, no subsurface sediment characterization for PCBs was required. Subsurface sediment was collected at six locations within the Logway and analyzed for D/F to further delineate the depth of contamination. Assumptions in the CAP and PRDI Work Plan included a 2-foot removal and engineered cap (for areas where contamination extends deep and removal is impracticable) or removal and backfill (for areas where contamination was shallow enough to remove the full extent of sediment exceeding the RL) along with MNR and EMNR in the other areas of the Logway (Figure 2).

A total of 10 subsurface (greater than 1-foot bml) sediment samples were analyzed for D/F from the Logway (Figure 3). Total depth of contamination, exceeding RELs for EMNR and capping/removal, was identified in four of the six PRDI Logway subsurface sediment sampling locations. The D/F TEQ concentration from the deepest sample (3- to 4-foot bml interval) at SC-38 was 8.2 ng/kg, exceeding the EMNR REL of 8 ng/kg. The D/F TEQ concentration from the deepest sample (3- to 4-foot bml interval) at SC-41 was 30 ng/kg, exceeding the capping/removal REL of 15 ng/kg.

Although depth of contamination within the Logway was not determined at all locations, the selected remedy in areas of deep contamination will be sediment removal and engineered cap

placement. This remedy does not require complete delineation of depth of contamination, only data to inform the concentrations immediately below the engineered cap. Concentrations of sediment left in place following removal (i.e., 2 to 3 feet bml) will be used to model the chemical isolation protectiveness of the engineered cap design.

3.4.2 *South Shoreline*

There were no surface sediment exceedances of the capping/removal or EMNR RELs for PCBs in the South Shoreline. As such, no subsurface sediment characterization for PCBs was required. Subsurface sediment was collected at 16 locations within the South Shoreline and analyzed for D/F to further delineate the depth of contamination. Assumptions in the CAP and PRDI Work Plan included a 4-foot removal with backfill, EMNR and MNR activities occurring along the South Shoreline (Figure 2).

A total of 42 subsurface (greater than 1-foot bgs) sediment samples were analyzed for D/F from the South Shoreline. Total depth of contamination, exceeding the D/F REL for EMNR and capping/removal, was identified in all 16 PRDI South Shoreline subsurface sampling locations. D/F TEQ concentrations were below the capping/removal and EMNR RELs in the 3- to 4-foot bml depth interval for all 16 subsurface sediment core locations. One sample collected as part of the RI/FS (EA06-SC23-2013), presented in Figure 4, contained concentrations exceeding the capping/removal REL at 2- to 4-foot bml interval; however, the 4- to 6-foot interval was below the EMNR REL for D/F.

3.4.3 *Knoll*

Subsurface sediment was collected at nine locations within the Knoll Area and analyzed for PCBs and at four locations within the Knoll Area and analyzed for D/F to further delineate depth of contamination. Assumptions in the CAP and PRDI Work Plan indicated a 2-foot removal and backfill, EMNR and MNR activities occurring within the Knoll Area. A total of 10 subsurface samples were analyzed for PCBs, and four subsurface samples were analyzed for D/F in the Knoll Area.

Concentrations for the four subsurface samples submitted for D/F analysis were below the EMNR REL for D/F (i.e., within the range for MNR). Samples submitted for total PCBs in subsurface samples were generally below the EMNR REL for PCBs with the exception of locations SC-024 (1- to 1.4-foot bml interval with a result of 168 µg/kg) and SC-030 (1- to 2-foot bml with a result of 330 µg/kg), both of which are above the removal REL for PCBs of 130 µg/kg. It should be noted that the sample from SC-030 was re-analyzed by the laboratory using a new aliquot from the sample container, and the re-analyzed results was non-detect. The description from the sediment core processing log for SC-030 noted poorly graded dark gray sand with a 2.5-inch piece of black bark at 1.45-feet bml. The subsurface sediment cores presented on Figure 6 show the higher result for SC-030.

3.5 Wood Volume Measurements

Wood volume (i.e., sieving) measurements were collected from all target locations presented in Figure 8. Wood volume calculations are presented in Appendix E and summarized in Table 7. Wood volume in the 0- to 1-foot interval ranged from 1% to 21%. Two of the 13 locations, SV-01 and SV-09, contained wood volume measurements greater than 15% in the 0- to 1-foot interval and therefore triggered sieving of the lower intervals. Location SV-01 contained 15%, 21%, and 20% wood by volume measurements in the 0- to 1-, 1- to 2-, and 2- to 3-foot intervals respectively. Location SV-09 contained 21% and 8% wood by volume measurements in the 0- to 1- and 1- to 2- foot intervals respectively.

Based on the results from the wood volume all Site locations meet cleanup requirements for wood, as locations with less than 25% wood debris by volume are unlikely to cause adverse effects to the benthic community and have been selected as an SCL for other remediation sites managed by Ecology (Ecology 2013). Following the Step 2 PRDI data collection, it has been determined that the total volatile solid (TVS) and wood sieving percentage data sufficiently characterize the shallow sediments throughout the Site, and no further characterization of wood waste in shallow sediments is needed (Ecology 2024).

3.6 Porewater D/F TEQ and PCB Capping Evaluation

As discussed in Section 2.3.6, sediment cores were collected for ex situ porewater evaluation using the SPME methodology to inform the cap design. SPME testing measures freely dissolved and potentially bioavailable concentrations of total D/F and PCBs in sediment porewater.

Deployed SPME fibers were spiked with dioxin PRCs and PCB PRCs in accordance with the methodology. The dioxin PRCs and lower-molecular weight PCB PRCs reached equilibrium for all samples during the deployment period.

In the ex situ SPME test, the highest total D/F porewater concentration was observed in the Logway at sediment sample location PW-041 (3.02 picograms per liter [pg/L]). The second highest total D/F porewater concentration was also observed in the Logway at sediment sample location PW-044 (1.79 pg/L). PW-1044, a field duplicate of PW-044, had a similar total DF porewater concentration (1.14 pg/L). All other total DF porewater concentrations were lower than 0.80 pg/L, including total D/F porewater concentrations in the South Shoreline and Knoll areas.

The total PCB porewater concentration in the Knoll area sediment sample PW-032 was 0.20 ng/L. Note that the SPME sample deployed in PW-025 was lost at the analytical laboratory.

The SPME data are presented in Tables 8 and 9; however, these data represent the concentrations measured in the SPME fibers at the analytical laboratory, not porewater. The complete porewater evaluation including a detailed description of the methodology, calculations of freely dissolved D/F

and PCBs in porewater, quality control and quality assurance discussion, and tabulated porewater concentrations will be presented in the EDR.

3.7 Geotechnical

Eight geotechnical HSA borings were completed with SPTs performed and sampled every 2.5 feet over the upper 10 feet and every 5 feet below the upper 10 feet. The borings were terminated between 20 and 42 feet. A sample was not obtained in the last interval for GT01, GT02, GT03, and GT04 due to a soil unit causing significant sand heave. Boring logs are included in Appendix H. This unit could not be controlled with water or drilled through in those borings and resulted in early termination. Moisture content, grain size distribution, and Atterberg limit tests were performed on representative samples; laboratory reports are included in Appendix I. The results of the laboratory testing program are summarized below:

Grain Size: The primary units encountered were variations of sand-based fill. Grain size distribution was tested in 17 samples within sand-based fill units. Fine content and gravel content varied with occasional degrading wood or asphalt encountered. Gravel content ranged from 0% to 23.4% in tested samples with an arithmetic mean of 6.0%. Sand content ranged from 41.6% to 91.8% with an arithmetic mean of 74.1%. Fine content ranged from 7.0% to 41.9% with an arithmetic mean of 17.2%.

Moisture Content: Moisture content was tested in 74 samples. Values ranged from 0.5% to 69.8% with an arithmetic average of 20.5% in tested samples. Finer grained samples trended towards higher moisture content while near-surface samples primarily consisted of lower values.

Atterberg Limits: Atterberg limits were tested in six primarily fine-grained samples (as determined by the field professional). Four of the tested samples were determined to be non-plastic. Of the plastic samples, the sample taken from GT03 at a depth of 3.4 to 4 feet had a liquid limit of 28.3% and a plastic limit of 18.6%. The sample taken from GT07 at a depth of 5.2 to 6 feet had a liquid limit of 49.1% and a plastic limit of 36.0%.

Specific Gravity: Specific gravity was tested for 13 samples. Eleven samples were within the sand-based fill units with two samples within a fines-based unit. The sand-based unit values ranged from 2.680 to 2.780 with an arithmetic mean of 2.734. The fines-based unit values were 2.741 and 2.746, respectively.

3.8 Bathymetric Survey

The bathymetric and shoreline survey was performed on November 15 and 18, 2024, as described in Section 2.3.8. Bathymetric contour lines are included on Figures 2 through 6. In general, the mudline elevations ranges are as follows:

- Logway: 2 to 4 feet MLLW; the slope to the upland portion of the Site is approximately 11-feet high.
- South Shoreline: 2 to 6 feet MLLW (most areas are higher than 3 feet MLLW); the slope to the upland portion of the Site is approximately 6-feet high.
- Knoll: 6 to 11 feet MLLW.

4 Updated SMAs

There were three SMAs (SMA-1, SMA-2, and SMA-3) identified in the CAP as follows:

- SMA-1 includes areas where the remediation cleanup technology will be MNR and includes areas within the marine site boundary where IDW interpolated surface sediment concentrations are below 8 ng/kg for D/F and 117 µg/kg for total PCBs (MNR RELs).
- SMA-2 includes areas where the remediation cleanup technology will be EMNR and includes areas within the marine site boundary where IDW interpolated surface sediment concentrations are between 8 and 15 ng/kg for D/F and between 117 and 130 µg/kg for total PCBs (EMNR RELs).
- SMA-3 includes areas where the remediation cleanup technology will be removal or capping and includes areas within the marine site boundary where IDW interpolated surface sediment concentrations are above 15 ng/kg for D/F and 117 µg/kg for total PCBs (capping/removal RELs).

As discussed in Section 3.1, updated IDW interpolations for surface sediment were created using the data from the PRDI along with the existing data from the RI/FS and CAP. These updated interpolations for D/F and PCBs were combined using the criteria for MNR, EMNR, and capping/removal, consistent with the CAP to establish new SMAs. The new PRDI SMAs are depicted on Figure 9 and will inform the remedial design. The final delineation of SMAs will be defined and presented in the Engineering Design Report and Construction Plans and Specifications phases.

5 Chemical and Physical Data Quality

The data quality assurance/quality control (QA/QC) program for the project area was performed consistent with the Step 2 Pre-Remedial Design Investigation QAPP (Anchor QEA 2024; Appendix B). Project completeness goals were met; all data (greater than 95% of the total) are acceptable for use as reported or as qualified. Measures were taken to ensure data quality employed current EPA, Standard Method (SM), and ASTM International (ASTM) protocols (ASTM 2010). Specific actions included chain-of-custody procedures and laboratory data review and validation. Chain-of-custody forms and laboratory reports are included in Appendix F. Appendix G includes the data validation reports.

5.1 Testing Laboratories and Methods

Chemical and physical analytical testing was performed by Analytical Resources, LLC (ARL), in Tukwila, Washington, Pace Analytical Services, LLC (Pace) in Minneapolis, MN, Materials Testing and Consulting, Inc, Enthalpy Analytical in El Dorado Hills, CA, SGS North America in Wilmington, North Carolina, and Eurofins Environment Testing in Tacoma, Washington. Laboratories are accredited by Ecology. The laboratories followed the analytical methods specified in Table 2 of the project Quality Assurance Project Plan except for total solids results in some samples, which were analyzed by method ASTM D2216 for moisture content or percent moisture by SM 2974 instead of SM 2540 G. These are acceptable deviations because both methods can be used to determine dry weight. All requested sample analyses were completed, and all analytical data were validated. Laboratory reports are in Appendix F and validation reports are in Appendix G.

5.2 Data Quality Objectives

Data quality objective (DQOs) for this project were to develop and implement procedures that would ensure the collection of representative data of known, acceptable, and defensible quality to achieve project objectives listed in the Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B). The analytical testing suite included the parameters listed in Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B). DQOs were assessed by the parameters detailed in Section 2.3 of the Step 1 and 2 PRDI QAPPs, and by applying the precision, accuracy, and completeness control limits identified in Table 4 of the Step 1 and 2 PRDI QAPPs to the data during data validation.

5.3 Quality Assurance/Quality Control

This section describes the laboratory and field QC procedures that were performed consistent with the Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B) to ensure data are of known and acceptable precision and accuracy to achieve project objectives.

5.3.1 *Field Quality Assurance/Quality Control*

One field blank was collected and analyzed for each of the Step 1 and Step 2 events to evaluate the total ambient conditions during sampling and laboratory contamination. Equipment rinsate blanks (rinsate blanks) were collected at the required frequency to evaluate cross-contamination issues resulting from sample collection or sample processing in the field. The equipment rinsate blank, field blank, and field QC samples were documented on the field forms and verified by the project QA manager or designee. Rinsate blank results were below detection with some exceptions.

5.3.1.1 Field Blanks

One equipment rinsate blank was collected for each type of sampling technique used to evaluate the cleanliness of the sample containers and efficiency of field decontamination procedures. Rinsate blanks were collected by rinsing deionized water through the water sample collection equipment and over the sediment grab and coring, homogenization equipment after standard decontamination procedures were performed consistent with the SAP.

- PAHs: Low-level PAHs were detected in the rinsate blanks collected during the Step 1 event. Naphthalene was detected in the field blanks for each event, and phenanthrene was detected in Step 1 event field blank. No sample results were qualified for field or rinsate blank results.
- Dioxins: Some dioxin analytes were detected in several rinsate blanks collected during the Step 1 and Step 2 events. Associated sample results were greater than five times the concentrations rinsate blanks, so no data were qualified.

5.3.1.2 Field Duplicates

Field duplicates were collected at the required frequency for all parameters in both sampling programs except for organic content and dioxins, which were collected at a frequency of 1 in 22 samples. Field duplicates were processed in the same way as the parent samples and were submitted to the laboratory using the sample nomenclature identified in the Step 1 and Step 2 Work Plan (Anchor QEA 2023, 2024). Precision was acceptable for all field duplicates.

5.3.2 *Laboratory Quality Assurance/Quality Control*

In accordance with the Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B), laboratory QC samples included method blanks, laboratory control samples (LCSs) and ongoing precision and recovery samples, matrix spikes (MSs) and matrix spike duplicates (MSDs) (as applicable to the method), surrogate spikes, internal standards, laboratory duplicates, instrument performance checks, and calibrations. QC analysis results were evaluated during data validation to determine data quality, and qualifiers were applied as necessary in the case of QC outliers. Qualifiers were applied as defined below:

- J Indicates an estimated value

U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit

UJ Indicates the compound or analyte was analyzed for but not detected and the specified limit reported is estimated

5.3.3 Data Validation

All data submitted in this PRDI Data Report have been validated by Laboratory Data Consultants, Inc., of Carlsbad, California in accordance with Section 5.2 of the Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B). Stage 4 validations were conducted on 10% of dioxin/furan and PCB congener data. Stage 2B validations were conducted on all remaining chemistry data. Data validation reports for the samples are provided in Appendix G. The data validation followed EPA guidelines, as described in the Step 1 and 2 PRDI QAPPs (Anchor QEA 2023, 2024; Appendix B), and the National Functional Guidelines (NFG) for Data Review (EPA 2020a, 2020b, 2020c).

Data validation verified the accuracy and precision of chemical and physical data collected during this investigation. Data qualifiers assigned because of data validation and their definitions are shown on the analytical results tables. Data may have been qualified as biased or estimated for an analysis based on method or technical criteria. Data qualified with a "J" indicates that the associated numerical value is an estimated concentration of the analyte. Data qualified with a "UJ" indicates the estimated Reporting Limit (RL) below which the analyte was not detected. All data were determined to be usable as reported from the laboratory or as qualified during validation.

For the Stage 2B and Stage 4 validations, a total of 1,467 "J" or "UJ" qualifiers were applied to samples. Some data were qualified as estimated based on a method, validation, or project-specific criterion. All data were considered useable as reported or as qualified and no data were rejected, as follows:

- Qualified for holding time exceedances due to the need for reanalysis at a dilution: 2 PAH results.
- Qualified "J" or "UJ" due to instrument continuing calibration results slightly above method specified control limits. Higher limits are likely to suggest a higher bias for those analytes and there is no impact on detection: 22 D/F, 85 PAHs, and 9 PCBs.
- Qualified "U" due to method blank contamination: 82 D/F and 7 PAHs.
- Qualified "J" or "UJ" for matrix spike (MS) recoveries that were outside of the project control limits and/or relative percent difference values for laboratory or matrix spike duplicates above project control limits, however recoveries were within the expanded acceptance range as

defined in the NFGs so qualifiers are appropriate as indicators of the anticipated matrix interference for some parent samples: 14 D/F, 12 PCBs, and 20 PAHs.

- Qualified "J" or "UJ" for laboratory control limit (LCS) or standard reference material (SRM) recoveries above or below the project control limits. Since MS control limits were within project control limits when LCS recoveries were outside control limits, results are acceptable as qualified: 1 D/F, 12 PCB, and 358 PAHs.
- Some Aroclors were flagged "J" by the laboratory for having relative percent differences (RPDs) between columns above method criteria for positive identification. However, complex weathered Aroclors are expected to have variable chromatographic behavior. Since peak patterns were consistent with overall patterns, results are considered usable as qualified: 29 PCBs.
- Qualified "J" or "UJ" for having surrogate or internal standard recoveries outside laboratory control limits: 4 D/F, 139 PCBs, and 106 PAHs.
- Flagged by the laboratory for having low-level interferents, possibly unresolved chlorinated diphenyl ether peak contributions. Data were re qualified "J" to indicate they are estimates with a slight bias: 33 D/Fs.
- Reported with results that exceeded the linear range of calibration and qualified "J" to indicate they are estimates. Additional quantification was not necessary since these results are significantly above project reporting limits: 5 D/Fs.
- Flagged as estimated maximum possible concentration (EMPC) by the laboratory and qualified "J" to indicate they are estimated: 564 results.
 - The EMPC qualifier is applied to a result when a peak meets all selection criteria but does not meet ion abundance ratio criteria due elevated noise at lower concentrations. Reported results are reasonable estimations of sample concentrations.
- Qualified with a "J" flag "J" as estimated due to elevated relative standard deviation values across laboratory triplicate results. Heterogeneity can result in variable precision measurements and results are valid as qualified : 25 results for moisture content.

All data qualifiers applied to the data during validation have been incorporated into the database for this project.

6 Schedule

The project schedule is established in the Second Amendment to the AO. Once Ecology reviews and comments on this Draft PRDI Data Report, the Final PRDI Data Report, addressing Ecology comments, will be resubmitted within 30 calendar days following receipt of Ecology's final comments on the Draft PRDI Report. The Agency Review Draft Engineering Design Report (EDR) is being prepared concurrently with this PRDI Data Report and is due to Ecology on July 7, 2025. (additional project milestones are included in the Second Amendment to the AO.)

7 References

- Anchor QEA, 2023. *Step 1 Pre-Remedial Design Investigation Work Plan – Marine Areas of Jeld Wen Site*. September 2023.
- Anchor QEA, 2024. *Step 2 Pre-Remedial Design Investigation Work Plan – Marine Areas of Jeld Wen Site*. April 2024.
- Ecology (Washington State Department of Ecology), 2013. *Wood Waste Cleanup. Identifying, Assessing, and Remediating Wood Waste in Marine and Freshwater Environments. Guidance for Implementing the Cleanup Provisions of the Sediment Management Standards*. Chapter 173-204 WAC. Publication No. 09-09-044. September 2013.
- Ecology, 2014. *Port Gardner Bay Regional Background: Data Evaluation and Summary Report. Olympia WA: Washington State Department of Ecology, Toxics Cleanup Program*. Publication No. 14-09-339.
- Ecology, 2019. *Sediment Cleanup User's Manual (SCUM) Guidance for Implementing the Cleanup Provisions of the Sediment Management Standards*. Chapter 173-204 WAC Toxics Cleanup Program Washington State Department of Ecology Olympia, Washington Publication No. 12-09-057. Second Revision December 2019.
- Ecology, 2023. *Final Cleanup Action Plan, Jeld Wen Site*. Second Amendment to the Agreed Order No. 5095. August 2023.
- Ecology, 2024. Letter to: Eric Rapp, Director Environmental Compliance JELD-WEN, Inc. Regarding: Wood waste characterization at the Jeld Wen site, September 19, 2024.
- EPA (U.S. Environmental Protection Agency), 2020a. National Functional Guidelines for Superfund Organic Methods Data Review. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005. November 2020.
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- USEPA, SERDP, and ESTCP (U.S. Environmental Protection Agency, Strategic Environmental Research and Development Program, and Environmental Security Technology Certification Program), 2017. Laboratory, Field, and Analytical Procedures for Using Passive Sampling in the

Evaluation of Contaminated Sediments: User's Manual. EPA/600/R-16/357. Office of Research and Development, Washington, DC.

JELD-WEN, 2022. *SEPA Environmental Checklist*. Prepared for Washington State Department of Ecology, October 2022.

SLR and Anchor QEA (SLR International Corporation and Anchor QEA), 2021. *Final Remedial Investigation and Feasibility Study*. Prepared for Washington State Department of Ecology. December 2021.

Tables

Table 1
Marine Sediment Cleanup Levels

Parameter	Units	SCL	Basis	Compliance Evaluation
Total PCBs ^a	µg/kg dw	130	Benthic Protection	Point-by-Point
Total Dioxin/Furan TEQ ^a	ng/kg dw	5	Human Health	SWAC
Total PCB Congeners ^a	µg/kg dw	30	Human Health	SWAC
Coplanar PCB Congener TEQ ^b	ng/kg dw	1.5	Human Health	SWAC
cPAH TEQ ^b	µg/kg dw	21	Human Health	SWAC

Notes:

a. Site IHS chemicals

b. Sediment areas exceeding the SCO for coplanar PCB congener TEQ and cPAH TEQ are within areas already defined by D/F TEQ and total PCBs; thus, these chemicals are not indicator hazardous substances for the Site.

Table 2

Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-SG-123-0-1-20240605	1302740.96	372042.27	6/5/2024 17:14	x		x		
JW-SG-126-0-1-20240606	1302589.087	371930.3724	6/6/2024 16:19	x			x	
JW-SG-127-0-1-20240605	1302589.067	371734.2626	6/5/2024 19:37	x			x	
JW-SG-128-0-1-20240605	1302540.687	371556.0142	6/5/2024 18:44	x			x	
JW-SG-129-0-1-20240605	1302464.577	371504.2233	6/5/2024 19:24	x			x	
JW-SG-130-0-1-20240605	1302506.438	371445.1824	6/5/2024 18:30	x			x	
JW-SG-142-0-1-20240606	1302766.196	372492.7722	6/6/2024 17:08		x			
JW-SG-143-0-1-20240606	1302674.738	372274.292	6/6/2024 16:50		x			
JW-SG-144-0-1-20240604	1302421.397	372128.9626	6/5/2024 16:23		x			
JW-SG-145-0-1-20240605	1302737.558	371978.1118	6/5/2024 18:15		x			
JW-SG-146-0-1-20240605	1302701.286	371737.883	6/5/2024 17:43		x			
JW-SG-147-0-1-20240606	1302472.986	371630.5426	6/6/2024 16:34		x			
JW-SG-148-0-1-20240529	1302680.177	373037.8436	5/29/2024 7:06	x			x	
JW-SG-149-0-1-20240528	1302582.747	373154.6347	5/28/2024 9:40	x			x	
JW-SG-150-0-1-20240528	1302497.296	373355.8719	5/28/2024 9:27	x			x	
JW-SG-151-0-1-20240604	1302574.006	373363.1422	6/5/2024 15:15	x			x	
JW-SG-COMP-N-20240530	--	--	5/30/2024 14:00	x		x	x	
JW-SG-COMP-S-20240530	--	--	5/30/2024 14:30	x		x	x	
JW-PDI-001-SG-0-1-20230803	1302272.3	373696.4	8/3/2023 14:01				x	
JW-PDI-002-SG-0-1-20230803	1302249.8	373608.1	8/3/2023 13:47				x	
JW-PDI-003-SG-0-1-20230815	1302336.4	373555.4	8/15/2023 11:37				x	
JW-PDI-004-SG-0-1-20230815	1302333.9	373484.2	8/15/2023 11:57				x	
JW-PDI-005-SG-0-1-20230815	1302407.3	373477.7	8/15/2023 12:40				x	
JW-PDI-006-SG-0-1-20230803	1302407.6	373408.7	8/3/2023 12:25				x	
JW-PDI-007-SG-0-1-20230803	1302483.7	373346.7	8/3/2023 12:47				x	
JW-PDI-008-SG-0-1-20230803	1302550.0	373368.8	8/3/2023 13:04				x	
JW-PDI-009-SG-0-1-20230803	1302537.7	373303.7	8/3/2023 12:56				x	
JW-PDI-010-SG-0-1-20230803	1302596.0	373262.6	8/3/2023 11:50				x	
JW-PDI-011-SG-0-1-20230803	1302602.6	373213.2	8/3/2023 11:02				x	
JW-PDI-012-SG-0-1-20230803	1302658.6	373266.3	8/3/2023 11:07				x	
JW-PDI-013-SG-0-1-20230803	1302721.3	373207.4	8/3/2023 10:43				x	
JW-PDI-014-SG-0-1-20230803	1302333.9	373615.5	8/3/2023 14:06	x	x	x	x	
JW-PDI-018-SG-0-1-20230803	1302546.9	373227.0	8/3/23 11:47	x	x	x	x	
JW-PDI-019-SG-0-1-20230803	1302632.9	373170.5	8/3/2023 10:55	x	x	x	x	

Table 2**Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory**

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-PDI-020-SG-0-1-20230803	1302716.3	373112.8	8/3/2023 10:23	x	x	x	x	
JW-PDI-021-SG-0-1-20230803	1302220.7	373669.5	8/3/2023 13:55	x				
JW-PDI-022-SG-0-1-20230803	1302216.1	373560.6	8/3/2023 13:42	x			x	
JW-PDI-023-SG-0-1-20230815	1302232.9	373460.8	8/15/2023 11:59	x			x	
JW-PDI-024-SG-0-1-20230815	1302328.8	373369.5	8/15/2023 12:10	x			x	
JW-PDI-025-SG-0-1-20230803	1302468.2	373411.6	8/3/2023 12:14	x	x	x	x	
JW-PDI-026-SG-0-1-20230803	1302402.5	373275.9	8/3/2023 12:44	x				
JW-PDI-027-SG-0-1-20230803	1302546.0	373166.2	8/3/23 11:33	x			x	
JW-PDI-028-SG-0-1-20230802	1302628.1	373087.2	8/2/2023 13:26	x			x	
JW-PDI-029-SG-0-1-20230802	1302673.3	373038.8	8/2/2023 13:33	x			x	
JW-PDI-030-SG-0-1-20230802	1302664.9	372969.0	8/2/2023 11:01	x				
JW-PDI-031-SG-0-1-20230803	1302460.6	373171.1	8/3/2023 11:39	x	x			
JW-PDI-032-SG-0-1-20230802	1302555.2	373077.8	8/2/2023 13:40	x	x			
JW-PDI-033-SG-0-1-20230802	1302636.2	372994.3	8/2/2023 10:55	x	x			
JW-PDI-034-SG-0-1-20230802	1302880.5	372552.9	8/2/2023 12:04				x	
JW-PDI-035-SG-0-1-20230802	1302916.4	372507.8	8/2/2023 11:59	x	x	x	x	
JW-PDI-036-SG-0-1-20230801	1302823.4	372529.0	8/1/2023 12:25				x	
JW-PDI-037-SG-0-1-20230801	1302779.0	372315.4	8/1/2023 11:23	x	x	x	x	
JW-PDI-038-SG-0-1-20230801	1302713.2	372247.7	8/1/2023 13:17	x	x	x	x	
JW-PDI-039-SG-0-1-20230801	1302733.2	372123.8	8/1/2023 13:30	x	x	x	x	
JW-PDI-040-SG-0-1-20230801	1302883.2	371970.1	8/1/2023 11:50	x	x	x	x	
JW-PDI-041-SG-0-1-20230801	1302617.5	372199.2	8/1/2023 12:35				x	
JW-PDI-042-SG-0-1-20230731	1302673.6	372078.4	7/31/2023 12:58				x	
JW-PDI-043-SG-0-1-20230801	1302787.5	371946.2	8/1/2023 9:57				x	
JW-PDI-044-SG-0-1-20230815	1302558.7	372139.8	8/15/23 12:50				x	
JW-PDI-045-SG-0-1-20230731	1302678.5	372012.6	7/31/2023 13:05	x	x	x	x	
JW-PDI-046-SG-0-1-20230731	1302820.6	371852.2	8/1/2023 10:04				x	
JW-PDI-047-SG-0-1-20230731	1302544.0	372017.5	7/31/23 12:16				x	
JW-PDI-048-SG-0-1-20230801	1302641.5	371931.6	8/1/2023 9:40				x	
JW-PDI-049-SG-0-1-20230801	1302645.7	371824.6	8/1/2023 9:33				x	
JW-PDI-050-SG-0-1-20230801	1302654.0	371706.3	8/1/2023 9:28				x	
JW-PDI-051-SG-0-1-20230802	1302985.4	372464.5	8/2/2023 11:42	x	x	x	x	
JW-PDI-052-SG-0-1-20230802	1302886.0	372444.3	8/2/2023 11:29	x	x	x	x	

Table 2

Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-PDI-053-SG-0-1-20230802	1302925.6	372406.5	8/2/2023 11:37	x	x	x	x	
JW-PDI-054-SG-0-1-20230801	1302824.3	372463.6	8/1/2023 11:11	x	x	x	x	
JW-PDI-055-SG-0-1-20230802	1302842.7	372402.8	8/2/2023 11:24	x	x	x	x	
JW-PDI-056-SG-0-1-20230801	1302790.2	372223.3	8/1/2023 11:27	x	x	x	x	
JW-PDI-057-SG-0-1-20230815	1302837.2	372192.9	8/15/2023 10:40	x	x	x	x	
JW-PDI-058-SG-0-1-20230801	1302744.2	372179.1	8/1/2023 13:22	x	x	x	x	
JW-PDI-059-SG-0-1-20230801	1302796.7	372145.0	8/1/2023 11:33	x	x	x	x	
JW-PDI-060-SG-0-1-20230802	1302654.7	372852.5	8/2/2023 12:22	x				
JW-PDI-061-SG-0-1-20230802	1302674.2	372738.9	8/2/2023 12:12	x				
JW-PDI-062-SG-0-1-20230815	1302682.5	372562.0	8/15/2023 9:48					
JW-PDI-063-SG-0-1-20240815	1302661.3	372446.1	8/15/2023 10:00	x			x	
JW-PDI-064-SG-0-1-20240801	1302654.0	372276.7	8/1/2023 12:31	x				
JW-PDI-065-SG-0-1-20230815	1302484.6	372197.5	8/15/2023 10:25					
JW-PDI-066-SG-0-1-20230731	1302424.7	372097.1	7/31/2023 12:28					
JW-PDI-067-SG-0-1-20230731	1302480.9	371945.2	7/31/2023 12:10					
JW-PDI-068-SG-0-1-20230731	1302514.0	371783.2	7/31/2023 11:37					
JW-PDI-069-SG-0-1-20230731	1302506.7	371632.2	7/31/2023 11:20					
JW-PDI-070-SG-0-1-20230731	1302553.6	371502.4	7/31/2023 10:41	x	x	x	x	
JW-PDI-071-SG-0-1-20230801	1302735.0	372648.7	8/1/2023 12:21	x			x	
JW-PDI-072-SG-0-1-20230801	1302735.0	372506.9	8/1/2023 11:00					
JW-PDI-073-SG-0-1-20230801	1302737.8	372386.3	8/1/23 11:18	x	x	x	x	
JW-PDI-074-SG-0-1-20230731	1302488.3	372122.0	7/31/23 12:31	x	x			
JW-PDI-075-SG-0-1-20230731	1302576.6	371871.6	7/31/2023 12:05	x	x			
JW-PDI-076-SG-0-1-20230731	1302575.7	371688.4	7/31/2023 11:25	x	x			
JW-PDI-077-SG-0-1-20230731	1302485.5	371528.1	7/31/2023 10:51	x	x			
JW-PDI-115-SG-0-1-20230802	1302869.2	372350.3	8/2/2023 11:17	x	x	x	x	
JW-PDI-117-SG-0-1-20230801	1302766.8	371778.5	8/1/2023 10:07	x	x			
JW-PDI-118-SG-0-1-20230801	1302763.6	372023.7	8/1/2023 9:50	x	x	x	x	
JW-PDI-078-SG-0-1-20230814	1302720.9	374260.4	8/14/2023 9:38				x	
JW-PDI-079-SG-0-1-20230814	1302756.5	374262.8	8/14/2023 10:00				x	
JW-PDI-080-SG-0-1-20230814	1302772.4	374206.3	8/14/2023 10:50				x	
JW-PDI-081-SG-0-1-20230814	1303027.0	373929.0	8/14/2023 12:41				x	
JW-PDI-082-SG-0-1-20230816	1303067.2	373926.4	8/16/2023 11:15				x	

Table 2

Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-PDI-083-SG-0-1-20230816	1303083.0	373887.0	8/16/2023 11:40				x	
JW-PDI-084-SG-0-1-20230816	1303200.5	373737.1	8/16/2023 13:15				x	
JW-PDI-085-SG-0-1-20230816	1303223.7	373729.4	8/16/2023 13:25				x	
JW-PDI-086-SG-0-1-20230816	1303224.1	373705.4	8/16/2023 13:30				x	
JW-PDI-087-SG-0-1-20230817	1303477.4	373511.0	8/17/2023 11:50					
JW-PDI-088-SG-0-1-20230817	1303464.2	373464.6	8/17/2023 11:45					
JW-PDI-089-SG-0-1-20230817	1303490.0	373466.0	8/17/2023 11:25				x	
JW-PDI-090-SG-0-1-20230814	1302679.1	374315.6	8/14/2023 9:13	x	x	x	x	
JW-PDI-091-SG-0-1-20230814	1302770.6	374283.1	8/14/2023 9:45	x	x	x	x	
JW-PDI-092-SG-0-1-20230814	1302808.6	374199.6	8/14/2023 10:58	x	x	x	x	
JW-PDI-093-SG-0-1-20230814	1302999.8	373955.5	8/14/2023 12:21	x	x	x	x	
JW-PDI-094-SG-0-1-20230816	1303077.1	373957.7	8/16/2023 11:20	x	x	x	x	
JW-PDI-095-SG-0-1-20230816	1303118.7	373898.4	8/16/2023 11:45	x	x	x	x	
JW-PDI-096-SG-0-1-20230816	1303205.3	373765.5	8/16/2023 12:52	x	x	x	x	
JW-PDI-097-SG-0-1-20230816	1303241.0	373765.1	8/16/2023 12:58	x	x	x	x	
JW-PDI-098-SG-0-1-20230816	1303250.2	373706.5	8/16/2023 13:35	x	x	x	x	
JW-PDI-099-SG-0-1-20230817	1303392.0	373541.9	8/17/2023 12:08	x	x	x	x	
JW-PDI-100-SG-0-1-20230817	1303433.6	373517.2	8/17/2023 12:00	x	x	x	x	
JW-PDI-101-SG-0-1-20230817	1303523.1	373480.0	8/17/2023 11:12	x	x	x	x	
JW-PDI-102-SG-0-1-20230817	1303514.4	373416.7	8/17/2023 10:52	x	x	x	x	
JW-PDI-103-SG-0-1-20230814	1302650.9	374367.2	8/14/2023 9:00					
JW-PDI-104-SG-0-1-20230814	1302744.8	374340.8	8/14/2023 9:25					
JW-PDI-105-SG-0-1-20230814	1302847.9	374238.9	8/14/2023 11:10					
JW-PDI-106-SG-0-1-20230814	1303012.7	373995.8	8/14/2023 12:21					
JW-PDI-107-SG-0-1-20230816	1303088.3	373989.0	8/14/2023 11:25	x				
JW-PDI-108-SG-0-1-20230817	1303400.1	373588.3	8/17/2023 12:55	x				
JW-PDI-109-SG-0-1-20230814	1302846.1	374114.3	8/14/2023 11:25	x	x			
JW-PDI-110-SG-0-1-20230816	1303203.9	373958.5	8/16/2023 11:55	x	x			
JW-PDI-111-SG-0-1-20230816	1303142.3	373815.9	8/16/2023 12:00	x	x	x	x	
JW-PDI-112-SG-0-1-20230816	1303279.3	373771.7	8/16/2023 13:05	x	x			
JW-PDI-113-SG-0-1-20230816	1303291.5	373649.8	8/16/2023 13:40	x	x			
JW-PDI-114-SG-0-1-20230731	1302480.2	371337.6	7/31/2023 10:31	x	x	x	x	
JW-PDI-116-SG-0-1-20230814	1302904.3	374075.8	8/14/2023 11:34	x	x	x	x	

Table 2
Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
Subsurface Sediment								
JW-SC-001-0-1-20240718	1302240.696	373714.4935	7/18/2024 16:45	x			x	
JW-SC-001-1-2-20240718	1302240.696	373714.4935	7/18/2024 16:45	x			x	
JW-SC-001-2-3-20240718	1302240.696	373714.4935	7/18/2024 16:45	x			x	
JW-SC-001-3-4-20240718	1302240.696	373714.4935	7/18/2024 16:45	x			x	
JW-SC-002-0-1-20240718	1302248.868	373673.6747	7/18/2024 15:30	x			x	
JW-SC-002-1-2-20240718	1302248.868	373673.6747	7/18/2024 15:30	x			x	
JW-SC-002-2-3-20240718	1302248.868	373673.6747	7/18/2024 15:30	x			x	
JW-SC-002-3-4-20240718	1302248.868	373673.6747	7/18/2024 15:30	x			x	
JW-SC-003-0-1-20240718	1302275.317	373682.1419	7/18/2024 14:30	x			x	
JW-SC-003-1-2-20240718	1302275.317	373682.1419	7/18/2024 14:30	x			x	
JW-SC-003-2-3-20240718	1302275.317	373682.1419	7/18/2024 14:30	x			x	
JW-SC-003-3-4-20240718	1302275.317	373682.1419	7/18/2024 14:30	x			x	
JW-SC-004-0-1-20240722	1302316.058	373640.6544	7/22/2024 9:05	x			x	
JW-SC-004-1-2-20240722	1302316.058	373640.6544	7/22/2024 9:05	x			x	
JW-SC-004-2-3-20240722	1302316.058	373640.6544	7/22/2024 9:05	x			x	
JW-SC-004-3-4-20240722	1302316.058	373640.6544	7/22/2024 9:05	x			x	
JW-PW-004-2-3-20240722	1302313.677	373638.2528	7/22/2024 10:50	x			x	x
JW-SC-005-0-1-20240718	1302322.286	373593.665	7/22/2024 13:00	x			x	
JW-SC-005-1-2-20240718	1302322.286	373593.665	7/22/2024 13:00	x			x	
JW-SC-005-2-3-20240718	1302322.286	373593.665	7/22/2024 13:00	x			x	
JW-SC-005-3-4-20240718	1302322.286	373593.665	7/22/2024 13:00	x			x	
JW-SC-007-0-1-20240719	1302388.928	373564.9817	7/19/2024 13:10	x			x	
JW-SC-007-1-2-20240719	1302388.928	373564.9817	7/19/2024 13:10	x			x	
JW-SC-007-2-3-20240719	1302388.928	373564.9817	7/19/2024 13:10	x			x	
JW-SC-007-3-4-20240719	1302388.928	373564.9817	7/19/2024 13:10	x			x	
JW-SC-008-0-1-20240719	1302362.837	373487.3132	7/19/2024 15:00	x			x	
JW-SC-008-3-4-20240719	1302362.837	373487.3132	7/19/2024 15:00	x			x	
JW-SC-009-0-1-20240719	1302450.276	373502.1432	7/19/2024 14:05	x			x	
JW-SC-009-1-2-20240719	1302450.276	373502.1432	7/19/2024 14:05	x			x	
JW-SC-009-2-3-20240719	1302450.276	373502.1432	7/19/2024 14:05	x			x	
JW-SC-009-3-4-20240719	1302450.276	373502.1432	7/19/2024 14:05	x			x	
JW-SC-011-0-1-20240721	1302536.157	373397.6234	7/21/2024 10:30	x			x	
JW-SC-011-1-2-20240721	1302536.157	373397.6234	7/21/2024 10:30	x			x	

Table 2
Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-SC-011-2-3-20240721	1302536.157	373397.6234	7/21/2024 10:30	x			x	
JW-SC-011-3-4-20240721	1302536.157	373397.6234	7/21/2024 10:30	x			x	
JW-SC-012-0-1-20240719	1302544.347	373342.7548	7/19/2024 10:00	x			x	
JW-SC-012-3-4-20240719	1302544.347	373342.7548	7/19/2024 10:00	x			x	
JW-SC-013-0-1-20240721	1302573.026	373340.3246	7/19/2024 9:30	x			x	
JW-SC-013-1-2-20240721	1302573.026	373340.3246	7/19/2024 9:30	x			x	
JW-SC-013-2-3-20240721	1302573.026	373340.3246	7/19/2024 9:30	x			x	
JW-SC-013-3-4-20240721	1302573.026	373340.3246	7/19/2024 9:30	x			x	
JW-PW-013-2-3-20240721	1302572.287	373340.6042	7/19/2024 11:50	x			x	x
JW-SC-014-0-1-20240721	1302595.698	373295.6633	7/21/2024 11:10	x			x	
JW-SC-014-1-2-20240721	1302595.698	373295.6633	7/21/2024 11:10	x			x	
JW-SC-014-2-3-20240721	1302595.698	373295.6633	7/21/2024 11:10	x			x	
JW-SC-014-3-4-20240721	1302595.698	373295.6633	7/21/2024 11:10	x			x	
JW-SC-017-0-1-20240719	1302695.397	373235.8442	7/19/2024 15:40	x			x	
JW-SC-017-1-2-20240719	1302695.397	373235.8442	7/19/2024 15:40	x			x	
JW-SC-017-2-3-20240719	1302695.397	373235.8442	7/19/2024 15:40	x			x	
JW-SC-017-3-4-20240719	1302695.397	373235.8442	7/19/2024 15:40	x			x	
JW-SC-018-0-1-20240719	1302697.816	373162.9835	7/19/2024 10:55	x			x	
JW-SC-018-1-2-20240719	1302697.816	373162.9835	7/19/2024 10:55	x			x	
JW-SC-018-2-3-20240719	1302697.816	373162.9835	7/19/2024 10:55	x			x	
JW-SC-018-3-4-20240719	1302697.816	373162.9835	7/19/2024 10:55	x			x	
JW-SC-019-0-1-20240722	1302759.986	373169.344	7/22/2024 10:00	x			x	
JW-SC-019-1-2-20240722	1302759.986	373169.344	7/22/2024 10:00	x			x	
JW-SC-019-2-3-20240722	1302759.986	373169.344	7/22/2024 10:00	x			x	
JW-SC-019-3-4-20240722	1302759.986	373169.344	7/22/2024 10:00	x			x	
JW-PW-019-2-3-20240722	1302761.736	373169.3125	7/22/2024 10:25	x			x	x
JW-SC-020-0-1-20240719	1302736.888	373128.6449	7/19/2024 9:20	x			x	
JW-SC-020-3-4-20240719	1302736.888	373128.6449	7/19/2024 9:20	x			x	
JW-SC-024-0-1-20240605	1302965.938	372428.7933	6/5/2024 16:32	x		x		
JW-SC-024-1-1.4-20240605	1302965.938	372428.7933	6/5/2024 16:32	x		x		
JW-SC-025-0-1-20240721	1302873.988	372421.6122	7/21/2024 10:00	x		x		
JW-SC-025-1-2-20240721	1302873.988	372421.6122	7/21/2024 10:00	x		x		
JW-PW-025-2-3-20240721	1302872.967	372421.2218	7/21/2024 9:00	x		x		x

Table 2
Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-SC-026-0-1-20240605	1302739.536	372383.6317	6/5/2024 15:48	x		x		
JW-SC-026-1-2-20240605	1302739.536	372383.6317	6/5/2024 15:48	x		x		
JW-SC-027-0-1-20240605	1302783.108	372188.7722	6/5/2024 16:58	x		x		
JW-SC-027-1-2-20240605	1302783.108	372188.7722	6/5/2024 16:58	x		x		
JW-SC-028-0-1-20240606	1302633.267	372185.7423	6/6/2024 18:38	x			x	
JW-SC-028-1-2-20240606	1302633.267	372185.7423	6/6/2024 18:38	x			x	
JW-SC-029-0-1-20240722	1302570.558	372122.9622	7/22/2024 11:40	x		x	x	
JW-SC-029-1-2-20240722	1302570.558	372122.9622	7/22/2024 11:40	x		x		
JW-PW-029-2-3-20240722	1302572.397	372121.6122	7/22/2024 11:20	x			x	x
JW-SC-030-0-1-20240722	1302492.487	372146.6436	7/22/2024 12:05	x		x	x	
JW-SC-030-1-2-20240722	1302492.487	372146.6436	7/22/2024 12:05	x		x		
JW-SC-030-2-3-20240722	1302492.487	372146.6436	7/22/2024 12:05	x		x		
JW-SC-031-0-1-20240722	1302527.748	372188.2223	7/22/2024 12:45	x		x	x	
JW-SC-031-1-2-20240722	1302527.748	372188.2223	7/22/2024 12:45	x		x		
JW-SC-032-0-1-20240721	1302782.707	371998.7328	7/21/2024 8:35	x		x		
JW-SC-032-1-2-20240721	1302782.707	371998.7328	7/21/2024 8:35	x		x		
JW-PW-032-2-3-20240721	1302784.706	371999.7732	7/21/2024 12:30	x		x		x
JW-SC-036-0-1-20240720	1302762.448	374216.0949	7/20/2024 13:15	x			x	
JW-SC-036-3-4-20240720	1302762.448	374216.0949	7/20/2024 13:15	x			x	
JW-PW-036-2-3-20240720	1302761.886	374213.4344	7/20/2024 14:50	x			x	x
JW-SC-038-0-1-20240720	1303075.237	373897.4633	7/20/2024 10:00	x			x	
JW-SC-038-1-2-20240720	1303075.237	373897.4633	7/20/2024 10:00	x			x	
JW-SC-038-2-3-20240720	1303075.237	373897.4633	7/20/2024 10:00	x			x	
JW-SC-038-3-4-20240720	1303075.237	373897.4633	7/20/2024 10:00	x			x	
JW-SC-040-0-1-20240720	1303188.387	373768.7437	7/20/2024 9:00	x			x	
JW-SC-040-3-4-20240720	1303188.387	373768.7437	7/20/2024 9:00	x			x	
JW-SC-041-0-1-20240720	1303210.456	373748.5233	7/20/2024 11:45	x			x	
JW-SC-041-3-4-20240720	1303210.456	373748.5233	7/20/2024 11:45	x			x	
JW-SC-043-0-1-20240720	1303492.417	373455.413	7/20/2024 11:00	x			x	
JW-SC-043-3-4-20240720	1303492.417	373455.413	7/20/2024 11:00	x			x	
JW-SC-044-0-1-20240720	1303502.097	373440.2815	7/20/2024 12:30	x			x	
JW-SC-044-1-2-20240720	1303502.097	373440.2815	7/20/2024 12:30	x			x	
JW-SC-044-2-3-20240720	1303502.097	373440.2815	7/20/2024 12:30	x			x	

Table 2
Pre-Remedial Design Investigation Phase 2 Sediment Sample Inventory

Sample ID	Coordinates		Collection Date/Time	Analysis				
	Easting	Northing		Conventionals	cPAHs	PCBs	Dioxin/furans	SPME
Surface Sediment								
JW-SC-044-3-4-20240720	1303502.097	373440.2815	7/20/2024 12:30	x			x	
JW-PW-044-2-3-20240720	1303499.616	373440.9242	7/20/2024 15:10	x			x	x

Notes:

1. Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)

cPAH: carcinogenic polycyclic aromatic hydrocarbon

NAD83: North American Datum of 1983

PCB: polychlorinated biphenyl

SPME: Solid Phase Micro-Extraction

Table 3
Pre-Remedial Design Investigation Phase 2 Geotechnical Sample Inventory

Sample ID	Coordinates		Collection Date	Analysis				
	Easting	Northing		Moisture Content	Atterberg Limit	Bulk Density	Grain Size	Specific Gravity
GT01-0-1.5	1302476.474	373588.6863	8/21/2024	x				
GT01-0-1.6	1302476.474	373588.6863	8/21/2024	x				
GT01-0-1.7	1302476.474	373588.6863	8/21/2024	x			x	
GT01-0-1.8	1302476.474	373588.6863	8/21/2024	x				
GT01-0-1.9	1302476.474	373588.6863	8/21/2024	x			x	
GT01-10-11.5	1302476.474	373588.6863	8/21/2024	x				
GT01-15-16.5	1302476.474	373588.6863	8/21/2024	x				
GT02-0-1.5	1302646.238	373353.2531	8/20/2024	x				
GT02-2.5-2.9	1302646.238	373353.2531	8/20/2024	x				
GT02-2.9-4	1302646.238	373353.2531	8/20/2024	x			x	
GT02-5-6.5	1302646.238	373353.2531	8/20/2024	x			x	x
GT02-7.5-9	1302646.238	373353.2531	8/20/2024	x				
GT02-10-11.5	1302646.238	373353.2531	8/20/2024	x				
GT02-15-16.5	1302646.238	373353.2531	8/20/2024	x				
GT02-20-21.5	1302646.238	373353.2531	8/20/2024	x				
GT02-25-27	1302646.238	373353.2531	8/20/2024	x				x
GT02-30-32	1302646.238	373353.2531	8/20/2024	x			x	
GT03-0-1.5	1302820.772	373124.7558	8/20/2024	x				
GT03-2.5-3.1	1302820.772	373124.7558	8/20/2024					
GT03-3.1-4	1302820.772	373124.7558	8/20/2024	x	x			
GT03-5-6.5	1302820.772	373124.7558	8/20/2024	x				x
GT03-7.5-9	1302820.772	373124.7558	8/20/2024	x				
GT03-10-11.5	1302820.772	373124.7558	8/20/2024	x				
GT03-20-21.5	1302820.772	373124.7558	8/20/2024	x				
GT03-25-26.5	1302820.772	373124.7558	8/20/2024	x				
GT03-30-31.5	1302820.772	373124.7558	8/20/2024	x				
GT04-0.5-1.4	1302901.002	372698.2859	8/19/2024	x				
GT04-1.4-2	1302901.002	372698.2859	8/19/2024	x				
GT04-2.5-4	1302901.002	372698.2859	8/19/2024					
GT04-5-6.5	1302901.002	372698.2859	8/19/2024	x			x	
GT04-7.5-8	1302901.002	372698.2859	8/19/2024	x				
GT04-8-9	1302901.002	372698.2859	8/19/2024	x	x			

Table 3
Pre-Remedial Design Investigation Phase 2 Geotechnical Sample Inventory

Sample ID	Coordinates		Collection Date	Analysis				
	Easting	Northing		Moisture Content	Atterberg Limit	Bulk Density	Grain Size	Specific Gravity
GT04-10-10.3	1302901.002	372698.2859	8/19/2024					
GT04-10.3-11.5	1302901.002	372698.2859	8/19/2024	x				
GT04-15-16.5	1302901.002	372698.2859	8/19/2024	x				
GT04-20-21.5	1302901.002	372698.2859	8/19/2024	x				x
GT04-25-26.5	1302901.002	372698.2859	8/19/2024	x				
GT05-0-0.4	1302762.589	374077.1493	8/21/2024					
GT05-0.4-0.7	1302762.589	374077.1493	8/21/2024					
GT05-0.7-1.5	1302762.589	374077.1493	8/21/2024					
GT05-2.5-4	1302762.589	374077.1493	8/21/2024				x	
GT05-5-5.3	1302762.589	374077.1493	8/21/2024	x				
GT05-5.3-6.5	1302762.589	374077.1493	8/21/2024	x				x
GT05-7.5-9	1302762.589	374077.1493	8/21/2024	x				
GT05-10-10.5	1302762.589	374077.1493	8/21/2024	x				
GT05-10.5-12	1302762.589	374077.1493	8/21/2024				x	
GT05-15-15.7	1302762.589	374077.1493	8/21/2024	x				
GT05-15.7-16.5	1302762.589	374077.1493	8/21/2024	x	x			
GT05-20-21.1	1302762.589	374077.1493	8/21/2024	x				
GT05-21.1-22	1302762.589	374077.1493	8/21/2024	x				
GT05-25-27	1302762.589	374077.1493	8/21/2024	x				
GT05-30-32	1302762.589	374077.1493	8/21/2024	x				
GT05-35-36.5	1302762.589	374077.1493	8/21/2024	x	x		x	
GT05-40-42	1302762.589	374077.1493	8/21/2024	x			x	x
GT06-0-1.5	1302976.353	373859.5024	8/22/2024	x				
GT06-2.5-4	1302976.353	373859.5024	8/22/2024	x				
GT06-5-6.5	1302976.353	373859.5024	8/22/2024	x				x
GT06-7.5-9	1302976.353	373859.5024	8/22/2024	x				
GT06-10-11.5	1302976.353	373859.5024	8/22/2024	x				x
GT06-15-16.5	1302976.353	373859.5024	8/22/2024	x				
GT06-25-26.5	1302976.353	373859.5024	8/22/2024	x				
GT06-30-31.5	1302976.353	373859.5024	8/22/2024	x			x	
GT06-40-41.5	1302976.353	373859.5024	8/22/2024	x				
GT07-0-2.5	1303108.276	373679.3413	8/22/2024	x				

Table 3
Pre-Remedial Design Investigation Phase 2 Geotechnical Sample Inventory

Sample ID	Coordinates		Collection Date	Analysis				
	Easting	Northing		Moisture Content	Atterberg Limit	Bulk Density	Grain Size	Specific Gravity
GT07-2.5-2.9	1303108.276	373679.3413	8/22/2024	x				
GT07-2.9-4	1303108.276	373679.3413	8/22/2024	x				
GT07-5-5.2	1303108.276	373679.3413	8/22/2024	x				
GT07-5.2-6	1303108.276	373679.3413	8/22/2024	x	x			
GT07-6-6.4	1303108.276	373679.3413	8/22/2024	x				
GT07-10-11.5	1303108.276	373679.3413	8/22/2024	x				
GT07-15-16.5	1303108.276	373679.3413	8/22/2024	x			x	
GT07-20-21.5	1303108.276	373679.3413	8/22/2024	x	x			x
GT07-25-26.5	1303108.276	373679.3413	8/22/2024	x				
GT07-30-31.5	1303108.276	373679.3413	8/22/2024	x				
GT07-35-36.5	1303108.276	373679.3413	8/22/2024	x				x
GT07-40-41.5	1303108.276	373679.3413	8/22/2024	x				
GT08-2.5-4	1303537.924	373341.7472	8/19/2024	x				
GT08-5-6.5	1303537.924	373341.7472	8/19/2024	x				
GT08-7.5-9	1303537.924	373341.7472	8/19/2024	x				x
GT08-10-11.5	1303537.924	373341.7472	8/19/2024	x			x	
GT08-15-16.5	1303537.924	373341.7472	8/19/2024	x				
GT08-30-31.5	1303537.924	373341.7472	8/19/2024	x				x
GT08-35-36.5	1303537.924	373341.7472	8/19/2024	x			x	
GT08-40-41.5	1303537.924	373341.7472	8/19/2024	x				

Notes:

1. Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)
NAD83: North American Datum of 1983

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID	JW-PDI-SG-001	JW-PDI-SG-002	JW-PDI-SG-003	JW-PDI-SG-004	JW-PDI-SG-005	JW-PDI-SG-006	JW-PDI-SG-007	JW-PDI-SG-008	JW-PDI-SG-009	JW-PDI-SG-010	JW-PDI-SG-011
	Sample Date	8/3/2023	8/3/2023	8/15/2023	8/15/2023	8/15/2023	8/4/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023
	Depth	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 8 in	0 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 12 in	0 - 12 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
analytic_method	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302272.331	1302249.812	1302336.398	1302333.943	1302407.292	1302407.599	1302483.712	1302550.003	1302537.727	1302596.038	1302602.641
Chemical	Y	373696.3781	373608.1328	373555.3836	373484.182	373477.7371	373408.6838	373346.6891	373368.7862	373303.7224	373262.5974	373213.2225
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	59.11	52.75	53.72	58.69	58.58	52.00	47.08	52.37	50.15	46.35	48.75
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	86.4	25.9	42.7	28.1	44.1	33.6	38.5	82.0	50.4	51.7	242
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	1340	439	711	377	692	622	589	1280	849	881	1560
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	75.4	14.7	32.4	12.4	41.6	29.8	27.1	78.6	34.3	48.3	48.3
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	429	69.7	178	51.9	222	143	122	385	170	186	194
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	2.98	0.857 J	1.48 J	0.426 J	1.90 J	1.41	1.22	2.81	1.65	2.00	2.21
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.02	0.790 J	1.06 J	0.576 J	0.954 J	1.18	1.15	2.43	1.41	2.05	1.63
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	1.29	0.810 J	0.997 J	0.682 J	0.767 J	0.988 J	0.926 J	2.04	1.15	1.60	1.49
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.87 J	0.698 J	0.934 J	0.592 J	1.08	0.929 J	0.968 J	2.15	1.23	1.74	1.39
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	58.6 J	5.62 J	17.4	3.12	20.9	14.6 J	13.8 J	49.2 J	17.3 J	20.9	16.6
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	1.27	0.331 J	0.474 J	0.285 U	0.366 U	0.549 J	0.409 J	1.13	0.666 J	0.842 J	0.546 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	22.2	3.20	7.52	1.85 J	9.09	6.45	6.06	20.1	7.48	9.60	7.71
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.569 J	0.479 J	0.580 J	0.362 J	0.462 J	0.483 J	0.496 J	0.980 J	0.735 J	0.849 J	0.768 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	1.17	0.719 J	1.05 J	0.872 J	0.808 J	0.956 J	1.06	1.89	1.16	1.56	1.42
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	3.76	0.934 J	1.90	0.239 U	2.01	1.97	1.66	4.37	2.13	2.86	2.52
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.783 J	0.507 J	0.704 J	0.527 J	0.513 J	0.647 J	0.624 J	1.07	0.824 J	0.986 J	0.762 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	1.33	1.32 J	1.49 J	1.38	0.995 J	1.58 J	1.42 J	1.88	1.91	2.13	1.95
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.319 J	0.277 J	0.307 J	0.311 J	0.192 U	0.351 J	0.338 J	0.322 J	0.365 J	0.409 J	0.398 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		16.5 J	3.52 J	7.11 J	2.97 J	7.55 J	6.28 J	5.93 J	16.0 J	7.5 J	9.11 J	8.44 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	208	39.1	89.2	32.9	113	80.7	73.3	209	93.0	127	198
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	855	160	376	120	448	325	268	786	362	385	407
Total Hexachlorodibenzofuran (HxCDF)	E1613B	93.0	19.8	36.4	13.4	43.3	41.6	36.3	100	45.4	69.8	52.8
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	376 J	49.0 J	115	17.1	150	106 J	97.7 J	342 J	125 J	150	118
Total Pentachlorodibenzofuran (PeCDF)	E1613B	17.8	4.35	6.64	5.56	5.73	11.5	11.9	22.1	17.3	18.0	15.4
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	8.62	6.82	5.87	5.98	6.49	8.78	10.9	18.9	13.9	16.7	15.8
Total Tetrachlorodibenzofuran (TCDF)	E1613B	9.78	4.07	5.33	11.8	6.00	11.4	9.81	17.8	17.2	18.4	14.8
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	9.92	14.5	13.5	11.4	6.34	19.0	20.1	25.3	22.5	32.0	22.9

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix analytic_method	JW-PDI-SG-012	JW-PDI-SG-013	JW-PDI-SG-014	JW-PDI-SG-018	JW-PDI-SG-019	JW-PDI-SG-019	JW-PDI-SG-020	JW-PDI-SG-022	JW-PDI-SG-022	JW-PDI-SG-023	JW-PDI-SG-024
		8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/15/2023	8/15/2023
		0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 12 in	0 - 12 in	0 - 10 in	0 - 12 in
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
	X	1302658.647	1302721.255	1302333.943	1302546.934	1302632.867	1302632.867	1302716.345	1302216.053	1302216.053	1302232.933	1302328.84
	Y	373266.2802	373207.3548	373615.537	373226.9965	373170.5261	373170.5261	373112.8281	373560.5627	373560.5627	373460.8188	373369.5149
Conventional Parameters (pct)												
Organic Content	D2974	--	--	3.65	4.51	3.57	3.51	4.49	5.36	5.38	3.95	5.62
Moisture (water) content	D2216	--	--	67.0 J	95.9 J	97.2 J	96.0 J	115.4 J	73.8 J	83.2 J	54.2	75.4
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	51.20	59.25	54.83	47.53	48.91	49.35	50.75	53.24	54.70	61.96	55.10
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	87.1	269	243	35.9	46.1	45.4	121	17.3	18.6	11.8	18.4
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	1380	4750	2710	600	839	818	2470	368	366	243	341
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	75.3	163	317	25.4	34.0	34.4	68.3	10.9	10.6	6.34	10.0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	297	760	1120	105	146	153	313	56.1	50.0	29.7	51.6
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	3.13	14.6	9.65	1.47	1.78	1.54	3.69	0.632 J	0.623 J	0.432 U	0.419 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.69	6.83	6.97	1.51	1.69	1.48 J	3.59	0.644 J	0.666 J	0.557 J	0.630 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.09	5.98	2.89	1.11	1.39	1.57	2.31	0.738 J	0.700 J	0.298 U	0.645 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.39	6.67	5.43	1.46	1.63	1.35	2.50	0.559 J	0.700 J	0.182 U	0.502 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	34.3	50.7	157 J	10.1	15.8	15.9	26.7	4.73 J	3.90 J	1.72	3.77
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	1.12	2.72	3.17	0.588 J	0.711 J	0.627 J	1.35	0.219 J	0.265 J	0.244 U	0.234 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	14.4	26.6	57.9	5.01	7.22	7.19	11.4	2.71	2.35	1.39	2.52
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.26	1.64	1.27	0.842 J	0.953 J	0.812 J	1.32	0.409 J	0.426 J	0.366 U	0.492 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	2.06	3.25	2.24	1.27	1.37	1.34	2.01	0.728 J	0.712 J	0.236 U	0.231 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	4.55	11.0	12.7	2.06	2.59	2.27	4.19	0.910 J	0.806 J	0.193 U	0.959 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.32	1.81	1.77	0.930 J	1.01	0.931 J	1.48	0.503 J	0.445 J	0.356 U	0.435 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	2.56	2.15	1.44 J	1.93	2.09	2.29	2.46	1.23	1.27	0.962 J	1.58
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.508 J	0.554 J	0.298 J	0.389 J	0.408 J	0.413 J	0.490 J	0.278 J	0.349 J	0.253 J	0.338 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		13.6 J	27 J	43.2 J	5.8 J	7.51 J	7.47 J	13.1 J	3.14 J	3.00 J	1.38 J	2.40 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	203	428	872	69.6	92.3	92.0	197	29.3	27.7	16.8	27.0
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	597	1280	2240	230	305	318	595	150	126	78.5	130
Total Hexachlorodibenzofuran (HxCDF)	E1613B	97.7	206	372	38.6	51.8	45.7	103	17.5	13.7	7.60	7.13
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	224	301	1070 J	84.1	113	114	179	46.3 J	36.8 J	17.6	35.6
Total Pentachlorodibenzofuran (PeCDF)	E1613B	19.8	45.5	44.2	11.5	21.0	19.3	27.9	5.58	4.13	1.59	3.87
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	18.9	19.9	11.7	13.6	14.6	16.6	15.5	7.40	8.34	3.21	4.78
Total Tetrachlorodibenzofuran (TCDF)	E1613B	21.6	20.7	11.8	14.9	19.6	20.2	19.0	8.13	6.37	7.41	13.1
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	25.2	20.2	13.2	20.4	18.6	31.0	19.2	14.2	16.5	9.46	15.9

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix analytic_method	JW-PDI-SG-025	JW-PDI-SG-027	JW-PDI-SG-028	JW-PDI-SG-029	JW-PDI-SG-034	JW-PDI-SG-035	JW-PDI-SG-036	JW-PDI-SG-036	JW-PDI-SG-037	JW-PDI-SG-038	JW-PDI-SG-039
		8/4/2023	8/3/2023	8/2/2023	8/2/2023	8/2/2023	8/2/2023	8/1/2023	8/1/2023	8/1/2023	8/1/2023	8/1/2023
		0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 8 in	0 - 8 in	0 - 6 in	0 - 4 in	0 - 4 in
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
	X	1302468.237	1302545.975	1302628.072	1302673.34	1302880.48	1302916.387	1302823.395	1302823.395	1302778.996	1302713.199	1302733.166
	Y	373411.6493	373166.1911	373087.1634	373038.8259	372552.8994	372507.7846	372528.9608	372528.9608	372315.4071	372247.73	372123.8477
Conventional Parameters (pct)												
Organic Content	D2974	4.09	3.82	6.05	5.38	--	4.61	--	--	4.4	5.63	5.51
Moisture (water) content	D2216	66.0 J	76.5 J	83.6 J	78.5 J	--	68.6 J	--	--	57.3	73.5	66.9
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	59.96	49.81	52.27	54.32	61.46	59.24	59.59	64.50	63.28	61.61	60.91
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	30.3	31.9	41.1	61.7	71.9	40.7	47.6	52.0	42.6	58.6	68.5
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	477	560	817	1390	2240	870	787	895	419	745	887
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	24.6	19.0	28.6	36.8	39.3	27.6	29.1	30.5	21.4	36.8	37.8
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	131	88.6	152	235	223	135	131	142	69.6	139	157
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	1.08	0.856 J	1.69	1.69 J	2.78	1.84	2.03 J	1.99	1.09 J	2.19	2.77 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.927 J	0.978 J	1.54	2.73	2.84	2.21	2.17	2.19	1.35	2.61	2.95
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.741 J	0.936 J	1.75	1.91	3.51	2.39	2.67	4.81	1.62	3.08	3.06
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.840 J	0.776 J	1.36	1.78 J	3.25	2.14 J	1.78	2.01	1.43	2.10	2.54
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	14.3 J	7.32 J	14.0	19.6	12.9	10.6	8.72	10.7	4.48	8.24	8.60
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.384 J	0.507 J	0.846 J	0.891 J	1.02 J	0.692 J	0.255 U	0.375 U	0.606 J	0.302 U	0.327 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	6.45	3.68	6.54	9.56	8.11	6.29	5.80	8.04	3.64 J	6.41	6.41
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.592 J	0.559 J	1.19	0.912 J	3.45	1.99	2.35	3.18	1.59	3.13 J	3.06
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.804 J	0.909 J	1.83	2.28	5.69	3.34	3.58	5.09	2.74	4.57	4.39
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.62	1.58	1.45 J	1.64	2.48	1.97 J	1.67 J	1.88	1.47 J	2.19	2.45 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.576 J	0.629 J	1.25 J	1.17 J	3.43	2.00	2.09	3.56	1.84	3.38	3.01
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	1.74	1.80	2.22	2.29 J	9.67	5.54	7.74	9.13	5.64 J	11.0 J	9.52
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.358 J	0.324 J	0.466 J	0.441 J	1.49	0.785 J	1.16	1.42	0.870 J	1.76	1.41
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		5.77 J	4.5 J	7.76 J	10.3 J	16.0 J	9.9 J	10.4 J	13.6	7.29 J	13.0 J	12.6 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	65.0	51.7	80.2	105	112	73.0	80.0	85.6	58.5	96.4	106
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	261	203	318	469	461	295	288	299	160	332	339
Total Hexachlorodibenzofuran (HxCDF)	E1613B	33.0	26.9	44.6	61.3	72.1	53.7	40.4	44.6	29.6	47.0	54.6
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	96.0 J	61.7 J	107	147	141	109	113	210	70.1	136	123
Total Pentachlorodibenzofuran (PeCDF)	E1613B	12.3	13.1	14.6	17.4	42.3	36.0	34.2	40.1	26.8	54.1	57.8
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	7.56	10.5	27.0	26.2	75.9	47.9	56.1	181	47.2	82.6	63.1
Total Tetrachlorodibenzofuran (TCDF)	E1613B	17.6	10.4	20.4	13.4	91.3	43.9	86.9	121	56.4	123	112
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	14.3	15.4	30.2	26.6	68.1	54.0	85.1	289	70.4	141	97.1

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID	JW-PDI-SG-040	JW-PDI-SG-041	JW-PDI-SG-042	JW-PDI-SG-043	JW-PDI-SG-044	JW-PDI-SG-044	JW-PDI-SG-045	JW-PDI-SG-046	JW-PDI-SG-047	JW-PDI-SG-048	JW-PDI-SG-049
	Sample Date	8/1/2023	8/1/2023	7/31/2023	8/1/2023	7/31/2023	8/1/2023	7/31/2023	8/1/2023	7/31/2023	8/1/2023	8/1/2023
	Depth	0 - 6 in	0 - 4 in	0 - 6 in	0 - 6 in	0 - 4 in	0 - 12 in	0 - 4 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 12 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
analytic_method	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302883.242	1302617.459	1302673.626	1302787.488	1302558.733	1302558.733	1302678.463	1302820.633	1302543.952	1302641.498	1302645.698
Chemical	Y	371970.0889	372199.1612	372078.4259	371946.1503	372139.8395	372139.8395	372012.5858	371852.2377	372017.5068	371931.5952	371824.6164
Conventional Parameters (pct)												
Organic Content	D2974	1.34	--	--	--	--	--	4.17	--	--	--	--
Moisture (water) content	D2216	32.2	--	--	--	--	--	54.0	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	73.06	63.12	66.29	67.27	65.30	62.38	61.06	65.34	67.92	58.15	61.22
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	12.3	130	36.8	18.2	46.9	167	47.9	34.0	23.1	36.1	17.8
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	138	1300	454	291	879	14400	515	656	327	740	340
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	3.86	54.5	20.0	10.0	30.4	234	28.2	22.3	11.5	28.3	9.69
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	17.9	205	72.9	44.7	139	1190	97.4	110	52.9	126	55.8
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.296 J	3.54	0.975 J	0.603 U	2.16	11.3	1.55	1.65	0.900 J	1.75 J	0.717 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.181 J	3.50	1.51	0.862 J	2.46	30.8	1.94	1.73	1.03	2.00	0.764 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.270 U	3.98	1.48 J	1.02 J	2.47 J	1.84	1.72	1.89	0.843 J	2.14	1.24
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.195 J	2.91	1.53	0.769 J	2.04	9.37	1.80	1.63 J	0.933 J	1.93	0.877 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.725 J	11.6	5.12	2.70	10.0	37.5	5.52	6.44	3.67	9.73	4.09
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.261 U	0.829 J	0.271 U	0.533 U	0.758 J	14.1	0.211 U	0.633 J	0.179 U	0.677 J	0.280 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.523 J	8.05	3.61	2.44	5.86	6.80	4.22	4.47	2.45	5.56	2.73
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.187 U	3.20	1.83	0.636 J	2.07	5.18	1.82 J	1.71	0.776 J	1.77	0.785 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.239 U	5.10	2.51 J	0.683 U	3.34 J	2.01	2.62	2.42	1.30	2.94 J	1.35
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.205 U	3.09	2.10	0.694 J	1.77	14.8	1.74 J	2.37	1.07 J	1.48	0.931 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.185 U	3.36	1.79	1.11 J	2.26 J	5.64 J	2.28	1.97 J	0.868 J	2.01	0.782 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.406 J	12.2 J	4.48	2.42	8.40	5.96	5.07	5.43	3.22	7.57	2.21 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.121 U	1.81	0.791 J	0.485 J	0.935 J	0.534 J	0.969 J	0.742 J	0.420 J	0.811 J	0.144 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.716 J	16 J	6.98 J	2.94 J	10.4 J	35.2 J	7.98 J	7.8 J	4.09 J	9.3 J	3.7 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	11.0	158	53.2	28.1	84.0	668	75.8	62.7	33.0	73.6	26.4
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	34.4	455	154	103	292	2110	204	257	115	267	126
Total Hexachlorodibenzofuran (HxCDF)	E1613B	2.13	72.9	37.0	15.0	53.3	461	42.6	34.3	17.5	48.3	16.2
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	5.06	160	70.1	42.1	106	158	96.3	84.9	47.5	104	46.4
Total Pentachlorodibenzofuran (PeCDF)	E1613B	0.747 J	64.1	24.9	7.74	24.1	55.4	43.0	24.2	10.8	21.0	6.16
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.978 J	82.5	41.7	22.1	46.7	33.3	52.0	39.8	21.3	38.3	9.84
Total Tetrachlorodibenzofuran (TCDF)	E1613B	1.30	126	52.6	27.3	52.2	48.7	58.4	48.1	26.6	52.5	16.6
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	2.50	113	50.6	34.6	58.5	51.9	63.7	58.5	28.6	53.9	26.9

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix X Y analytic_method	JW-PDI-SG-050	JW-PDI-SG-051	JW-PDI-SG-052	JW-PDI-SG-053	JW-PDI-SG-054	JW-PDI-SG-055	JW-PDI-SG-056	JW-PDI-SG-057	JW-PDI-SG-058	JW-PDI-SG-059	JW-PDI-SG-063
		8/1/2023	8/2/2023	8/2/2023	8/2/2023	8/1/2023	8/2/2023	8/1/2023	8/15/2023	8/1/2023	8/1/2023	8/15/2023
		0 - 4 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 8 in	0 - 12 in	0 - 4 in	0 - 6 in	0 - 12 in
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
		1302654.011	1302985.441	1302886.004	1302925.594	1302824.316	1302842.73	1302790.25	1302837.206	1302744.214	1302796.695	1302661.35
		371706.2928	372464.5111	372444.2556	372406.5063	372463.5905	372402.8232	372223.2846	372192.9011	372179.0904	372145.0239	372446.0968
Conventional Parameters (pct)												
Organic Content	D2974	--	2.24	4.82	2.07	4.74	5.82	5.31	1.55	4.36	4.38	3.68
Moisture (water) content	D2216	--	37.1 J	67.5 J	44.3 J	82.1	65.4 J	65.8	29.6	62.0	68.2	48.3
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	60.04	73.31	59.80	68.36	53.08	59.42	60.25	76.26	62.14	61.04	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	44.9	10.2	38.3	11.0	23.0	95.3	29.2	14.9	35.0	39.0	11.4
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	809	192	732	204	453	1260	432	161	463	608	289
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	30.7	5.66	23.8	6.25	16.4	45.2	20.6	5.35	24.2	22.9	7.61
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	142	27.5	127	31.5	82.7	192	76.8	20.5	82.2	102	40.0
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	1.85	0.592 J	1.65	0.312 U	1.12 J	3.23	1.13 J	0.402 U	1.13	1.55	0.496 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.47	0.502 J	2.00	0.545 J	1.12	3.28	1.76	0.404 J	1.72	1.94	0.619 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.60 J	0.540 J	2.12	0.336 U	1.59	3.78	1.82	0.434 J	2.31	2.16	0.706 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.11	0.566 J	1.92	0.299 J	1.22	3.33	1.49	0.168 U	1.86	1.61	0.537 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	10.4	2.43	9.62	2.08	6.09	12.2	5.57	1.11 J	5.15	6.67	3.40
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.671 J	0.269 U	0.731 J	0.279 U	0.385 J	1.05	0.602 J	0.209 U	0.667 J	0.450 J	0.168 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	6.37	1.27 J	5.55	1.48 J	3.89 J	8.21	3.83	1.03 J	4.16	5.50	1.59 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.93	0.294 J	1.71	0.254 U	1.53 J	3.55	2.21	0.217 J	2.28	1.75	0.587 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	3.26	0.498 J	3.67	0.677 J	2.16	5.28	2.89	0.406 J	3.45 J	3.10 J	0.749 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.07	0.247 J	1.66 J	0.247 U	0.989 J	2.28	1.66 J	0.342 J	1.85	1.28 J	0.582 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	2.30	0.371 J	1.82	0.521 J	1.31	3.85	1.96	0.267 J	2.05 J	1.88	1.05 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	9.90	0.700 J	5.22	0.828 J	4.47	10.3	6.51 J	0.500 J	6.38	6.01	2.70
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.919 J	0.170 U	0.655 J	0.166 U	0.743 J	1.60 J	0.804 J	0.095 U	1.11	1.01 J	0.275 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		10.6 J	1.74 J	9.56 J	1.93 J	6.46 J	15.4 J	7.80 J	1.25 J	8.88 J	8.75 J	2.96 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	85.3	15.3	65.7	16.0	43.5	133	50.1	15.0	61.4	60.5	21.4 J
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	287	62.5	274	72.8	187	423	184	45.3	204	221	99.9
Total Hexachlorodibenzofuran (HxCDF)	E1613B	52.3	7.22	41.9	8.56	28.1	81.2	32.5	5.32	37.4	33.6	14.6 J
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	120	17.5	102	23.4	71.6	158	87.8	8.22	91.8	98.0	38.5 J
Total Pentachlorodibenzofuran (PeCDF)	E1613B	36.1	1.03	25.1	0 U	13.0	74.4	45.7	0.267 J	32.7	25.3	13.7 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	50.7	5.08	42.5	8.52	38.5	88.1	50.8	2.68	56.4	48.6	20.5 J
Total Tetrachlorodibenzofuran (TCDF)	E1613B	50.9	3.67	39.5	2.83	52.3	107	75.0	3.53	88.4	62.9	26.3 J
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	62.5	7.35	47.1	11.4	55.0	98.8	80.0	6.04	91.0	69.7	17.8 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Location ID	JW-PDI-SG-070	JW-PDI-SG-071	JW-PDI-SG-073	JW-PDI-SG-078	JW-PDI-SG-079	JW-PDI-SG-080	JW-PDI-SG-081	JW-PDI-SG-081	JW-PDI-SG-083	JW-PDI-SG-084	JW-PDI-SG-085
Sample Date	7/31/2023	8/1/2023	8/1/2023	8/14/2023	8/14/2023	8/14/2023	8/14/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023
Depth	0 - 12 in	0 - 12 in	0 - 4 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in
Sample Type	N	N	N	N	N	N	N	N	N	N	N
Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
X	1302553.627	1302735.007	1302737.769	1302720.855	1302756.456	1302772.415	1303027.036	1303027.036	1303083.015	1303200.498	1303223.7
Y	371502.367	372648.6535	372386.2504	374260.3641	374262.8192	374206.3488	373928.977	373928.977	373886.9925	373737.1008	373729.3665
Chemical	analytic_method										
Conventional Parameters (pct)											
Organic Content	D2974	2.99	5.29	4.8	--	--	--	--	--	--	--
Moisture (water) content	D2216	64.6	81.9	55.2	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	60.23	--	61.90	69.11	52.90	53.94	50.94	52.80	52.05	52.56
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)											
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	39.6	19.2	46.9	462	50.6	174	76.0	34.3	110	258
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	590	461	683	1550	628	1560	933	517	1560	8110
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	21.9	13.3	29.6	114	27.6	76.5	51.7	17.1	49.2	106
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	106	72.2	114	220	91.6	231	144	68.6	187	771
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	1.55	0.738 J	1.86 J	5.66	1.83	4.74	3.10	0.781 U	2.60 J	6.44
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.78 J	1.12 J	2.24	1.99	1.19	2.56	2.02	0.764 J	1.83	3.71
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.44	1.19 J	2.68	1.55	1.18 J	2.64	1.42	0.589 U	0.589 U	3.78
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.97 J	1.07 J	2.45	2.10	1.29	3.37	2.76 J	0.700 J	1.98 J	3.69
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	9.24	6.85	6.92	10.4	5.41	13.7	11.1	3.24 J	10.0	28.8
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.509 J	0.162 J	0.509 J	0.880 J	0.463 J	1.21	1.04	0.380 U	0.613 J	1.80
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	5.52	3.01	5.09	5.04	3.26 J	8.02	4.84	1.71	4.37	11.7
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.60 J	1.72 J	3.16	0.463 J	0.506 J	0.677 J	0.849 J	0.453 J	0.874 J	1.02
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	3.31	0.967 J	4.90	1.04	1.15	1.88	1.51 J	0.854 J	1.25 J	2.56
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.22	0.734 J	3.57	3.68	2.29	5.59	4.52	1.14	3.08	6.44
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	2.25	2.22 J	3.84	0.477 J	0.541 J	1.01	0.878 J	0.520 J	1.20	1.22
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	7.08	4.14	9.25 J	0.670 J	0.999	0.872 J	1.18	0.833 J	1.45	1.55
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.830 J	0.377 J	1.54	0.179 J	0.289 J	0.293 J	0.262 J	0.306 U	0.324 J	0.508 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		9.3 J	4.90 J	12.6 J	8.0 J	4.64 J	9.94 J	7.24 J	3.09 J	7.2 J	21.0 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	61.9	40.4 J	79.2	447	74.1	212	139	47.5	146	363
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	224	182	246	351	194	396	298	165	374	1550
Total Hexachlorodibenzofuran (HxCDF)	E1613B	41.1	23.6 J	50.2	113	38.8	101	76.0	22.5	65.5	147
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	113	66.3	130	46.6	34.6	73.6	68.4	23.9	69.6	211
Total Pentachlorodibenzofuran (PeCDF)	E1613B	20.6	20.3 J	60.4	12.8	7.08	26.0	18.7	5.88	16.2	34.1
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	58.0	26.8 J	88.6	2.51	4.55	4.10	4.44	3.12	2.07	13.8
Total Tetrachlorodibenzofuran (TCDF)	E1613B	50.3	33.5 J	128	4.15	6.38	8.28	9.02	0.433 J	7.50	10.5
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	62.0	24.4 J	161	3.72	15.2	5.53	12.4	8.91	9.48	6.49

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix analytic_method	JW-PDI-SG-086	JW-PDI-SG-089	JW-PDI-SG-090	JW-PDI-SG-091	JW-PDI-SG-092	JW-PDI-SG-093	JW-PDI-SG-094	JW-PDI-SG-095	JW-PDI-SG-096	JW-PDI-SG-097	JW-PDI-SG-098
		8/16/2023	8/17/2023	8/14/2023	8/14/2023	8/14/2023	8/14/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023
		0 - 12 in	0 - 10 in	0 - 9 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
	X	1303224.068	1303489.97	1302679.116	1302770.574	1302808.63	1302999.783	1303077.122	1303118.739	1303205.286	1303241.009	1303250.217
	Y	373705.4282	373466.0429	374315.6068	374283.0751	374199.5969	373955.4937	373957.7033	373898.4095	373765.4586	373765.0902	373706.5329
Conventional Parameters (pct)												
Organic Content	D2974	--	1.61	2.16	4.01	4.02	5.61	4.49	4	3.86	3.91	5.26
Moisture (water) content	D2216	--	32.4	46.8	78.2	90.7	97.7	116.8	95.8	81	96.5	86.3
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	51.74	82.26	67.67	53.40	50.05	50.80	48.68	49.46	53.83	49.91	53.15
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	48.9	28.9	74.9	36.7	46.0	58.7	35.0	18.3	69.6	21.7	77.6
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	825	397	523	484	582	744	503	262	1360	307	1460
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	26.8	13.2	31.7	18.3	22.8	41.3	17.2	7.92	33.4	9.99	40.4
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	102	48.6	79.3	75.7	80.9	107	67.1	34.0	168	40.0	177
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	1.44	0.800 J	1.75 J	0.961 J	1.52	2.26	0.753 U	0.984 U	1.73 J	0.749 J	2.27
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.43	0.510 J	0.929 J	0.733 J	1.08	1.64	0.852 J	0.404 U	1.52	0.378 J	1.58
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.744 J	0.319 J	0.297 U	0.751 J	1.09	1.11	0.538 U	0.708 U	0.590 U	0.447 U	1.41
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.22	0.432 J	1.17	0.864 J	0.966 J	2.28	0.796 J	0.417 U	1.15	0.389 J	1.60
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	5.05	2.03	4.42	4.36	4.86	7.95	3.43	2.19	7.36	2.30	9.62
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.418 J	0.168 J	0.253 U	0.267 U	0.487 J	0.729 J	0.306 U	0.556 U	0.338 U	0.228 J	0.470 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.59	1.07	2.83	2.23 J	3.04	3.89	2.33	0.843 U	3.74	1.23 J	4.60
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.409 J	0.346 J	0.389 J	0.395 J	0.448 J	0.674 J	0.487 J	0.393 U	0.514 J	0.250 U	0.594 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.618 J	0.220 U	0.880 J	0.724 J	1.04	1.34 J	0.879 J	0.613 U	0.512 U	0.313 U	1.26
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.968 J	0.640 J	1.86	1.22	1.63	3.44	1.16 J	0.440 U	2.04	0.735 J	2.56 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.497 J	0.282 J	0.368 J	0.440 J	0.631 J	0.781 J	0.544 J	0.391 J	0.766 J	0.234 U	0.760 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.573 J	0.294 J	0.727 J	0.894 J	1.03	1.09	0.997 J	0.605 J	1.14 J	0.355 J	1.22
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.152 U	0.160 U	0.180 J	0.274 J	0.309 J	0.104 U	0.346 U	0.347 U	0.301 U	0.197 U	0.274 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		3.72 J	1.59 J	3.71 J	3.37 J	4.21 J	5.61 J	3.24 J	1.56 J	4.85 J	1.48 J	6.74 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	75.9	37.7	89.1	52.0	62.7	107	47.1	23.5	96.7	28.6	115
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	221	89.6	145	170	175	225	164	83.7	356	90.3	370
Total Hexachlorodibenzofuran (HxCDF)	E1613B	33.7	14.1	35.9	20.9	29.0	65.0	20.5	9.18	43.5	11.8	48.4
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	33.8	19.4	28.5	35.6	38.8	50.9	32.2	15.7	63.0	8.49	67.9
Total Pentachlorodibenzofuran (PeCDF)	E1613B	7.97	3.34	10.6	5.89	9.51	17.0	5.02	2.96	10.7	2.42	10.7
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	2.56	0 U	3.57	4.09	3.02	5.69	2.70	0 U	4.75	0 U	8.65
Total Tetrachlorodibenzofuran (TCDF)	E1613B	2.29	0.781 J	1.83	4.85	4.81	8.92	1.41	0 U	2.95	0 U	7.42
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	5.70	0.958 J	5.09	8.17	11.9	12.1	10.1	4.30	5.74	2.58	11.3

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID	JW-PDI-SG-099	JW-PDI-SG-100	JW-PDI-SG-101	JW-PDI-SG-101	JW-PDI-SG-102	JW-PDI-SG-111	JW-PDI-SG-114	JW-PDI-SG-115	JW-PDI-SG-116	JW-PDI-SG-118	SC-001_2024
	Sample Date	8/17/2023	8/17/2023	8/17/2023	8/17/2023	8/17/2023	8/16/2023	7/31/2023	8/2/2023	8/14/2023	8/1/2023	7/18/2024
	Depth	0 - 6 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 10 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 12 in	0 - 6 in	0 - 1 ft
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
analytic_method	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1303392.006	1303433.622	1303523.115	1303523.115	1303514.384	1303142.309	1302480.199	1302869.182	1302904.253	1302763.577	1302237.07
analytic_method	Y	373541.9099	373517.2347	373480.0379	373480.0379	373416.7205	373815.9136	371337.596	372350.333	374075.7733	372023.717	373716.62
Conventional Parameters (pct)												
Organic Content	D2974	4.87	--	6.91	--	4.73	4.24	3.23	2.47	3.63	5.04	--
Moisture (water) content	D2216	84.7	--	104.5	--	85.1	102.2	63.1	40.3 J	82.5	63.9	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	50.04	43.57	47.26	48.42	49.03	47.60	61.78	72.85	52.92	57.88	56.26 J
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	54.1	104	95.6	95.2	212	62.3	31.9	12.0	56.5	42.1	4.2
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	871	1610	1700	1610	3810	1060	488	222	825	602	69
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	30.9	45.8	45.6	46.6	76.7	32.0	18.4	5.94	44.7	22.2	3.7
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	120	202	203	212	348	136	90.9	31.5	113	106	17
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	1.42	2.48 J	2.45	2.43 J	4.44	2.01 J	1.60	0.405 J	2.05	1.28	0.26 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.20	1.68 J	1.77	1.73	4.77	1.22 J	1.55	0.467 J	1.75	1.66	0.19 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.877 J	1.05	1.61	1.92	1.54	1.19	1.98	0.528 J	1.33	1.89	0.20 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.14	1.48	1.60 J	1.45 J	2.24	1.20 J	1.61	0.536 J	2.30	1.57	0.14 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	7.19	8.44	8.91	9.62	12.8	7.34	8.23	2.15	8.21	4.77	1.6 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.765 J	0.561 J	0.982 J	0.768 J	2.15 J	0.552 J	0.796 J	0.185 U	1.04	0.402 U	0.17 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	3.08	3.37	4.88	5.30 J	1.62	4.05	4.69	1.12 J	4.03	3.86	0.58 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.497 J	0.596 J	0.745 J	0.812 J	0.912 J	0.532 J	1.29 J	0.393 J	0.804 J	1.71	0.039 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.763 J	0.743 J	1.38	1.48	0.434 U	1.25 J	2.59	0.481 J	1.21	2.50	0.024 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.00	2.36	2.66	2.84	1.59 J	2.33	1.67	0.250 J	4.03	1.40	0.18 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.852 J	0.647 J	0.937 J	1.24	1.01 J	0.788 J	1.71 J	0.406 J	0.984 J	1.76	0.035 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	1.23	0.814 J	1.21	1.29	0.819 J	1.35	5.33	0.774 J	1.24	6.73	0.059 U
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.335 J	0.313 J	0.101 U	0.315 J	0.175 U	0.266 U	0.673 J	0.165 U	0.249 J	1.02 J	0.084 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		4.9 J	6.26 J	7.1 J	7.81 J	8.89 J	5.60 J	7.67 J	1.74 J	6.03 J	7.80 J	0.57 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	86.3	143	132	135	259	91.8	52.6	17.1	116	63.8	8.5
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	246	387	454	481	656	287	198	73.8	241	221	40
Total Hexachlorodibenzofuran (HxCDF)	E1613B	45.8	55.7	55.5	57.8	117	39.4	34.2	9.35	70.6	34.5	3.9
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	56.8	51.7	72.9	74.8	68.6	57.9	101	20.0	55.8	74.0	10
Total Pentachlorodibenzofuran (PeCDF)	E1613B	13.7	11.2	13.7	15.4	8.58	10.3	17.3	4.04	22.4	24.5	0.70 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	2.21	2.04	6.95	9.92	3.34	2.96	43.1	5.35	5.78	37.5	0.25 J
Total Tetrachlorodibenzofuran (TCDF)	E1613B	7.38	4.24	9.55	8.39	1.88	2.73	36.4	3.85	10.4	71.9	0.059 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	6.63	5.11	8.99	12.6	4.47	8.31	53.2	8.61	13.2	53.8	0.36 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix X Y analytic_method	SC-001_2024	SC-001_2024	SC-001_2024	SC-002_2024	SC-002_2024	SC-002_2024	SC-002_2024	SC-003_2024	SC-003_2024	SC-003_2024	SC-003_2024
		7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024
		1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
		1302237.07	1302237.07	1302237.07	1302245.24	1302245.24	1302245.24	1302245.24	1302271.69	1302271.69	1302271.69	1302271.69
		373716.62	373716.62	373716.62	373675.80	373675.80	373675.80	373675.80	373684.27	373684.27	373684.27	373684.27
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	44.2 N	37.5 N	--	--	44.4 N	36.4 N	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	37.2	32.5	--
Total solids	D2216	--	--	68.42 J	54.64 J	--	--	69.86 J	56.67 J	--	--	71.72 J
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	10	45	28	4.6	2.8 J	25	42	15	67.9	86.3	43
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	140	440	480	88	54	350	390	210	1310	3660	360
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	6.2	73	16	2.6 J	2.2 J	25	8.2	11	65.5	95.5	11
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	27	150	60	15	13	75	38	45	353	495	36
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.19 U	2.2 J	0.89 J	0.15 J	0.14 U	1.0 J	0.54 J	0.40 J	2.77	3.55	0.90 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.15 U	2.3 J	1.0 J	0.12 J	0.087 U	0.99 J	0.53 J	0.31 J	2.44 J	3.78	0.75 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.078 U	0.84 J	0.59 J	0.20 U	0.13 U	0.89 J	0.35 U	0.34 U	1.82 J	2.82	0.49 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.28 J	2.9 J	0.73 J	0.52 J	0.086 U	1.5 J	0.37 J	1.2 J	2.21 J	3.57	1.4 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.6 J	19	4.2	1.5 J	1.0 J	7.3	1.5 J	4.6	33.9	41.3	1.9 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.18 U	1.1 J	0.39 U	0.052 U	0.12 U	0.74 U	0.17 U	0.13 U	0.542 J	1.23 J	0.22 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	1.1 J	6.0	1.6 J	0.53 J	0.11 U	2.5 J	0.72 J	1.5 J	13.0	13.3	0.96 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.052 U	0.10 U	0.21 J	0.100 J	0.14 U	0.19 U	0.21 J	0.11 J	1.44 J	2.02 J	2.0 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.054 U	0.13 U	0.29 J	0.058 J	0.072 U	0.13 U	0.18 J	0.15 J	1.68 J	2.28 J	0.42 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.39 J	2.7 J	1.0 J	0.22 J	0.088 U	1.5 J	0.48 J	0.34 J	2.61	6.12	0.48 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.14 J	0.79 J	0.70 J	0.13 J	0.082 U	0.93 J	0.37 J	0.20 J	1.89 J	3.32	0.40 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.078 U	0.16 U	2.2	0.19 J	0.13 U	1.2 J	0.93	0.23 J	2.22	4.60	1.1
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.17 U	0.24 U	0.10 U	0.046 U	0.14 U	0.26 U	0.044 U	0.041 U	0.482 J	0.648	0.16 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.99 J	6.3 J	2.6 J	0.65 J	0.43 J	3.2 J	1.4 J	1.7 J	13.3 J	18.7 J	2.1 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	19	180	44	6.0	5.9	66	29	32	174	289	42
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	60	340	150	38	31	170	99	95	681	1130	84
Total Hexachlorodibenzofuran (HxCDF)	E1613B	7.6	100	16	5.0	2.2 J	33	13	9.8	100	174 J	14
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	15	130	46	14	6.4	53	22	41	263 J	348	24
Total Pentachlorodibenzofuran (PeCDF)	E1613B	1.5 J	17	12	1.4 J	0.64 J	17	5.6	2.6	27.2 J	64.6 J	8.2
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.41 J	4.6 J	11	0.41 J	0.072 U	10	7.6	0.81 J	29.3 J	70.6 J	8.5
Total Tetrachlorodibenzofuran (TCDF)	E1613B	0.078 U	0.57 J	13	0.99	0.13 U	6.1	8.3	1.8	29.3 J	42.1 J	17
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.85 J	4.5	10	1.2	0.14 U	8.7	24	1.7	19.2 J	42.1	6.4

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix analytic_method	SC-004_2024	SC-004_2024	SC-004_2024	SC-004_2024	SC-005_2024	SC-005_2024	SC-005_2024	SC-005_2024	SC-007_2024	SC-007_2024	SC-007_2024
		7/22/2024	7/22/2024	7/22/2024	7/22/2024	7/18/2024	7/18/2024	7/18/2024	7/18/2024	7/19/2024	7/19/2024	7/19/2024
		0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft
		N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y	N SE X Y
		1302310.05 373640.38	1302310.05 373640.38	1302310.05 373640.38	1302310.05 373640.38	1302318.66 373595.79	1302318.66 373595.79	1302318.66 373595.79	1302318.66 373595.79	1302385.30 373567.11	1302385.30 373567.11	1302385.30 373567.11
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	29.1	27.1	--	--	34.6	22.6	--	--	21.4	28.0
Total solids	D2216	61.38	--	--	73.08	54.59 J	--	--	83.27 J	76.52	--	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	22	65.4	97.3	53	25	115	53.9	0.52 J	49	341	95.7
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	350	1220	1710	620	270	1710	755	11	770	5760	1150
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	15	76.0	87.9	13	27	60.9	21.1	0.29 J	48	476	143
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	76	308	366	57	100	309	86.1	2.3	230	2610	343
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.61 J	2.73	3.34	0.73 J	0.82 J	3.47	1.70 J	0.17 U	1.3 J	13.0	4.41
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.31 J	2.55	3.30	0.59 J	0.57 J	3.46	1.26 J	0.12 U	2.3 J	7.54	4.17
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.27 U	1.75 J	1.96 J	0.60 J	0.40 U	3.23	1.00 J	0.10 U	0.064 U	3.99 J	2.09 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.7 J	2.48	2.87	1.9 J	2.5 J	3.12	1.07 J	0.12 U	0.60 J	6.41	3.92
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	7.9	31.9	36.1	2.9	13	23.7	4.76	0.20 J	21	378	44.8
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.12 U	0.654 J	0.876 J	0.15 U	0.13 U	0.619 J	0.365 J	0.19 U	0.44 J	3.57	1.04 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.4	10.6	12.7	1.3 J	4.9	9.94	2.27 J	0.049 U	6.4	105	13.9
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.062 U	1.39 J	1.99 J	0.66 J	0.14 J	2.37 J	1.06 J	0.093 U	0.16 J	1.22 J	1.43 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.082 J	1.49 J	2.08 J	0.26 J	0.17 J	2.75 J	1.05 J	0.049 U	0.17 J	2.86	1.96 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.47 J	3.13	3.20	0.50 J	0.70 J	3.49	1.08 J	0.11 U	1.6	12.1	3.16
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.17 J	1.94 J	3.19	0.41 J	0.21 J	3.16	1.64 J	0.060 U	0.33 J	1.25 J	3.13
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.16 J	2.30	5.78	2.7	0.28 J	7.79	4.01	0.075 J	0.16 J	1.11	4.87
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.049 U	0.494	0.615 J	0.18 J	0.050 U	1.20	0.540 J	0.045 U	0.052 U	0.195 J	0.553
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		2.5 J	12.4 J	15.5 J	2.5 J	3.9 J	14.8 J	5.03 J	0.15 J	6.6 J	88.1 J	16.6 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	47	196	269	48	81	199	79.4	0.65 J	130	1390	410 J
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	180	652	866	140	220	684	197	5.1	530	5330	711
Total Hexachlorodibenzofuran (HxCDF)	E1613B	18	123 J	140	13	22	112 J	30.5	0.11 U	49	488	215
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	55	245	270	36	110	224	56.1	1.5 J	160	2450	331
Total Pentachlorodibenzofuran (PeCDF)	E1613B	2.6	35.7 J	52.8 J	8.7	4.9	46.3 J	25.7 J	0.060 U	7.1	76.5 J	79.8 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.53 J	27.7 J	51.1 J	7.4	2.5	92.0 J	28.6 J	0.049 U	1.4 J	38.4 J	55.6
Total Tetrachlorodibenzofuran (TCDF)	E1613B	0.44	25.2 J	48.1 J	11	1.8	66.6 J	37.2 J	0.28 J	0.60	14.5 J	41.9 J
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.29 J	23.0 J	41.9 J	10	1.4	65.9 J	28.2 J	0.17 J	0.64	8.09 J	32.7 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix X Y analytic_method	SC-007_2024	SC-007_2024	SC-007_2024	SC-008_2024	SC-008_2024	SC-009_2024	SC-009_2024	SC-009_2024	SC-009_2024	SC-011_2024	SC-011_2024
		7/19/2024	7/19/2024	7/19/2024	7/18/2024	7/18/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/21/2024	7/21/2024
		3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft
		N SE	FD SE	FD SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
		1302385.30	1302385.30	1302385.30	1302366.60	1302366.60	1302446.65	1302446.65	1302446.65	1302446.65	1302538.14	1302538.14
		373567.11	373567.11	373567.11	373492.58	373492.58	373504.27	373504.27	373504.27	373504.27	373399.87	373399.87
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	26.7	28.3	--	--	23.7
Total solids	D2216	78.80	76.53	79.14	56.18	83.76	74.01	--	--	76.33	60.35	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	16	130	20	3.0 J	0.078 U	52	257	113	7.8	23	116
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	260	2500	320	56	0.72 U	760	3910	2690	180	340	2170
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	6.9	110	7.8	1.9 J	0.036 U	60	374	175	10	41	53.2
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	37	700	34	9.4	0.097 U	280	1780	590	32	150	248
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.40 J	3.1	0.45 J	0.066 U	0.054 U	1.5	10.9	5.16	0.35 J	1.3 J	2.92
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.60 J	3.1	0.70 J	0.11 J	0.026 U	1.7	8.35	7.13	0.84 J	1.4 J	3.11
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.30 U	1.2 J	0.40 U	0.17 U	0.062 U	0.77 J	3.72	2.60	0.19 U	0.41 U	2.11 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.31 J	1.7 J	0.43 J	0.069 J	0.024 U	0.98 J	6.96	4.63	0.27 J	0.97 J	2.19 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.8	62	1.7 J	0.75 J	0.024 U	30	246	108	3.3	21	12.6
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.14 U	0.95 J	0.18 U	0.081 U	0.039 U	0.51 J	2.64	1.10 J	0.20 U	0.46 J	0.695 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	1.1 J	19	0.80 J	0.29 J	0.025 U	9.5	72.4	28.8	1.1 J	8.2	5.12
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.22 J	0.36 J	0.26 J	0.037 U	0.019 U	0.19 J	1.60 J	2.32 J	0.15 J	0.090 U	2.58
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.16 J	0.60 J	0.20 J	0.081 J	0.019 U	0.31 J	2.53 J	2.05 J	0.070 J	0.22 J	2.41 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.42 J	3.9	0.51 J	0.12 J	0.026 U	2.2	10.9	6.52	0.47 J	1.3 J	2.52
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.35 J	0.96 J	0.44 J	0.095 J	0.017 U	0.48 J	3.55	4.99	0.29 J	0.59 J	3.54
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	1.3	0.36 J	1.5	0.19 J	0.046 J	0.19 J	1.82	4.45	0.33	0.25 J	8.30
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.096 J	0.057 U	0.092 J	0.064 U	0.037 U	0.051 U	0.263 J	0.340 J	0.038 U	0.077 U	1.14 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		1.6 J	19 J	1.5 J	0.44 J	0.048 J	8.7 J	62.1 J	29 J	1.3 J	5.8 J	12.1 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	21	260	24	5.2	0.036 U	140	1130	491 J	25	92	180
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	83	1600	75	26	0.054 U	630 J	3780	1230	74	320	557
Total Hexachlorodibenzofuran (HxCDF)	E1613B	9.4	110	10	2.6	0.024 U	63 J	489	297	16	43	78.5
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	25	470	17	7.3	0.024 U	230	1690	669	27	150	127 J
Total Pentachlorodibenzofuran (PeCDF)	E1613B	5.3	20	6.5	0.70 J	0.017 U	9.8	83.6 J	73.5 J	3.7	14	64.9 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	5.4	6.3	5.0	0.38 J	0.019 U	3.5	39.5 J	35.0 J	1.8	2.8	69.5
Total Tetrachlorodibenzofuran (TCDF)	E1613B	9.1	4.4	12	0.53	0.12 J	1.7	22.6 J	34.5 J	1.7	1.5	101 J
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	6.2	1.8	6.7	0.55	0.13 J	0.72	13.5 J	20.4 J	2.7	1.1	75.5 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID	SC-011_2024	SC-011_2024	SC-012_2024	SC-012_2024	SC-013_2024	SC-013_2024	SC-013_2024	SC-013_2024	SC-014_2024	SC-014_2024	SC-014_2024
	Sample Date	7/21/2024	7/21/2024	7/19/2024	7/19/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024
	Depth	2 - 3 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
X	1302538.14	1302538.14	1302540.72	1302540.72	1302568.66	1302568.66	1302568.66	1302568.66	1302568.66	1302586.09	1302586.09	1302586.09
Y	373399.87	373399.87	373344.88	373344.88	373342.73	373342.73	373342.73	373342.73	373342.73	373293.56	373293.56	373293.56
analytic_method												
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	22.5	--	--	--	--	31.1	28.4	--	--	36.3	31.9
Total solids	D2216	--	77.63	57.81	77.39	63.30	--	--	81.71	63.71	--	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	1.25 J	0.41 J	5.3	0.13 U	5.5	45.0	9.58	0.70 J	22	127	33.0
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	22.9	5.1	100	4.8	79	654	221	14	260	5640	473
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	2.04 J	0.13 J	5.3	0.11 J	5.2	26.3	8.05	0.72 J	21	59.5	19.0
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	4.27	0.74 J	32	0.69 J	20	117	43.9	2.8	57	624	78.4
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	0.0950 J	0.072 U	0.21 U	0.095 U	0.17 U	1.42 J	0.388 J	0.16 U	0.82 J	3.56	0.918 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.168 J	0.053 U	0.25 J	0.083 J	0.24 J	1.42 J	0.655 J	0.083 U	0.61 J	3.78	1.56 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.190 U	0.094 U	0.059 U	0.13 U	0.15 U	1.40 J	0.699 J	0.15 U	0.55 J	3.73	1.40 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.193 J	0.053 U	0.14 J	0.058 J	0.16 J	1.31 J	0.671 J	0.087 U	2.6 J	3.51	1.63 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.380 J	0.059 J	3.5	0.097 J	2.1 J	9.96	4.50	0.36 J	6.3	17.7	5.86
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.144 U	0.066 U	0.098 U	0.047 U	0.12 U	0.462 J	0.237 U	0.11 U	0.31 U	0.441 J	0.257 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.327 J	0.052 U	1.4 J	0.043 U	0.68 J	4.09	2.05 J	0.17 J	2.3 J	8.81	3.13
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.259 J	0.11 J	0.055 U	0.17 J	0.045 U	1.70 J	0.888 J	0.046 U	0.28 J	5.17	3.41 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.205 J	0.066 J	0.091 J	0.030 U	0.053 J	1.57 J	0.825 J	0.037 U	0.34 J	5.13	1.84 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.148 J	0.040 U	0.27 J	0.069 J	0.29 J	1.17 J	0.624 J	0.087 U	0.60 J	2.41 J	1.87 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.258 J	0.10 J	0.15 J	0.16 J	0.100 J	2.65	0.985 J	0.028 U	0.48 J	6.89	4.12
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.642	0.30 J	0.24 J	0.42	0.19 J	6.91	1.92 J	0.25 J	0.69	15.0 J	6.79
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.0710 J	0.057 U	0.053 U	0.041 U	0.070 U	0.694 J	0.272 J	0.11 U	0.062 U	2.25	1.05
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.635 J	0.19 J	1.2 J	0.18 J	0.78 J	7.44 J	3.14 J	0.22 J	2.8 J	23.7 J	7.61 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	3.83 J	0.30 J	13	0.11 J	13	81.7	22.0 J	2.0	59	200	55.2
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	8.43	1.7 J	76	1.1 J	45	253	94.3	6.5	130	1280	169
Total Hexachlorodibenzofuran (HxCDF)	E1613B	3.40 J	0.26 J	7.2	0.41 J	7.9	43.4 J	15.0 J	0.70 J	31	98.8 J	36.9 J
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	7.70 J	2.6	29	3.3	17	104	62.4	2.5	46	211 J	118 J
Total Pentachlorodibenzofuran (PeCDF)	E1613B	5.80 J	1.1 J	1.9 J	2.0	1.9 J	37.5	16.5 J	0.028 U	6.6	96.6 J	56.3 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	8.02 J	2.0 J	3.0	4.3	0.97 J	65.4 J	34.9 J	0.72 J	4.7	193	110 J
Total Tetrachlorodibenzofuran (TCDF)	E1613B	11.9 J	3.8	1.5	7.3	0.59	67.7 J	35.4 J	1.1	5.0	195 J	118 J
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	8.61 J	4.2	5.7	6.7	0.91	64.2 J	33.3 J	1.1	5.3	289	108 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix X Y analytic_method	SC-014_2024	SC-017_2024	SC-017_2024	SC-017_2024	SC-017_2024	SC-018_2024	SC-018_2024	SC-018_2024	SC-018_2024	SC-019_2024	SC-019_2024
		7/21/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/19/2024	7/22/2024	7/22/2024
		3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE	N SE
		1302586.09	1302691.77	1302691.77	1302691.77	1302691.77	1302694.19	1302694.19	1302694.19	1302694.19	1302758.11	1302758.11
		373293.56	373237.97	373237.97	373237.97	373237.97	373165.11	373165.11	373165.11	373165.11	373171.44	373171.44
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	29.5	19.2	--	--	28.9	15.5	--	--	20.8
Total solids	D2216	81.22	58.34	--	--	84.14	56.78	--	--	82.93	78.36	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	0.90 J	18	42.0	3.06 J	0.075 U	7.3	120	0.287 U	0.18 J	65	7.73
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	14	350	739	47.9	2.9 J	150	2120	12.5	7.3	1500	242
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.56 J	12	29.4	4.33	0.038 U	4.2	63.3	0.661 U	0.16 J	26	5.54
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	2.1	51	122	7.96	0.24 U	23	282	1.11 J	0.77 J	140	28.6
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	0.065 U	0.40 J	1.38 J	0.377 U	0.055 U	0.19 J	3.75	1.17 U	0.12 U	1.8	0.302 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.036 U	0.69 J	1.75 J	0.250 J	0.029 U	0.33 J	3.98	0.114 U	0.051 U	1.9	0.472 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.16 U	0.41 U	1.88 J	0.493 U	0.079 U	0.26 U	3.90	0.390 U	0.060 U	0.92 J	0.508 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.10 J	0.53 J	1.75 J	0.190 U	0.029 U	0.23 J	3.77	0.124 U	0.049 U	7.2	0.364 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.16 J	3.9	9.38	1.02 J	0.028 U	1.8 J	17.2	0.402 U	0.048 U	9.3	1.95 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.047 U	0.23 J	0.511 J	0.355 U	0.048 U	0.11 U	0.907 J	0.210 U	0.073 U	0.34 J	0.175 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.044 U	1.5 J	4.60	0.575 U	0.030 U	0.70 J	8.91	0.475 U	0.051 U	3.1	0.968 J
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.063 J	0.21 J	3.52 J	0.420 J	0.037 J	0.15 J	6.50 J	0.155 U	0.088 J	0.61 J	0.763 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.047 U	0.19 J	2.42 J	0.389 J	0.020 U	0.086 J	4.68	0.268 U	0.034 U	0.56 J	1.05 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.036 U	0.73 J	1.51 J	0.204 U	0.032 U	0.36 J	3.11	0.134 U	0.052 U	0.97 J	0.301 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.041 U	0.30 J	3.98	0.242 J	0.045 J	0.15 J	7.43	0.133 U	0.077 J	0.76 J	1.18 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.23 J	0.49	7.57	1.00	0.17 J	0.19 J	14.8	0.565	0.33 J	0.48	1.53
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.041 U	0.046 U	1.20	0.233 U	0.040 U	0.037 U	2.36	0.181 U	0.071 U	0.068 J	0.296 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.15 J	1.9 J	9.58 J	1.05 J	0.078 J	0.85 J	19 J	0.420 J	0.14 J	5.4 J	2.60 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	1.4 J	30	86.4	12.8	0.038 U	11	200	1.17 U	0.16 J	96	16.0
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	3.9	110	265	16.5	0.75 J	51	595	2.93	1.9 J	280	61.1
Total Hexachlorodibenzofuran (HxCDF)	E1613B	0.69 J	17	48.2 J	5.96	0.029 U	5.9	107	0.136 J	0.049 U	45	12.4 J
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.1	33	130	10.5 J	0.32 J	15	252	1.97 J	0.46 J	69	26.2 J
Total Pentachlorodibenzofuran (PeCDF)	E1613B	0.38 J	5.4	59.3 J	2.71 J	0.020 U	2.3	111 J	0.532 J	0.34 J	16	13.2 J
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.76 J	3.4	80.9 J	13.3 J	0.020 U	1.4 J	164	0.693 J	0.034 U	6.0	20.4 J
Total Tetrachlorodibenzofuran (TCDF)	E1613B	1.8	4.9	126	9.27 J	0.98	1.7	219 J	4.06 J	1.7	3.6	25.0 J
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	1.8	3.7	83.6	13.1 J	0.53	1.2	157 J	1.98 J	0.34 J	2.4	17.7 J

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

	Location ID	SC-019_2024	SC-019_2024	SC-020_2024	SC-020_2024	SC-028_2024	SC-028_2024	SC-029_2024	SC-029_2024	SC-030_2024	SC-030-3_2024	SC-031_2024
	Sample Date	7/22/2024	7/22/2024	7/19/2024	7/19/2024	6/6/2024	6/6/2024	7/22/2024	7/22/2024	7/22/2024	6/6/2024	7/22/2024
	Depth	2 - 3 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	1 - 2 ft	0 - 10 in	0 - 1 ft
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302758.11	1302758.11	1302733.26	1302733.26	1302629.64	1302629.64	1302568.77	1302568.77	1302488.86	1302487.64	1302524.12
	Y	373171.44	373171.44	373130.77	373130.77	372187.87	372187.87	372123.74	372123.74	372148.77	372134.34	372190.35
Chemical	analytic_method											
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	32.7	20.2	--	--	19.6	--	--
Moisture, percent	SM2540G	--	--	--	--	22.0	13.0	--	--	20.3	--	--
Moisture, percent	UNKNOWN	16.7	--	--	--	--	--	35.2 J	20.7 J	--	--	43.1 J
Total solids	D2216	--	78.31	62.68	85.26	71.54	79.41	--	--	--	63.64	--
Total solids	SM2540G	--	--	--	--	78.0	87.0	64.82	79.31	79.7	--	67.84
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	0.522 J	0.23 U	32	0.27 U	18.9	0.836 J	45	0.18 U	0.71 J	47.5	17
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	20.1	7.4	1400	1.6 U	240	17.6	430	1.5 U	7.9	846	250
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.391 J	0.25 J	17	0.066 U	17.3	0.371 J	15	0.061 U	0.35 J	28.3	7.6
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	2.95	1.3 J	85	0.12 U	52.2	2.77 J	54	0.14 U	0.92 J	127	35
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	0.170 U	0.20 U	0.76 J	0.095 U	0.742 J	0.253 U	0.88 J	0.083 U	0.054 U	2.02	0.41 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.213 U	0.27 J	1.0 J	0.056 U	1.10 J	0.149 U	0.99 J	0.034 U	0.099 U	2.08	0.58 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.319 U	0.21 J	0.52 J	0.079 U	1.66	0.227 U	1.1 J	0.10 J	0.20 U	2.17	0.99 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.153 U	0.14 J	0.51 J	0.052 U	1.13	0.145 U	0.97 J	0.032 U	0.10 U	1.77	0.66 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.333 U	0.20 J	4.1	0.046 U	3.44 J	0.241 U	2.9 J	0.052 U	0.14 J	7.33	3.1 J
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.274 U	0.13 U	0.36 J	0.071 U	0.355 U	0.231 U	0.38 U	0.047 U	0.13 U	0.482 J	0.27 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.362 U	0.23 J	1.3 J	0.050 U	2.50	0.254 U	1.7 J	0.057 U	0.061 U	4.44	5.4
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.244 J	0.16 J	0.21 J	0.037 U	1.44	0.172 U	0.50 J	0.021 U	0.16 U	1.61 J	0.44 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.275 U	0.14 J	0.22 J	0.033 U	2.21	0.224 U	0.52 J	0.029 U	0.084 U	2.73	1.5 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.164 U	0.20 J	0.85 J	0.054 U	2.14	0.160 U	1.1 J	0.032 U	0.072 U	2.76	0.68 J
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.314 J	0.32 J	0.48 J	0.032 U	1.65	0.171 U	1.3 J	0.016 U	0.12 J	1.85	1.1 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.387 J	0.81	0.57	0.11 J	5.19	0.354 J	2.8	0.11 J	0.22 J	9.26	1.8
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.185 U	0.088 J	0.075 U	0.052 U	0.648 J	0.157 U	0.30 J	0.050 U	0.19 U	0.893 J	0.58 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.502 J	0.56 J	2.8 J	0.081 J	5.9 J	0.363 J	3.2 J	0.078 J	0.26 J	9.10 J	4.3 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	1.09 J	0.16 U	47	0.066 U	36.8	0 U	15	0.061 U	0.35 J	84.6	24
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	5.82	2.8	170	0.25 J	96.9	2.82	110	0.14 J	2.4 J	257	88
Total Hexachlorodibenzofuran (HxCDF)	E1613B	1.15 J	0.95 J	21	0.052 U	28.1	0.333 J	14	0.032 U	0.072 U	46.7	9.7
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	7.57 J	7.8	29	0.046 U	84.3	1.01	47	0.052 U	1.1 J	91.6	76
Total Pentachlorodibenzofuran (PeCDF)	E1613B	3.05 J	4.2	6.2	0.032 U	32.4	0 U	15	0.016 U	0.76 J	30.7	13
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	7.00 J	6.6	3.5	0.033 U	54.3	0 U	24	0.029 U	0.70 J	39.0	31
Total Tetrachlorodibenzofuran (TCDF)	E1613B	6.82 J	9.7	4.2	0.033 U	78.9	1.20	26	0.097 J	1.1	78.6	21
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	4.39	8.6	2.7	0.13 J	89.6	1.22	27	0.16 J	0.97	62.5	27

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	Location ID Sample Date Depth Sample Type Matrix X Y analytic_method	SC-031_2024	SC-036_2024	SC-036_2024	SC-038_2024	SC-038_2024	SC-038_2024	SC-038_2024	SC-038_2024	SC-038_2024	SC-040_2024	SC-040_2024
		7/22/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024
		1 - 2 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft
		N SE	N SE	N SE	N SE	N SE	N SE	N SE	FD SE	FD SE	N SE	N SE
		1302524.12	1302758.26	1302758.26	1303071.61	1303071.61	1303071.61	1303071.61	1303071.61	1303071.61	1303184.76	1303184.76
		372190.35	374215.56	374215.56	373899.59	373899.59	373899.59	373899.59	373899.59	373899.59	373770.87	373770.87
Conventional Parameters (pct)												
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	49.2	44.9	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	27.9 J	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	--	56.26	69.09	52.90	--	--	60.87	54.27	60.73	51.21	47.62
Total solids	SM2540G	69.85	--	--	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)												
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	2.3 J	64	33	22	71	380	100	24	160	16	75
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	27	890	500	500	1000	8300 J	3300 J	450	4500 J	340	1100
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.78 J	33	22	21	64	190	45	21	58	6.9	63
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	3.0 J	93	58	69	160	730	270	56	370	39	180
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.12 U	1.7 J	1.2 J	0.96 J	2.7 J	8.0	2.3	1.1 J	3.5	0.32 J	2.3 J
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.087 J	2.0 J	1.6 J	1.6 J	2.5 J	7.5	2.9	1.3 J	3.3	0.36 J	2.6 J
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.21 J	1.2 J	0.72 J	0.42 U	1.9 J	4.9 J	1.6 J	0.69 J	2.1 J	0.46 U	1.4 J
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.081 J	1.6 J	1.3 J	1.1 J	2.6 J	5.5	2.3	1.2 J	2.8	0.25 J	2.6 J
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.17 U	6.8	4.8	4.4	14	35	10	4.5	13	2.0 J	16
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.072 U	0.49 J	0.41 J	0.49 J	0.92 J	2.2 J	0.69 J	0.34 J	1.1 J	0.11 U	0.95 J
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.14 J	3.0	1.8	1.3 J	4.0 J	14	3.7	1.9 J	4.9	0.79 J	4.7
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.18 J	0.34 J	0.30 J	0.24 J	1.0 J	7.3	0.68 J	0.20 J	0.77 J	0.022 U	0.66 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.12 J	0.64 J	0.30 J	0.29 J	0.95 J	1.5 J	0.68 J	0.33 J	0.96 J	0.12 J	1.1 J
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.093 J	1.7 J	1.2 J	1.7 J	3.3 J	7.0	2.9	2.0 J	2.4	0.37 J	5.1
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.19 J	0.79 J	0.70 J	0.64 J	1.6 J	4.3 J	1.5 J	0.57 J	1.7 J	0.13 J	1.5 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.44 J	0.39 J	0.66	0.35 J	1.1	3.7	2.8	0.47	2.4	0.19 J	0.83
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.050 J	0.065 U	0.095 U	0.079 U	0.28 U	0.58 J	0.13 J	0.11 U	0.16 J	0.062 U	0.14 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		0.40 J	4.2 J	2.8 J	2.7 J	7.2 J	23 J	8.2 J	2.7 J	11 J	1.2 J	7.9 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	1.8 J	85	59	54	170	570	48	22	61	20	160
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	7.6	190	120	150	320	1600	570	120	790	91	380
Total Hexachlorodibenzofuran (HxCDF)	E1613B	0.92 J	47	27	38	110	290	36	22	47	9.2	70
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	5.1	40	33	27	78	280	89	30	120	19	110
Total Pentachlorodibenzofuran (PeCDF)	E1613B	2.2 J	24	19	11	40	82	21	12	29	1.9 J	37
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	4.0	3.6	4.7	2.3	11	46	13	3.2	13	1.3 J	11
Total Tetrachlorodibenzofuran (TCDF)	E1613B	3.8	4.0	4.1	3.2	13	34	12	3.0	12	1.5	8.8
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	4.0	1.5	4.0	1.9	9.6	42	7.2	3.8	7.1	1.2	4.6

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Chemical	analytic_method	Location ID	SC-041_2024	SC-041_2024	SC-043_2024	SC-043_2024	SC-044_2024	SC-044_2024	SC-044_2024	SC-044_2024	SG-126_2024	SG-127_2024	SG-128_2024
		Sample Date	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	7/20/2024	6/6/2024	6/5/2024	6/5/2024
		Depth	0 - 1 ft	3 - 4 ft	0 - 1 ft	3 - 4 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	3 - 4 ft	0 - 12 in	0 - 12 in	0 - 12 in
		Sample Type	N	N	N	N	N	N	N	N	N	N	N
		Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1303206.83	1303206.83	1303488.79	1303488.79	1303498.47	1303498.47	1303498.47	1303498.47	1302585.46	1302585.44	1302537.06	
	Y	373750.65	373750.65	373457.54	373457.54	373442.41	373442.41	373442.41	373442.41	371932.5	371736.39	371558.14	
Conventional Parameters (pct)													
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--	
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--	
Moisture, percent	D2974	--	--	--	--	--	39.6	43.5	--	--	--	--	
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--	
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--	
Total solids	D2216	59.14	46.89	57.88	58.57	61.12	--	--	56.15	72.50	70.11	64.32	
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--	
Dioxin Furans (ng/kg)													
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	72	190	29	24	9.3	140	250	27	16.5	62.5	42.1	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	2900	5600	440	440	160	2200	4000	470	343	644	772	
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	31	170	9.6	12	3.2	43	74	10	12.3	30.2	27.8	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	260	790	44	43	15	200	320	50	58.6	114	122	
1,2,3,4,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	1.4 J	7.9	0.73 U	0.44 J	0.31 U	2.1 J	4.3	0.58 J	0.923 U	2.17	2.00 J	
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.6	7.7	0.70 J	0.66 J	0.20 J	1.5 J	2.4 J	0.49 J	0.757 J	2.19 J	2.44 J	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	1.5 J	5.3 J	0.46 U	0.49 J	0.24 U	1.7 J	2.2 J	0.47 U	0.948 U	2.15	2.35	
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.2 J	9.0	0.47 J	0.36 J	0.15 U	1.2 J	2.0 J	0.30 J	0.689 U	2.15	2.19	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	11	70	1.6 J	2.5	0.59 J	7.1	11	2.9	3.08	5.43 J	8.53	
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.92 J	2.6 J	0.26 U	0.17 U	0.23 U	0.56 U	1.0 J	0.17 U	0.978 U	0.643 U	0.415 U	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	3.7	24	0.77 J	0.96 J	0.31 J	3.8 J	5.2	1.5 J	2.32	4.02 J	5.02	
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.50 J	1.9 J	0.12 U	0.063 U	0.095 U	0.78 J	1.6 J	0.057 U	0.836 U	1.53	1.67	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	0.52 J	3.4	0.21 J	0.14 J	0.052 U	0.45 J	0.68 J	0.13 J	1.35 J	2.87	2.90	
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	1.3 J	12	0.60 J	0.64 J	0.16 U	1.7 J	3.4 J	0.51 J	0.704 U	2.13	3.48	
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.99 J	4.7	0.068 U	0.25 J	0.055 U	1.0 J	1.6 J	0.16 J	0.835 U	1.97	1.97 J	
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.38 J	1.8 J	0.19 U	0.28 J	0.084 U	0.46 J	0.41 J	0.24 J	3.44	6.76	8.45 J	
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.16 U	0.46 J	0.27 U	0.069 U	0.14 U	0.21 U	0.32 U	0.077 U	0.544 U	0.928 J	0.841 J	
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		7.0 J	30 J	1.5 J	1.5 J	0.49 J	5.8 J	9.4 J	1.6 J	3.71 J	8.63 J	9.41 J	
Total Heptachlorodibenzofuran (HpCDF)	E1613B	120	470	25	35	9.6	130	240	31	32.3	89.6	79.4	
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	550	1700	89	85	34	430	650	100	119	218	228	
Total Hexachlorodibenzofuran (HxCDF)	E1613B	31	200	11	13	4.5	59	89	13	9.93	44.2	48.8	
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	120	480	13	16	4.4	53	74 J	24	48.0	79.3	102	
Total Pentachlorodibenzofuran (PeCDF)	E1613B	20	140	2.1	4.6	1.0 J	12	14	3.2	8.06	42.0	40.1	
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	11	42	0.41 J	0.033 U	0.21 J	6.6	9.0	0.93 J	19.4	57.3	51.0	
Total Tetrachlorodibenzofuran (TCDF)	E1613B	1.8	25	0.19 U	0.94	0.084 U	5.8	2.9	0.68	19.6	82.5	60.0	
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	1.6	12	0.93	1.5	0.60	4.4	2.7	1.2	38.9	83.1	73.5	

Table 4

Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

	Location ID	SG-129_2024	SG-130_2024	SG-148_2024	SG-149_2024	SG-150_2024	SG-151_2024	SG-Comp-N_2024	SG-Comp-S_2024
	Sample Date	6/5/2024	6/5/2024	5/29/2024	5/28/2024	5/28/2024	6/4/2024	5/30/2024	5/30/2024
	Depth	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 6 in
	Sample Type	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302460.95	1302502.81	1302676.55	1302579.12	1302493.67	1302568.24	1303165.9	1303452.8
	Y	371506.35	371447.31	373039.97	373156.76	373358	373369.55	373757.05	528479.85
Chemical	analytic_method								
Conventional Parameters (pct)									
Organic Content	D2974	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--
Total solids	D2216	71.62	71.22	52.51	53.07	51.85	60.72	75.02 J	60.92 J
Total solids	SM2540G	--	--	--	--	--	--	--	--
Dioxin Furans (ng/kg)									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	42.3	14.9	55.0	23.2	31.6	441	158	1190
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	559	317	1260	554	669	5090	4340 J	41300 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	25.3	9.60	34.4	21.4	33.1	1110	117 J	501
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	91.1	52.9	184	100	151	3150	655 J	3390
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	1.46	0.586 U	1.72	1.07	1.20	30.8	6.84	30.8
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.06 J	0.620 J	2.05	1.10 J	1.18	18.4	5.06 J	47.5
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.14	0.786 U	1.01	1.11	1.09	4.68	2.68 U	13.0
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	2.17	0.834 J	1.49	0.877 J	1.03	15.6	6.79	18.4
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	5.76	2.65	13.5	9.04	15.8	347	44.6 J	138
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.481 U	0.552 U	0.289 U	0.192 U	0.713 J	11.3	2.37 U	20.3
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	4.07	1.89	5.75	4.47 J	6.24	79.8	18.8 J	37.0
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.80	0.479 U	0.602 J	0.673 J	0.498 J	3.51	1.86 U	11.6 J
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	2.62	0.693 U	0.304 U	1.22	0.981 J	6.42	3.14 U	5.44 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	3.71	0.386 U	1.29	0.851 J	1.64	53.0	6.04 J	29.2
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.87	1.02 J	0.772 J	0.690 J	0.534 J	6.18	1.93 U	10.4 J
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	8.29	2.99	1.26	2.01	1.49 J	9.03	1.63 U	7.86 J
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	0.894 J	0.312 U	0.174 U	0.256 J	0.343 J	0.697 J	1.59 U	2.34 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)		8.33 J	2.53 J	5.73 J	5.1 J	6.48 J	108 J	20.3 J	90.4 J
Total Heptachlorodibenzofuran (HpCDF)	E1613B	74.1	27.3	100	58.1	89.4	3030	235 J	1730
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	167	97.5	349	222	309	6520	1190 J	5650
Total Hexachlorodibenzofuran (HxCDF)	E1613B	52.5	8.96	48.7	28.9	44.3	1170	199 J	963
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	93.0	35.9	105	73.1	116	1840	264 J	556
Total Pentachlorodibenzofuran (PeCDF)	E1613B	68.7	8.49	9.39	9.22	5.69	393	51.2 J	171
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	59.8	11.6	6.50	8.51	5.20	48.0	0 U	5.45
Total Tetrachlorodibenzofuran (TCDF)	E1613B	96.1	16.3	8.51	13.5	11.8	72.3	0 U	7.86
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	120	21.2	16.6	17.6	18.5	29.3	0 U	2.83

Table 4
Summary of Pre-Remedial Design Investigation Results: Dioxin/Furans

Notes:

Detected concentration is greater than MNR screening level (5 ng/kg).

Detected concentration is greater than EMNR screening level (8 ng/kg).

Detected concentration is greater than Removal screening level (15 ng/kg).

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)

in: inches

J: Estimated value

N: Presumptive Evidence

NAD83: North American Datum of 1983

ng/kg: nanogram per kilogram

pct: percent

Sample Type N: normal

Sample Type FD: field duplicate

SE: Sediment

TEQ: toxicity equivalence

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

--: not applicable

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

	Location ID	JW-PDI-SG-014	JW-PDI-SG-018	JW-PDI-SG-019	JW-PDI-SG-019	JW-PDI-SG-020	JW-PDI-SG-025	JW-PDI-SG-035	JW-PDI-SG-037	JW-PDI-SG-038	JW-PDI-SG-039	JW-PDI-SG-040	JW-PDI-SG-045
	Sample Date	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/4/2023	8/2/2023	8/1/2023	8/1/2023	8/1/2023	8/1/2023	7/31/2023
	Depth	0 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 4 in	0 - 4 in	0 - 6 in	0 - 4 in
	Sample Type	N	N	N	FD	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302333.943	1302546.934	1302632.867	1302632.867	1302716.345	1302468.237	1302916.387	1302778.996	1302713.199	1302733.166	1302883.242	1302678.463
	Y	373615.537	373226.9965	373170.5261	373170.5261	373112.8281	373411.6493	372507.7846	372315.4071	372247.73	372123.8477	371970.0889	372012.5858
Chemical	analytic_method												
Conventional Parameters (pct)													
Organic Content	D2974	3.65	4.51	3.57	3.51	4.49	4.09	4.61	4.4	5.63	5.51	1.34	4.17
Moisture (water) content	D2216	67.0 J	95.9 J	97.2 J	96.0 J	115.4 J	66.0 J	68.6 J	57.3	73.5	66.9	32.2	54.0
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	54.83	47.53	48.91	49.35	50.75	59.96	59.24	63.28	61.61	60.91	73.06	61.06
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)													
Aroclor 1016	SW8082A	8.0 U	8.0 U	7.9 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 UJ	8.0 UJ	8.0 UJ	8.0 UJ	8.0 U
Aroclor 1221	SW8082A	8.0 U	8.0 U	7.9 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 UJ	8.0 UJ	8.0 UJ	8.0 UJ	8.0 U
Aroclor 1232	SW8082A	8.0 U	8.0 U	7.9 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 UJ	8.0 UJ	8.0 UJ	8.0 UJ	8.0 U
Aroclor 1242	SW8082A	8.0 U	8.0 U	7.9 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 UJ	8.0 UJ	8.0 UJ	8.0 UJ	8.0 U
Aroclor 1248	SW8082A	8.0 U	8.0 U	7.9 U	8.0 U	8.0 U	8.0 U	34.9 J	22.3 J	40.7 J	41.5 J	27.8 J	28.3
Aroclor 1254	SW8082A	8.0 U	9.5 J	10.3 J	8.0 U	23.4 J	8.0 U	52.9	22.2 J	58.6 J	40.3 J	71.8 J	25.6
Aroclor 1260	SW8082A	9.2 U	14.4 J	9.2 U	9.3 U	10.5 J	9.2 U	17.9 J	18.0 J	9.2 UJ	14.4 J	17.4 J	9.3 U
Aroclor 1262	SW8082A	9.2 U	9.3 U	9.2 U	9.3 U	9.3 U	9.2 U	9.2 U	9.2 UJ	9.2 UJ	9.2 UJ	9.3 UJ	9.3 U
Aroclor 1268	SW8082A	9.2 U	9.3 U	9.2 U	9.3 U	9.3 U	9.2 U	9.2 U	9.2 UJ	9.2 UJ	9.2 UJ	9.3 UJ	9.3 U
Total 7 PCB Aroclors (U = 0 max limit)		9.2 U	24 J	10.3 J	9.3 U	33.9 J	9.2 U	106 J	62.5 J	99.3 J	96.2 J	117 J	53.9

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

Chemical	Location ID	JW-PDI-SG-051	JW-PDI-SG-052	JW-PDI-SG-053	JW-PDI-SG-054	JW-PDI-SG-055	JW-PDI-SG-056	JW-PDI-SG-057	JW-PDI-SG-058	JW-PDI-SG-059	JW-PDI-SG-070	JW-PDI-SG-073	JW-PDI-SG-090
	Sample Date	8/2/2023	8/2/2023	8/2/2023	8/1/2023	8/2/2023	8/1/2023	8/15/2023	8/1/2023	8/1/2023	7/31/2023	8/1/2023	8/14/2023
	Depth	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 8 in	0 - 12 in	0 - 4 in	0 - 6 in	0 - 12 in	0 - 4 in	0 - 9 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1302985.441	1302886.004	1302925.594	1302824.316	1302842.73	1302790.25	1302837.206	1302744.214	1302796.695	1302553.627	1302737.769	1302679.116
	Y	372464.5111	372444.2556	372406.5063	372463.5905	372402.8232	372223.2846	372192.9011	372179.0904	372145.0239	371502.367	372386.2504	374315.6068
Conventional Parameters (pct)													
Organic Content	D2974	2.24	4.82	2.07	4.74	5.82	5.31	1.55	4.36	4.38	2.99	4.8	2.16
Moisture (water) content	D2216	37.1 J	67.5 J	44.3 J	82.1	65.4 J	65.8	29.6	62.0	68.2	64.6	55.2	46.8
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	73.31	59.80	68.36	53.08	59.42	60.25	76.26	62.14	61.04	60.23	61.90	67.67
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)													
Aroclor 1016	SW8082A	8.0 U	8.0 U	8.0 U	8.0 UJ	8.0 U	8.0 UJ	7.9 U	8.0 UJ	8.0 UJ	7.9 UJ	8.0 U	8.0 UJ
Aroclor 1221	SW8082A	8.0 U	8.0 U	8.0 U	8.0 UJ	8.0 U	8.0 UJ	7.9 U	8.0 UJ	8.0 UJ	7.9 UJ	8.0 U	8.0 UJ
Aroclor 1232	SW8082A	8.0 U	8.0 U	8.0 U	8.0 UJ	8.0 U	8.0 UJ	7.9 U	8.0 UJ	8.0 UJ	7.9 UJ	8.0 U	8.0 UJ
Aroclor 1242	SW8082A	8.0 U	8.0 U	8.0 U	8.0 UJ	8.0 U	8.0 UJ	7.9 U	8.0 UJ	8.0 UJ	7.9 UJ	8.0 U	8.0 UJ
Aroclor 1248	SW8082A	16.3 J	39.1	8.0 U	22.3 J	45.3 J	29.7 J	7.9 U	24.0 J	35.4 J	28.4 J	61.1 J	21.7 J
Aroclor 1254	SW8082A	19.0 J	88.6	32.6	19.5 J	67.9 J	27.5 J	17.5 J	21.6 J	51.7 J	31.5 J	66.1 J	13.5 J
Aroclor 1260	SW8082A	9.2 J	20.0	21.3 J	9.3 UJ	25.8	9.3 J	9.2 U	9.3 UJ	11.2 NJ	19.8 J	29.4 J	9.3 UJ
Aroclor 1262	SW8082A	9.2 U	9.3 U	9.2 U	9.3 UJ	9.2 U	9.3 UJ	9.2 U	9.3 UJ	9.3 UJ	9.2 UJ	9.3 U	9.3 UJ
Aroclor 1268	SW8082A	9.2 U	9.3 U	9.2 U	9.3 UJ	9.2 U	9.3 UJ	9.2 U	9.3 UJ	9.3 UJ	9.2 UJ	9.3 U	9.3 UJ
Total 7 PCB Aroclors (U = 0 max limit)		45 J	148	53.9 J	41.8 J	139 J	67 J	17.5 J	45.6 J	98.3 JN	79.7 J	157 J	35.2 J

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

Chemical	Location ID	JW-PDI-SG-091	JW-PDI-SG-092	JW-PDI-SG-093	JW-PDI-SG-094	JW-PDI-SG-095	JW-PDI-SG-096	JW-PDI-SG-097	JW-PDI-SG-098	JW-PDI-SG-099	JW-PDI-SG-100	JW-PDI-SG-101	JW-PDI-SG-101
	Sample Date	8/14/2023	8/14/2023	8/14/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	8/17/2023	8/17/2023	8/17/2023	8/17/2023
	Depth	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 12 in	0 - 12 in	0 - 12 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1302770.574	1302808.63	1302999.783	1303077.122	1303118.739	1303205.286	1303241.009	1303250.217	1303392.006	1303433.622	1303523.115	1303523.115
	Y	374283.0751	374199.5969	373955.4937	373957.7033	373898.4095	373765.4586	373765.0902	373706.5329	373541.9099	373517.2347	373480.0379	373480.0379
Conventional Parameters (pct)													
Organic Content	D2974	4.01	4.02	5.61	4.49	4	3.86	3.91	5.26	4.87	--	6.91	--
Moisture (water) content	D2216	78.2	90.7	97.7	116.8	95.8	81	96.5	86.3	84.7	--	104.5	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	53.40	50.05	50.80	48.68	49.46	53.83	49.91	53.15	50.04	43.57	47.26	48.42
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)													
Aroclor 1016	SW8082A	7.8 U	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 U	7.6 U	8.0 U
Aroclor 1221	SW8082A	7.8 U	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 U	7.6 U	8.0 U
Aroclor 1232	SW8082A	7.8 U	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 U	7.6 U	8.0 U
Aroclor 1242	SW8082A	7.8 U	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	7.9 U	8.0 U	7.6 U	8.0 U
Aroclor 1248	SW8082A	17.3 J	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	16.5 J	28.7	16.8 J	22.8 J
Aroclor 1254	SW8082A	13.5 J	7.3 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	8.0 U	9.9 NJ	31.1	13.8 J	13.9 J
Aroclor 1260	SW8082A	10.7 NJ	8.5 UJ	9.3 U	9.2 U	9.2 U	9.2 U	9.3 U	9.2 U	9.2 U	10.8 NJ	8.8 U	9.2 U
Aroclor 1262	SW8082A	9.1 U	8.5 UJ	9.3 U	9.2 U	9.2 U	9.2 U	9.3 U	9.2 U	9.2 U	9.3 U	8.8 U	9.2 U
Aroclor 1268	SW8082A	9.1 U	8.5 UJ	9.3 U	9.2 U	9.2 U	9.2 U	9.3 U	9.2 U	9.2 U	9.3 U	8.8 U	9.2 U
Total 7 PCB Aroclors (U = 0 max limit)		41.5 JN	8.5 UJ	9.3 U	9.2 U	9.2 U	9.2 U	9.3 U	9.2 U	26 JN	70.6 JN	30.6 J	36.7 J

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

	Location ID	JW-PDI-SG-102	JW-PDI-SG-111	JW-PDI-SG-114	JW-PDI-SG-115	JW-PDI-SG-116	JW-PDI-SG-118	SC-024_2024	SC-024_2024	SC-025_2024	SC-025_2024	SC-026_2024	SC-026_2024
	Sample Date	8/17/2023	8/16/2023	7/31/2023	8/2/2023	8/14/2023	8/1/2023	6/5/2024	6/5/2024	7/21/2024	7/21/2024	6/5/2024	6/5/2024
	Depth	0 - 10 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 12 in	0 - 6 in	0 - 1 ft	1 - 1.4 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft
	Sample Type	N	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1303514.384	1303142.309	1302480.199	1302869.182	1302904.253	1302763.577	1302962.31	1302962.31	1302869.34	1302869.34	1302735.91	1302735.91
	Y	373416.7205	373815.9136	371337.596	372350.333	374075.7733	372023.717	372430.92	372430.92	372423.35	372423.35	372385.76	372385.76
Chemical	analytic_method												
Conventional Parameters (pct)													
Organic Content	D2974	4.73	4.24	3.23	2.47	3.63	5.04	--	--	--	--	--	--
Moisture (water) content	D2216	85.1	102.2	63.1	40.3 J	82.5	63.9	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	49.03	47.60	61.78	72.85	52.92	57.88	--	--	--	--	--	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	58.41	81.30	--	--
PCB Aroclors (µg/kg)													
Aroclor 1016	SW8082A	8.0 U	7.9 U	8.0 U	7.9 U	7.9 U	8.0 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Aroclor 1221	SW8082A	8.0 U	7.9 U	8.0 U	7.9 U	7.9 U	8.0 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Aroclor 1232	SW8082A	8.0 U	7.9 U	8.0 U	7.9 U	7.9 U	8.0 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Aroclor 1242	SW8082A	8.0 U	7.9 U	8.0 U	7.9 U	7.9 U	8.0 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Aroclor 1248	SW8082A	31.4	7.9 U	23.7	37.5 J	7.9 U	65.5 J	20.0 U	44.5 J	30.2	28.9	19.9 UJ	19.8 U
Aroclor 1254	SW8082A	10.3 J	7.9 U	25.2	26.7	7.9 U	97.3 J	205	83.1 J	35.8	42.8	19.9 UJ	19.8 U
Aroclor 1260	SW8082A	9.3 U	9.2 U	12.4 J	11.2 J	9.2 U	20.9 J	48.0 J	40.6 J	16.5 J	23.0	19.9 UJ	19.8 U
Aroclor 1262	SW8082A	9.3 U	9.2 U	9.3 U	9.2 U	9.2 U	9.3 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Aroclor 1268	SW8082A	9.3 U	9.2 U	9.3 U	9.2 U	9.2 U	9.3 UJ	20.0 U	20.0 U	19.9 U	20.0 U	19.9 UJ	19.8 U
Total 7 PCB Aroclors (U = 0 max limit)		41.7 J	9.2 U	61.3 J	75.4 J	9.2 U	184 J	253 J	168 J	82.5 J	94.7	19.9 UJ	19.8 U

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

	Location ID	SC-026_2024	SC-026_2024	SC-027_2024	SC-027_2024	SC-028_2024	SC-028_2024	SC-029_2024	SC-029_2024	SC-030_2024	SC-030_2024	SC-030_2024	SC-031_2024
	Sample Date	6/5/2024	6/5/2024	6/5/2024	6/5/2024	6/6/2024	6/6/2024	7/22/2024	7/22/2024	7/22/2024	7/22/2024	7/22/2024	7/22/2024
	Depth	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	2 - 3 ft	0 - 1 ft
	Sample Type	FD	FD	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302735.91	1302735.91	1302779.48	1302779.48	1302629.64	1302629.64	1302568.77	1302568.77	1302488.86	1302488.86	1302488.86	1302524.12
	Y	372385.76	372385.76	372190.9	372190.9	372187.87	372187.87	372123.74	372123.74	372148.77	372148.77	372148.77	372190.35
Chemical	analytic_method												
Conventional Parameters (pct)													
Organic Content	D2974	--	--	--	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	32.7	20.2	--	--	--	19.6	20.5	--
Moisture, percent	SM2540G	--	--	--	--	22.0	13.0	--	--	--	20.3	18.9	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	35.2 J	20.7 J	--	--	--	43.1 J
Total solids	D2216	--	--	--	--	71.54	79.41	--	--	--	--	--	--
Total solids	SM2540G	--	--	--	--	78.0	87.0	64.82	79.31	71.78	79.7	81.1	67.84
PCB Aroclors (µg/kg)													
Aroclor 1016	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	25 U	22 U	19.9 UJ	19.8 U	20.0 U	24 U	23 U	19.8 U
Aroclor 1221	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	25 U	22 U	19.9 UJ	19.8 U	20.0 U	24 U	23 U	19.8 U
Aroclor 1232	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	25 U	22 U	19.9 UJ	19.8 U	20.0 U	24 U	23 U	19.8 U
Aroclor 1242	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	25 U	22 U	19.9 UJ	19.8 U	20.0 U	24 U	23 U	19.8 U
Aroclor 1248	SW8082A	20.0 UJ	19.9 U	17.4 J	19.9 U	25 U	22 U	49.1 J	19.8 U	19.7 J	24 U	23 U	38.4
Aroclor 1254	SW8082A	22.9 J	19.9 U	20.7	19.9 U	19 J	22 U	54.2 J	19.8 U	20.8	24 U	23 U	40.9
Aroclor 1260	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	25 U	22 U	42.5 J	19.8 U	18.1 J	24 U	23 U	23.2
Aroclor 1262	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	--	--	19.9 UJ	19.8 U	20.0 U	--	--	19.8 U
Aroclor 1268	SW8082A	20.0 UJ	19.9 U	19.9 U	19.9 U	--	--	19.9 UJ	19.8 U	20.0 U	--	--	19.8 U
Total 7 PCB Aroclors (U = 0 max limit)		22.9 J	19.9 U	38.1 J	19.9 U	19 J	22 U	146 J	19.8 U	58.6 J	24 U	23 U	103

Table 5

Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

Location ID Sample Date Depth Sample Type Matrix X Y	SC-031_2024	SC-032_2024	SC-032_2024	SC-032_2024	SC-032_2024	SC-032_2024	SG-123_2024	SG-128_2024	SG-Comp-N_2024	SG-Comp-S_2024
	7/22/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024	7/21/2024	6/5/2024	6/5/2024	5/30/2024	5/30/2024
	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 1 ft	1 - 2 ft	0 - 12 in	0 - 12 in	0 - 6 in	0 - 6 in	
	N	N	N	FD	FD	N	FD	N	N	
	SE	SE	SE	SE	SE	SE	SE	SE	SE	
	1302524.12	1302781.08	1302781.08	1302781.08	1302781.08	1302781.08	1302740.96	1302537.06	1303165.9	1303452.8
Chemical	analytic_method	372190.35	372001.9	372001.9	372001.9	372001.9	372042.27	371558.14	373757.05	528479.85
Conventional Parameters (pct)										
Organic Content	D2974	--	--	--	--	--	--	--	--	--
Moisture (water) content	D2216	--	--	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	23.7	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	20.7	--	--	--
Moisture, percent	UNKNOWN	27.9 J	--	--	--	--	--	--	--	--
Total solids	D2216	--	--	--	--	--	--	--	75.02 J	60.92 J
Total solids	SM2540G	69.85	61.23 J	78.26	64.58	76.76	79.3	--	--	--
PCB Aroclors (µg/kg)										
Aroclor 1016	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	24 U	19.9 U	19.8 U	20.0 U
Aroclor 1221	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	24 U	19.9 U	19.8 U	20.0 U
Aroclor 1232	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	24 U	19.9 U	19.8 U	20.0 U
Aroclor 1242	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	24 U	19.9 U	19.8 U	20.0 U
Aroclor 1248	SW8082A	20.0 U	85.4	19.9 U	89.9	19.9 U	24 U	23.9	19.8 U	20.0 U
Aroclor 1254	SW8082A	20.0 U	130	19.9 U	137	19.9 U	24 U	27.9	19.8 UJ	20.0 U
Aroclor 1260	SW8082A	20.0 U	73.1	19.9 U	82.5	19.9 U	24 U	19.9 U	19.8 UJ	20.0 U
Aroclor 1262	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	--	19.9 U	19.8 UJ	20.0 U
Aroclor 1268	SW8082A	20.0 U	19.9 U	19.9 U	20.0 U	19.9 U	--	19.9 U	19.8 UJ	20.0 U
Total 7 PCB Aroclors (U = 0 max limit)		20.0 U	290	19.9 U	309	19.9 U	24 U	51.8	19.8 UJ	20.0 U

Table 5
Summary of Pre-Remedial Design Investigation Results: PCB Aroclors

Notes:

Detected concentration is greater than MNR screening level (30 µg/kg).

Detected concentration is greater than EMNR screening level (117 µg/kg).

Detected concentration is greater than Removal screening level (130 µg/kg).

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)

in: inches

J: Estimated value

JN: Estimated value, presumptive evidence of a compound.

NAD83: North American Datum of 1983

pct: percent

Sample Type N: normal

Sample Type FD: field duplicate

SE: Sediment

TEQ: toxicity equivalence

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

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

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

µg/kg: microgram per kilogram

--: not applicable

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

	Location ID	JW-PDI-SG-014	JW-PDI-SG-018	JW-PDI-SG-019	JW-PDI-SG-019	JW-PDI-SG-020	JW-PDI-SG-025	JW-PDI-SG-031	JW-PDI-SG-032	JW-PDI-SG-033	JW-PDI-SG-035	JW-PDI-SG-038
	Sample Date	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/3/2023	8/4/2023	8/3/2023	8/2/2023	8/2/2023	8/2/2023	8/1/2023
	Depth	0 - 12 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 4 in	0 - 6 in	0 - 6 in	0 - 4 in
	Sample Type	N	N	N	FD	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302333.943	1302546.934	1302632.867	1302632.867	1302716.345	1302468.237	1302460.625	1302555.151	1302636.174	1302916.387	1302713.199
	Y	373615.537	373226.9965	373170.5261	373170.5261	373112.8281	373411.6493	373171.071	373077.772	372994.2942	372507.7846	372247.73
Chemical	analytic_method											
Conventional Parameters (pct)												
Organic Content	D2974	3.65	4.51	3.57	3.51	4.49	4.09	3.8	5.14	5.66	4.61	5.63
Moisture (water) content	D2216	67.0 J	95.9 J	97.2 J	96.0 J	115.4 J	66.0 J	77.7 J	75.8 J	69.5 J	68.6 J	73.5
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	54.83	47.53	48.91	49.35	50.75	59.96	--	--	--	59.24	61.61
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270ESIM	9.47 J	4.45 J	5.88 J	3.21 J	5.45 J	5.83 J	3.54 J	4.66	6.71	5.53	23.4 J
2-Methylnaphthalene	SW8270ESIM	14.2 J	7.29 J	9.21 J	5.21 J	7.14 J	8.74 J	5.21 J	7.85	8.02	8.15	35.2 J
Acenaphthene	SW8270ESIM	3.62 J	4.81 J	6.50 J	3.10 J	6.91 J	5.38 J	4.19 J	4.44	7.15	5.94	34.9 J
Acenaphthylene	SW8270ESIM	1.76 J	4.97 J	4.41 J	4.48 J	4.18 J	6.91 J	3.80 J	3.60 J	5.31 J	8.18 J	53.4 J
Anthracene	SW8270ESIM	9.19	10.9	12.6 J	9.34	19.4	7.78	10.4	10.4	16.7	18.6	69.2 J
Benzo(a)anthracene	SW8270ESIM	21.9	18.5	17.7 J	21.5	40.7	10.8	15.9	20.6	32.2	36.9	87.8 J
Benzo(a)pyrene	SW8270ESIM	16.9 J	16.9 J	14.6 J	24.6 J	38.5 J	9.02 J	14.3 J	16.8	25.5	28.0	48.1 J
Benzo(b)fluoranthene	SW8270ESIM	27.9 J	20.6 J	20.5 J	27.1 J	42.4 J	14.4	22.4 J	26.3	34.4	35.4	67.4 J
Benzo(g,h,i)perylene	SW8270ESIM	9.91 J	9.91 J	9.16 J	17.1 J	24.4 J	5.85 J	7.84 J	12.2	18.5	20.4	42.5 J
Benzo(j)fluoranthene	SW8270ESIM	13.0	10.9	9.02 J	14.6	25.2	6.01	10.6	11.6	16.3	18.8	36.9 J
Benzo(k)fluoranthene	SW8270ESIM	14.9	11.5	10.2 J	15.2	27.4	6.25 J	12.2	12.7 J	17.1 J	18.5 J	36.6 J
Chrysene	SW8270ESIM	48.7	23.8	25.7 J	30.9	64.1	20.2	24.9	27.4	41.2	52.2	111 J
Dibenzo(a,h)anthracene	SW8270ESIM	2.15 J	2.07 J	1.95 J	2.79 J	5.36 J	1.19 J	2.06 J	2.52	3.79	3.90 J	4.31 J
Dibenzofuran	SW8270ESIM	9.55 J	5.55 J	6.93 J	4.48 J	7.70 J	5.10 J	4.81 J	5.91	7.78	6.96	44.4 J
Fluoranthene	SW8270ESIM	72.7	51.2	53.1 J	49.6	109	42.9	44.9	63.1	92.3	108	539 J
Fluorene	SW8270ESIM	4.68	6.99	9.05 J	5.47	9.49	6.49	6.15	7.30	11.4	9.80	50.2 J
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	6.74 J	6.87 J	6.42 J	11.5 J	16.7 J	4.17 J	6.11 J	8.09	12.4	13.4	21.5 J
Naphthalene	SW8270ESIM	92.8 J	23.6 J	26.5 J	17.9 J	17.1 J	39.6 J	23.4 J	25.4 U	24.6 U	39.9 U	259 J
Phenanthrene	SW8270ESIM	30.0 J	27.6 J	32.7 J	23.9 J	68.6 J	28.4 J	21.0 J	29.1	54.3	53.9	279 J
Pyrene	SW8270ESIM	62.1	48.2	47.1 J	49.0	107	42.0	41.6	56.0	85.6	103	480 J
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		24.7 J	23.1 J	20.5 J	32.7 J	52.4 J	12.9 J	20.4 J	24.1 J	35.9 J	39.3 J	71.0 J

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

Chemical	Location ID	JW-PDI-SG-039	JW-PDI-SG-040	JW-PDI-SG-045	JW-PDI-SG-051	JW-PDI-SG-052	JW-PDI-SG-053	JW-PDI-SG-054	JW-PDI-SG-055	JW-PDI-SG-056	JW-PDI-SG-057	JW-PDI-SG-058
	Sample Date	8/1/2023	8/1/2023	7/31/2023	8/2/2023	8/2/2023	8/2/2023	8/1/2023	8/2/2023	8/1/2023	8/15/2023	8/1/2023
	Depth	0 - 4 in	0 - 6 in	0 - 4 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 8 in	0 - 12 in	0 - 4 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1302733.166	1302883.242	1302678.463	1302985.441	1302886.004	1302925.594	1302824.316	1302842.73	1302790.25	1302837.206	1302744.214
	Y	372123.8477	371970.0889	372012.5858	372464.5111	372444.2556	372406.5063	372463.5905	372402.8232	372223.2846	372192.9011	372179.0904
Conventional Parameters (pct)												
Organic Content	D2974	5.51	1.34	4.17	2.24	4.82	2.07	4.74	5.82	5.31	1.55	4.36
Moisture (water) content	D2216	66.9	32.2	54.0	37.1 J	67.5 J	44.3 J	82.1	65.4 J	65.8	29.6	62.0
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	60.91	73.06	61.06	73.31	59.80	68.36	53.08	59.42	60.25	76.26	62.14
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270ESIM	25.0 J	2.51 J	29.6	1.79	6.16	1.96 J	29.0 J	15.9	37.5 J	0.68	27.5 J
2-Methylnaphthalene	SW8270ESIM	40.2 J	2.54 J	46.9	3.13	8.68 U	3.10 J	44.2 J	25.8	49.8 J	1.18	42.8 J
Acenaphthene	SW8270ESIM	30.9 J	5.05 J	28.8	1.78	7.20	1.24	40.9 J	21.1	37.8 J	0.50 U	32.1 J
Acenaphthylene	SW8270ESIM	42.7 J	1.34 J	52.9 J	2.31	7.51 J	2.70 J	27.3 J	28.6 J	43.3 J	0.47 J	46.0 J
Anthracene	SW8270ESIM	85.0 J	13.0 J	66.5	4.59	19.1	4.37	66.7 J	31.9	69.3 J	0.52	53.7 J
Benzo(a)anthracene	SW8270ESIM	58.2 J	23.0 J	59.0	8.19	31.0	12.4	66.6 J	45.8	55.2 J	2.35	47.7 J
Benzo(a)pyrene	SW8270ESIM	39.2 J	19.7 J	39.6	8.30	22.0	11.3 J	37.4 J	35.4	36.2 J	0.71	34.4 J
Benzo(b)fluoranthene	SW8270ESIM	49.8 J	19.9 J	58.2 J	11.0	31.8	15.9 J	57.9 J	45.2	44.0 J	4.06	40.9 J
Benzo(g,h,i)perylene	SW8270ESIM	40.5 J	12.2 J	32.6	6.98	17.9	7.45	29.1 J	33.2	36.4 J	1.95	34.7 J
Benzo(j)fluoranthene	SW8270ESIM	27.5 J	10.4 J	31.3	4.96	16.1	6.78	29.8 J	23.3	24.2 J	1.61	23.2 J
Benzo(k)fluoranthene	SW8270ESIM	25.4 J	11.1 J	30.9	5.02 J	16.7 J	6.93 J	29.9 J	22.6 J	22.7 J	1.83 J	21.7 J
Chrysene	SW8270ESIM	67.3 J	27.4 J	102	15.7	44.3	18.8 J	79.2 J	58.1	59.0 J	4.42	57.3 J
Dibenzo(a,h)anthracene	SW8270ESIM	3.09 J	2.48 J	3.36 J	1.34	3.15 J	1.76	3.74 J	4.41 J	3.08 J	0.35 J	2.60 J
Dibenzofuran	SW8270ESIM	40.3 J	2.28 J	38.4	2.76	8.03	2.24	45.0 J	20.2	44.5 J	0.99	37.5 J
Fluoranthene	SW8270ESIM	336 J	48.3 J	343	27.0	131	23.0	346 J	193	302 J	9.66	290 J
Fluorene	SW8270ESIM	40.3 J	5.69 J	36.4	3.04	12.8	2.52	48.5 J	28.2	47.3 J	0.95	42.2 J
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	17.3 J	8.67 J	16.8	4.73	11.0	5.63	15.9 J	19.3	16.3 J	1.29	15.5 J
Naphthalene	SW8270ESIM	216 J	7.03 J	269	10.7	33.0 U	7.78 J	193 J	132	258 J	3.12 J	219 J
Phenanthrene	SW8270ESIM	243 J	49.9 J	234	17.3	66.5	12.0	194 J	162	250 J	4.85	234 J
Pyrene	SW8270ESIM	341 J	50.7 J	323	27.6	117	21.0	288 J	199	302 J	7.31	298 J
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		55.3 J	26.5 J	57.4 J	11.5 J	31.8 J	15.8 J	55.6 J	49.7 J	50.9 J	1.7 J	47.8 J

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

Chemical	Location ID	JW-PDI-SG-059	JW-PDI-SG-070	JW-PDI-SG-071	JW-PDI-SG-071	JW-PDI-SG-072	JW-PDI-SG-073	JW-PDI-SG-074	JW-PDI-SG-075	JW-PDI-SG-076	JW-PDI-SG-077	JW-PDI-SG-090
	Sample Date	8/1/2023	7/31/2023	8/1/2023	8/1/2023	8/1/2023	8/1/2023	7/31/2023	7/31/2023	7/31/2023	7/31/2023	8/14/2023
	Depth	0 - 6 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 4 in	0 - 5 in	0 - 6 in	0 - 6 in	0 - 6 in	0 - 9 in
	Sample Type	N	N	N	FD	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1302796.695	1302553.627	1302735.007	1302735.007	1302735.007	1302737.769	1302488.256	1302576.644	1302575.724	1302485.494	1302679.116
	Y	372145.0239	371502.367	372648.6535	372648.6535	372506.8637	372386.2504	372122.0062	371871.5727	371688.3509	371528.1472	374315.6068
Conventional Parameters (pct)												
Organic Content	D2974	4.38	2.99	5.29	5.01	5.01	4.8	3.19	2.5	3.8	4.14	2.16
Moisture (water) content	D2216	68.2	64.6	81.9	75.7	61.8	55.2	40.7	48.7	58.3	50.9	46.8
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	61.04	60.23	--	--	--	61.90	--	--	--	--	67.67
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270ESIM	16.4 J	31.5	14.8 J	15.1 J	25.7 J	35.4 J	11.7	17.3	28.5	22.4	1.53
2-Methylnaphthalene	SW8270ESIM	26.7 J	54.1	25.1 J	26.2 J	38.8 J	46.7 J	18.6	29.4	45.4	34.7	2.41
Acenaphthene	SW8270ESIM	18.7 J	41.4	17.2 J	16.2 J	48.8 J	27.7 J	17.4	14.4	35.7	28.9	1.44
Acenaphthylene	SW8270ESIM	29.4 J	45.7 J	14.2 J	15.2 J	42.0 J	39.6 J	17.0 J	14.5 J	43.1 J	36.0 J	1.28
Anthracene	SW8270ESIM	52.1 J	90.7	40.9 J	43.3 J	75.3 J	58.4 J	45.0	38.4	65.3	53.5	2.74
Benzo(a)anthracene	SW8270ESIM	46.2 J	69.5	46.8 J	42.0 J	73.0 J	44.8 J	53.1	31.0	87.5	61.7	9.19
Benzo(a)pyrene	SW8270ESIM	32.8 J	49.4	27.5 J	25.9 J	43.7 J	30.9 J	30.8	20.2	54.1	40.7	8.02
Benzo(b)fluoranthene	SW8270ESIM	43.2 J	68.9 J	42.4 J	40.0 J	63.9 J	39.5 J	51.0 J	29.5 J	76.6 J	56.9 J	13.4
Benzo(g,h,i)perylene	SW8270ESIM	33.9 J	32.1	22.7 J	24.2 J	33.9 J	29.3 J	18.8	15.3	34.1	26.7	7.02
Benzo(j)fluoranthene	SW8270ESIM	23.3 J	35.3	21.3 J	20.8 J	33.2 J	22.1 J	26.2	16.3	41.3	31.1	5.41
Benzo(k)fluoranthene	SW8270ESIM	22.5 J	35.8	21.6 J	20.6 J	32.5 J	20.7 J	22.3	16.4	39.7	30.7	6.49 J
Chrysene	SW8270ESIM	60.4 J	89.0	55.4 J	56.0 J	86.7 J	53.1 J	66.8	36.9	125	85.3	15.7
Dibenzo(a,h)anthracene	SW8270ESIM	2.91 J	4.45 J	3.06 J	2.56 J	3.94 J	2.73 J	2.33 J	1.80 J	4.37 J	3.36 J	1.53
Dibenzofuran	SW8270ESIM	27.8 J	44.7	23.6 J	25.5 J	43.6 J	37.6 J	19.6	15.9	38.7	30.6	2.05
Fluoranthene	SW8270ESIM	249 J	305	199 J	203 J	390 J	254 J	220	148	325	259	25.9
Fluorene	SW8270ESIM	26.3 J	58.2	24.9 J	24.5 J	72.9 J	37.9 J	24.7	18.1	45.9	37.0	2.55
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	16.0 J	18.2	12.4 J	12.7 J	19.3 J	14.2 J	11.9	8.86	20.7	16.7	4.66
Naphthalene	SW8270ESIM	151 J	241	91.6 J	101 J	213 J	242 J	82.0	98.4	256	193	6.20
Phenanthrene	SW8270ESIM	177 J	224	109 J	121 J	265 J	202 J	132	90.0	249	188	8.69
Pyrene	SW8270ESIM	245 J	291	174 J	179 J	331 J	242 J	199	140	313	239	24.1
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		46.5 J	70.0 J	40.7 J	38.2 J	63.8 J	43.6 J	45.5 J	29.3 J	78.2 J	58.5 J	11.7 J

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

Chemical	Location ID	JW-PDI-SG-091	JW-PDI-SG-092	JW-PDI-SG-093	JW-PDI-SG-094	JW-PDI-SG-095	JW-PDI-SG-096	JW-PDI-SG-097	JW-PDI-SG-098	JW-PDI-SG-099	JW-PDI-SG-100	JW-PDI-SG-101
	Sample Date	8/14/2023	8/14/2023	8/14/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	8/17/2023	8/17/2023	8/17/2023
	Depth	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 12 in	0 - 12 in
	Sample Type	N	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1302770.574	1302808.63	1302999.783	1303077.122	1303118.739	1303205.286	1303241.009	1303250.217	1303392.006	1303433.622	1303523.115
	Y	374283.0751	374199.5969	373955.4937	373957.7033	373898.4095	373765.4586	373765.0902	373706.5329	373541.9099	373517.2347	373480.0379
Conventional Parameters (pct)												
Organic Content	D2974	4.01	4.02	5.61	4.49	4	3.86	3.91	5.26	4.87	--	6.91
Moisture (water) content	D2216	78.2	90.7	97.7	116.8	95.8	81	96.5	86.3	84.7	--	104.5
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	53.40	50.05	50.80	48.68	49.46	53.83	49.91	53.15	50.04	43.57	47.26
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270ESIM	2.00	2.16	1.52	1.17	3.17	2.54	2.30	2.74	0.85 J	2.61	1.69
2-Methylnaphthalene	SW8270ESIM	3.40	3.57	2.34	1.76	4.77	4.22	3.71	4.57	1.32 J	4.45	2.68
Acenaphthene	SW8270ESIM	1.81	1.99	1.22	0.89	2.59	2.89	1.90	2.75	1.04 J	5.01	1.43
Acenaphthylene	SW8270ESIM	2.40	1.66	1.33	1.49	2.46	2.65	1.84	2.68	0.64 J	1.95 J	1.13 J
Anthracene	SW8270ESIM	5.58	5.36	5.05	2.14	7.91	6.14	5.62	8.52	1.88 J	14.0 J	3.64
Benzo(a)anthracene	SW8270ESIM	19.5	20.5	17.9	14.4 J	23.3	25.3	23.1	28.3	8.95 J	39.4 J	19.0
Benzo(a)pyrene	SW8270ESIM	17.0	15.0	13.6	7.93	16.0	20.1	15.0	20.2	7.45 J	35.1 J	14.3 J
Benzo(b)fluoranthene	SW8270ESIM	27.5	24.9	25.7	23.1	32.5	39.8	29.1	42.5	13.0 J	59.9 J	26.6 J
Benzo(g,h,i)perylene	SW8270ESIM	12.7	11.7	9.25	7.21	10.8	13.3	10.3	13.4	4.55 J	19.5 J	7.94
Benzo(j)fluoranthene	SW8270ESIM	11.1	10.8	10.0	9.10	12.1	15.1	11.1	15.8	5.18 J	23.9 J	10.5
Benzo(k)fluoranthene	SW8270ESIM	12.5 J	12.8 J	12.5 J	10.8 J	14.0 J	18.2 J	14.8 J	19.9 J	6.04 J	26.9 J	13.2
Chrysene	SW8270ESIM	32.4	35.4	46.6	39.8 J	53.3	53.8	51.8	62.6	16.3 J	80.2	41.3
Dibenzo(a,h)anthracene	SW8270ESIM	2.79	2.56	2.20	1.80	2.55	3.03	2.59	3.19	1.05 J	4.70 J	2.02 J
Dibenzofuran	SW8270ESIM	2.80	3.28	1.74	1.19	3.21	3.76	2.89	4.26	1.38 J	5.80	2.01
Fluoranthene	SW8270ESIM	47.0	44.3	48.7	31.4 J	64.9	56.1	42.2	58.9	20.3 J	106 J	39.5
Fluorene	SW8270ESIM	3.55	4.31	2.58	1.73	4.67	4.77	4.70	5.97	1.54 J	8.11	3.06
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	9.33	8.15	7.27	6.27	8.63	10.5	7.71	10.5	3.61 J	16.1 J	6.61 J
Naphthalene	SW8270ESIM	6.74	6.45	4.77	4.63	9.98	9.47	7.12	8.93	2.65 J	6.17	5.61
Phenanthrene	SW8270ESIM	14.7	17.5	15.0	7.98	17.2	16.3	17.4	20.4	5.83 J	30.1 J	12.0
Pyrene	SW8270ESIM	46.6	43.6	42.8	27.9 J	57.2	60.7	46.0	71.1	18.9 J	102 J	38.4
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		24.5 J	22.2 J	20.6 J	14.0 J	24.6 J	30.3 J	23.2 J	31.3 J	10.9 J	50.6 J	21.5 J

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

Chemical	Location ID	JW-PDI-SG-101	JW-PDI-SG-102	JW-PDI-SG-109	JW-PDI-SG-110	JW-PDI-SG-111	JW-PDI-SG-112	JW-PDI-SG-113	JW-PDI-SG-114	JW-PDI-SG-115	JW-PDI-SG-116	JW-PDI-SG-117
	Sample Date	8/17/2023	8/17/2023	8/14/2023	8/16/2023	8/16/2023	8/16/2023	8/16/2023	7/31/2023	8/2/2023	8/14/2023	8/1/2023
	Depth	0 - 12 in	0 - 10 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 6 in	0 - 12 in	0 - 12 in
	Sample Type	FD	N	N	N	N	N	N	N	N	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
analytic_method	X	1303523.115	1303514.384	1302846.072	1303203.918	1303142.309	1303279.311	1303291.464	1302480.199	1302869.182	1302904.253	1302766.773
	Y	373480.0379	373416.7205	374114.2778	373958.5455	373815.9136	373771.7194	373649.8171	371337.596	372350.333	374075.7733	371778.4902
Conventional Parameters (pct)												
Organic Content	D2974	--	4.73	1.84	4.78	4.24	3.99	6.81	3.23	2.47	3.63	4.96
Moisture (water) content	D2216	--	85.1	32.1	100.3	102.2	96.2	94.5	63.1	40.3 J	82.5	62.9
Moisture, percent	D2974	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--	--	--	--
Total solids	D2216	48.42	49.03	75.05	--	47.60	--	--	61.78	72.85	52.92	--
Total solids	SM2540G	--	--	--	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)												
1-Methylnaphthalene	SW8270ESIM	0.43 J	3.04 J	3.15	5.51	1.79	1.22	1.97	21.9	2.05	2.81	7.78 J
2-Methylnaphthalene	SW8270ESIM	0.69 J	4.85 J	4.61	8.39	2.74	1.87	3.03	37.7	3.33	4.74	16.0 J
Acenaphthene	SW8270ESIM	0.34 J	8.77	2.34	3.26	1.81	1.08	1.15	26.4	1.73	2.67	12.4 J
Acenaphthylene	SW8270ESIM	0.38 J	81.5 J	14.6	3.21	1.76	1.18	1.48	26.0 J	2.11	2.37	12.2 J
Anthracene	SW8270ESIM	1.43 J	279	23.0	9.80	5.58	2.54	3.82	48.5	4.36	10.2	37.5 J
Benzo(a)anthracene	SW8270ESIM	8.01 J	4630	127	22.6	21.9	13.5	14.8	45.9	9.45	23.3	54.6 J
Benzo(a)pyrene	SW8270ESIM	5.87 J	4890 J	168	17.0	15.6	10.7	11.6	27.2	8.50	16.7	40.4 J
Benzo(b)fluoranthene	SW8270ESIM	10.4 J	9710 J	163 J	32.1	25.1	20.7	24.5	40.8 J	10.3	33.8	62.3 J
Benzo(g,h,i)perylene	SW8270ESIM	3.09 J	2430	146	12.5	9.85	7.10	8.32	20.1	6.85	12.2	32.4 J
Benzo(j)fluoranthene	SW8270ESIM	4.13 J	3770	79.0	12.4	10.4	8.10	9.11	21.6	4.83	13.1	30.2 J
Benzo(k)fluoranthene	SW8270ESIM	4.60 J	4620	87.1	14.6 J	12.9 J	10.0 J	10.6	21.8	5.10 J	15.9 J	32.3 J
Chrysene	SW8270ESIM	16.2 J	8380	221	52.5	28.6	34.0	37.6	53.0	14.0	52.3	82.8 J
Dibenzo(a,h)anthracene	SW8270ESIM	0.77 J	414	18.1	2.85	2.44	1.73	2.06	2.35 J	1.41	2.75	4.84 J
Dibenzofuran	SW8270ESIM	0.52 J	9.81	4.42	4.82	2.00	1.36	2.11	30.9	2.53	4.27	17.7 J
Fluoranthene	SW8270ESIM	18.1 J	30600	428	65.3	41.8	38.8	31.6	214	24.7	78.2	207 J
Fluorene	SW8270ESIM	0.75 J	47.9	11.9	6.94	2.70	1.98	2.43	35.2	2.63	5.88	19.7 J
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	2.62 J	1910	98.6	9.41	7.97	5.72	6.70	11.0	4.72	9.24	19.6 J
Naphthalene	SW8270ESIM	1.33 J	11.4	8.01	13.6	7.54	4.00	7.31	158	11.1	8.17	53.7 J
Phenanthrene	SW8270ESIM	3.73 J	485	329	27.0	13.6	9.06	12.1	148	14.3	24.1	108 J
Pyrene	SW8270ESIM	16.7 J	26000	496	59.5	45.0	33.2	28.1	198	23.5	68.3	184 J
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		8.7 J	7100 J	220 J	25.7 J	22.9 J	16.2 J	17.8	39.9 J	11.7 J	25.7 J	58.6 J

Table 6

Summary of Pre-Remedial Design Investigation Results: cPAHs

Chemical	Location ID	JW-PDI-SG-118	SG-142_2024	SG-143_2024	SG-144_2024	SG-145_2024	SG-146_2024	SG-146_2024	SG-147_2024
	Sample Date	8/1/2023	6/6/2024	6/6/2024	6/4/2024	6/5/2024	6/5/2024	6/5/2024	6/6/2024
	Depth	0 - 6 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in	0 - 12 in
	Sample Type	N	N	N	N	N	FD	N	N
	Matrix	SE	SE	SE	SE	SE	SE	SE	SE
	X	1302763.577	1302762.57	1302671.11	1302412.04	1302733.93	1302697.66	1302697.66	1302469.36
analytic_method	Y	372023.717	372494.9	372276.42	372135.72	371980.24	371740.01	371740.01	371632.67
Conventional Parameters (pct)									
Organic Content	D2974	5.04	--	--	--	--	--	--	--
Moisture (water) content	D2216	63.9	--	--	--	--	--	--	--
Moisture, percent	D2974	--	--	--	--	--	--	--	--
Moisture, percent	SM2540G	--	--	--	--	--	--	--	--
Moisture, percent	UNKNOWN	--	--	--	--	--	--	--	--
Total solids	D2216	57.88	--	--	--	--	--	--	--
Total solids	SM2540G	--	--	--	--	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)									
1-Methylnaphthalene	SW8270ESIM	41.5 J	--	--	--	--	--	--	--
2-Methylnaphthalene	SW8270ESIM	61.9 J	87.9	59.3	27.9	32.4	13.8	15.6	40.6
Acenaphthene	SW8270ESIM	40.1 J	88.5	54.9	22.3	27.6	8.56	15.7	35.4
Acenaphthylene	SW8270ESIM	55.6 J	90.8	64.2	21.9	27.9	7.90	8.22	51.8
Anthracene	SW8270ESIM	74.9 J	81.5	51.9	26.2	25.8	13.2	19.2	31.9
Benzo(a)anthracene	SW8270ESIM	65.4 J	60.5	69.0	32.8	25.3	25.2	25.7	25.9
Benzo(a)pyrene	SW8270ESIM	49.4 J	52.8	68.7	28.7	26.2	23.9	21.9	26.6
Benzo(b)fluoranthene	SW8270ESIM	55.0 J	58.9	74.1	34.0	25.5	35.6	28.2	27.9
Benzo(g,h,i)perylene	SW8270ESIM	43.6 J	34.8	47.2	22.6	25.3	18.2	15.8	21.7
Benzo(j)fluoranthene	SW8270ESIM	31.7 J	24.6	32.4	15.5	12.0	13.5	11.5	12.9
Benzo(k)fluoranthene	SW8270ESIM	29.9 J	22.9	34.5	16.0	12.5	16.2	13.1	11.9
Chrysene	SW8270ESIM	75.8 J	70.3	89.2	41.6	33.8	41.7	36.3	34.4
Dibenzo(a,h)anthracene	SW8270ESIM	4.27 J	2.83 J	4.50 J	2.66 J	4.99 U	5.00 U	4.98 U	4.78 U
Dibenzofuran	SW8270ESIM	48.4 J	--	--	--	--	--	--	--
Fluoranthene	SW8270ESIM	308 J	328	291	133	121	82.6	117	154
Fluorene	SW8270ESIM	49.1 J	79.8	45.0	22.3	26.4	9.98	15.7	30.7
Indeno(1,2,3-c,d)pyrene	SW8270ESIM	22.1 J	19.0	28.5	14.5	13.9	12.5	10.4	10.9
Naphthalene	SW8270ESIM	365 J	370	295	102	106	46.9	49.2	192
Phenanthrene	SW8270ESIM	293 J	273	212	95.0	107	41.6	82.3	141
Pyrene	SW8270ESIM	314 J	318	293	124	129	73.3	99.4	174
Total cPAH TEQ (7 minimum CAEPA 2005) (U = 0 max limit)		67.8 J	69.9 J	90.7 J	39.1 J	34.3	33.3	30.0	34.6

Table 6
Summary of Pre-Remedial Design Investigation Results: cPAHs

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

CAEPA, 2005. Air Toxics Hot Spots Program Risk Assessment Guidelines, Part II Technical Support Document for Describing Available Cancer Potency Factors. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. May 2005.

CAEPA: California Environmental Protection Agency.

Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)

in: inches

J: Estimated value

N: Presumptive Evidence

NAD83: North American Datum of 1983

ng/kg: nanogram per kilogram

pct: percent

Sample Type N: normal

Sample Type FD: field duplicate

SE: Sediment

TEQ: toxicity equivalence

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

--: not applicable

Table 7**Summary of Pre-Remedial Design Investigation Results: Wood Volume**

Core Location	Coordinates		Sieve Interval (Feet)	Calculated Wood Percentage
	Easting	Northing		
SV-01	1302685.97	374315.81	0-1.0	15
	1302685.97	374315.81	1.0-2.0	21
	1302685.97	374315.81	2.0-3.0	20
SV-02	1303144.57	373817.3	0-1.0	8
SV-03	1303466.49	373462.12	0-1.0	1
SV-04	1302343.08	373556.97	0-1.0	4
SV-05	1302483.95	373348.39	0-1.0	11
SV-06	1302456	373176.46	0-1.0	6
	1302456	373176.46	1.0-2.0	14
SV-07	1302568.33	373074.38	0-1.0	11
SC-08	1302618.29	373001.88	0-1.0	13
SV-09	1302691.29	373076.81	0-1.0	21
			1.0-2.0	8
SV-10	1302672.35	372728.57	0-1.0	12
SV-11	1302547.65	372120.9	0-1.0	4
SV-12	1302577.57	371867.16	0-1.0	4
SV-13	1302523.08	371614.02	0-1.0	6

Note:

1. Easting and northing in NAD83 State Plane Washington North (U.S. Survey Feet)

Table 8
Summary of Pre-Remedial Design Investigation Results: SPME (PCBs)

Chemical	Location ID Sample Date Sample Type Matrix analytic_method	JW-PW-032-2024 9/25/2024 N SPME
PCB Congeners (SPME) (pg)		
PCB-001	E1668C	2.66 U
PCB-002	E1668C	2.81 U
PCB-003	E1668C	3.16 U
PCB-004	E1668C	10.1 J
PCB-005	E1668C	8.05 U
PCB-006	E1668C	6.73 U
PCB-007	E1668C	7.79 U
PCB-008	E1668C	9.37 J
PCB-009	E1668C	6.98 U
PCB-010	E1668C	4.66 U
PCB-011	E1668C	19.8 J
PCB-012/013	E1668C	7.65 U
PCB-014	E1668C	7.68 U
PCB-015	E1668C	4.71 J
PCB-016	E1668C	39.9 J
PCB-017	E1668C	38.7
PCB-018/030	E1668C	95.4
PCB-019	E1668C	11.9 J
PCB-020/028	E1668C	112
PCB-021/033	E1668C	57.4
PCB-022	E1668C	33.6
PCB-023	E1668C	13.1 U
PCB-024	E1668C	8.18 U
PCB-025	E1668C	10.6 U
PCB-026/029	E1668C	12.9 U
PCB-027	E1668C	8.18 U
PCB-031	E1668C	128
PCB-032	E1668C	30.8
PCB-034	E1668C	13.1 U
PCB-035	E1668C	12.6 U
PCB-036	E1668C	11.1 U
PCB-037	E1668C	12 U
PCB-038	E1668C	12 U
PCB-039	E1668C	12.3 U
PCB-040/071	E1668C	88.3
PCB-041	E1668C	18.5 J
PCB-042	E1668C	48.4
PCB-043	E1668C	7.77 J
PCB-044/047/065	E1668C	249
PCB-045	E1668C	40
PCB-046	E1668C	17.4 J
PCB-048	E1668C	51.9
PCB-049/069	E1668C	155
PCB-050/053	E1668C	42.5 J
PCB-051	E1668C	26.7
PCB-052	E1668C	209
PCB-054	E1668C	0.701 U
PCB-055	E1668C	3.36 U
PCB-056	E1668C	41.5

Table 8

Summary of Pre-Remedial Design Investigation Results: SPME (PCBs)

Chemical	Location ID Sample Date Sample Type Matrix analytic_method	JW-PW-032-2024 9/25/2024 N SPME
PCB-057	E1668C	3.62 U
PCB-058	E1668C	3.16 U
PCB-059/062/075	E1668C	19.6 J
PCB-060	E1668C	27 J
PCB-061/070/074/076	E1668C	204
PCB-063	E1668C	6.69 J
PCB-064	E1668C	85.5
PCB-066	E1668C	98 J
PCB-067	E1668C	3.22 U
PCB-068	E1668C	3.59 U
PCB-072	E1668C	3.41 U
PCB-073	E1668C	2.47 U
PCB-077	E1668C	3.95 U
PCB-078	E1668C	3.62 U
PCB-079	E1668C	3.09 U
PCB-080	E1668C	3.49 U
PCB-081	E1668C	3.72 U
PCB-082	E1668C	5.62 J
PCB-083	E1668C	9.14 U
PCB-084	E1668C	34.7
PCB-085/116	E1668C	15 J
PCB-086/087/097/109/119/125	E1668C	57.9 J
PCB-088	E1668C	6.11 U
PCB-089	E1668C	5.38 U
PCB-090/101/113	E1668C	128
PCB-091	E1668C	32.9
PCB-092	E1668C	22.6 J
PCB-093/100	E1668C	5.92 U
PCB-094	E1668C	6.21 U
PCB-095	E1668C	88.7
PCB-096	E1668C	2.88 U
PCB-098	E1668C	5.11 U
PCB-099	E1668C	46.7
PCB-102	E1668C	4.64 J
PCB-103	E1668C	5.27 U
PCB-104	E1668C	2.85 U
PCB-105	E1668C	12.1 J
PCB-106	E1668C	3.97 U
PCB-107	E1668C	6.2 J
PCB-108/124	E1668C	4.13 U
PCB-110	E1668C	81.3
PCB-111	E1668C	4.1 U
PCB-112	E1668C	3.63 U
PCB-114	E1668C	3.81 U
PCB-115	E1668C	3.41 U
PCB-117	E1668C	4.77 U
PCB-118	E1668C	36.2
PCB-120	E1668C	3.46 U
PCB-121	E1668C	3.67 U
PCB-122	E1668C	4.71 U
PCB-123	E1668C	3.97 U

Table 8
Summary of Pre-Remedial Design Investigation Results: SPME (PCBs)

Chemical	Location ID Sample Date Sample Type Matrix analytic_method	JW-PW-032-2024 9/25/2024 N SPME
PCB-126	E1668C	2.21 U
PCB-127	E1668C	3.76 U
PCB-128/166	E1668C	10.1 J
PCB-129/138/163	E1668C	120
PCB-130	E1668C	12 J
PCB-131	E1668C	2.77 U
PCB-132	E1668C	38.4
PCB-133	E1668C	2.43 U
PCB-134	E1668C	3.32 U
PCB-135/151	E1668C	50.4
PCB-136	E1668C	17.6 J
PCB-137	E1668C	2.89 U
PCB-139/140	E1668C	2.38 U
PCB-141	E1668C	18.1 J
PCB-142	E1668C	2.72 U
PCB-143	E1668C	2.46 U
PCB-144	E1668C	2.55 U
PCB-145	E1668C	1.88 U
PCB-146	E1668C	23.3
PCB-147/149	E1668C	133
PCB-148	E1668C	2.43 U
PCB-150	E1668C	2.04 U
PCB-152	E1668C	1.72 U
PCB-153/168	E1668C	127
PCB-154	E1668C	3.73 J
PCB-155	E1668C	1.59 U
PCB-156/157	E1668C	4.04 J
PCB-158	E1668C	11.1 J
PCB-159	E1668C	3.47 U
PCB-160	E1668C	2.2 U
PCB-161	E1668C	1.83 U
PCB-162	E1668C	3.97 U
PCB-164	E1668C	1.79 U
PCB-165	E1668C	2.2 U
PCB-167	E1668C	3.95 U
PCB-169	E1668C	4.69 U
PCB-170	E1668C	14.5 J
PCB-171/173	E1668C	8.21 J
PCB-172	E1668C	6.64 U
PCB-174	E1668C	18.8 J
PCB-175	E1668C	6.65 U
PCB-176	E1668C	1.28 U
PCB-177	E1668C	15.3 J
PCB-178	E1668C	8.56 J
PCB-179	E1668C	13.4 J
PCB-180/193	E1668C	35.9 J
PCB-181	E1668C	5.82 U
PCB-182	E1668C	5.27 U
PCB-183	E1668C	16.2 J
PCB-184	E1668C	1.17 U
PCB-185	E1668C	6.53 U

Table 8
Summary of Pre-Remedial Design Investigation Results: SPME (PCBs)

Chemical	Location ID Sample Date Sample Type Matrix analytic_method	JW-PW-032-2024 9/25/2024 N SPME
PCB-186	E1668C	1.07 U
PCB-187	E1668C	28.1
PCB-188	E1668C	1.07 U
PCB-189	E1668C	3.78 U
PCB-190	E1668C	5.58 U
PCB-191	E1668C	5.39 U
PCB-192	E1668C	4.72 U
PCB-194	E1668C	2.25 U
PCB-195	E1668C	2.34 J
PCB-196	E1668C	2.81 J
PCB-197	E1668C	0.68 U
PCB-198/199	E1668C	4.05 J
PCB-200	E1668C	0.672 U
PCB-201	E1668C	0.711 U
PCB-202	E1668C	0.577 U
PCB-203	E1668C	0.70 U
PCB-204	E1668C	0.605 U
PCB-205	E1668C	2.1 U
PCB-206	E1668C	5.19 U
PCB-207	E1668C	2.7 U
PCB-208	E1668C	2.49 U
PCB-209	E1668C	2.24 U

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

J: Estimated value

N: Normal

Table 9

Summary of Pre-Remedial Design Investigation Results: SPME (Dioxin/Furans)

Chemical	Task	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign	JeldWenPreDesign
	Location ID	InvestP22024	InvestP22024	InvestP22024	InvestP22024	InvestP22024	InvestP22024	InvestP22024	InvestP22024
		JW-PW-004-2024	JW-PW-013-2024	JW-PW-019-2024	JW-PW-029-2024	JW-PW-036-2024	JW-PW-041-2024	JW-PW-044-2024	JW-PW-1044-2024
	Sample ID	JW-PW-004-2-3-	JW-PW-013-2-3-	JW-PW-019-2-3-	JW-PW-029-2-3-	JW-PW-036-2-3-	JW-PW-041-2-3-	JW-PW-044-2-3-	JW-PW-1044-2-3-
	Sample Date	20240722-SPME	20240721-SPME	20240722-SPME	20240722-SPME	20240720-SPME	20240720-SPME	20240720-SPME	20240720-SPME
	Sample Type	9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024	9/25/2024
	Matrix	N	N	N	N	N	N	N	N
	analytic_method	SPME	SPME	SPME	SPME	SPME	SPME	SPME	SPME
Dioxin Furans (SPME) (pg)									
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	0.964 U	1.03 U	1.27 U	1.44 U	1.16 U	6.85 J	9.35 J	1.6 U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	35.3 J	4.75 J	2.91 J	5.41 J	22.7 J	189	66 J	43.8 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	2.67 J	0.546 U	0.386 U	1.06 U	3.01 J	7.31 J	8.95 J	4.51 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	8.27 J	2.42 J	0.641 U	1.01 J	8.05 J	40 J	20.2 J	15.1 J
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	0.474 U	0.578 U	0.418 U	1.05 U	0.581 U	0.909 J	3.27 J	1.2 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.934 U	0.476 U	0.582 U	1.52 U	0.855 U	2.06 J	4.56 J	2.6 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	2.68 J	3.79 J	3.8 J	3.32 J	3.15 J	5.25 J	8.25 J	2.36 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.897 U	0.434 U	0.591 U	1.53 U	0.858 U	1.58 J	2.93 J	2.49 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.873 U	0.972 U	0.966 U	1.23 U	1.61 J	6.49 J	6.72 J	2.53 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	1.01 U	0.525 U	0.717 U	1.73 U	2.28 J	2.73 J	4.34 J	3.03 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	1.86 J	1.66 J	1.5 J	1.25 U	0.684 U	3.24 J	5.98 J	2.22 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.15 U	1.41 U	0.953 U	1.04 U	1.18 U	1.7 J	1.21 U	1.19 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	1.38 U	1.23 U	1.19 U	1.63 U	1.22 U	1.35 U	3.04 J	2.12 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.959 U	0.46 U	0.627 U	1.64 U	0.924 U	2.07 J	3.47 J	2.52 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	1.21 U	1.26 U	0.947 U	0.97 U	1.09 U	0.913 U	2.69 J	1.17 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.754 U	0.702 U	0.819 U	1.13 U	0.967 U	0.836 U	0.901 U	1.18 U
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	2.1 U	2.34 U	1.73 U	1.54 U	1.81 U	1.75 U	1.6 U	2.58 U
Total Heptachlorodibenzofuran (HpCDF)	E1613B	8.6	0.562 U	0.402 U	1.06 U	8.95 J	18.1	22.8	12 J
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	22.1 J	4.9 J	1.31 J	2.84 J	17.5 J	82.3	36.6	29.6
Total Hexachlorodibenzofuran (HxCDF)	E1613B	5.39 J	0.472 U	0.626 U	1.6 U	16.5	22.7 J	27.6 J	8.16 J
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	8.52 J	5.45 J	5.3 J	3.32 J	9.49 J	43.4 J	28.2 J	2.36 U
Total Pentachlorodibenzofuran (PeCDF)	E1613B	1.18 U	1.33 U	0.95 U	1.0 U	6.82 J	7.51	6.95	1.18 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	1.38 U	1.23 U	1.19 U	1.63 U	1.22 U	1.35 U	3.04 J	2.12 U
Total Tetrachlorodibenzofuran (TCDF)	E1613B	0.754 U	0.702 U	0.819 U	1.13 U	0.967 U	0.836 U	0.901 U	1.18 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	2.1 U	2.34 U	1.73 U	1.54 U	1.81 U	1.75 U	1.6 U	2.58 U

Notes:

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

J: Estimated value

N: Normal

pg: picograms

SPME: Solid Phase Micro-Extraction

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

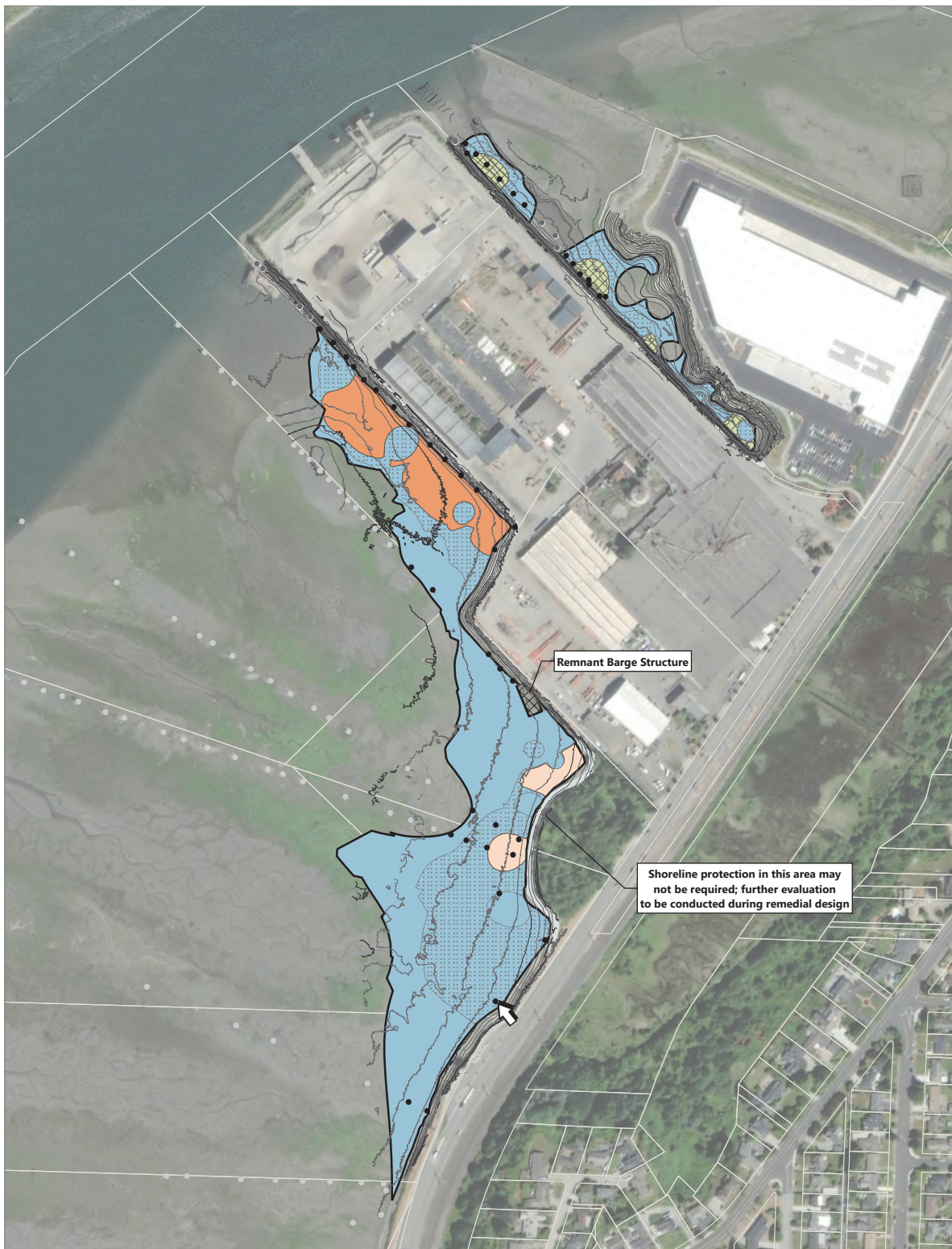
Figures



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Figure 1
Site Vicinity Map and Parcel Ownership
 Pre-Remedial Design Investigation Data Report
 Marine Areas of the Jeld Wen Site

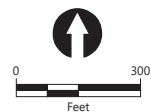


- Marine Site Boundary
- Stormwater Outfall
- Jeld-Wen Outfall
- Pile Location Outside Project Boundary
- Pile Location Within Project Boundary
- Pile Location Outside Project Boundary but Identified for Removal Pending Owner Approval
- 1-foot Contour (MLLW)
- 5-foot Contour (MLLW)
- Bulkhead Removal (350 Linear Feet)
- Riprap Shoreline Protection (2,300 Linear Feet)
- Parcel
- Remnant Barge Structure to be Removed
- SMA 1**
 - Monitored Natural Recovery (8.2 acres)
- SMA 2**
 - Enhanced Monitored Natural Recovery (5.2 acres)
- SMA 3**
 - 2-foot Removal and Backfill (0.5 acre)
 - Remove All (4-foot assumption)* and backfill
 - 2-foot Removal and Engineered Cap (0.47 acre)

NOTES:

1. Aerial imagery: Esri (2022)
2. Piling and large surficial wood debris to be removed throughout the site.
3. Contour: eTRAC, 2024
4. MLLW: Mean Lower Low Water

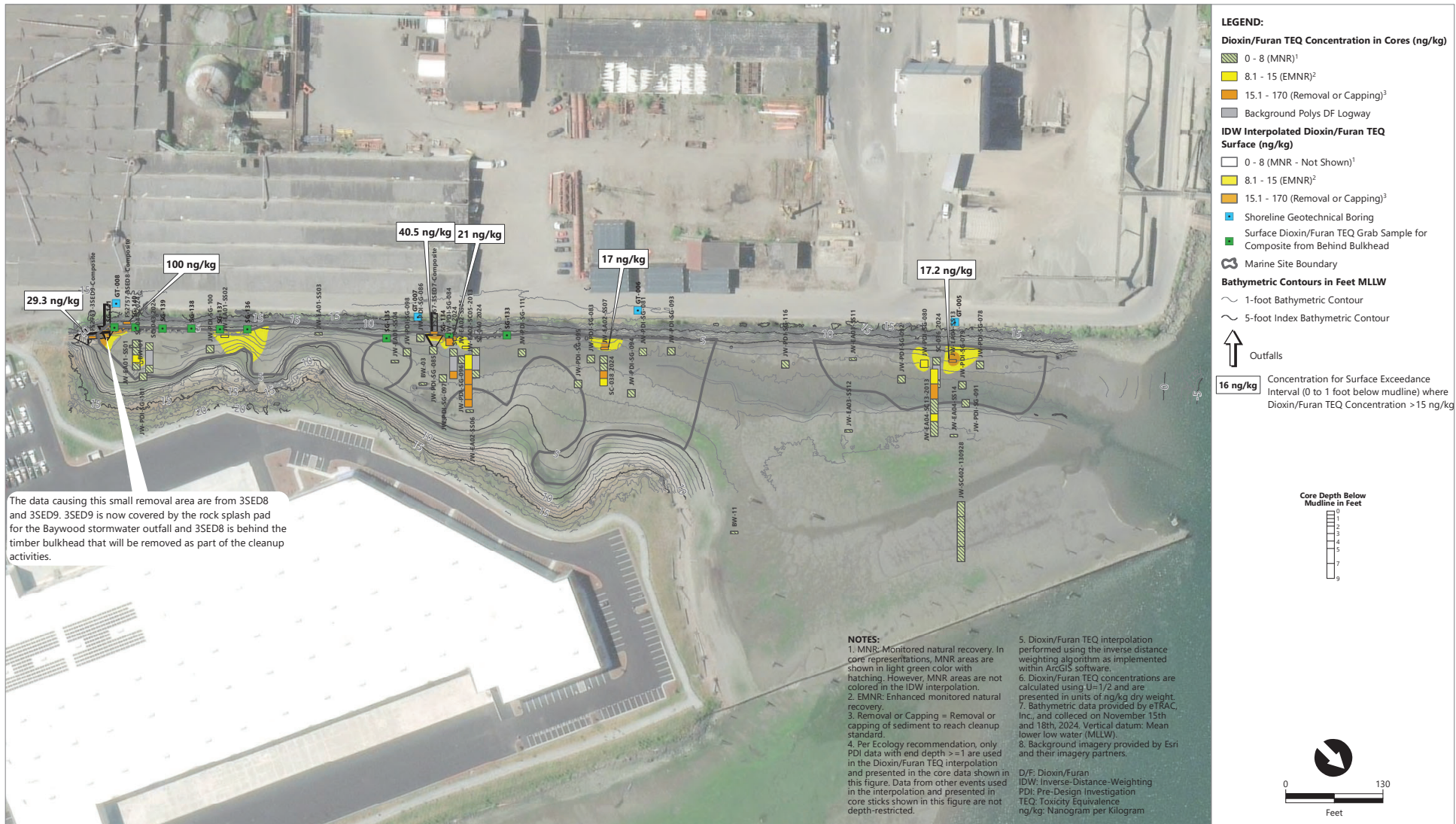
*Maximum excavation depths in intertidal areas to be evaluated in design.



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Figure 2
Selected Cleanup Remedy—Ecology 2023 CAP
 Pre-Remedial Design Investigation Data Report
 Marine Areas of the Jeld Wen Site



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Figure 3
Surface Sediment Dioxin/Furan TEQ Concentrations and Sediment Cores—Logway Area

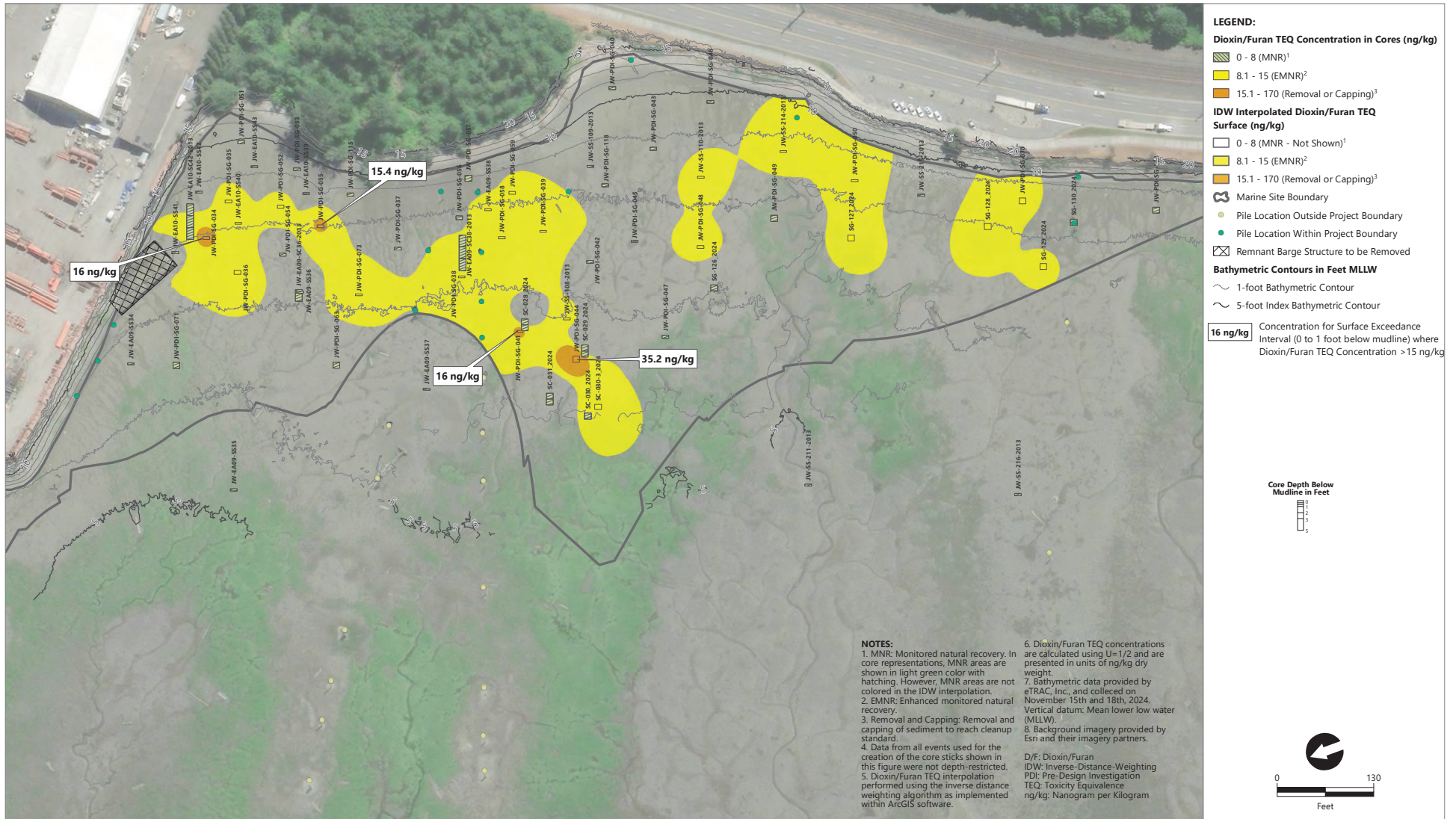
Pre-Remedial Design Investigation Data Report
Marine Areas of the Jeld Wen Site



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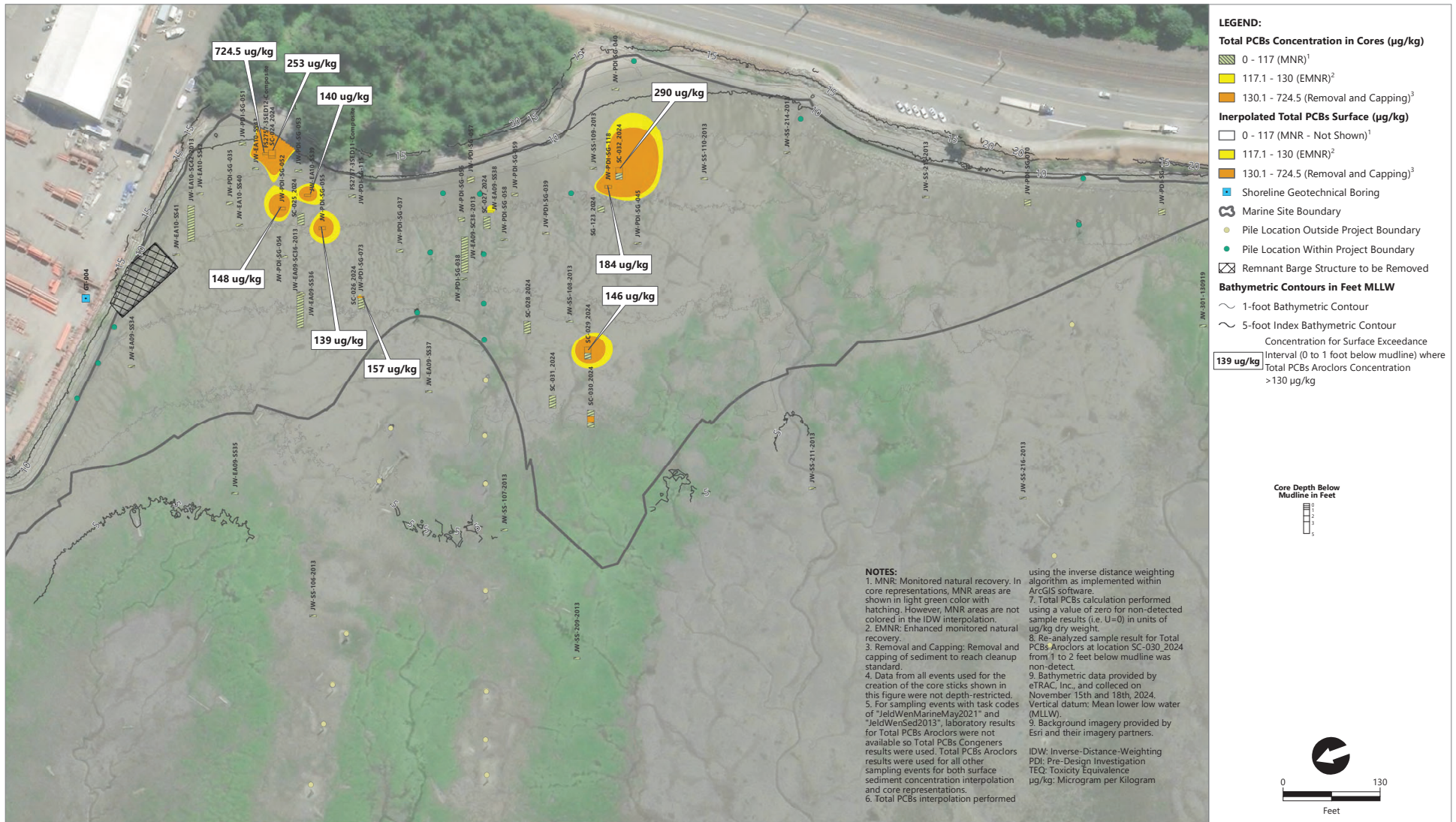
Figure 4
Surface Sediment Dioxin/Furan TEQ Concentrations and Sediment Cores—South Shoreline
 Pre-Remedial Design Investigation Data Report
 Marine Areas of the Jeld Wen Site



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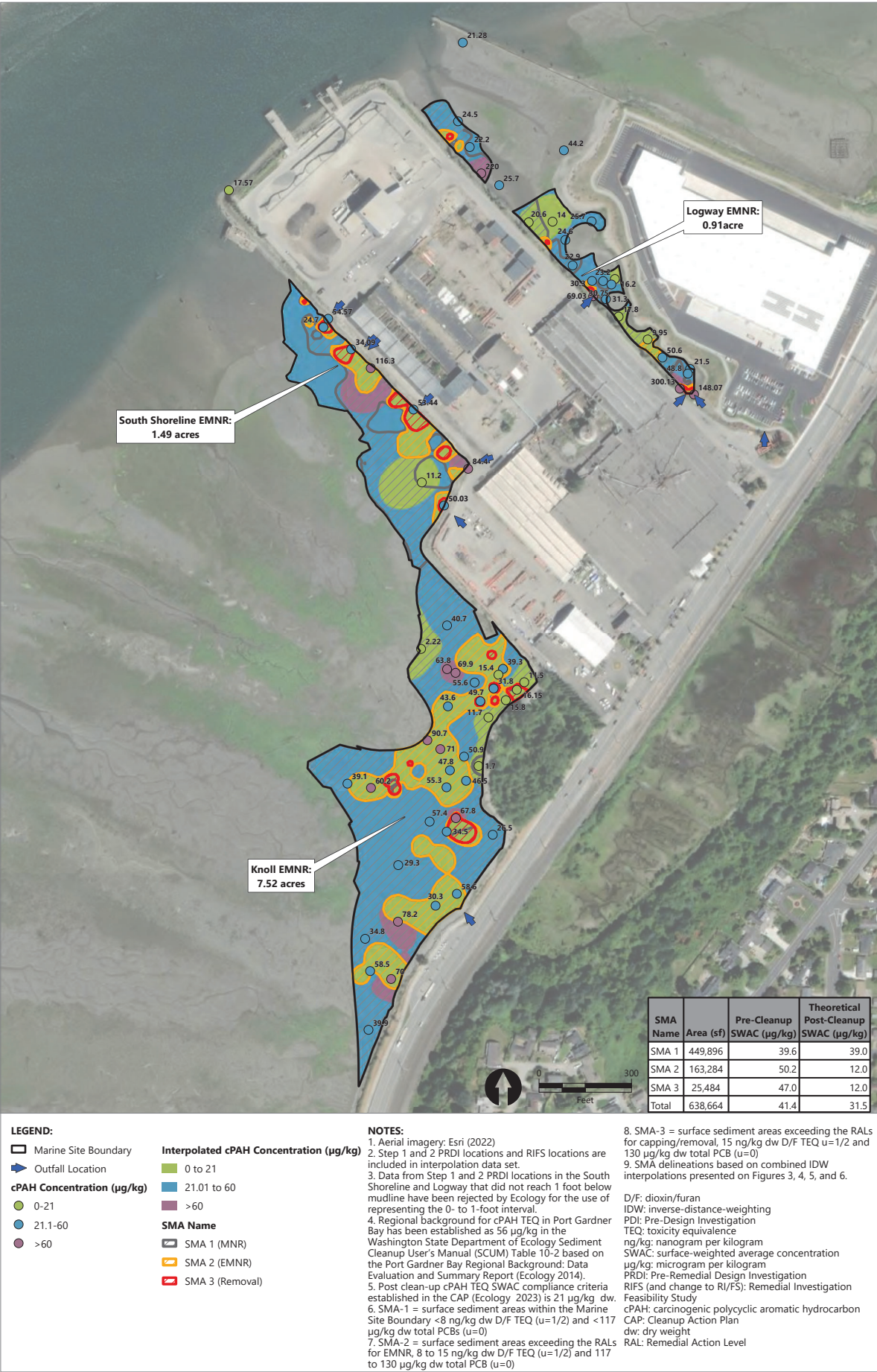
Figure 5
Surface Sediment Dioxin/Furan TEQ Concentrations and Sediment Cores—Knoll Area
Pre-Remedial Design Investigation Data Report
Marine Areas of the Jeld Wen Site



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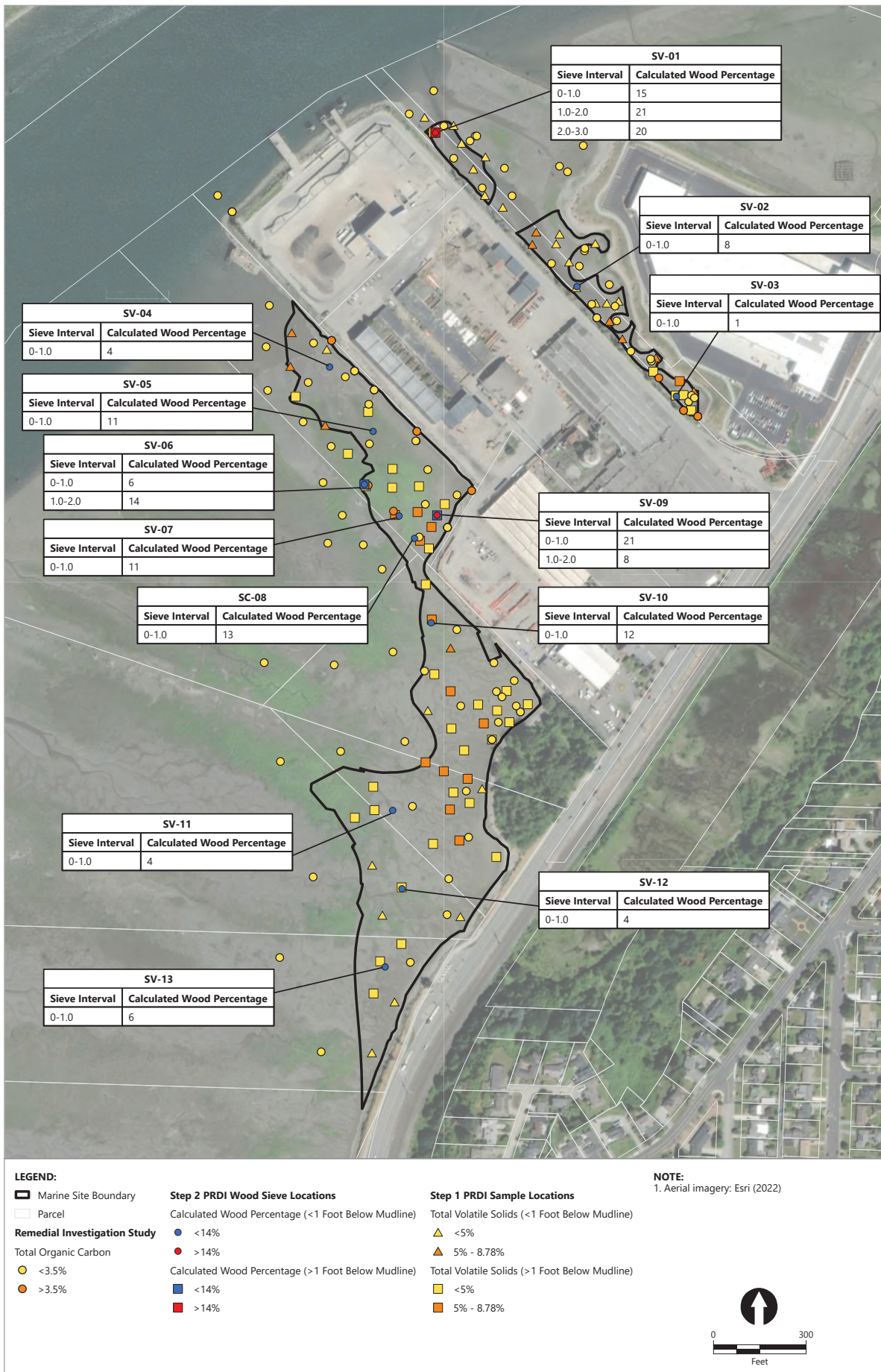
Figure 6
Surface Sediment Total PCBs Concentrations and Sediment Cores—Knoll Area
Pre-Remedial Design Investigation Data Report
Marine Areas of the Jeld Wen Site



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Figure 7
Surface Sediment Data for cPAH TEQ SWAC Evaluations
Pre-Remedial Design Investigation Data Report
Marine Areas of the Jeld Wen Site



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Figure 8
Site-Wide TOC and TVS Data with Wood Sieving Results
 Pre-Remedial Design Investigation Data Report
 Marine Areas of the Jeld Wen Site



LEGEND:

■ Marine Site Boundary

● Pile Location Outside Project Boundary

● Pile Location Within Project Boundary

● Pile Location Outside Project Boundary but Identified for Removal Pending Owner Approval

— 1-foot Contour (MLLW)

— 5-foot Contour (MLLW)

SMA's Derived from TPCB and Dioxin Furan TEQ

■ SMA-1 Monitored Natural Recovery (MNR)

■ SMA-2 Enhanced Monitored Natural Recovery (EMNR)

■ SMA-3 Capping or Removal

NOTES:

1. Aerial imagery: Esri (2022)

2. SMA-1 = surface sediment areas within the Marine Site Boundary <8 ng/kg dw D/F TEQ (u=1/2) and <117 ug/kg dw total PCBs (u=0)

3. SMA-2 = surface sediment areas exceeding the RALs for EMNR, 8 to 15 ng/kg dw D/F TEQ (u=1/2) and 117 to 130 ug/kg dw total PCB (u=0)

4. SMA-3 = surface sediment areas exceeding the RALs for capping/removal, 15 ng/kg dw D/F TEQ u=1/2 and 130 ug/kg dw total PCB (u=0)

5. SMA delineations based on combined IDW interpolations presented on Figures 3, 4, 5, and 6.

