

**NW Natural Pre-Remedial Design Data Gaps Sampling
Gasco Sediments Site – Spring 2020
Field Change Request Form**

Project Name: Gasco Sediments Cleanup Action **Subconsultant:** Anchor QEA, LLC

Field Activity: Subsurface Sediment Sampling **Request Number:** 12

To: Hunter Young, U.S. Environmental Protection Agency **Date:** April 24, 2020


Field Change Request (FCR) Title: Additional Perimeter Subsurface Sediment Core Collection and Analyses to Determine Final Project Area

Description
<p>On April 16, 2020, NW Natural received approval from the U.S. Environmental Protection Agency (EPA) on Field Change Request Form No. 10 (FCR 10). FCR 10 described the rationale and approach for the collection of 18 additional perimeter subsurface sediment cores and analyses to determine the Final Project Area. The coring work was started on April 20, 2020, and several of these additional subsurface sediment cores have been successfully collected and processed. One location, PDI-152, has visual and olfactory observations (Figure 1) that indicate the potential for sediment concentrations exceeding the Record of Decision (ROD) Table 21 total polycyclic aromatic hydrocarbon (TPAH) remedial action levels (RALs). Due to this potential, and in order to collect all necessary data for remedial design during this mobilization, NW Natural proposes to collect two additional sediment cores offset from PDI-152 to bound potential RAL exceedances. Chemical analysis of samples collected from these stations will be consistent with FCR 10 but only triggered if the PDI-152 sediment concentrations exceed the ROD Table 21 RAL or principal threat waste (PTW)-highly toxic thresholds.</p>

Recommended Change
<p>NW Natural proposes to collect two additional sediment cores less than 150 feet from PDI-152 at the stations shown in Figure 1 with the geographic coordinates provided in Table 1. The samples will be collected and processed consistent with FCR 10, but chemical analysis will only be triggered if the PDI-152 sediment concentrations exceed the ROD Table 21 RAL or PTW-highly toxic thresholds.</p>

Nik Bacher, Anchor QEA		April 24, 2020
Respondent Field Coordinator (or Designee)	Signature	Date

Approval:

Ryan Barth, Anchor QEA		April 24, 2020
Respondent Project Lead	Signature	Date

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Table

Table 1

Additional Perimeter Interim Project Area Subsurface Sediment Core Sampling Locations

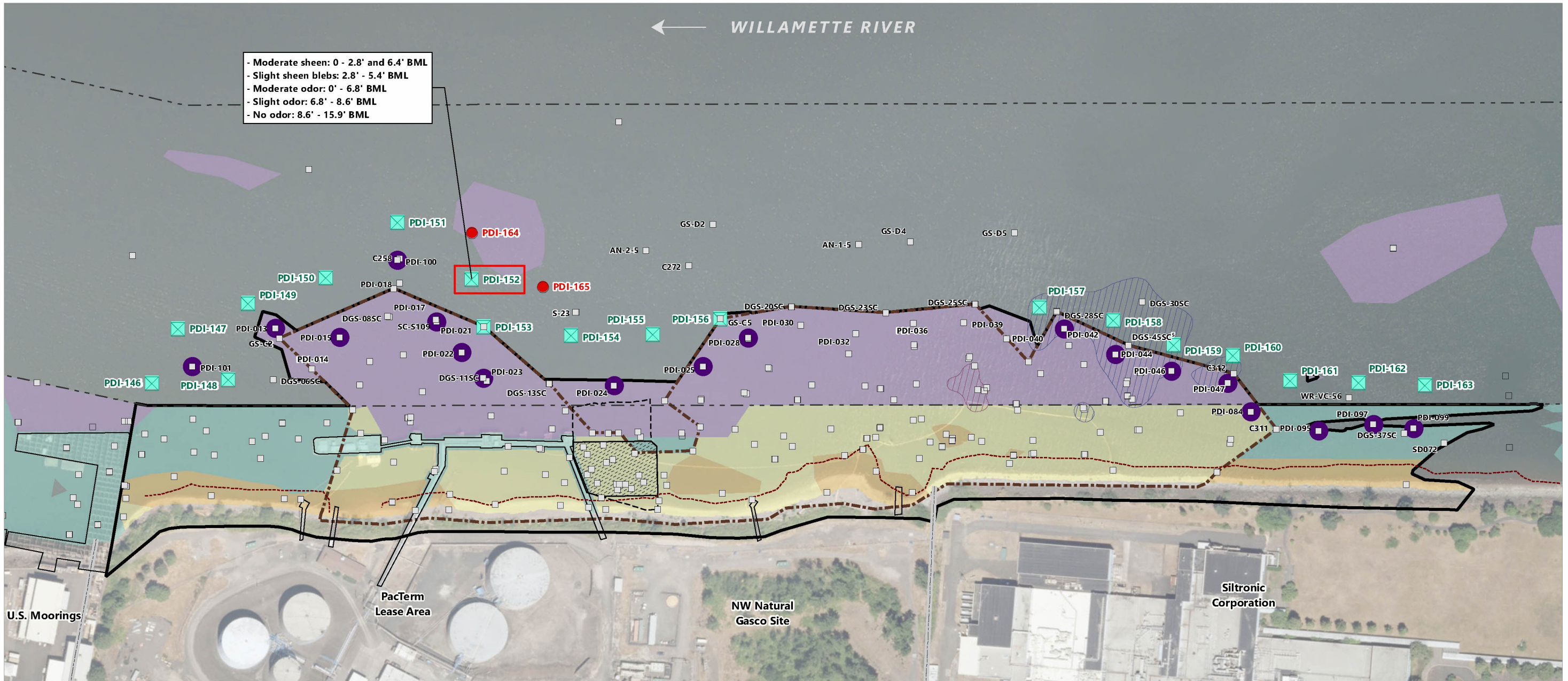
Location ID	Easting (X)	Northing (Y)
PDI-164	7623973.70	706179.30
PDI-165	7624039.80	706014.50

Notes:

Coordinates are in North American Datum of 1983 (HARN91) Oregon State Plane North, International Feet.

HARN91: High Accuracy Reference Network 91

Figure



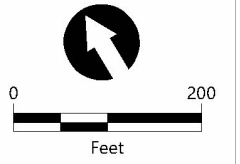
- Moderate sheen: 0 - 2.8' and 6.4' BML
 - Slight sheen blebs: 2.8' - 5.4' BML
 - Moderate odor: 0' - 6.8' BML
 - Slight odor: 6.8' - 8.6' BML
 - No odor: 8.6' - 15.9' BML

LEGEND:

Navigation Channel	ROD-Identified SMAs (EPA 2017) Included in the Gasco Sediment Site Interim Project Area ²	Existing Subsurface Sample Location
Structures	ROD SMA Technology²	Proposed Additional Perimeter Subsurface Core
Property Line	Cap	Recommended Core Step Out Location
Tar Body Removal Action Area (RAPP, Anchor 2005)	Dredge	Core Location Contains One or More Laterally Unbounded RAL Exceedances On Perimeter of Interim Project Area
Tar Body Removal Action Pilot Cap	Dredge in Nav-FMD	
PTW-NAPL Boundary	Dredge with Cap	
Approximate Riprap Boundary ¹	2010 Transition Zone Water Vinyl Chloride Area 1 Boundary (Anchor QEA 2012) ³	
	Area 2 - Detected CVOCs in TZW and One Subsurface Sediment Location ⁴	

NOTES:

- Estimated from side scan sonar survey conducted by Blue Water Engineering April 2011.
- All depicted SMA technology and PTW contours taken from the Portland Harbor Superfund Site Record of Decision (2017) without application of the EPA Explanation of Significant Differences (ESD; EPA 2019).
- Boundary taken from Draft Engineering Evaluation/Cost Analysis, Appendix A, Figure 4.2. Transition zone water screening level exceedances of cis-1,2-dichloroethene identified within this vinyl chloride boundary.
- Boundary taken from Gasco Sediments Site Statement of Work, Figure 1 (EPA 2009).
- Only visual observations of PTW-NAPL were performed at these core locations (i.e., no chemical results available).
- Bathymetry surveyed by DEA 2018. Topography surveyed by Geometrix 2011.
- Arrow indicates direction of flow of river.
- Horizontal datum is NAD83 (HARN 91) Oregon State Plane North, International Feet.
- Vertical datum is City of Portland (COP), Feet.
- Aerial imagery from City of Portland 2018.
- BML: below mudline



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Figure 1
Proposed Additional Subsurface Sediment Core Locations
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